

As filed with the Securities and Exchange Commission on November 7, 2022

Registration No. 333-

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**  
Washington, D.C. 20549

**FORM S-3**

**REGISTRATION STATEMENT  
UNDER  
THE SECURITIES ACT OF 1933**

**Akoya Biosciences, Inc.**

(Exact name of registrant as specified in its charter)

**Delaware**

(State or other jurisdiction of  
incorporation or organization)

**47-5586242**

(I.R.S. Employer  
Identification Number)

**100 Campus Drive, 6<sup>th</sup> Floor  
Marlborough, MA 01752  
(855) 896-8401**

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

**Brian McKelligon  
Chief Executive Officer  
Akoya Biosciences, Inc.  
100 Campus Drive, 6<sup>th</sup> Floor  
Marlborough, MA 01752  
(855) 896-8401**

(Name, address, including zip code, and telephone number, including area code, of agent for service)

*Copy to:*

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San Diego, CA 92121  
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**Approximate date of commencement of proposed sale to the public:** From time to time after the effective date of this registration statement.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box:

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box:

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering:

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer   
Non-accelerated filer

Accelerated filer   
Smaller reporting company   
Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act.

**The Registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment that specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended, or until the registration statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.**

**EXPLANATORY NOTE**

This registration statement contains two prospectuses:

- a base prospectus which covers the offering, issuance and sale by the Registrant of up to a maximum aggregate offering price of \$150.0 million of the Registrant's common stock, preferred stock, debt securities, warrants, and units; and
- an equity distribution agreement prospectus covering the offering, issuance and sale by the Registrant of up to a maximum aggregate offering price of \$50,000,000 of shares of the Registrant's common stock that may be offered, issued and sold from time to time under an equity distribution agreement, dated November 7, 2022, with Piper Sandler & Co.

The base prospectus immediately follows this explanatory note. The specific terms of any securities to be offered pursuant to the base prospectus will be specified in a prospectus supplement to the base prospectus. The equity distribution agreement prospectus immediately follows the base prospectus. The common stock that may be offered, issued and sold by the Registrant under the equity distribution agreement prospectus is included in the \$150.0 million of securities that may be offered, issued and sold by the Registrant and/or selling stockholders under the base prospectus. Upon termination of the equity distribution agreement with Piper Sandler & Co., any portion of the \$50,000,000 included in the equity distribution agreement prospectus that is not sold pursuant to such equity distribution agreement will be available for sale in other offerings pursuant to the base prospectus and a corresponding prospectus supplement related to any such other offering.

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SUBJECT TO COMPLETION, DATED NOVEMBER 7, 2022

## PROSPECTUS



\$150,000,000

**Common Stock  
Preferred Stock  
Debt Securities  
Warrants  
Units**

We may from time to time offer to sell any combination of the securities described in this prospectus, either individually or in units, in one or more offerings. The aggregate initial offering price of all securities sold under this prospectus will not exceed \$150.0 million.

This prospectus provides a general description of the securities we may offer. We will provide the specific terms of the securities offered in one or more supplements to this prospectus. We may also authorize one or more free writing prospectuses to be provided to you in connection with these offerings. The prospectus supplement and any related free writing prospectus may add, update or change information contained in this prospectus. Please read carefully this prospectus, the applicable prospectus supplement, any related free writing prospectus, and the documents incorporated by reference before you invest in any of our securities. **This prospectus may not be used to offer or sell any securities unless accompanied by the applicable prospectus supplement.**

Our common stock is listed on the Nasdaq Global Select Market (“Nasdaq”) under the symbol “AKYA.” On November 4, 2022, the last reported sale price of our common stock was \$13.82 per share. The applicable prospectus supplement will contain information, where applicable, as to any other listing on Nasdaq or any securities market or other exchange of the securities, if any, covered by the prospectus supplement.

**Investing in our securities involves a high degree of risk. See “Risk Factors” on page 5 of this prospectus and in the documents incorporated by reference into this prospectus, as updated by the applicable prospectus supplement, any related free writing prospectus and other future filings we make with the Securities and Exchange Commission that are incorporated by reference into this prospectus, for a discussion of the factors we urge you to consider carefully before deciding to purchase our securities.**

We may sell these securities directly to investors, through agents designated from time to time or to or through underwriters or dealers. For additional information on the methods of sale, please see the section titled “Plan of Distribution” in this prospectus. If any underwriters are involved in the sale of any securities with respect to which this prospectus is being delivered, the names of such underwriters and any applicable commissions or discounts will be set forth in a prospectus supplement. The price to the public of such securities and the net proceeds we expect to receive from such sale will also be set forth in a prospectus supplement.

**Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus or any accompanying prospectus supplement is truthful or complete. Any representation to the contrary is a criminal offense.**

The date of this prospectus is

, 2022

The information in this prospectus is not complete and may be changed. These securities may not be sold until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell nor does it seek an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

**TABLE OF CONTENTS**

<a href="#"><u>ABOUT THIS PROSPECTUS</u></a>	<a href="#"><u>1</u></a>
<a href="#"><u>SUMMARY</u></a>	<a href="#"><u>2</u></a>
<a href="#"><u>RISK FACTORS</u></a>	<a href="#"><u>5</u></a>
<a href="#"><u>SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS</u></a>	<a href="#"><u>6</u></a>
<a href="#"><u>USE OF PROCEEDS</u></a>	<a href="#"><u>7</u></a>
<a href="#"><u>SECURITIES WE MAY OFFER</u></a>	<a href="#"><u>8</u></a>
<a href="#"><u>DESCRIPTION OF COMMON STOCK AND PREFERRED STOCK</u></a>	<a href="#"><u>9</u></a>
<a href="#"><u>DESCRIPTION OF DEBT SECURITIES</u></a>	<a href="#"><u>14</u></a>
<a href="#"><u>PLAN OF DISTRIBUTION</u></a>	<a href="#"><u>26</u></a>
<a href="#"><u>LEGAL MATTERS</u></a>	<a href="#"><u>28</u></a>
<a href="#"><u>EXPERTS</u></a>	<a href="#"><u>28</u></a>
<a href="#"><u>INFORMATION INCORPORATED BY REFERENCE</u></a>	<a href="#"><u>28</u></a>
<a href="#"><u>WHERE YOU CAN FIND MORE INFORMATION</u></a>	<a href="#"><u>29</u></a>

## ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission, or the SEC, under the Securities Act of 1933, as amended, or the Securities Act, using a “shelf” registration process. Under this shelf registration process, we may, from time to time, offer and sell any combination of the securities described in this prospectus in one or more offerings, up to a total dollar amount of \$150.0 million.

This prospectus provides a general description of the securities we may offer. Each time we sell securities under this prospectus, we will, to the extent required by law, provide a prospectus supplement that will contain specific information about the terms of that offering. We may also authorize one or more free writing prospectuses to be provided to you that may contain material information relating to a particular offering. The prospectus supplement and any related free writing prospectus may also add, update or change information contained in this prospectus or in any documents that we have incorporated by reference into this prospectus. To the extent there is a conflict between any statement contained in this prospectus, any applicable prospectus supplement, any related free writing prospectus or any document incorporated by reference into this prospectus, the statement in the document having the later date modifies or supersedes the earlier statement.

The information appearing in this prospectus, any applicable prospectus supplement or any related free writing prospectus is accurate only as of the date on the front of the document, and any information we have incorporated by reference is accurate only as of the date of the document incorporated by reference, regardless of the time of delivery of this prospectus, any applicable prospectus supplement or any related free writing prospectus, or the time of any sale of a security. Our business, financial condition, results of operations and prospects may have changed since those dates.

You may rely only on the information contained in, or incorporated by reference into, this prospectus and any applicable prospectus supplement, or the information contained in any free writing prospectus we have authorized for use in connection with a specific offering. We have not authorized anyone to provide you with different or additional information. This prospectus is an offer to sell only the securities offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so.

As permitted by SEC rules and regulations, the registration statement of which this prospectus forms a part includes additional information not contained in this prospectus. This prospectus also contains summaries of certain provisions of the documents described herein, but all summaries are qualified in their entirety by reference to the actual documents. You may read the registration statement and the other reports we file with the SEC, and you may obtain copies of the actual documents summarized herein (if and when filed with the SEC), at the SEC’s website or at its offices described in the section of this prospectus titled “*Where You Can Find More Information.*”

The representations, warranties and covenants made by us in any agreement that is filed as an exhibit to any document that is incorporated by reference into this prospectus were made solely for the benefit of the parties to such agreement, including, in some cases, for the purpose of allocating risk among the parties to such agreements, and should not be deemed to be a representation, warranty or covenant to you. Moreover, such representations, warranties or covenants were accurate only as of the date when made. Accordingly, such representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs.

## SUMMARY

*This summary highlights information contained elsewhere in this prospectus. Before making an investment decision, please carefully read this entire prospectus and the documents incorporated by reference into this prospectus, especially the “Risk Factors” section of this prospectus and our financial statements and the related notes incorporated by reference into this prospectus. In this prospectus, unless the context otherwise requires, the terms “Akoya,” “we,” “us” and “our” refer to Akoya Biosciences, Inc. together with its consolidated subsidiary.*

### Overview

We are an innovative life sciences technology company delivering spatial biology solutions focused on transforming discovery and clinical research. Our mission is to deliver a revolutionary new class of spatially derived biomarkers that empower life sciences researchers to better understand disease and clinicians to improve patient outcomes. Spatial biology refers to a rapidly evolving technology that enables academic and biopharma scientists to detect and map the distribution of cell types and biomarkers across whole tissue samples at single cell resolution, enabling advancements in their understanding of disease progression and patient response to therapy. Through our PhenoCycler™ and PhenoImager™ platforms, reagents, software and services, we offer end-to-end solutions to perform tissue analysis and spatial phenotyping across the full continuum, from discovery through translational and clinical research.

Our spatial biology solutions measure cells and proteins by providing biomarker data in its spatial context while preserving tissue integrity. Biomarkers are objective measures that capture what is happening in a cell or tissue at a given moment. Current genomic and proteomic methods, such as next-generation sequencing (NGS), single-cell analysis, flow cytometry and mass spectrometry, are providing meaningful data but require the destruction of the tissue sample for analysis. While valuable and broadly adopted, these approaches allow scientists to analyze the biomarkers and cells that comprise the tissue but do not provide the fundamental information about tissue structure, cellular interactions and the localized measurements of key biomarkers. Furthermore, current non-destructive tissue analysis and histological methods provide some limited spatial information, but only measure a minimal number of biomarkers at a time and require expert pathologist interpretation. Our platforms address these limitations by providing end-to-end solutions that enable researchers to quantitatively interrogate a large number of biomarkers and cell types across a tissue section at single cell resolution. The result is a detailed and computable map of the tissue sample that thoroughly captures the underlying tissue dynamics and interactions between key cell types and biomarkers, a process now referred to as spatial phenotyping. We believe that we are the only business with the breadth of platform capabilities that enable researchers to do a deep exploratory and discovery study, and then further advance and scale their research through the translational and clinical phases, leading to a better understanding of human biology, disease progression and response to therapy.

We offer distinct stand-alone as well as integrated platforms for spatial phenotyping, designed to serve the unique needs of our customers in the discovery, translational and clinical markets. The PhenoCycler, is an ultra-high parameter and cost-effective platform ideally suited for discovery high-plex research. The PhenoImager platforms, which includes the newly introduced Fusion instrument and HT instrument (formerly Vectra Polaris), provide high-throughput with the automation and robustness needed for translational and clinical applications. Furthermore, the PhenoCycler and the PhenoImager Fusion can be integrated into a combined system, PhenoCycler-Fusion System, to enable spatial discovery at scale. Together, the systems offer seamless and integrated workflow solutions for our customers, including important benefits such as flexible sample types, automated sample processing, scalability, comprehensive data analysis and software solutions and dedicated field and applications support. With these platforms, our customers are performing spatial phenotyping to further advance their understanding of diseases such as cancer, neurological and autoimmune disorders, and many other therapeutic areas.

### Corporate Information

Akoya Biosciences, Inc. was incorporated as a Delaware corporation on November 13, 2015. Our principal executive offices are located at 100 Campus Drive, 6th Floor, Marlborough, Massachusetts 01752, and our telephone number is (855) 896-8401. Our website address is [www.akoyabio.com](http://www.akoyabio.com). Information contained on, or that can be accessed through, our website is not part of and is not incorporated by reference into this prospectus, and you should not consider information on our website to be part of this prospectus.

### **The Securities We May Offer**

Under this prospectus, we may, from time to time in one or more offerings, offer and sell up to \$150.0 million in the aggregate of common stock, preferred stock, debt securities, warrants to purchase common stock, preferred stock or debt securities, or any combination of the foregoing, either individually or as units comprised of one or more of the other securities. The prices and terms of our offer and sale of such securities will be determined by market conditions at the time of offering. Each time we offer securities under this prospectus, we will provide offerees with a prospectus supplement that will describe the specific amounts, prices and other important terms of the securities being offered, including, to the extent applicable:

- designation or classification;
- aggregate principal amount or aggregate offering price;
- maturity, if applicable;
- original issue discount, if any;
- rates and times of payment of interest or dividends, if any;
- redemption, conversion, exchange or sinking fund terms, if any;
- conversion or exchange prices or rates, if any, and, if applicable, any provisions for changes to or adjustments in the conversion or exchange prices or rates and in the securities or other property receivable upon conversion or exchange;
- ranking;
- restrictive covenants, if any;
- voting or other rights, if any; and
- important U.S. federal income tax considerations.

The prospectus supplement and any related free writing prospectus that we may authorize to be provided to you may also add, update or change information contained in this prospectus or in documents we have incorporated by reference. However, no prospectus supplement or free writing prospectus will offer a security that is not registered and described in this prospectus at the time of the effectiveness of the registration statement of which this prospectus forms a part.

The following is a general summary of the securities we may offer with this prospectus. For more specific information regarding any offering of securities, please read the prospectus supplement and any free writing prospectus that we may authorize to be provided to you in connection with a particular offering, together with any exhibits that may be filed setting forth the terms of the securities.

#### ***Common Stock***

Our amended and restated certificate of incorporation (“Certificate of Incorporation”) currently authorizes the issuance of up to 500,000,000 shares of common stock, \$0.00001 par value per share. As of June 30, 2022 a total of 37,766,655 shares of common stock were issued and outstanding and 8,237,869 shares of common stock were reserved for issuance, respectively. The holders of our common stock are entitled to one vote per share on all matters to be voted upon by the stockholders. The holders of our common stock are entitled to receive ratably those dividends, if any, that may be declared from time to time by our board of directors out of funds legally available, subject to preferences that may be applicable to preferred stock, if any, then outstanding. In the event of a liquidation, dissolution or winding up of our company, the holders of common stock will be entitled to share ratably in all assets remaining after payment of liabilities, subject to prior distribution rights of preferred stock, if any, then outstanding. Our common stock has no preemptive or conversion rights or other subscription rights or redemption or sinking fund provisions.

#### ***Preferred Stock***

Our Certificate of Incorporation currently authorizes the issuance of up to 10,000,000 shares of preferred stock, par value \$0.00001 per share. Our Certificate of Incorporation authorizes our board of

directors to establish one or more series of preferred stock (including convertible preferred stock). Unless required by law or any stock exchange, the authorized shares of preferred stock will be available for issuance without further action by the holders of our common stock. Our board of directors will be able to determine, with respect to any series of preferred stock, the powers (including voting powers), preferences and relative, participating, optional or other special rights, and the qualifications, limitations, or restrictions thereof. There are no shares of preferred stock presently outstanding and we have no present plan, arrangement, or commitment to issue any preferred stock.

***Debt Securities***

We may offer general debt obligations, which may be secured or unsecured, senior or subordinated and convertible into common stock. In this prospectus, we refer to debt securities having any or all of these features as the “debt securities.” We may issue debt securities under a note purchase agreement or under an indenture to be entered between us and a trustee. We will issue any senior debt securities under the senior indenture that we will enter into with the trustee named in the senior indenture. We will issue any subordinated debt securities under the subordinated indenture that we will enter into with the trustee named in the subordinated indenture. We have filed forms of these documents as exhibits to the registration statement, of which this prospectus is a part, and supplemental indentures and forms of debt securities containing the terms of the debt securities being offered will be filed as exhibits to the registration statement of which this prospectus is a part or will be incorporated by reference from reports that we file with the SEC. Our board of directors will determine the terms of each series of debt securities we may offer.

***Warrants***

We may offer warrants for the purchase of common stock, preferred stock or debt securities. We may issue the warrants by themselves or together with shares or common stock or preferred stock or with debt securities, and the warrants may be attached to or separate from any offered securities. Our board of directors will determine the terms of the warrants, including the class and number of underlying shares, the purchase price and any other rights and privileges, which will be set forth in the form of warrant or the warrant agreement and warrant certificate.

***Units***

We may offer units comprised of any combination of our common stock, preferred stock, debt securities or warrants to purchase any of these securities, in one or more series. We may evidence each series of units by unit certificates that we will issue under a separate agreement. We may enter into unit agreements with a unit agent, which will be a bank or trust company that we select. We will indicate the name and address of any unit agent in the applicable prospectus supplement relating to a particular series of units.



**RISK FACTORS**

Investing in our securities involves significant risk. The prospectus supplement applicable to each offering of our securities will contain a discussion of the risks applicable to an investment in Akoya. Prior to making a decision about investing in our securities, you should carefully consider the specific factors discussed under the heading “*Risk Factors*” in the applicable prospectus supplement, together with all of the other information contained or incorporated by reference in the prospectus supplement or appearing or incorporated by reference in this prospectus. You should also consider the risks, uncertainties and assumptions discussed under the heading “*Risk Factors*” included in our most recent annual report on Form 10-K, as revised or supplemented by our subsequent quarterly reports on Form 10-Q or our current reports on Form 8-K that we have filed with the SEC, all of which are incorporated herein by reference, and which may be amended, supplemented or superseded from time to time by other reports we file with the SEC in the future. The risks and uncertainties we have described are not the only ones we face. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also affect our operations. The occurrence of any of these risks might cause you to lose all or part of your investment in the offered securities.

**SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS**

This prospectus and the documents incorporated by reference herein contain forward-looking statements that are based on management's beliefs and assumptions and on information currently available to management. All statements contained in this report other than statements of historical fact are forward-looking statements, including statements regarding our ability to develop, commercialize and achieve market acceptance of our current and planned products and services, our research and development efforts, and other matters regarding our business strategies, use of capital, results of operations and financial position, and plans and objectives for future operations. In some cases, you can identify forward-looking statements by the words "may," "will," "could," "would," "should," "expect," "intend," "plan," "anticipate," "believe," "estimate," "predict," "project," "potential," "continue," "ongoing" or the negative of these terms or other comparable terminology, although not all forward-looking statements contain these words. Discussions containing these forward-looking statements may be found, among other places, in the Sections entitled "Business Overview," "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" incorporated by reference from our most recent Annual Report on Form 10-K and in our Quarterly Report on Form 10-Q, as well as any amendments thereto, filed with the SEC. This prospectus and the documents incorporated by reference herein also contain estimates and other statistical data made by independent parties and by us relating to market size and growth and other data about our industry. This data involves a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates. In addition, projections, assumptions and estimates of our future performance and the future performance of the markets in which we operate are necessarily subject to a high degree of uncertainty and risk.

Except as required by law, we assume no obligation to update these forward-looking statements publicly, or to revise any forward-looking statements to reflect events or developments occurring after the date of this prospectus, even if new information becomes available in the future. Unless otherwise stated or the context otherwise indicates, references to "we," "us," "our" and similar references refer to Akoya Biosciences, Inc. and its consolidated subsidiary.

## USE OF PROCEEDS

We will retain broad discretion over the use of the net proceeds from the sale of our securities offered hereby. Except as described in any prospectus supplement or any related free writing prospectus that we may authorize to be provided to you, we currently intend to use the net proceeds from the sale of our securities offered hereby for working capital and general corporate purposes, which may include capital expenditures, debt repayment, research and development, sales and marketing and general and administrative expenses. We may also use a portion of the net proceeds to acquire or invest in businesses, products and technologies that are complementary to our own, although we have no current plans, commitments or agreements with respect to any such acquisitions or investments as of the date of this prospectus. We will set forth in the applicable prospectus supplement or free writing prospectus our intended use for the net proceeds received from the sale of any securities sold pursuant to the prospectus supplement or free writing prospectus.

Pending the application of the net proceeds, we may invest the net proceeds in short-term, investment grade, interest-bearing securities, certificates of deposit or direct or guaranteed obligations of the U.S. government.

## **SECURITIES WE MAY OFFER**

We may offer and sell, from time to time in one or more offerings, shares of common stock and preferred stock, various series of debt securities and warrants to purchase any of such securities, or any combination of the foregoing, either individually or in units. We may offer up to \$150.0 million of securities under this prospectus. The prices and terms of any offering will be determined by market conditions at the time of offering. This prospectus provides a general description of the securities we may offer. Each time we offer securities under this prospectus, we will, to the extent required by law, provide offerees with a prospectus supplement that will describe the specific amounts, prices and other important terms of the securities being offered. The prospectus supplement may also add, update or change information in this prospectus. For more information, see “*About this Prospectus.*”

## DESCRIPTION OF COMMON STOCK AND PREFERRED STOCK

*The following description of our common stock is a summary and does not purport to be complete. It is subject to, and qualified in its entirety by reference to, our Certificate of Incorporation and Bylaws, each of which have been filed with the Securities and Exchange Commission. This description also summarizes relevant provisions of Delaware law. We encourage you to read our Certificate of Incorporation, Bylaws and the applicable provisions of Delaware law for additional information.*

### General

As of the date of this prospectus, our Certificate of Incorporation authorizes us to issue 500,000,000 shares of common stock, \$0.00001 par value per share, and 10,000,000 shares of preferred stock, par value \$0.00001 per share, all of which shares of preferred stock are undesignated. As of June 30, 2022, 37,766,655 shares of common stock were outstanding and no shares of preferred stock were outstanding.

### Common Stock

The holders of our common stock are entitled to one vote per share on all matters to be voted upon by the stockholders. The holders of our common stock are entitled to receive ratably those dividends, if any, that may be declared from time to time by our board of directors out of funds legally available, subject to preferences that may be applicable to preferred stock, if any, then outstanding. In the event of a liquidation, dissolution or winding up of our company, the holders of common stock will be entitled to share ratably in all assets remaining after payment of liabilities, subject to prior distribution rights of preferred stock, if any, then outstanding. Our common stock has no preemptive or conversion rights or other subscription rights or redemption or sinking fund provisions.

Our common stock is traded on Nasdaq under the symbol “AKYA.”

The transfer agent and registrar for our common stock is American Stock Transfer & Trust Company, LLC. The transfer agent’s address is 6201 15th Avenue, Brooklyn, New York 11219.

### Preferred Stock

Our Certificate of Incorporation authorizes our board of directors to establish one or more series of preferred stock (including convertible preferred stock). Unless required by law or any stock exchange, the authorized shares of preferred stock will be available for issuance without further action by the holders of our common stock. Our board of directors will be able to determine, with respect to any series of preferred stock, the powers (including voting powers), preferences and relative, participating, optional or other special rights, and the qualifications, limitations, or restrictions thereof. No shares of preferred stock have been issued or are outstanding as of the date of the filing of this registration statement. If we sell any series of preferred stock under this prospectus, we will file a certificate of designation relating to that series, which will be incorporated by reference into the registration statement of which this prospectus forms a part. The prospectus supplement will describe:

- the title and stated value;
- the number of shares we are offering;
- the liquidation preference per share;
- the purchase price per share;
- the dividend rate per share, dividend period and payment dates and method of calculation for dividends;
- whether dividends will be cumulative or non-cumulative and, if cumulative, the date from which dividends will accumulate;
- our right, if any, to defer payment of dividends and the maximum length of any such deferral period;
- the procedures for any auction and remarketing, if any;

- the provisions for a sinking fund, if any;
- the provisions for redemption or repurchase, if applicable, and any restrictions on our ability to exercise those redemption and repurchase rights;
- any listing of the preferred stock on any securities exchange or market;
- whether the preferred stock will be convertible into our common stock or other securities of ours, including warrants, and, if applicable, the conversion period, the conversion price, or how it will be calculated, and under what circumstances it may be adjusted;
- whether the preferred stock will be exchangeable into debt securities, and, if applicable, the exchange period, the exchange price, or how it will be calculated, and under what circumstances it may be adjusted;
- voting rights, if any, of the preferred stock;
- preemption rights, if any;
- restrictions on transfer, sale or other assignment, if any;
- a discussion of any material or special United States federal income tax considerations applicable to the preferred stock;
- the relative ranking and preferences of the preferred stock as to dividend rights and rights if we liquidate, dissolve or wind up our affairs;
- any limitations on issuances of any class or series of preferred stock ranking senior to or on a parity with the series of preferred stock being issued as to dividend rights and rights if we liquidate, dissolve or wind up our affairs; and
- any other specific terms, rights, preferences, privileges, qualifications or restrictions of the preferred stock.

#### **Anti-Takeover Matters in our Governing Documents and Under Delaware Law**

Our Certificate of Incorporation and our Bylaws contain, and the DGCL contains, provisions that are intended to enhance the likelihood of continuity and stability in the composition of our board of directors. These provisions are intended to avoid costly takeover battles, reduce our vulnerability to a hostile or abusive change of control, and enhance the ability of our board of directors to maximize stockholder value in connection with any unsolicited offer to acquire us. However, these provisions may have an antitakeover effect and may delay, deter, or prevent a merger or acquisition by means of a tender offer, a proxy contest, or other takeover attempt that a stockholder might consider in its best interest, including those attempts that might result in a premium over the prevailing market price for the shares of common stock held by stockholders.

#### ***Authorized But Unissued Capital Stock***

The authorized but unissued shares of common stock and preferred stock are available for future issuance without stockholder approval, subject to any limitations imposed by the listing standards of Nasdaq. These additional shares may be used for a variety of corporate finance transactions, acquisitions and employee benefit plans. The existence of authorized but unissued and unreserved common stock and preferred stock could make more difficult or discourage an attempt to obtain control of us by means of a proxy contest, tender offer, merger, or otherwise.

#### ***Classified Board of Directors***

Our Certificate of Incorporation provides that our board of directors be divided into three classes, with the classes as nearly equal in number as possible and each class serving three-year staggered terms. Directors may only be removed from our board of directors for cause by the affirmative vote of at least 66 $\frac{2}{3}$ % of the voting power of all of our then-outstanding shares of capital stock entitled to vote generally in the election of directors, voting together as a single class. In addition, our Certificate of Incorporation provides

that, subject to the rights granted to one or more series of preferred stock then outstanding, any newly created directorship on the board of directors that results from an increase in the number of directors and any vacancies on our board of directors will be filled only by the affirmative vote of a majority of the remaining directors, even if less than a quorum, or by a sole remaining director. A director chosen to fill a position resulting from an increase in the number of directors will hold office until the next election of the director's class and until the director's successor is duly elected and qualified, or until the director's earlier death, resignation or removal. These provisions may have the effect of deferring, delaying, or discouraging hostile takeovers, changes in control of us or changes in our management.

#### ***Delaware Anti-Takeover Law***

We are subject to Section 203 of the DGCL, which is an anti-takeover law. In general, Section 203 prohibits a publicly held Delaware corporation from engaging in a business combination with an interested stockholder for a period of three years following the date that the person became an interested stockholder, unless the business combination or the transaction in which the person became an interested stockholder is approved in a prescribed manner. Generally, a business combination includes a merger, asset or stock sale, or another transaction resulting in a financial benefit to the interested stockholder. Generally, an interested stockholder is a person who, together with affiliates and associates, owns 15% or more of the corporation's outstanding voting stock or is the corporation's affiliate or associate and was the owner of 15% or more of the corporation's outstanding voting stock at any time within the three-year period immediately before the date of determination. The existence of this provision may have an anti-takeover effect with respect to transactions that are not approved in advance by our board, including discouraging attempts that might result in a premium over the market price for the shares of common stock held by stockholders.

#### ***No Cumulative Voting***

Under Delaware law, the right to vote cumulatively does not exist unless the certificate of incorporation specifically authorizes cumulative voting. Our Certificate of Incorporation does not authorize cumulative voting. Therefore, stockholders holding a majority of the shares of our stock entitled to vote generally in the election of directors are able to elect all of our directors.

#### ***Special Stockholder Meetings***

Our Certificate of Incorporation provides that special meetings of our stockholders may be called at any time only by or at the direction of the board of directors, the chair of the board of directors or our Chief Executive Officer. Our Bylaws prohibit the conduct of any business at a special meeting other than as specified in the notice for such meeting. These provisions may have the effect of deferring, delaying, or discouraging hostile takeovers or changes in control or management.

#### ***Director Nominations and Stockholder Proposals***

Our Bylaws establish advance notice procedures with respect to stockholder proposals and the nomination of candidates for election as directors, other than nominations made by or at the direction of the board of directors or a committee of the board of directors. In order for any matter to be "properly brought" before a meeting, a stockholder will have to comply with advance notice requirements and provide us with certain information. Generally, to be timely, a stockholder's notice must be received at our principal executive offices not less than 90 days nor more than 120 days prior to the first anniversary date of the immediately preceding annual meeting of stockholders. Our Bylaws also specify requirements as to the form and content of a stockholder's notice. Our Bylaws allow the chair of a meeting of the stockholders to adopt rules and regulations for the conduct of that meeting that may have the effect of precluding the conduct of certain business at that meeting if the rules and regulations are not followed. These provisions may also defer, delay, or discourage a potential acquirer from conducting a solicitation of proxies to elect the acquirer's own slate of directors or otherwise attempting to influence or obtain control.

#### ***Stockholder Action by Written Consent***

Pursuant to Section 228 of the DGCL, any action required to be taken at any annual or special meeting of the stockholders may be taken without a meeting, without prior notice, and without a vote if a

consent or consents in writing, setting forth the action so taken, is or are signed by the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares of our stock entitled to vote thereon were present and voted, unless the certificate of incorporation provides otherwise. Our Certificate of Incorporation precludes stockholder action by written consent.

#### ***Amendment of Certificate of Incorporation or Bylaws***

The DGCL provides generally that the affirmative vote of a majority of the shares entitled to vote on any matter is required to amend a corporation's certificate of incorporation or bylaws, unless a corporation's certificate of incorporation or bylaws, as the case may be, requires a greater percentage. Our Bylaws may be amended or repealed by a majority vote of our board of directors or by the affirmative vote of the holders of at least 66 $\frac{2}{3}$ % of the votes which all our stockholders would be entitled to cast in any annual election of directors. In addition, the affirmative vote of the holders of at least 66 $\frac{2}{3}$ % of the votes which all our stockholders would be entitled to cast in any election of directors will be required to amend or repeal or to adopt any provisions inconsistent with any of the provisions of our Certificate of Incorporation described above.

The foregoing provisions of our Certificate of Incorporation and our Bylaws could discourage potential acquisition proposals and could delay or prevent a change in control. These provisions are intended to enhance the likelihood of continuity and stability in the composition of our board of directors and in the policies formulated by our board of directors and to discourage certain types of transactions that may involve an actual or threatened change of control. These provisions are designed to reduce our vulnerability to an unsolicited acquisition proposal. The provisions also are intended to discourage certain tactics that may be used in proxy fights. However, such provisions could have the effect of discouraging others from making tender offers for our shares and, as a consequence, they also may inhibit fluctuations in the market price of our shares of common stock that could result from actual or rumored takeover attempts. Such provisions also may have the effect of preventing changes in our management or delaying or preventing a transaction that might benefit you or other minority stockholders.

#### ***Exclusive Forum***

Our Certificate of Incorporation provides that, unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware be the sole and exclusive forum for: (1) any derivative action or proceeding brought on behalf of our company, (2) any action asserting a claim of breach of fiduciary duty owed by any director, officer, agent, or other employee or stockholder of our company to us or our stockholders, (3) any action asserting a claim arising pursuant to any provision of the DGCL, our Certificate of Incorporation or our Bylaws or as to which the DGCL confers jurisdiction on the Court of Chancery of the State of Delaware, or (4) any action asserting a claim governed by the internal affairs doctrine, in each case subject to such Court of Chancery having personal jurisdiction over the indispensable parties named as defendants therein. It will further provide that, unless we consent in writing to the selection of an alternative forum, the federal district courts of the United States of America shall, to the fullest extent permitted by law, be the sole and exclusive forum for the resolutions of any complaint asserting a cause of action arising under the Securities Act. The exclusive forum clauses described above shall not apply to suits brought to enforce a duty or liability created by the Exchange Act or any other claim for which the federal courts have exclusive jurisdiction. Although we believe these provisions benefit us by providing increased consistency in the application of applicable law in the types of lawsuits to which they apply, the provisions may have the effect of discouraging lawsuits against our directors and officers. The enforceability of similar choice of forum provisions in other companies' certificates of incorporation has been challenged in legal proceedings and there is uncertainty as to whether a court would enforce such provisions. In addition, investors cannot waive compliance with the federal securities laws and the rules and regulations thereunder. It is possible that, in connection with any applicable action brought against us, a court could find the choice of forum provisions contained in our Certificate of Incorporation to be inapplicable or unenforceable in such action. Any person or entity purchasing or otherwise acquiring any interest in shares of our capital stock shall be deemed to have notice of and consented to the forum provisions in our Certificate of Incorporation.



***Limitations of Liability and Indemnification***

The DGCL authorizes corporations to limit or eliminate the personal liability of directors to corporations and their stockholders for monetary damages for breaches of directors' fiduciary duties, subject to certain exceptions. Our Certificate of Incorporation includes a provision that eliminates the personal liability of directors for monetary damages to the corporation or its stockholders for any breach of fiduciary duty as a director, except to the extent such exemption from liability or limitation thereof is not permitted under the DGCL. The effect of these provisions is to eliminate the rights of us and our stockholders, through stockholders' derivative suits on our behalf, to recover monetary damages from a director for breach of fiduciary duty as a director, including breaches resulting from grossly negligent behavior. However, exculpation does not apply to any breaches of the director's duty of loyalty, any acts or omissions not in good faith or that involve intentional misconduct or knowing violation of law, any authorization of dividends or stock redemptions or repurchases paid or made in violation of the DGCL, or for any transaction from which the director derived an improper personal benefit.

Our Bylaws generally provide that we must indemnify and advance expenses to our directors and officers to the fullest extent authorized by the DGCL. We also are expressly authorized to carry directors' and officers' liability insurance providing indemnification for our directors, officers and certain employees for some liabilities. We believe these indemnification and advancement provisions and insurance are useful to attract and retain qualified directors and executive officers.

The limitation of liability, indemnification and advancement provisions in our Certificate of Incorporation and our Bylaws may discourage stockholders from bringing a lawsuit against directors for breach of their fiduciary duty. These provisions also may have the effect of reducing the likelihood of derivative litigation against directors and officers, even though such an action, if successful, might otherwise benefit us and our stockholders. In addition, your investment may be adversely affected to the extent we pay the costs of settlement and damage awards against directors and officers pursuant to these indemnification provisions.

There is currently no pending material litigation or proceeding involving any of our directors, officers or employees for which indemnification is sought.

We have entered into indemnification agreements with each of our directors and executive officers. Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors or executive officers, we have been informed that in the opinion of the SEC such indemnification is against public policy and is therefore unenforceable.

## DESCRIPTION OF DEBT SECURITIES

This section describes the general terms and provisions of our debt securities that we may issue from time to time. We may issue debt securities, in one or more series, as either senior or subordinated debt or as senior or subordinated convertible debt. While the terms we have summarized below will apply generally to any future debt securities we may offer under this prospectus, the applicable prospectus supplement or free writing prospectus will describe the specific terms of any debt securities offered through that prospectus supplement or free writing prospectus. The terms of any debt securities we offer under a prospectus supplement or free writing prospectus may differ from the terms we describe below. Unless the context requires otherwise, whenever we refer to the “indentures,” we also are referring to any supplemental indentures that specify the terms of a particular series of debt securities.

We will issue any senior debt securities under the senior indenture that we will enter into with the trustee named in the senior indenture. We will issue any subordinated debt securities under the subordinated indenture that we will enter into with the trustee named in the subordinated indenture. We have filed forms of these documents as exhibits to the registration statement, of which this prospectus is a part, and supplemental indentures and forms of debt securities containing the terms of the debt securities being offered will be filed as exhibits to the registration statement of which this prospectus is a part or will be incorporated by reference from reports that we file with the SEC.

The indentures will be qualified under the Trust Indenture Act of 1939, as amended (the “Trust Indenture Act”). We use the term “trustee” to refer to either the trustee under the senior indenture or the trustee under the subordinated indenture, as applicable.

The following summaries of material provisions of the senior debt securities, the subordinated debt securities and the indentures are subject to, and qualified in their entirety by reference to, all of the provisions of the indenture applicable to a particular series of debt securities. We urge you to read the applicable prospectus supplement or free writing prospectus and any related free writing prospectuses related to the debt securities that we may offer under this prospectus, as well as the complete applicable indenture that contains the terms of the debt securities. Except as we may otherwise indicate, the terms of the senior indenture and the subordinated indenture are identical.

### General

We will describe in the applicable prospectus supplement or free writing prospectus the terms of the series of debt securities being offered, including as applicable:

- the title;
- the principal amount being offered, and if a series, the total amount authorized and the total amount outstanding;
- any limit on the amount that may be issued;
- whether or not we will issue the series of debt securities in global form, and, if so, the terms and who the depository will be;
- the maturity date;
- whether and under what circumstances, if any, we will pay additional amounts on any debt securities held by a person who is not a United States person for tax purposes, and whether we can redeem the debt securities if we have to pay such additional amounts;
- the annual interest rate, which may be fixed or variable, or the method for determining the rate and the date interest will begin to accrue, the dates interest will be payable and the regular record dates for interest payment dates or the method for determining such dates;
- whether or not the debt securities will be secured or unsecured, and the terms of any secured debt;
- the terms of the subordination of any series of subordinated debt;
- the place where payments will be payable;

- restrictions on transfer, sale or other assignment, if any;
- our right, if any, to defer payment of interest and the maximum length of any such deferral period;
- the date, if any, after which, the conditions upon which, and the price at which, we may, at our option, redeem the series of debt securities pursuant to any optional or provisional redemption provisions and the terms of those redemption provisions;
- the date, if any, on which, and the price at which we are obligated, pursuant to any mandatory sinking fund or analogous fund provisions or otherwise, to redeem, or at the holder's option, to purchase, the series of debt securities and the currency or currency unit in which the debt securities are payable;
- whether the indenture will restrict our ability or the ability of our subsidiaries to:
  - incur additional indebtedness;
  - issue additional securities;
  - create liens;
  - pay dividends or make distributions in respect of our capital stock or the capital stock of our subsidiaries;
  - redeem capital stock;
  - place restrictions on our subsidiaries' ability to pay dividends, make distributions or transfer assets;
  - make investments or other restricted payments;
  - sell or otherwise dispose of assets;
  - enter into sale-leaseback transactions;
  - engage in transactions with stockholders or affiliates;
  - issue or sell stock of our subsidiaries;
  - effect a consolidation or merger;
- whether the indenture will require us to maintain any interest coverage, fixed charge, cash flow-based, asset-based or other financial ratios;
- a discussion of material or special United States ("U.S.") federal income tax considerations applicable to the debt securities;
- information describing any book-entry features;
- provisions for a sinking fund purchase or other analogous fund, if any;
- the applicability of the provisions in the indenture on discharge;
- whether the debt securities are to be offered at a price such that they will be deemed to be offered at an "original issue discount" as defined in paragraph (a) of Section 1273 of the Internal Revenue Code of 1986, as amended;
- the denominations in which we will issue the series of debt securities, if other than denominations of \$1,000 and any integral multiple thereof;
- the currency of payment of debt securities if other than U.S. dollars and the manner of determining the equivalent amount in U.S. dollars; and
- any other specific terms, preferences, rights or limitations of, or restrictions on, the debt securities, including any additional events of default or covenants provided with respect to the debt securities, and any terms that may be required by us or advisable under applicable laws or regulations or advisable in connection with the marketing of the debt securities.

### **Conversion or Exchange Rights**

We will set forth in the applicable prospectus supplement or free writing prospectus the terms on which a series of debt securities may be convertible into or exchangeable for our common stock, our preferred stock or other securities (including securities of a third-party). We will include provisions as to whether conversion or exchange is mandatory, at the option of the holder or at our option. We may include provisions pursuant to which the number of shares of our common stock, our preferred stock or other securities (including securities of a third-party) that the holders of the series of debt securities receive would be subject to adjustment.

### **Consolidation, Merger or Sale**

Unless we provide otherwise in the prospectus supplement or free writing prospectus applicable to a particular series of debt securities, the indentures will not contain any covenant that restricts our ability to merge or consolidate, or sell, convey, transfer or otherwise dispose of all or substantially all of our assets. However, any successor to or acquirer of such assets must assume all of our obligations under the indentures or the debt securities, as appropriate and must be a corporation organized and validly existing under the laws of any U.S. domestic jurisdiction. If the debt securities are convertible into or exchangeable for other securities of ours or securities of other entities, the person with whom we consolidate or merge or to whom we sell all of our property must make provisions for the conversion of the debt securities into securities that the holders of the debt securities would have received if they had converted the debt securities before the consolidation, merger or sale.

### **Events of Default under the Indenture**

Unless we provide otherwise in the prospectus supplement or free writing prospectus applicable to a particular series of debt securities, the following are events of default under the indentures with respect to any series of debt securities that we may issue:

- if we fail to pay interest when due and payable and our failure continues for 90 days and the time for payment has not been extended;
- if we fail to pay the principal, premium or sinking fund payment, if any, when due and payable at maturity, upon redemption or repurchase or otherwise, and the time for payment has not been extended;
- if we fail to observe or perform any other covenant contained in the debt securities or the indentures, other than a covenant specifically relating to another series of debt securities, and our failure continues for 90 days after we receive notice from the trustee or holders of at least 25% in aggregate principal amount of the outstanding debt securities of the applicable series; and
- if specified events of bankruptcy, insolvency or reorganization occur.

We will describe in each applicable prospectus supplement or free writing prospectus any additional events of default relating to the relevant series of debt securities.

If an event of default with respect to debt securities of any series occurs and is continuing, other than an event of default specified in the last bullet point above, the trustee or the holders of at least 25% in aggregate principal amount of the outstanding debt securities of that series, by notice to us in writing, and to the trustee if notice is given by such holders, may declare the unpaid principal, premium, if any, and accrued interest, if any, due and payable immediately. If an event of default specified in the last bullet point above occurs with respect to us, the unpaid principal, premium, if any, and accrued interest, if any, of each issue of debt securities then outstanding shall be due and payable without any notice or other action on the part of the trustee or any holder.

The holders of a majority in principal amount of the outstanding debt securities of an affected series may waive any default or event of default with respect to the series and its consequences, except defaults or events of default regarding payment of principal, premium, if any, or interest, unless we have cured the default or event of default in accordance with the indenture. Any waiver shall cure the default or event of default.

Subject to the terms of the indentures, if an event of default under an indenture shall occur and be continuing, the trustee will be under no obligation to exercise any of its rights or powers under such indenture at the request or direction of any of the holders of the applicable series of debt securities, unless such holders have offered the trustee reasonable indemnity or security satisfactory to it against any loss, liability or expense. Subject to the terms of the indentures, the holders of a majority in principal amount of the outstanding debt securities of any series will have the right to direct the time, method and place of conducting any proceeding for any remedy available to the trustee, or exercising any trust or power conferred on the trustee, with respect to the debt securities of that series, provided that:

- the direction so given by the holder is not in conflict with any law or the applicable indenture; and
- subject to its duties under the Trust Indenture Act, the trustee need not take any action that might involve it in personal liability or might be unduly prejudicial to the holders not involved in the proceeding.

Subject to the terms of the indentures, a holder of the debt securities of any series will have the right to institute a proceeding under the indentures or to appoint a receiver or trustee, or to seek other remedies if:

- the holder has given written notice to the trustee of a continuing event of default with respect to that series;
- the holders of at least 25% in aggregate principal amount of the outstanding debt securities of that series have made written request, and such holders have offered reasonable indemnity to the trustee or security satisfactory to it against any loss, liability or expense or to be incurred in compliance with instituting the proceeding as trustee; and
- the trustee does not institute the proceeding, and does not receive from the holders of a majority in aggregate principal amount of the outstanding debt securities of that series other conflicting directions within 90 days after the notice, request and offer.

These limitations do not apply to a suit instituted by a holder of debt securities if we default in the payment of the principal, premium, if any, or interest on, the debt securities, or other defaults that may be specified in the applicable prospectus supplement or free writing prospectus.

We expect to periodically file statements with the trustee regarding our compliance with specified covenants in the indentures.

#### **Modification of Indenture; Waiver**

Subject to the terms of the indenture for any series of debt securities that we may issue, we and the trustee may change an indenture without the consent of any holders with respect to the following specific matters:

- to fix any ambiguity, defect or inconsistency in the indenture;
- to comply with the provisions described above under “Description of Debt Securities—Consolidation, Merger or Sale”;
- to comply with any requirements of the SEC in connection with the qualification of any indenture under the Trust Indenture Act;
- to add to, delete from or revise the conditions, limitations, and restrictions on the authorized amount, terms, or purposes of issue, authentication and delivery of debt securities, as set forth in the indenture;
- to provide for the issuance of and establish the form and terms and conditions of the debt securities of any series as provided under “Description of Debt Securities — General,” to establish the form of any certifications required to be furnished pursuant to the terms of the indenture or any series of debt securities, or to add to the rights of the holders of any series of debt securities;
- to evidence and provide for the acceptance of appointment hereunder by a successor trustee;
- to provide for uncertificated debt securities and to make all appropriate changes for such purpose;

- to add to our covenants such new covenants, restrictions, conditions or provisions for the benefit of the holders, to make the occurrence, or the occurrence and the continuance, of a default in any such additional covenants, restrictions, conditions or provisions an event of default or to surrender any right or power conferred to us in the indenture; or
- to change anything that does not materially adversely affect the interests of any holder of debt securities of any series.

In addition, under the indentures, the rights of holders of a series of debt securities may be changed by us and the trustee with the written consent of the holders of at least a majority in aggregate principal amount of the outstanding debt securities of each series that is affected. However, subject to the terms of the indenture for any series of debt securities that we may issue or as otherwise provided in the prospectus supplement or free writing prospectus applicable to a particular series of debt securities, we and the trustee may make the following changes only with the consent of each holder of any outstanding debt securities affected:

- extending the stated maturity of the series of debt securities;
- reducing the principal amount, reducing the rate of or extending the time of payment of interest, or reducing any premium payable upon the redemption or repurchase of any debt securities; or
- reducing the percentage of debt securities, the holders of which are required to consent to any amendment, supplement, modification or waiver.

### **Discharge**

Each indenture provides that, subject to the terms of the indenture and any limitation otherwise provided in the prospectus supplement or free writing prospectus applicable to a particular series of debt securities, we can elect to be discharged from our obligations with respect to one or more series of debt securities, except for specified obligations, including obligations to:

- register the transfer or exchange of debt securities of the series;
- replace stolen, lost or mutilated debt securities of the series;
- maintain paying agencies;
- hold monies for payment in trust;
- recover excess money held by the trustee;
- compensate and indemnify the trustee; and
- appoint any successor trustee.

In order to exercise our rights to be discharged, we must deposit with the trustee money or government obligations sufficient to pay all the principal of, any premium and interest on, the debt securities of the series on the dates payments are due. This discharge may occur only if, among other things, we have delivered to the trustee an opinion of counsel stating that we have received from, or there has been published by, the United States Internal Revenue Service a ruling or, since the date of execution of the indenture, there has been a change in the applicable United States federal income tax law, in either case to the effect that, and based thereon such opinion shall confirm that, the holders of the debt securities of that series will not recognize income, gain or loss for United States federal income tax purposes as a result of the deposit and discharge and will be subject to United States federal income tax on the same amounts and in the same manner and at the same times as would have been the case if the deposit and discharge had not occurred.

### **Form, Exchange and Transfer**

We plan to issue the debt securities of each series only in fully registered form without coupons and, unless we otherwise specify in the applicable prospectus supplement or free writing prospectus, in denominations of \$1,000 and any integral multiple thereof. We may issue debt securities of a series in temporary or permanent global form and as book-entry securities that will be deposited with, or on behalf

of, The Depository Trust Company or another depository named by us and identified in a prospectus supplement or free writing prospectus with respect to that series.

At the option of the holder, subject to the terms of the indentures and the limitations applicable to global securities described in the applicable prospectus supplement or free writing prospectus, the holder of the debt securities of any series can exchange the debt securities for other debt securities of the same series, in any authorized denomination and of like tenor and aggregate principal amount.

Subject to the terms of the indentures and the limitations applicable to global securities set forth in the applicable prospectus supplement or free writing prospectus, holders of the debt securities may present the debt securities for exchange or for registration of transfer, duly endorsed or with the form of transfer endorsed thereon duly executed if so required by us or the security registrar, at the office of the security registrar or at the office of any transfer agent designated by us for this purpose. Unless otherwise provided in the debt securities that the holder presents for transfer or exchange, we will make no service charge for any registration of transfer or exchange, but we may require payment of any taxes or other governmental charges.

We will name in the applicable prospectus supplement or free writing prospectus the security registrar, and any transfer agent in addition to the security registrar, that we initially designate for any debt securities. We may at any time designate additional transfer agents or rescind the designation of any transfer agent or approve a change in the office through which any transfer agent acts, except that we will be required to maintain a transfer agent in each place of payment for the debt securities of each series. If we elect to redeem the debt securities of any series, we will not be required to:

- issue, register the transfer of, or exchange any debt securities of that series during a period beginning at the opening of business 15 days before the day of mailing of a notice of redemption of any debt securities that may be selected for redemption and ending at the close of business on the day of the mailing; or
- register the transfer of or exchange any debt securities so selected for redemption, in whole or in part, except the unredeemed portion of any debt securities we are redeeming in part.

#### **Information Concerning the Trustee**

The trustee, other than during the occurrence and continuance of an event of default under an indenture, undertakes to perform only those duties as are specifically set forth in the applicable indenture. Upon an event of default under an indenture, the trustee must use the same degree of care as a prudent person would exercise or use in the conduct of his or her own affairs.

Subject to this provision, the trustee is under no obligation to exercise any of the powers given it by the indentures at the request of any holder of debt securities unless it is offered reasonable security and indemnity against the costs, expenses and liabilities that it might incur.

#### **Payment and Paying Agents**

Unless we otherwise indicate in the applicable prospectus supplement or free writing prospectus, we will make payment of the interest on any debt securities on any interest payment date to the person in whose name the debt securities, or one or more predecessor securities, are registered at the close of business on the regular record date for the interest.

We will pay principal of and any premium and interest on the debt securities of a particular series at the office of the paying agents designated by us, except that unless we otherwise indicate in the applicable prospectus supplement or free writing prospectus, we will make interest payments by check that we will mail to the holder or by wire transfer to certain holders. Unless we otherwise indicate in the applicable prospectus supplement or free writing prospectus, we will designate the corporate trust office of the trustee as our sole paying agent for payments with respect to debt securities of each series. We will name in the applicable prospectus supplement or free writing prospectus any other paying agents that we initially designate for the debt securities of a particular series. We will maintain a paying agent in each place of payment for the debt securities of a particular series.

All money we pay to a paying agent or the trustee for the payment of the principal of or any premium or interest on any debt securities that remains unclaimed at the end of two years after such principal, premium or interest has become due and payable will be repaid to us, and the holder of the debt security thereafter may look only to us for payment thereof.

### **Governing Law**

We expect the indentures and the debt securities to be governed by and construed in accordance with the laws of the State of New York, except to the extent that the Trust Indenture Act is applicable.

### **Ranking of Debt Securities**

The subordinated debt securities will be subordinate and junior in priority of payment to certain of our other indebtedness to the extent described in a prospectus supplement or free writing prospectus. The subordinated indenture does not limit the amount of subordinated debt securities that we may issue. It also does not limit us from issuing any other secured or unsecured debt.

The senior debt securities will rank equally in right of payment to any of our other senior unsecured debt. The senior indenture does not limit the amount of senior debt securities that we may issue. It also does not limit us from issuing any other secured or unsecured debt.

### **Existing Debt — Midcap Trust Term Loan**

In October 2020, the Company entered into a debt financing arrangement with Midcap Financial Trust (the “Midcap Trust Term Loan”), for a \$37,500,000 credit facility, consisting of a senior, secured term loan. The Company received \$32,500,000 in aggregate proceeds as a result of the debt financing. The term of the Midcap Trust Term Loan is interest only for 36 months followed by 24 months of straight-line amortization. Interest on the outstanding balance of the Midcap Trust Term Loan shall be payable monthly in arrears at an annual rate of one-month LIBOR plus 6.35%, subject to a LIBOR floor of 1.50%. At the time of final payment under the Midcap Trust Term Loan, the Company is required to pay Midcap Financial Trust a final payment fee of 5.00% of the amount borrowed under the Midcap Trust Term Loan. If the Midcap Trust Term Loan is prepaid prior to the end of the term, the Company shall pay to Midcap Financial Trust a fee as compensation for the costs of being prepared to make funds available in an amount determined by multiplying the amount being prepaid by (i) three percent (3.00%) in the first year, two percent, (2.00%) in the second year and one percent (1.00%) in the third year and thereafter.

On March 21, 2022, the Company entered into Amendment No. 1 to the Midcap Trust Term Loan, which amended certain provisions to permit certain additional debt and capital leases. On June 1, 2022, the Company entered into Amendment No. 2 (“Amendment No. 2”) to the Midcap Trust Term Loan, which permitted the draw of a second tranche of \$10,000,000, which was drawn on June 1, 2022. Additionally, the amendment provides the Company with a new third tranche pursuant to which the Company may draw \$10,000 any time after September 30, 2022 until September 30, 2023. The amendment also delayed the amortization start dates for the outstanding loan amounts from November 1, 2023 until April 1, 2025, at which point the Company will repay the principal amounts in seven equal monthly installments until the maturity date. Finally, Amendment No. 2 amended the interest rate payable on the term loan to apply an interest rate equal to the Secured Overnight Financing Rate (“SOFR”) rate (with a floor of 1.61448%) plus 6.35%. Substantially all other terms and conditions, and covenants of the credit agreement remain unchanged. In connection with Amendment No. 2, the Company agreed to pay a \$75,000 commitment fee as well as a 0.25% fee upon the funding of each of the second tranche and third tranche amounts. The Company accounted for Amendment No. 2 as a modification pursuant to ASC 470-50. On September 30, 2022, the Company drew the third tranche of \$10,000,000 related to Amendment No. 2.

The interest rate was 7.96% at June 30, 2022. A final payment fee of \$2,125,000 is due upon the earlier to occur of the maturity date or prepayment of such borrowings.

On November 7, 2022, the Company entered into Amendment No. 3 to the Midcap Trust Term Loan, which permitted the draw of two additional tranches, each totaling of \$11,250,000, the first of which was drawn on November 7, 2022. The remaining tranche will become available for draw after June 30, 2023 but



before December 31, 2023, and is subject to the Company achieving certain trailing twelve month revenue targets. The amendment also delayed the amortization start dates for the outstanding loan amounts from April 1, 2025 until December 1, 2025 (subject to further extension upon certain conditions), at which point the Company will repay the principal amounts in equal monthly installments until the new maturity date of November 1, 2027, which was extended pursuant to the Amendment. In addition, Amendment No. 3 amended the interest rate payable on the term loan to apply an interest rate equal to the Secured Overnight Financing Rate (“SOFR”) rate (with a floor of 2.50%) plus 6.80%, and reset the call protection to begin as of November 7, 2025. Finally, Amendment No. 3 provides for a commitment fee of 0.5% payable on November 7, 2022 on the new tranche amounts and an exit fee of 4.75%. Substantially all other terms and conditions, and covenants of the credit agreement remain unchanged.

## DESCRIPTION OF WARRANTS

The following description, together with the additional information we may include in any applicable prospectus supplements, summarizes the material terms and provisions of the warrants that we may offer under this prospectus and the related warrant agreements and warrant certificates. While the terms summarized below will apply generally to any warrants that we may offer, we will describe the particular terms of any series of warrants in more detail in the applicable prospectus supplement. If we indicate in the prospectus supplement, the terms of any warrants offered under that prospectus supplement may differ from the terms described below. Specific warrant agreements will contain additional important terms and provisions and will be incorporated by reference as an exhibit to the registration statement, which includes this prospectus.

### General

We may issue warrants for the purchase of common stock, preferred stock and/or debt securities in one or more series. We may issue warrants independently or together with common stock, preferred stock and/or debt securities, and the warrants may be attached to or separate from these securities. We plan to evidence each series of warrants by warrant certificates that we will issue under a separate warrant agreement. We will enter into the warrant agreement with a warrant agent. We will indicate the name and address of the warrant agent in the applicable prospectus supplement relating to a particular series of warrants.

We will describe in the applicable prospectus supplement the terms of the series of warrants, including as applicable:

- the offering price, currency, and aggregate number of warrants offered;
- the designation and terms of the securities with which the warrants are issued and the number of warrants issued with each such security or each principal amount of such security;
- the date on and after which the warrants and the related securities will be separately transferable;
- in the case of warrants to purchase debt securities, the principal amount of debt securities purchasable upon exercise of one warrant and the price at, and currency in which, this principal amount of debt securities may be purchased upon such exercise;
- in the case of warrants to purchase common stock or preferred stock, the number of shares of common stock or preferred stock, as the case may be, purchasable upon the exercise of one warrant and the price at which these shares may be purchased upon such exercise;
- the effect of any merger, consolidation, sale or other disposition of our business on the warrant agreement and the warrants;
- the terms of any rights to redeem or call the warrants; any provisions for changes to or adjustments in the exercise price or number of securities issuable upon exercise of the warrants; the periods during which, and places at which, the warrants are exercisable;
- the manner of exercise;
- the dates on which the right to exercise the warrants will commence and expire;
- the manner in which the warrant agreement and warrants may be modified;
- the material U.S. federal income tax consequences of holding or exercising the warrants;
- the terms of the securities issuable upon exercise of the warrants; and
- any other specific terms, preferences, rights or limitations of or restrictions on the warrants.

## DESCRIPTION OF UNITS

We may issue units comprised of shares of common stock, shares of preferred stock, debt securities and warrants in any combination. We may issue units in such amounts and in as many distinct series as we wish. This section outlines certain provisions of the units that we may issue. If we issue units, they will be issued under one or more unit agreements to be entered into between us and a bank or other financial institution, as unit agent. The information described in this section may not be complete in all respects and is qualified entirely by reference to the unit agreement with respect to the units of any particular series. The specific terms of any series of units offered will be described in the applicable prospectus supplement. If so described in a particular supplement, the specific terms of any series of units may differ from the general description of terms presented below. We urge you to read any prospectus supplement related to any series of units we may offer, as well as the complete unit agreement and unit certificate that contain the terms of the units. If we issue units, forms of unit agreements and unit certificates relating to such units will be incorporated by reference as exhibits to the registration statement, which includes this prospectus.

Each unit that we may issue will be issued so that the holder of the unit is also the holder of each security included in the unit. Thus, the holder of a unit will have the rights and obligations of a holder of each included security. The unit agreement under which a unit is issued may provide that the securities included in the unit may not be held or transferred separately, at any time or at any time before a specified date.

The applicable prospectus supplement may describe:

- the designation and terms of the units and of the securities comprising the units, including whether and under what circumstances those securities may be held or transferred separately;
- any provisions of the governing unit agreement;
- the price or prices at which such units will be issued;
- the material United States federal income tax considerations relating to the units;
- any provisions for the issuance, payment, settlement, transfer or exchange of the units or of the securities comprising the units; and
- any other terms of the units and of the securities comprising the units.

The provisions described in this section, as well as those described under “*Description of Capital Stock*,” “*Description of Debt Securities*” and “*Description of Warrants*” will apply to the securities included in each unit, to the extent relevant and as may be updated in any prospectus supplements. We may issue units in such amounts and in as many distinct series as we wish. This section summarizes terms of the units that apply generally to all series. Most of the financial and other specific terms of a particular series of units will be described in the applicable prospectus supplement.

### **Unit Agreements**

We will issue the units under one or more unit agreements to be entered into between us and a bank or other financial institution, as unit agent. We may add, replace or terminate unit agents from time to time. We will identify the unit agreement under which each series of units will be issued and the unit agent under that agreement in the applicable prospectus supplement.

The following provisions will generally apply to all unit agreements unless otherwise stated in the applicable prospectus supplement:

### ***Modification Without Consent***

We and the applicable unit agent may amend any unit or unit agreement without the consent of any holder: (1) to cure any ambiguity in any provisions of the governing unit agreement that differ from those described below; (2) to correct or supplement any defective or inconsistent provision; or (3) to make any other change that we believe is necessary or desirable and will not adversely affect the interests of the affected holders in any material respect. We do not need any approval to make changes that affect only units to be issued after the changes take effect. We may also make changes that do not adversely affect a particular unit

in any material respect, even if they adversely affect other units in a material respect. In those cases, we do not need to obtain the approval of the holder of the unaffected unit; we need only obtain any required approvals from the holders of the affected units.

***Modification With Consent***

We may not amend any particular unit or a unit agreement with respect to any particular unit unless we obtain the consent of the holder of that unit, if the amendment would: (1) impair any right of the holder to exercise or enforce any right under a security included in the unit if the terms of that security require the consent of the holder to any changes that would impair the exercise or enforcement of that right; or (2) reduce the percentage of outstanding units or any series or class the consent of whose holders is required to amend that series or class, or the applicable unit agreement with respect to that series or class, as described below.

Any other change to a particular unit agreement and the units issued under that agreement would require the following approval: (1) if the change affects only the units of a particular series issued under that agreement, the change must be approved by the holders of a majority of the outstanding units of that series; or (2) if the change affects the units of more than one series issued under that agreement, it must be approved by the holders of a majority of all outstanding units of all series affected by the change, with the units of all the affected series voting together as one class for this purpose.

These provisions regarding changes with majority approval also apply to changes affecting any securities issued under a unit agreement, as the governing document.

In each case, the required approval must be given by written consent.

***Unit Agreements Will Not be Qualified Under Trust Indenture Act***

No unit agreement will be qualified as an indenture, and no unit agent will be required to qualify as a trustee, under the Trust Indenture Act. Therefore, holders of units issued under unit agreements will not have the protections of the Trust Indenture Act with respect to their units.

***Mergers and Similar Transactions Permitted; No Restrictive Covenants or Events of Default***

The unit agreements will not restrict our ability to merge or consolidate with, or sell our assets to, another corporation or other entity or to engage in any other transactions. If at any time we merge or consolidate with, or sell our assets substantially as an entirety to, another corporation or other entity, the successor entity will succeed to and assume our obligations under the unit agreements. We will then be relieved of any further obligation under these agreements.

The unit agreements will not include any restrictions on our ability to put liens on our assets, nor will they restrict our ability to sell our assets. The unit agreements also will not provide for any events of default or remedies upon the occurrence of any events of default.

***Form, Exchange and Transfer***

We will issue each unit in global-i.e., book-entry-form only. Units in book-entry form will be represented by a global security registered in the name of a depositary, which will be the holder of all the units represented by the global security. Those who own beneficial interests in a unit will do so through participants in the depositary's system, and the rights of these indirect owners will be governed solely by the applicable procedures of the depositary and its participants. We will describe book-entry securities, and other terms regarding the issuance and registration of the units in the applicable prospectus supplement.

Each unit and all securities comprising the unit will be issued in the same form.

If we issue any units in registered, non-global form, the following will apply to them:

- The units will be issued in the denominations stated in the applicable prospectus supplement. Holders may exchange their units for units of smaller denominations or combined into fewer units of larger denominations, as long as the total amount is not changed.

- Holders may exchange or transfer their units at the office of the unit agent. Holders may also replace lost, stolen, destroyed or mutilated units at that office. We may appoint another entity to perform these functions or perform them ourselves.
- Holders will not be required to pay a service charge to transfer or exchange their units, but they may be required to pay for any tax or other governmental charge associated with the transfer or exchange. The transfer or exchange, and any replacement, will be made only if our transfer agent is satisfied with the holder's proof of legal ownership. The transfer agent may also require an indemnity before replacing any units.
- If we have the right to redeem, accelerate or settle any units before their maturity, and we exercise our right as to less than all those units or other securities, we may block the exchange or transfer of those units during the period beginning 15 days before the day we mail the notice of exercise and ending on the day of that mailing, in order to freeze the list of holders to prepare the mailing. We may also refuse to register transfers of or exchange any unit selected for early settlement, except that we will continue to permit transfers and exchanges of the unsettled portion of any unit being partially settled. We may also block the transfer or exchange of any unit in this manner if the unit includes securities that are or may be selected for early settlement. Only the depository will be entitled to transfer or exchange a unit in global form, since it will be the sole holder of the unit.

***Payments and Notices***

In making payments and giving notices with respect to our units, we will follow the procedures as described in the applicable prospectus supplement.

## PLAN OF DISTRIBUTION

We may sell these securities directly to one or more investors. We may also sell these securities through agents designated from time to time or to or through underwriters or dealers. We may sell these securities through “at the market” offerings, within the meaning of Rule 415(a)(4) of the Securities Act, to or through a market maker or into an existing trading market, on an exchange or otherwise. The applicable prospectus supplement and any related free writing prospectus will describe the terms of the offering of the securities, including, to the extent applicable:

- the name or names of any agents, underwriters or dealers;
- the purchase price of the securities being offered and the net proceeds we will receive from the sale;
- any over-allotment options under which underwriters may purchase additional securities from us;
- any agency fees or underwriting discounts and other items constituting agents’ or underwriters’ compensation;
- any discounts or concessions allowed or reallocated or paid to dealers; and
- any securities exchanges or markets on which such securities may be listed.

We may distribute the securities from time to time in one or more transactions at:

- a fixed price or prices, which may be changed from time to time;
- market prices prevailing at the time of sale;
- prices related to such prevailing market prices; or
- negotiated prices.

### Agents

We may designate agents who agree to use their reasonable efforts to solicit purchases of our securities for the period of their appointment or to sell our securities on a continuing basis. We will name any agent involved in the offering and sale of securities and we will describe any fees or commissions we will pay the agent in the applicable prospectus supplement.

### Underwriters

If we use underwriters for a sale of securities, the underwriters will acquire the securities for their own account. The underwriters may resell the securities in one or more transactions, including negotiated transactions, at a fixed public offering price or at varying prices determined at the time of sale. The obligations of the underwriters to purchase the securities will be subject to the conditions set forth in the applicable underwriting agreement. Subject to certain conditions, the underwriters will be obligated to purchase all the securities of the series offered if they purchase any of the securities of that series. We may change from time to time any public offering price and any discounts or concessions the underwriters allow or reallocate or pay to dealers. We may use underwriters with whom we have a material relationship. We will name any underwriter involved in the offering and sale of securities, describe any discount or other compensation and describe the nature of any material relationship in any applicable prospectus supplement. Only underwriters we name in the prospectus supplement will be underwriters of the securities offered by that prospectus supplement.

We may have agreements with the agents and underwriters to indemnify them against specified civil liabilities related to offerings under this prospectus, including liabilities under the Securities Act, or contribution with respect to payments that the agents or underwriters may make with respect to these liabilities.

Underwriters, dealers and agents that participate in the distribution of the securities may be underwriters as defined in the Securities Act, and any discounts or commissions they receive from us and any profit on their resale of the securities may be treated as underwriting discounts and commissions under the Securities Act. We will identify in the applicable prospectus supplement any underwriters, dealers or agents and will

describe their compensation. We may have agreements with the underwriters, dealers and agents to indemnify them against specified civil liabilities related to offerings under this prospectus, including liabilities under the Securities Act, or contribution with respect to payments that the agents or underwriters may make with respect to these liabilities. Underwriters, dealers and agents may engage in transactions with or perform services for us in the ordinary course of their businesses.

### **Trading Markets and Listing of Securities**

Unless otherwise specified in the applicable prospectus supplement, each class or series of securities will be a new issue with no established trading market, other than our common stock, which is currently listed on the Nasdaq Stock Market. We may elect to list or qualify for trading any other class or series of securities on any securities exchange or other market, but we are not obligated to do so. It is possible that one or more underwriters may make a market in a class or series of securities, but the underwriters will not be obligated to do so and may discontinue any market making at any time without notice. We cannot give any assurance as to the liquidity of the trading market for any of the securities.

### **At-the-Market Offerings**

To the extent that we make sales through one or more underwriters or agents in at-the-market offerings, we will do so pursuant to the terms of a sales agency financing agreement or other at-the-market offering arrangement between us and the underwriters or agents. If we engage in at-the-market sales pursuant to any such agreement, we will issue and sell our securities through one or more underwriters or agents, which may act on an agency basis or a principal basis. During the term of any such agreement, we may sell securities on a daily basis in exchange transactions or otherwise as we agree with the underwriters or agents. Any such agreement will provide that any securities sold will be sold at prices related to the then prevailing market prices for our securities. Therefore, exact figures regarding proceeds that will be raised or commissions to be paid cannot be determined at this time. Pursuant to the terms of the agreement, we may agree to sell, and the relevant underwriters or agents may agree to solicit offers to purchase blocks of our common stock or other securities. The terms of any such agreement will be set forth in more detail in the applicable prospectus supplement.

### **Stabilization Activities**

Any underwriter may engage in overallotment, stabilizing transactions, short covering transactions and penalty bids in accordance with Regulation M under the Exchange Act. Overallotment involves sales in excess of the offering size, which create a short position. Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum. Short covering transactions involve purchases of the securities in the open market after the distribution is completed to cover short positions. Penalty bids permit the underwriters to reclaim a selling concession from a dealer when the securities originally sold by the dealer are purchased in a covering transaction to cover short positions. Those activities may cause the price of the securities to be higher than it would otherwise be. If commenced, the underwriters may discontinue any of these activities at any time.

### **Passive Market Making**

Any underwriter who is a qualified market maker on the Nasdaq Stock Market may engage in passive market making transactions in securities listed on the Nasdaq Stock Market in accordance with Rule 103 of Regulation M, during the business day prior to the pricing of the offering, before the commencement of offers or sales of the securities. A passive market maker must comply with applicable volume and price limitations and must be identified as a passive market maker. In general, a passive market maker must display its bid at a price not in excess of the highest independent bid for such security. If all independent bids are lowered below the passive market maker's bid, however, the passive market maker's bid must then be lowered when certain purchase limits are exceeded.

## LEGAL MATTERS

Unless otherwise indicated in the applicable prospectus supplement, the validity of any common stock, preferred stock, debt securities, warrants or units offered under this prospectus and any supplement hereto will be passed upon for us by DLA Piper LLP (US), San Diego, California.

## EXPERTS

The consolidated financial statements of Akoya Biosciences, Inc. as of December 31, 2021 and 2020 and for each of the years then ended incorporated in this Prospectus by reference from the Akoya Biosciences, Inc. [Annual Report on Form 10-K for the year ended December 31, 2021](#) have been audited by RSM US LLP, an independent registered public accounting firm, as stated in their report thereon, incorporated herein by reference, and have been incorporated in this Prospectus and Registration Statement in reliance upon such report and upon the authority of such firm as experts in accounting and auditing.

## INFORMATION INCORPORATED BY REFERENCE

SEC rules permit us to incorporate information by reference into this prospectus and any applicable prospectus supplement. This means that we can disclose important information to you by referring you to another document filed separately with the SEC. The information incorporated by reference is considered to be part of this prospectus and any applicable prospectus supplement, except for information superseded by information contained in this prospectus or the applicable prospectus supplement itself or in any subsequently filed incorporated document. This prospectus and any applicable prospectus supplement incorporate by reference the documents set forth below that we have previously filed with the SEC, other than information in such documents that is deemed to be furnished and not filed. These documents contain important information about us and our business and financial condition. Any report or information within any of the documents referenced below that is furnished, but not filed, shall not be incorporated by reference into this prospectus.

- Our [Annual Report on Form 10-K for the year ended December 31, 2021, filed with the SEC on March 15, 2022](#), including the information specifically incorporated by reference into the Annual Report on Form 10-K from our [definitive proxy statement for the 2022 Annual Meeting of Stockholders](#);
- [Our proxy statement on Form DEF 14A filed on April 19, 2022](#);
- Our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2022 and June 30, 2022, filed with the SEC on [May 6, 2022](#) and [August 9, 2022](#), respectively;
- Our Current Report on Form 8-K filed with the SEC on [March 29, 2022](#); our Current Report filed with the SEC on [June 2, 2022](#) and our Current Report filed with the SEC on [June 3, 2022](#); and
- [The description of our common stock contained in our registration statement on Form 8-A, as filed with the SEC on April 15, 2021 \(File No. 001-40344\), including any amendments or reports for the purpose of updating such description.](#)

All documents that we file (but not those that we furnish) pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act, after the date of the initial registration statement of which this prospectus is a part and prior to the effectiveness of the registration statement shall be deemed to be incorporated by reference into this prospectus and will automatically update and supersede the information in this prospectus, and any previously filed documents. All documents that we file (but not those that we furnish) pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act on or after the date of this prospectus and prior to the termination of the offering of any of the securities covered under this prospectus shall be deemed to be incorporated by reference into this prospectus and will automatically update and supersede the information in this prospectus, the applicable prospectus supplement and any previously filed documents.

Any statement contained herein or in a document incorporated or deemed to be incorporated by reference into this prospectus or the applicable prospectus supplement shall be deemed to be modified or superseded for purposes of this prospectus and such applicable prospectus supplement to the extent that a statement contained in this prospectus or such applicable prospectus supplement, or in any other subsequently



filed document which also is or is deemed to be incorporated by reference into this prospectus and such applicable prospectus supplement, modifies or supersedes such earlier statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus or such applicable prospectus supplement.

Documents incorporated by reference are available from us without charge, excluding all exhibits unless specifically incorporated by reference as an exhibit to this prospectus and the applicable prospectus supplement.

Prospective investors may obtain documents incorporated by reference into this prospectus and the applicable prospectus supplement at no cost by requesting them in writing or by telephone from us at our executive offices at:

Akoya Biosciences, Inc.  
100 Campus Drive, 6th Floor  
Marlborough, MA 01752  
(855) 896-8401

#### **WHERE YOU CAN FIND MORE INFORMATION**

As permitted by SEC rules, this prospectus omits certain information that is included in the registration statement of which this prospectus forms a part and its exhibits. Since this prospectus may not contain all of the information that you may find important, we urge you to review the full text of these documents. If we have filed a contract, agreement or other document as an exhibit to the registration statement of which this prospectus forms a part, please read the exhibit for a more complete understanding of the document or matter involved. Each statement in this prospectus, including statements incorporated by reference as discussed above, regarding a contract, agreement or other document is qualified in its entirety by reference to the actual document.

We are subject to the information reporting requirements of the Exchange Act and, in accordance with these requirements, we file annual, quarterly and current reports, proxy statements, information statements, and other information with the SEC. You may read and copy any materials we file with the SEC at the SEC's website at [www.sec.gov](http://www.sec.gov).

SUBJECT TO COMPLETION, DATED NOVEMBER 7, 2022

## PROSPECTUS

Up to \$50,000,000



## Common Stock

We have entered into an equity distribution agreement (the “Equity Distribution Agreement”), with Piper Sandler & Co. (“Piper Sandler”), relating to the sale of shares of our common stock, par value \$0.00001 per share, offered by this prospectus. In accordance with the terms of the Equity Distribution Agreement, under this prospectus we may offer and sell our common stock having an aggregate offering price of up to \$50.0 million from time to time through or to Piper Sandler, acting as our sales agent.

Our common stock is listed on the NASDAQ Capital Market (“NASDAQ”), under the symbol “AKYA.” On November 4, 2022, the last reported sale price of our common stock was \$13.82 per share.

Sales of our common stock, if any, under this prospectus may be made in sales deemed to be “at the market offerings” as defined in Rule 415 promulgated under the Securities Act of 1933, as amended (the “Securities Act”). While there is no requirement that Piper Sandler sell any specific number or dollar amount of securities, it will act as sales agent using commercially reasonable efforts to sell on our behalf all of the shares of common stock requested to be sold by us, consistent with its normal trading and sales practices, on mutually agreed terms between Piper Sandler and us. There is no arrangement for funds to be received in any escrow, trust or similar arrangement.

Piper Sandler will be entitled to compensation at a fixed commission rate of 3.0% of the gross sales price per share sold. In connection with the sale of our common stock on our behalf, Piper Sandler will be deemed to be an “underwriter” within the meaning of the Securities Act and the compensation of Piper Sandler will be deemed to be underwriting commissions or discounts. We have also agreed to provide indemnification and contribution to Piper Sandler with respect to certain liabilities, including liabilities under the Securities Act or the Securities Exchange Act of 1934, as amended (the “Exchange Act”). See “Plan of Distribution” for additional information regarding the compensation to be paid to Piper Sandler.

**Investing in our common stock involves a high degree of risk. Before making an investment decision, please read “Risk Factors” beginning on page S-5 of this prospectus and in the documents incorporated by reference in this prospectus.**

**Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.**

## Piper Sandler

The date of this prospectus is \_\_\_\_\_, 2022.

The information in this prospectus is not complete and may be changed. These securities may not be sold until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell nor does it seek an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

## TABLE OF CONTENTS

	<u>Page</u>
<b>PROSPECTUS</b>	
<a href="#"><u>ABOUT THIS PROSPECTUS</u></a>	<a href="#"><u>S-1</u></a>
<a href="#"><u>MARKET, INDUSTRY AND OTHER DATA</u></a>	<a href="#"><u>S-1</u></a>
<a href="#"><u>PROSPECTUS SUMMARY</u></a>	<a href="#"><u>S-2</u></a>
<a href="#"><u>THE OFFERING</u></a>	<a href="#"><u>S-4</u></a>
<a href="#"><u>RISK FACTORS</u></a>	<a href="#"><u>S-5</u></a>
<a href="#"><u>SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS</u></a>	<a href="#"><u>S-7</u></a>
<a href="#"><u>USE OF PROCEEDS</u></a>	<a href="#"><u>S-8</u></a>
<a href="#"><u>DIVIDEND POLICY</u></a>	<a href="#"><u>S-8</u></a>
<a href="#"><u>DILUTION</u></a>	<a href="#"><u>S-9</u></a>
<a href="#"><u>PLAN OF DISTRIBUTION</u></a>	<a href="#"><u>S-10</u></a>
<a href="#"><u>LEGAL MATTERS</u></a>	<a href="#"><u>S-12</u></a>
<a href="#"><u>EXPERTS</u></a>	<a href="#"><u>S-12</u></a>
<a href="#"><u>WHERE YOU CAN FIND MORE INFORMATION</u></a>	<a href="#"><u>S-12</u></a>
<a href="#"><u>INFORMATION INCORPORATED BY REFERENCE</u></a>	<a href="#"><u>S-12</u></a>

## ABOUT THIS PROSPECTUS

This prospectus is part of a shelf registration statement on Form S-3 that we filed with the Securities and Exchange Commission (the “SEC”). Under the shelf registration process, we may offer shares of our common stock having an aggregate offering price of up to \$50,000,000 from time to time under this prospectus at prices and on terms to be determined by market conditions at the time of the offering.

This document is in two parts. The first part is this prospectus, which describes the terms of this offering of common stock. The second part, the accompanying base prospectus, provides more general information, some of which may not apply to this offering. To the extent the information contained in this at-the-market offering prospectus differs or varies from the information contained in the accompanying base prospectus or the documents incorporated by reference, you should rely on the information in this prospectus. Generally, when we refer to the prospectus, we are referring to this at-the-market offering prospectus and the accompanying base prospectus combined, together with any information incorporated by reference.

You may rely only on the information contained in, or incorporated by reference into, this prospectus and in any free writing prospectus that we may authorize for use in connection with this offering. We have not, and Piper Sandler, has not, authorized any other person to provide you with different information. If anyone provides you with different or inconsistent information, you may not rely on it. We are not, and Piper Sandler is not, making an offer to sell or soliciting an offer to buy our securities in any jurisdiction where an offer or solicitation is not authorized or in which the person making that offer or solicitation is not qualified to do so or to anyone to whom it is unlawful to make an offer or solicitation. The information appearing in this prospectus, the documents incorporated by reference into this prospectus, and in any free writing prospectus that we may authorize for use in connection with this offering, is accurate only as of the date of those respective documents. Our business, financial condition, results of operations and prospects may have changed since those dates. We urge you to read this prospectus, the documents incorporated by reference into this prospectus, and any free writing prospectus that we may authorize for use in connection with this offering, in their entirety before making an investment decision.

We are offering to sell, and seeking offers to buy, shares of common stock only in jurisdictions where offers and sales are permitted. The distribution of this prospectus and the offering of the common stock in certain jurisdictions may be restricted by law. Persons outside the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the offering of the common stock and the distribution of this prospectus outside the United States. This prospectus does not constitute, and may not be used in connection with, an offer to sell, or a solicitation of an offer to buy, any securities offered by this prospectus by any person in any jurisdiction in which it is unlawful for such person to make such an offer or solicitation.

## MARKET, INDUSTRY AND OTHER DATA

Unless otherwise indicated, information contained in or incorporated by reference into this prospectus concerning our industry and the markets in which we operate, including market opportunity, market position and competitive landscape, is based on information from our management’s estimates, as well as from industry publications, surveys and studies conducted by third parties. Management estimates are derived from publicly available information, our knowledge of our industry, and assumptions based on such information and knowledge, which we believe to be reasonable. In addition, while we believe that information contained in industry publications, surveys and studies has been obtained from reliable sources, the accuracy and completeness of such information is not guaranteed, and we have not independently verified any of the data contained in these third-party sources. Similarly, internal market research and industry forecasts, which we believe to be reliable based upon our management’s knowledge of the market and the industry, have not been verified by any independent sources. While we are not aware of any misstatements regarding the market or industry data presented herein or incorporated herein by reference, our estimates involve risks and uncertainties and are subject to change based on various factors, including those discussed under the heading “Risk Factors” in this prospectus and in our [Annual Report on Form 10-K for the year ended December 31, 2021](#), and our [Quarterly Report on Form 10-Q for the quarter ended June 30, 2022](#) which are incorporated herein by reference, and “Special Note Regarding Forward-Looking Statements” in this prospectus.

## PROSPECTUS SUMMARY

*This summary highlights selected information appearing elsewhere or incorporated by reference in this prospectus and the accompanying base prospectus, and it may not contain all of the information that is important to you. This prospectus and the accompanying base prospectus include information about the offering as well as information regarding our business. We urge you to read this prospectus and the accompanying base prospectus, including the information incorporated by reference and any free writing prospectus that we have authorized for use in connection with this offering, in their entirety. If you invest in our common stock, you are assuming a high degree of risk. See “Risk Factors” beginning on page S-5.*

*Unless the context indicates otherwise or we expressly state to the contrary, as used in this prospectus and the accompanying base prospectus, the terms “Akoya,” “we,” “us” or “our” refer to Akoya Biosciences, Inc.*

### Overview

We are an innovative life sciences technology company delivering spatial biology solutions focused on transforming discovery and clinical research. Our mission is to deliver a revolutionary new class of spatially derived biomarkers that empower life sciences researchers to better understand disease and clinicians to improve patient outcomes. Spatial biology refers to a rapidly evolving technology that enables academic and biopharma scientists to detect and map the distribution of cell types and biomarkers across whole tissue samples at single cell resolution, enabling advancements in their understanding of disease progression and patient response to therapy. Through our PhenoCycler™ and PhenoImager™ platforms, reagents, software and services, we offer end-to-end solutions to perform tissue analysis and spatial phenotyping across the full continuum, from discovery through translational and clinical research.

Our spatial biology solutions measure cells and proteins by providing biomarker data in its spatial context while preserving tissue integrity. Biomarkers are objective measures that capture what is happening in a cell or tissue at a given moment. Current genomic and proteomic methods, such as next-generation sequencing, single-cell analysis, flow cytometry and mass spectrometry, are providing meaningful data but require the destruction of the tissue sample for analysis. While valuable and broadly adopted, these approaches allow scientists to analyze the biomarkers and cells that comprise the tissue but do not provide the fundamental information about tissue structure, cellular interactions and the localized measurements of key biomarkers. Furthermore, current non-destructive tissue analysis and histological methods provide some limited spatial information, but only measure a minimal number of biomarkers at a time and require expert pathologist interpretation. Our platforms address these limitations by providing end-to-end solutions that enable researchers to quantitatively interrogate a large number of biomarkers and cell types across a tissue section at single cell resolution. The result is a detailed and computable map of the tissue sample that thoroughly captures the underlying tissue dynamics and interactions between key cell types and biomarkers, a process now referred to as spatial phenotyping. We believe that we are the only business with the breadth of platform capabilities that enable researchers to do a deep exploratory and discovery study, and then further advance and scale their research through the translational and clinical phases, leading to a better understanding of human biology, disease progression and response to therapy.

We offer distinct stand-alone as well as integrated platforms for spatial phenotyping, designed to serve the unique needs of our customers in the discovery, translational and clinical markets. The PhenoCycler, is an ultra-high parameter and cost-effective platform ideally suited for discovery high-plex research. The PhenoImager platforms, which includes the newly introduced Fusion instrument and HT instrument (formerly Vectra Polaris), provide high-throughput with the automation and robustness needed for translational and clinical applications. Furthermore, the PhenoCycler and the PhenoImager Fusion can be integrated into a combined system, PhenoCycler-Fusion System, to enable spatial discovery at scale. Together, the systems offer seamless and integrated workflow solutions for our customers, including important benefits such as flexible sample types, automated sample processing, scalability, comprehensive data analysis and software solutions and dedicated field and applications support. With these platforms, our customers are performing spatial phenotyping to further advance their understanding of diseases such as cancer, neurological and autoimmune disorders, and many other therapeutic areas.

**Available Information**

We were incorporated as a Delaware corporation on November 13, 2015. Our principal executive offices are located at 100 Campus Drive, 6th Floor, Marlborough, Massachusetts 01752, and our telephone number is (855) 896-8401. Our website address is [www.akoyabio.com](http://www.akoyabio.com). Information contained on or that can be accessed through our website is not a part of this prospectus.

We electronically file with or furnish to the Securities and Exchange Commission (“SEC”) our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to those reports pursuant to Section 13(a) or 15(d) of the Exchange Act. We make available on our website, free of charge, copies of these reports, as soon as reasonably practicable after electronically filing such reports with, or furnishing them to the SEC.

**Implications of Being an Emerging Growth Company**

We qualify as an “emerging growth company” as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act. As an emerging growth company, we intend to take advantage of specified reduced disclosure and other requirements that are otherwise applicable generally to public companies. These provisions include:

- allowance to provide only two years of audited financial statements in addition to any required unaudited interim financial statements with correspondingly reduced “Management’s Discussion and Analysis of Financial Condition and Results of Operations” disclosure;
- reduced disclosure about our executive compensation arrangements;
- exemption from the requirements of holding non-binding advisory votes on executive compensation or golden parachute arrangements; and
- exemption from the auditor attestation requirement in the assessment of our internal control over financial reporting.

We may take advantage of these provisions for up to five years or such earlier time that we are no longer an emerging growth company. We would cease to be an emerging growth company on the date that is the earliest of: (i) the last day of the fiscal year in which we have total annual gross revenues of \$1.07 billion or more; (ii) the last day of our fiscal year following the fifth anniversary of the date of the completion of our initial public offering; (iii) the date on which we have issued more than \$1.07 billion in nonconvertible debt during the previous three years; or (iv) the date on which we are deemed to be a large accelerated filer under the rules of the SEC. We have taken advantage of reduced reporting requirements in this prospectus. Accordingly, the information contained herein may be different than the information you receive from other public companies in which you have beneficial ownership.

**THE OFFERING**

Common stock offered by us	Shares of our common stock having an aggregate offering price of up to \$50.0 million.
Common stock to be outstanding after this offering	41,384,600 shares of our common stock, based on an assumed public offering price of \$13.82 per share, the last reported sale price on The NASDAQ Global Select Market on November 4, 2022, for aggregate proceeds of up to \$50.0 million. The actual number of shares we sell will vary depending on the sales price under this offering.
Manner of offering	“At the market offering” that may be made from time to time through or to Piper Sandler, as sales agent. See “Plan of Distribution.”
Use of proceeds	We intend to use the net proceeds from this offering, if any, for working capital and general corporate purposes. See “Use of Proceeds.”
Risk factors	Investing in our common stock involves a high degree of risk. See “Risk Factors.”
NASDAQ symbol	“AKYA”

The number of shares of common stock to be outstanding after this offering is based on 37,766,655 shares of common stock outstanding as of June 30, 2022, and excludes, in each case as of June 30, 2022:

- 6,696,436 shares of common stock issuable upon the exercise of outstanding stock options, having a weighted average exercise price of \$8.29 per share;
- 301,575 shares of common stock issuable upon the vesting of outstanding restricted stock units;
- 158,274 shares of our common stock issuable upon the exercise of certain outstanding convertible preferred stock warrants, having an exercise price of \$3.56 per share;
- 3,599,158 shares of common stock reserved for future issuance under our 2021 Equity Incentive Plan; (the “2021 Plan”); and
- 359,915 shares of common stock reserved for future issuance under our 2021 Employee Stock Purchase Plan (the “ESPP”).

Unless otherwise stated, all information contained in this prospectus, including the number of shares of common stock to be outstanding after this offering, reflects an assumed public offering price of \$13.82 per share, which was closing price per share of our common stock on the NASDAQ on November 4, 2022.

## RISK FACTORS

*You should consider carefully the risks described below and discussed under the section captioned “Risk Factors” contained in our most recent annual report on Form 10-K as revised and supplemented by our Quarterly Reports on Form 10-Q filed since the filing of our most recent Annual Report on Form 10-K, each of which is incorporated by reference herein, and any subsequent reports we file after the date of this prospectus, which are incorporated by reference in this prospectus in its entirety, together with other information in this prospectus, and the information and documents incorporated by reference in this prospectus, and any free writing prospectus that we have authorized for use in connection with this offering before you make a decision to invest in our common stock. If any of the following events actually occur, our business, operating results, prospects or financial condition could be materially and adversely affected. This could cause the trading price of our common stock to decline and you may lose all or part of your investment. The risks described below are not the only ones that we face. Additional risks not presently known to us or that we currently deem immaterial may also affect our business operations.*

### **Risks Relating to this Offering**

***Management will have broad discretion as to the use of the proceeds from this offering and may not use the proceeds effectively.***

We cannot specify with certainty all of the particular uses of the net proceeds of this offering. Our management will have significant flexibility in applying the net proceeds from this offering, and you will not have the opportunity as part of your investment decision to assess whether the net proceeds are being used appropriately. Investors may not agree with our decisions, and our use of the proceeds may not yield any return on your investment. Because of the number and variability of factors that will determine our use of the net proceeds from this offering, their ultimate use may vary substantially from their currently intended use. Our management may use the net proceeds for purposes that may not improve our financial condition or market value. Our failure to apply the net proceeds of this offering effectively could impair our ability to pursue our growth strategy or could require us to raise additional capital. Pending their use, we intend to invest the net proceeds from the offering in investment-grade, interest-bearing instruments, such as money market accounts, certificates of deposit, commercial paper and guaranteed obligations of the U.S. government. These investments may not yield a favorable return to our stockholders.

***Future sales of substantial amounts of our common stock, or the possibility that such sales could occur, could adversely affect the market price of our common stock.***

We may issue up to \$50.0 million of common stock from time to time in this offering. The issuance from time to time of shares in this offering, as well as our ability to issue such shares in this offering, could have the effect of depressing the market price or increasing the market price volatility of our common stock. See “Plan of Distribution” for more information about the possible adverse effects of our sales under the Equity Distribution Agreement.

***It is not possible to predict the actual number of shares we will sell under the Equity Distribution Agreement, or the gross proceeds resulting from those sales.***

Subject to certain limitations in the Equity Distribution Agreement and compliance with applicable law, we have the discretion to deliver a placement notice to the sales agent at any time throughout the term of the Equity Distribution Agreement. The number of shares that are sold through the sales agent after delivering a placement notice will fluctuate based on a number of factors, including the market price of the common stock during the sales period, the limits we set with the sales agent in any applicable placement notice, and the demand for our common stock during the sales period. Because the price per share of each share sold will fluctuate during the sales period, it is not currently possible to predict the number of shares that will be sold or the gross proceeds to be raised in connection with those sales.

***The common stock offered hereby will be sold in “at the market offerings,” and investors who buy shares at different times will likely pay different prices.***

Investors who purchase shares in this offering at different times will likely pay different prices, and so they may experience different levels of dilution and different outcomes in their investment results. We will



have discretion, subject to market demand, to vary the timing, prices, and numbers of shares sold in this offering. In addition, there is no minimum or maximum sales price for shares to be sold in this offering. Investors may experience a decline in the value of the shares they purchase in this offering as a result of sales made at prices lower than the prices they paid.

***You may experience immediate and substantial dilution.***

If the offering price per share you pay in this offering exceeds the net tangible book value per share of our common stock, you will be immediately diluted to the extent of the difference between the amount you pay per share and the as-adjusted net tangible book value per share of our common stock after giving effect to this offering. Assuming we sell an aggregate amount of \$50.0 million in this offering at an assumed public offering price of \$13.82 per share, the closing price per share of our common stock on NASDAQ on November 4, 2022, and after deducting commissions and estimated aggregate offering expenses payable by us, you would experience immediate dilution in net tangible book value of \$11.40 per share, representing a difference between the assumed public offering price per share and our as-adjusted net tangible book value per share after this offering. To the extent that outstanding options are exercised or outstanding restricted stock units vest and settle, investors purchasing our common stock in this offering may experience further dilution. See the section entitled “Dilution” for a more detailed illustration of the dilution you may incur if you participate in this offering.

***You may experience future dilution as a result of future equity offerings.***

In order to raise additional capital, we may in the future offer additional shares of our common stock or other securities convertible into or exchangeable for our common stock. We may not be able to sell shares or other securities in any other offering at a price per share that is equal to or greater than the price per share paid by investors in this offering, and investors purchasing shares or other securities in the future could have rights superior to existing stockholders. The price per share at which we sell additional shares of our common stock or other securities convertible into or exchangeable for our common stock in future transactions may be higher or lower than the price per share in this offering.

***If securities or industry analysts fail to continue publishing research about our business, if they change their recommendations adversely or if our results of operations do not meet their expectations, our stock price and trading volume could decline.***

The trading market for our common stock will be influenced by the research and reports that industry or securities analysts publish about us or our business. If one or more of these analysts cease coverage of our company or fail to publish reports on us regularly, we could lose visibility in the financial markets, which in turn could cause our stock price or trading volume to decline. In addition, it is likely that in some future period our operating results will be below the expectations of securities analysts or investors. If one or more of the analysts who cover us downgrade our stock, or if our results of operations do not meet their expectations, our stock price could decline.

***Because we do not intend to declare cash dividends on our shares of common stock in the foreseeable future, stockholders must rely on appreciation of the value of our common stock for any return on their investment.***

We currently anticipate that we will retain future earnings for the development, operation and expansion of our business and do not anticipate declaring or paying any cash dividends in the foreseeable future. In addition, the terms of any existing or future debt agreements may preclude us from paying dividends. As a result, we expect that only appreciation of the price of our common stock, if any, will provide a return to investors in this offering for the foreseeable future.

**SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS**

This prospectus, the accompanying base prospectus and the documents we have filed with the SEC that are incorporated by reference herein and therein contain forward-looking statements within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act. In addition, from time to time we or our representatives have made or will make forward-looking statements in various other filings that we make with the SEC or in other documents, including press releases or other similar announcements. Forward-looking statements concern our current plans, intentions, beliefs, expectations, and statements of future economic performance. Statements containing terms such as “will,” “may,” “believe,” “do not believe,” “plan,” “expect,” “intend,” “estimate,” “anticipate” and other phrases of similar meaning are considered to be forward-looking statements.

Forward-looking statements are based on our assumptions and are subject to known and unknown risks and uncertainties that could cause actual results to differ materially from those reflected in or implied by these forward-looking statements. Factors that might cause actual results to differ include, among others, those set forth under “Risk Factors” in this prospectus and those discussed in “Management’s Discussion and Analysis of Financial Condition and Results of Operation” in our most recent Annual Report on Form 10-K and in our future periodic reports filed with the SEC, all of which are incorporated by reference herein. Readers are cautioned not to place undue reliance on any forward-looking statements contained in this prospectus, the accompanying base prospectus or the documents we have filed with the SEC that are incorporated by reference herein and therein, which reflect management’s views and opinions only as of their respective dates. We assume no obligation to update forward-looking statements to reflect actual results, changes in assumptions or changes in other factors affecting such forward-looking statements, except to the extent required by applicable securities laws. You are advised, however, to consult any additional disclosures we have made or will make in the filings we make with the SEC, including reports on Forms 10-K, 10-Q and 8-K. All subsequent forward-looking statements attributable to us or persons acting on our behalf are expressly qualified in their entirety by the cautionary statements contained in this prospectus, the accompanying base prospectus or any related issuer free writing prospectus.

### **USE OF PROCEEDS**

We may issue and sell shares of our common stock having aggregate sales proceeds of up to \$50.0 million from time to time. The amount of proceeds from this offering will depend upon the number of shares of our common stock sold and the market price at which they are sold. We may not be able to sell any shares under or fully utilize the Equity Distribution Agreement with Piper Sandler as a source of financing. Because there is no minimum offering amount required as a condition to close this offering, the actual total public offering amount, commissions and proceeds to us, if any, are not determinable at this time.

We intend to use the net proceeds from this offering, if any, for working capital and general corporate purposes.

As of the date of this prospectus, we cannot specify with certainty all of the particular uses of the net proceeds of this offering. Our management will have significant flexibility in applying the net proceeds from this offering, and you will not have the opportunity as part of your investment decision to assess whether the net proceeds are being used appropriately. Pending their use, we intend to invest the net proceeds from the offering in investment-grade, interest-bearing instruments, such as money market accounts, certificates of deposit, commercial paper and guaranteed obligations of the U.S. government.

### **DIVIDEND POLICY**

We expect to retain available cash to finance ongoing operations and the potential growth of our business. Any future determination to pay dividends on our common stock will be at the discretion of our board of directors and will depend upon, among other factors, our results of operations, financial condition, capital requirements, business prospects and other factors our board of directors may deem relevant, and subject to the restrictions contained in any future financing instruments.

## DILUTION

If the offering price per share you pay in this offering exceeds the net tangible book value per share of our common stock, you will be immediately diluted to the extent of the difference between the amount you pay per share and the as-adjusted net tangible book value per share of our common stock after giving effect to this offering. Our net tangible book value as of June 30, 2022 was approximately \$51.79 million, or \$1.37 per share. Net tangible book value per share represents our tangible assets less total liabilities, all divided by the number of shares of our common stock outstanding as of June 30, 2022.

After giving effect to the sale of our common stock in the aggregate amount of \$50.0 million in this offering at an assumed public offering price of \$13.82 per share, the closing price per share of our common stock on NASDAQ on November 4, 2022, and after deducting commissions and estimated aggregate offering expenses payable by us, our as-adjusted net tangible book value as of June 30, 2022 would have been approximately \$100.09 million, or \$2.42 per share. This represents an immediate increase in net tangible book value of \$1.05 per share to existing stockholders and immediate dilution in net tangible book value of \$11.40 per share to new investors purchasing our common stock in this offering. The following table illustrates this dilution on a per share basis:

Assumed public offering price per share	\$13.82
Net tangible book value per share as of June 30, 2022	\$1.37
Increase in net tangible book value per share attributable to the offering	<u>1.05</u>
As-adjusted net tangible book value per share after this offering	2.42
Dilution per share to new investors	<u>\$11.40</u>

The shares sold in this offering, if any, will be sold from time to time at various prices. An increase of \$1.00 per share in the price at which the shares are sold from the assumed public offering price of \$13.82 per share shown in the table above, assuming all of our common stock in the aggregate amount of \$50.0 million is sold at that price, would cause our as-adjusted net tangible book value per share after the offering to be \$2.50 per share and would increase the dilution in as-adjusted net tangible book value per share to new investors to \$11.32 per share, after deducting commissions and estimated aggregate offering expenses payable by us. A decrease of \$1.00 per share in the price at which the shares are sold from the assumed public offering price of \$13.82 per share shown in the table above, assuming all of our common stock in the aggregate amount of \$50.0 million is sold at that price, would cause our as-adjusted net tangible book value per share after the offering to be \$2.33 per share and would decrease the dilution in net tangible book value per share to new investors to \$11.49 per share, after deducting commissions and estimated aggregate offering expenses payable by us. This information is supplied for illustrative purposes only.

To the extent that outstanding options are exercised or outstanding restricted stock units vest and settle, investors purchasing our common stock in this offering may experience further dilution. In addition, we may choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. To the extent that we raise additional capital through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

The number of shares of common stock to be outstanding after this offering is based on 37,766,655 shares of common stock outstanding as of June 30, 2022, and excludes, in each case as of June 30, 2022:

- 6,696,436 shares of common stock issuable upon the exercise of outstanding stock options, having a weighted average exercise price of \$8.29 per share;
- 301,575 shares of common stock issuable upon the vesting of outstanding restricted stock units;
- 158,274 shares of our common stock issuable upon the exercise of certain outstanding convertible preferred stock warrants, having an exercise price of \$3.56 per share;
- 3,599,158 shares of common stock reserved for future issuance under the 2021 Plan; and
- 359,915 shares of common stock reserved for future issuance under the ESPP.

## PLAN OF DISTRIBUTION

We have entered into the Equity Distribution Agreement with Piper Sandler under which we may offer and sell up to \$50.0 million of our shares of common stock from time to time through Piper Sandler acting as agent. Sales of our shares of common stock, if any, under this prospectus and the accompanying base prospectus will be made by any method that is deemed to be an “at the market offering” as defined in Rule 415(a)(4) under the Securities Act.

Each time we wish to issue and sell our shares of common stock under the Equity Distribution Agreement, we will notify Piper Sandler of the number of shares to be issued, the time period during which such sales are requested to be made, any limitation on the number of shares to be sold in any one day and any minimum price below which sales may not be made. Once we have so instructed Piper Sandler, unless Piper Sandler declines to accept the terms of such notice, Piper Sandler has agreed to use its commercially reasonable efforts consistent with its normal trading and sales practices to sell such shares up to the amount specified on such terms. The obligations of Piper Sandler under the Equity Distribution Agreement to sell our shares of common stock are subject to a number of conditions that we must meet.

The settlement of sales of shares between us and Piper Sandler is generally anticipated to occur on the second full business day following the date on which the sale was made. Sales of our shares of common stock as contemplated in this prospectus will be settled through the facilities of The Depository Trust Company or by such other means as we and Piper Sandler may agree upon. There is no arrangement for funds to be received in an escrow, trust or similar arrangement.

We will pay Piper Sandler a fixed commission of 3.0% of the aggregate gross proceeds we receive from each sale of our shares of common stock. Because there is no minimum offering amount required as a condition to close this offering, the actual total public offering amount, commissions and proceeds to us, if any, are not determinable at this time. In addition, we have agreed to reimburse Piper Sandler for the fees and disbursements of its counsel, payable upon execution of the Equity Distribution Agreement, including an amount not to exceed (i) \$75,000 in connection with the preparation, execution and filing of the Equity Distribution Agreement, this prospectus and the registration statement of which this prospectus forms a part and (b) \$15,000 per quarter for ongoing services in connection with this transactions contemplated hereunder. In accordance with Financial Industry Regulatory Authority, Inc. Rule 5110 these reimbursed fees and expenses are deemed sales compensation in connection with this offering. We estimate that the total expenses for the offering, excluding any commissions or expense reimbursement payable to Piper Sandler under the terms of the Equity Distribution Agreement, will be approximately \$200,000. The remaining sale proceeds, after deducting any other transaction fees, will equal our net proceeds from the sale of such shares.

Piper Sandler will provide written confirmation to us before the open on The NASDAQ Global Select Market on the day following each day on which our shares of common stock are sold under the Equity Distribution Agreement. Each confirmation will include the number of shares sold on that day, the volume-weighted average price of the shares sold and the net proceeds to us of such shares.

In connection with the sale of our shares of common stock on our behalf, Piper Sandler will be deemed to be an “underwriter” within the meaning of the Securities Act, and the compensation of Piper Sandler will be deemed to be underwriting commissions or discounts. We have agreed to indemnify Piper Sandler against certain civil liabilities, including liabilities under the Securities Act. We have also agreed to contribute to payments Piper Sandler may be required to make in respect of such liabilities.

The offering of our shares of common stock pursuant to the Equity Distribution Agreement will terminate upon the earlier of (i) the sale of all shares of common stock subject to the Equity Distribution Agreement and (ii) the termination of the Equity Distribution Agreement as permitted therein. We and Piper Sandler may each terminate the Equity Distribution Agreement at any time upon specified prior notice.

This summary of the material provisions of the Equity Distribution Agreement does not purport to be a complete statement of its terms and conditions. A copy of the Equity Distribution Agreement is filed as an exhibit to the registration statement to which this prospectus relates and is incorporated by reference herein.

Piper Sandler and its affiliates have provided, and may in the future provide, various investment banking, financial advisory and other financial services for us and our affiliates, for which services they have received, and may in the future receive, customary fees. In the course of its business, Piper Sandler may actively trade our securities for its own account or for the accounts of customers, and, accordingly, Piper Sandler may at any time hold long or short positions in such securities. Additionally, one of our directors, Thomas P. Schnettler, is a principal of Piper Sandler Merchant Banking Fund II, L.P., which is an affiliate of Piper Sandler, who is acting as sales agent in this offering.

A prospectus and the accompanying base prospectus in electronic format may be made available on a website maintained by Piper Sandler, and Piper Sandler may distribute the prospectus and the accompanying base prospectus electronically.

## LEGAL MATTERS

DLA Piper LLP (US), San Diego, California will pass for us upon the validity of the securities being offered by this prospectus. Piper Sandler is being represented in connection with this offering by Davis Polk & Wardwell LLP, New York, New York.

## EXPERTS

The consolidated financial statements of Akoya Biosciences, Inc. as of December 31, 2021 and 2020 and for each of the years then ended incorporated in this Prospectus by reference from the Akoya Biosciences, Inc. [Annual Report on Form 10-K for the year ended December 31, 2021](#) have been audited by RSM US LLP, an independent registered public accounting firm, as stated in their report thereon, incorporated herein by reference, and have been incorporated in this Prospectus in reliance upon such report and upon the authority of such firm as experts in accounting and auditing.

## WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-3 under the Securities Act, of which this prospectus forms a part. This prospectus does not contain all of the information set forth in the registration statement, of which it is a part, and its exhibits and schedules in accordance with SEC rules and regulations. For further information about us and the securities we are offering under this prospectus, refer to the registration statement and the exhibits and schedules filed with the registration statement. With respect to the statements contained in this prospectus regarding the contents of any agreement or any other document, in each instance, the statement is qualified in all respects by the complete text of the agreement or document, a copy of which has been filed as an exhibit to the registration statement. You may obtain copies of the registration statement and its exhibits via the SEC's website at <http://www.sec.gov>.

We file reports, proxy statements and other information with the SEC under the Exchange Act. You may obtain documents that we file with the SEC at <http://www.sec.gov>.

## INFORMATION INCORPORATED BY REFERENCE

The SEC allows us to "incorporate by reference" information that we file with it into this prospectus, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is an important part of this prospectus. Information in this prospectus supersedes information incorporated by reference that we filed with the SEC prior to the date of this prospectus, while information that we file later with the SEC will automatically update and supersede the information in this prospectus. We incorporate by reference into this registration statement and prospectus the following documents, and any future filings we will make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this prospectus but prior to the termination of the offering of the securities covered by this prospectus (other than current reports or portions thereof furnished under Item 2.02 or Item 7.01 of Form 8-K):

- [Our Annual Report on Form 10-K for the year ended December 31, 2021, filed with the SEC on March 15, 2022](#), including the information specifically incorporated by reference into the Annual Report on Form 10-K from our [definitive proxy statement for the 2022 Annual Meeting of Stockholders](#);
- [Our proxy statement on Form DEF 14A filed on April 19, 2022](#);
- Our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2022 and June 30, 2022, filed with the SEC on [May 6, 2022](#) and [August 9, 2022](#), respectively;
- Our Current Report on Form 8-K filed with the SEC on [March 29, 2022](#); our Current Report filed with the SEC on [June 2, 2022](#) and our Current Report filed with the SEC on [June 3, 2022](#); and
- [The description of our common stock contained in our registration statement on Form 8-A, as filed with the SEC on April 15, 2021 \(File No. 001-40344\), including any amendments or reports for the purpose of updating such description.](#)

We will provide each person, including any beneficial owner, to whom a prospectus is delivered, a copy of any or all of the information that has been incorporated by reference into this prospectus but not delivered with this prospectus upon written or oral request at no cost to the requester. Requests must be directed to: Akoya Biosciences, Inc., 100 Campus Drive, 6th Floor, Marlborough, Massachusetts 01752, Telephone: (855) 896-8401.



**\$50,000,000**



**Common Stock**

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**PROSPECTUS**

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**Piper Sandler**

, 2022

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## PART II

## INFORMATION NOT REQUIRED IN PROSPECTUS

**Item 14. Other Expenses of Issuance and Distribution**

The following table sets forth the fees and expenses incurred or expected to be incurred by Akoya Biosciences, Inc. (the "Registrant") in connection with the issuance and distribution of the securities being registered hereby. All the amounts shown are estimates, except for the SEC registration fee and Financial Industry Regulatory Authority, Inc. (FINRA) filing fee.

SEC registration fee	\$16,530
Nasdaq listing fee	23,000
FINRA filing fees	*
Accounting fees and expenses	*
Legal fees and expenses	*
Transfer agent fees and expenses	*
Printing and miscellaneous expenses	*
Total	*

\* These fees or expenses cannot be estimated at this time, as they are calculated based on the securities offered and the number of issuances.

**Item 15. Indemnification of Directors and Officers**

Section 145 of the Delaware General Corporation Law authorizes a court to award, or a corporation's board of directors to grant, indemnity to directors and officers in terms sufficiently broad to permit such indemnification under certain circumstances for liabilities, including reimbursement for expenses incurred, arising under the Securities Act. Our Certificate of Incorporation requires us to indemnify our directors and officers to the maximum extent permitted by the Delaware General Corporation Law, our Bylaws provide that we will indemnify our directors and officers and permit us to indemnify our employees and other agents, in each case to the maximum extent permitted by the Delaware General Corporation Law.

We have entered into indemnification agreements with our directors and officers, whereby we have agreed to indemnify our directors and officers to the fullest extent permitted by law, including indemnification against expenses and liabilities incurred in legal proceedings to which the director or officer was, or is threatened to be made, a party by reason of the fact that such director or officer is or was a director, officer, employee or agent of the Registrant, provided that such director or officer acted in good faith and in a manner that the director or officer reasonably believed to be in, or not opposed to, our best interest. At present, there is no pending litigation or proceeding involving a director or officer regarding which indemnification is sought, nor are we aware of any threatened litigation that may result in claims for indemnification.

We maintain insurance policies that indemnify our directors and officers against various liabilities arising under the Securities Act and the Exchange Act that might be incurred by any director or officer in his or her capacity as such.

**Item 16. Exhibits and Financial Statement Schedules.****(a) Exhibits**

Exhibit Number	Exhibit Title	Filed Herewith	Incorporated by Reference			
			Form	Filing Date.	Exhibit	File No.
1.2	<a href="#">Equity Distribution Agreement, dated November 7, 2022, by and between Akoya Biosciences, Inc. and Piper Sandler &amp; Co.</a>	X				
3.1	<a href="#">Amended and Restated Certificate of Incorporation</a>		S-1	333-254760	3.3	3/26/2021
3.2	<a href="#">Amended and Restated Bylaws</a>		S-1	333-254760	3.4	3/26/2021
4.1	<a href="#">Form of indenture for senior debt securities and the related form of senior debt security.</a>	X				
4.2	<a href="#">Form of indenture for subordinated debt securities and the related form of subordinated debt security.</a>	X				
4.3*	Form of Warrant Agreement					
4.4*	Form of Unit Certificate					
4.5*	Form of Preferred Stock Certificate and Form Certificate of Designation of Preferred Stock					
5.1	<a href="#">Opinion of DLA Piper LLP (US)</a>	X				
23.1	<a href="#">Consent of Independent Registered Public Accounting Firm</a>	X				
23.2	<a href="#">Consent of DLA Piper LLP (US) (included in Exhibit 5.1)</a>	X				
24.1	<a href="#">Power of Attorney (included on the signature page)</a>	X				
25.1†	Form T-1 Statement of Eligibility of Trustee for the Senior Indenture under the Trust Indenture Act of 1939.					
25.2†	Form T-1 Statement of Eligibility of Trustee for the Subordinated Indenture under the Trust Indenture Act of 1939.					
107	<a href="#">Filing Fee Table</a>	X				

\* To be filed by amendment or as exhibit(s) to a Current Report of the registrant on Form 8-K and incorporated herein by reference, as applicable.

† To be filed pursuant to Section 305(b)(2) of the Trust Indenture Act of 1939, as applicable.

**Item 17. Undertakings**

(a) The undersigned registrant hereby undertakes:

- (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:
  - (i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;
  - (ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities

offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and

- (iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

Provided, however, that paragraphs (a)(1)(i), (a)(1)(ii) and (a)(1)(iii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the Registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement;

- (2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof;
- (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering;
- (4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:
  - (A) Each prospectus filed by the Registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and
  - (B) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5) or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii) or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date; and
- (5) That, for the purpose of determining liability of the Registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities, the undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

- (i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;
  - (ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;
  - (iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and
  - (iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.
- (b) The undersigned registrant hereby undertakes that, for the purpose of determining liability under the Securities Act of 1933, each filing of the Registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference into the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (c) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.
- (d) The undersigned registrant hereby undertakes that:
- (1) For purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the Registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.
  - (2) For the purpose of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (e) The undersigned registrant hereby undertakes to file an application for the purpose of determining the eligibility of the trustee to act under subsection (a) of Section 310 of the Trust Indenture Act in accordance with the rules and regulations prescribed by the Commission under Section 305(b)(2) of the Act.

**SIGNATURES**

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Marlborough, State of Massachusetts on November 7, 2022.

**AKOYA BIOSCIENCES, INC.**

By: /s/ Brian McKelligon

Brian McKelligon  
President and Chief Executive Officer

**POWER OF ATTORNEY**

KNOW BY ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Brian McKelligon and Joseph Driscoll, and each of them, as such person's true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution, for such person and in such person's name, place and stead, in any and all capacities, to sign any and all Amendments hereto, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as such person might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent, or his or her substitute or substitutes, may lawfully do or cause to be done by virtue thereof.

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

<u>Name</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Brian McKelligon</u> Brian McKelligon	President, Chief Executive Officer and Director (Principal Executive Officer)	November 7, 2022
<u>/s/ Joseph Driscoll</u> Joseph Driscoll	Chief Financial Officer (Principal Financial and Accounting Officer)	November 7, 2022
<u>/s/ Robert G. Shepler</u> Robert G. Shepler	Chairman of the Board	November 7, 2022
<u>/s/ Garry Nolan, PhD</u> Garry Nolan, PhD	Director	November 7, 2022
<u>/s/ Thomas Raffin, MD</u> Thomas Raffin, MD	Director	November 7, 2022
<u>/s/ Thomas P. Schnettler</u> Thomas P. Schnettler	Director	November 7, 2022
<u>/s/ Scott Mendel</u> Scott Mendel	Director	November 7, 2022
<u>/s/ Matthew Winkler, PhD</u> Matthew Winkler, PhD	Director	November 7, 2022

<u>Name</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Myla Lai-Goldman, MD</u> Myla Lai-Goldman, MD	Director	November 7, 2022

## AKOYA BIOSCIENCES, INC.

## EQUITY DISTRIBUTION AGREEMENT

November 7, 2022

PIPER SANDLER & CO.  
U.S. Bancorp Center  
800 Nicollet Mall  
Minneapolis, Minnesota 55402

Ladies and Gentlemen:

As further set forth in this agreement (this “**Agreement**”), Akoya Biosciences, Inc., a Delaware corporation (the “**Company**”), proposes to issue and sell from time to time through Piper Sandler & Co. (the “**Agent**”), as sales agent, the Company’s common stock, par value \$0.00001 per share (the “**Common Stock**”) (such shares of Common Stock to be sold pursuant to this Agreement, the “**Shares**”) on terms set forth herein. Notwithstanding anything to the contrary contained herein, the parties hereto agree that compliance with the limitation set forth in Section 2 of this Agreement on the number of shares of Shares issued and sold under this Agreement shall be the sole responsibility of the Company, and the Agent shall have no obligation in connection with such compliance.

The Company hereby confirms its agreement with the Agent with respect to the sale of the Shares.

**1. Representations and Warranties of the Company.**

(a) The Company represents and warrants to, and agrees with, the Agent that as of the date of this Agreement, each Representation Date (as defined in Section 3(o) below), each date on which a Placement Notice (as defined in Section 2(a)(i) below) is given (each, a “**Notice Date**”), each date on which Shares are sold hereunder (each, an “**Applicable Time**”), and each Settlement Date (as defined in Section 2(a)(vii) below) as follows:

(i) **Registration Statement and Prospectus.** The Company has prepared and will file, in accordance with the provisions of the Securities Act of 1933, as amended, and the rules and regulations thereunder (collectively, the “**Securities Act**”), with the Securities and Exchange Commission (the “**Commission**”) a registration statement on Form S-3, including a base prospectus, relating to certain securities, including the Common Stock, to be issued from time to time by the Company, and a prospectus relating to the Shares, and which incorporates by reference documents that the Company has filed or will file in accordance with the provisions of the Securities Exchange Act of 1934, as amended, and the rules and regulations thereunder (collectively, the “**Exchange Act**”). The Company has furnished to the Agent, for use by Agent, copies of the prospectus included as part of such registration statement relating to the Shares. Except where the context otherwise requires, such registration statement, as amended when it became effective, including all documents filed as part thereof or incorporated by reference therein, and including any information contained in a Prospectus (as defined below) and/or prospectus supplement subsequently filed with the Commission pursuant to Rule 424(b) under the Securities Act or deemed to be a part of such registration statement pursuant to Rule 430B or 462(b) of the Securities Act, is herein called the “**Registration Statement**.” The base prospectus and prospectus, including all documents incorporated therein by reference, included in the Registration Statement, in the form in which such prospectus has most recently been filed by the Company with the Commission pursuant to Rule 424(b) under the Securities Act, together with any “**issuer free writing prospectus**,” as defined in Rule 433 of the Securities Act (“**Rule 433**”), relating to the Shares, if any, that (i) is required to be filed with the Commission by the Company or (ii) is exempt from filing pursuant to Rule 433(d)(5)(i), in each case in the form filed or required to be filed with the Commission or, if not required to be filed, in the form retained in the Company’s records pursuant to Rule 433(g), is herein called the “**Prospectus**.” Any reference herein to the Registration Statement, the Prospectus or any amendment or supplement thereto shall be deemed to refer to and include the documents incorporated by reference therein, and any reference herein to the terms “amend,” “amendment” or “supplement” with respect to the Registration Statement or the Prospectus shall be deemed to refer to and include the filing after the execution hereof of any document with the Commission deemed to be incorporated by reference therein. For purposes of this Agreement, all references to the Registration Statement, the Prospectus or to any amendment or supplement thereto shall be deemed to include any copy filed with the Commission pursuant the Electronic Data Gathering Analysis and Retrieval System (“**EDGAR**”).

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(ii) *Continuing Effectiveness of Registration Statement.* The Registration Statement and any Rule 462(b) Registration Statement have been or will be declared or deemed effective by the Commission under the Securities Act. The Company has complied or will comply, to the Commission's satisfaction, with all requests of the Commission for additional or supplemental information. No stop order suspending the effectiveness of the Registration Statement or any Rule 462(b) Registration Statement is in effect and no proceedings for such purpose have been instituted or are pending or, to the knowledge of the Company, contemplated or threatened by the Commission. The Company meets the requirements for use of Form S-3 under the Securities Act. The sale of the Shares hereunder meets the requirements of General Instruction I.B.1./I.B.6 of Form S-3.

(iii) *No Material Misstatements or Omissions.* The Prospectus when filed complied or will comply, and as amended or supplemented, if applicable, will comply in all material respects with the Securities Act. Each of the Registration Statement, any Rule 462(b) Registration Statement, the Prospectus and any post-effective amendments or supplements thereto, at the time it became effective or its date, as applicable, and as of each Settlement Date (as defined in Section 2(a)(vii) below), complied in all material respects with the Securities Act, and as of each effective date and each Settlement Date, did not and will not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading. The Prospectus, as amended or supplemented, as of its date, did not and, as of each of the Settlement Date, will not contain any untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading. The representations and warranties set forth in the two immediately preceding sentences do not apply to statements in or omissions from the Registration Statement, any Rule 462(b) Registration Statement, or any post-effective amendment thereto, or the Prospectus, or any amendments or supplements thereto, made in reliance upon and in conformity with information relating to the Agent furnished to the Company in writing by the Agent expressly for use therein. There are no contracts or other documents required to be described in the Prospectus or to be filed as exhibits to the Registration Statement which have not been described or filed as required.

(iv) *Emerging Growth Company.* From the time of initial filing of the Registration Statement to the Commission through the date hereof, the Company has been and is an “**emerging growth company**,” as defined in Section 2(a) of the Securities Act.

(v) *Software.* The Company and its subsidiaries use and have used any and all software and other materials distributed under a “free,” “open source,” or similar licensing model (including but not limited to the MIT License, Apache License, GNU General Public License, GNU Lesser General Public License and GNU Affero General Public License) (“**Open Source Software**”) in compliance with all license terms applicable to such Open Source Software. Neither the Company nor any of its subsidiaries use or distribute or have used or distributed any Open Source Software in any manner that, to the knowledge of the Company, requires or has required (i) the Company or its subsidiaries to permit reverse-engineering of any software code or other technology owned by the Company or its subsidiaries or (ii) any software code or other technology owned by the Company or its subsidiaries to be disclosed or distributed in source code form, licensed for the purpose of making derivative works or redistributed at no charge. Neither the Company nor any of its subsidiaries has deposited, nor could be required to deposit, into escrow the source code of any of its software and no such source code has been released to any third party, or is entitled to be released to any third party, by any escrow agent.

(vi) *Financial Statements.* The financial statements (including the related notes thereto) of the Company and its consolidated subsidiaries included or incorporated by reference in the Registration Statement and the Prospectus comply in all material respects with the applicable requirements of the Securities Act and present fairly in all material respects the financial position of the Company and its consolidated subsidiaries as of the dates indicated and the results of their operations and the changes in their cash flows for the periods specified; such financial statements have been prepared in conformity with generally accepted accounting principles (“**GAAP**”) in the United States applied on a consistent basis throughout the periods covered thereby, except in the case of any unaudited financial statements which are subject to normal year-end adjustments and do not contain certain footnotes as permitted by the applicable rules of the Commission, and any supporting schedules included or incorporated by reference in the Registration Statement present fairly in all material respects the information required to be stated therein; and the other financial information included or incorporated by reference in the Registration Statement and the Prospectus has been derived from the accounting records of the Company and its consolidated subsidiaries and presents fairly in all material respects the information shown thereby; all disclosures included or incorporated by reference in the Registration Statement and the Prospectus regarding “non-GAAP financial measures” (as such term is defined by the rules and regulations of Commission) comply with Regulation G of the Exchange Act and Item 10 of Regulation S-K of the Securities Act, to the extent applicable. The interactive data in eXtensible Business Reporting Language (“**XBRL**”) included or incorporated by reference in the Registration Statement and the Prospectus fairly present the information called for in all material respects and have been prepared in accordance with the Commission’s rules and guidelines applicable thereto.

(vii) *No Off-Balance Sheet Transactions.* There are no transactions, arrangements and other relationships between and/or among the Company, and/or, to the knowledge of the Company, any of its affiliates and any unconsolidated entity, including, but not limited to, any structural finance, special purpose or limited purpose entity (each, an “*Off-Balance Sheet Transaction*”) that could reasonably be expected to affect materially the Company’s liquidity or the availability of or requirements for its capital resources, including those Off Balance Sheet Transactions described in the Commission’s Statement about Management’s Discussion and Analysis of Financial Conditions and Results of Operations (Release Nos. 33-8056; 34-45321; FR-61), and are required to be described in the Prospectus, which have not been described as required.

(viii) *No Material Adverse Change.* Since the date of the most recent financial statements of the Company included or incorporated by reference in the Registration Statement and the Prospectus, (i) there has not been any change in the capital stock (other than the issuance of shares of Common Stock upon exercise of stock options and warrants described as outstanding in, and the grant of options and awards under existing equity incentive plans described in, the Registration Statement and the Prospectus), short-term debt or long-term debt of the Company or any of its subsidiaries, or any dividend or distribution of any kind declared, set aside for payment, paid or made by the Company on any class of capital stock, or any material adverse change, or any development that would reasonably be expected to result in a material adverse change, in or affecting the business, properties, management, financial position, stockholders’ equity, results of operations or prospects of the Company and its subsidiaries taken as a whole; (ii) neither the Company nor any of its subsidiaries has entered into any transaction or agreement (whether or not in the ordinary course of business) that is material to the Company and its subsidiaries taken as a whole or incurred any liability or obligation, direct or contingent, that is material to the Company and its subsidiaries taken as a whole; and (iii) neither the Company nor any of its subsidiaries has sustained any loss or interference with its business that is material to the Company and its subsidiaries taken as a whole and that is either from fire, explosion, flood or other calamity, whether or not covered by insurance, or from any labor disturbance or dispute or any action, order or decree of any court or arbitrator or governmental or regulatory authority, except in each case as otherwise disclosed in the Registration Statement and the Prospectus.

(ix) *Organization and Good Standing.* The Company and each of its subsidiaries have been duly organized and are validly existing and in good standing under the laws of their respective jurisdictions of organization, are duly qualified to do business and are in good standing in each jurisdiction in which their respective ownership or lease of property or the conduct of their respective businesses requires such qualification, and have all power and authority necessary to own or hold their respective properties and to conduct the businesses in which they are engaged, except where the failure to be so qualified or in good standing or have such power or authority would not, individually or in the aggregate, reasonably be expected to have a material adverse effect on the business, properties, management, financial position, stockholders' equity, results of operations or prospects of the Company and its subsidiaries taken as a whole or on the performance by the Company of its obligations under this Agreement (a "**Material Adverse Effect**").

(x) *Capitalization.* The Company has an authorized capitalization as set forth in the Registration Statement and the Prospectus under the heading "Description of Common Stock and Preferred Stock"; all the outstanding shares of capital stock of the Company have been duly and validly authorized and issued and are fully paid and non-assessable and are not subject to any pre-emptive or similar rights that have not been duly waived or satisfied; except as described in or expressly contemplated by the Registration Statement and the Prospectus, there are no outstanding rights (including, without limitation, pre-emptive rights that have not been duly waived or satisfied), warrants or options to acquire, or instruments convertible into or exchangeable for, any shares of capital stock or other equity interest in the Company or any of its subsidiaries, or any contract, commitment, agreement, understanding or arrangement of any kind relating to the issuance of any capital stock of the Company or any such subsidiary, any such convertible or exchangeable securities or any such rights, warrants or options; the capital stock of the Company conforms in all material respects to the description thereof contained in the Registration Statement and the Prospectus; and all the outstanding shares of capital stock or other equity interests of each subsidiary owned, directly or indirectly, by the Company have been duly and validly authorized and issued, are fully paid and non-assessable (except, in the case of any foreign subsidiary, for directors' qualifying shares and except as otherwise described in the Registration Statement and the Prospectus,) and are owned directly or indirectly by the Company, free and clear of any lien, charge, encumbrance, security interest, restriction on voting or transfer or any other claim of any third party.

(xi) *Stock Options.* With respect to the stock options (the "**Stock Options**") granted pursuant to the stock-based compensation plans of the Company and its subsidiaries (the "**Company Stock Plans**") and outstanding as of the date hereof, except, in each case, for any such matters as would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect, (i) each Stock Option intended to qualify as an "incentive stock option" under Section 422 of the Internal Revenue Code of 1986, as amended, (the "**Code**") so qualifies, (ii) each grant of a Stock Option was duly authorized no later than the date on which the grant of such Stock Option was by its terms to be effective (the "**Grant Date**") by all necessary corporate action, including, as applicable, approval by the board of directors of the Company (or a duly constituted and authorized committee thereof) and any required stockholder approval by the necessary number of votes or written consents, and the award agreement governing such grant (if any) was duly executed and delivered by each party thereto, (iii) each such grant was made in accordance with the terms of the Company Stock Plans, the applicable provisions of the Exchange Act and all other applicable laws and regulatory rules or requirements, including the applicable rules of the Nasdaq Global Select Market and any other exchange on which Company securities are traded, and (iv) each such grant was properly accounted for in accordance with GAAP in the financial statements (including the related notes) of the Company. The Company has not knowingly granted, and there is no and has been no policy or practice of the Company of granting, Stock Options prior to, or otherwise coordinating the grant of Stock Options with, the release or other public announcement of material information regarding the Company or its subsidiaries or their results of operations or prospects.

(xii) *Due Authorization, Valid Issuance and Non-Assessibility of Shares.* The Company has full right, power and authority to execute and deliver this Agreement and to perform its obligations hereunder; and all action required to be taken for the due and proper authorization, execution and delivery by it of this Agreement and the consummation by it of the transactions contemplated hereby has been duly and validly taken.

(xiii) *Equity Distribution Agreement.* This Agreement has been duly authorized, executed and delivered by the Company.

(xiv) *The Shares.* The Shares to be issued and sold by the Company hereunder have been duly authorized by the Company and, when issued and delivered and paid for as provided herein, will be duly and validly issued, will be fully paid and nonassessable and will conform to the descriptions thereof in the Registration Statement and the Prospectus; and the issuance of the Shares is not subject to any preemptive or similar rights that have not been duly waived or satisfied.

(xv) *Description of the Equity Distribution Agreement.* This Agreement conforms in all material respects to the description thereof contained in the Registration Statement and the Prospectus.

(xvi) *No Violation or Default.* Neither the Company nor any of its subsidiaries is (i) in violation of its charter or by-laws or similar organizational documents; (ii) in default, and no event has occurred that, with notice or lapse of time or both, would constitute such a default, in the due performance or observance of any term, covenant or condition contained in any indenture, mortgage, deed of trust, loan agreement or other agreement or instrument to which the Company or any of its subsidiaries is a party or by which the Company or any of its subsidiaries is bound or to which any property or asset of the Company or any of its subsidiaries is subject; or (iii) in violation of any law or statute or any judgment, order, rule or regulation of any court or arbitrator or governmental or regulatory authority having the jurisdiction over the Company or any of its subsidiaries, except, in the case of clauses (ii) and (iii) above, for any such default or violation that would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

(xvii) *No Conflicts*. The execution, delivery and performance by the Company of this Agreement, the issuance and sale of the Shares by the Company and the consummation by the Company of the transactions contemplated by this Agreement or the Prospectus will not (i) conflict with or result in a breach or violation of any of the terms or provisions of, or constitute a default under, result in the termination, modification or acceleration of, or result in the creation or imposition of any lien, charge or encumbrance upon any property, right or asset of the Company or any of its subsidiaries pursuant to, any indenture, mortgage, deed of trust, loan agreement or other agreement or instrument to which the Company or any of its subsidiaries is a party or by which the Company or any of its subsidiaries is bound or to which any property, right or asset of the Company or any of its subsidiaries is subject, (ii) result in any violation of the provisions of the charter or by-laws or similar organizational documents of the Company or any of its subsidiaries or (iii) result in the violation of any law or statute or any judgment, order, rule or regulation of any court or arbitrator or governmental or regulatory authority having jurisdiction over the Company, except, in the case of clauses (i) and (iii) above, for any such conflict, breach, violation, default, lien, charge or encumbrance that would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

(xviii) *No Consents Required*. No consent, approval, authorization, order, registration or qualification of or with any court or arbitrator or governmental or regulatory authority is required for the execution, delivery and performance by the Company of this Agreement, the issuance and sale of the Shares and the consummation by the Company of the transactions contemplated by this Agreement, except for the registration of the Shares under the Securities Act and such consents, approvals, authorizations, orders and registrations or qualifications as may be required by the Financial Industry Regulatory Authority, Inc. ("*FINRA*") and under applicable state securities laws in connection with the purchase and distribution of the Shares by the Agent.

(xix) *Legal Proceedings*. There are no legal, governmental or regulatory investigations, actions, demands, claims, suits, arbitrations, inquiries or proceedings ("*Actions*") pending to which the Company or any of its subsidiaries is or may be a party or to which any property of the Company or any of its subsidiaries is or may be the subject that, individually or in the aggregate, if determined adversely to the Company or any of its subsidiaries, would reasonably be expected to have a Material Adverse Effect; to the knowledge of the Company, no such Actions are threatened or contemplated by any governmental or regulatory authority or threatened by others; and (i) there are no current or pending Actions that are required under the Securities Act to be described in the Registration Statement or the Prospectus that are not so described in the Registration Statement and the Prospectus and (ii) there are no statutes, regulations or contracts or other documents that are required under the Securities Act to be filed as exhibits to the Registration Statement or described in the Registration Statement or the Prospectus that are not so filed as exhibits to the Registration Statement or described in the Registration Statement and the Prospectus.

(xx) *Independent Accountants.* RSM US LLP, who has certified certain financial statements of the Company, is an independent registered public accounting firm with respect to the Company and its subsidiaries within the applicable rules and regulations adopted by the Commission and the Public Company Accounting Oversight Board (United States) and as required by the Securities Act.

(xxi) *Title to Real and Personal Property.* Except as described in the Registration Statement and the Prospectus, the Company and its subsidiaries have good and marketable title in fee simple (in the case of real property) to, or have valid rights to lease or otherwise use, all items of real and personal property that are material to the respective businesses of the Company and its subsidiaries, in each case free and clear of all liens, encumbrances, claims and defects and imperfections of title except those that (i) do not materially interfere with the use made and proposed to be made of such property by the Company and its subsidiaries or (ii) would not reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect.

(xxii) *Intellectual Property.* Except as described in the Registration Statement and the Prospectus or as would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect: (i) the Company and its subsidiaries own or possess adequate rights to use all patents, trademarks, service marks, trade names, domain names and other source indicators, copyrights and copyrightable works, licenses, inventions, technology, software, know-how, trade secrets and other unpatented and/or unpatentable proprietary or confidential information, systems, procedures, and all other worldwide intellectual property, industrial property and proprietary rights (including all registrations and applications for registration of, and all goodwill associated with, the foregoing) (collectively, “**Intellectual Property**”) used in, held for use in or necessary for the conduct of their respective businesses as currently conducted and as proposed to be conducted in the Registration Statement or the Prospectus; (ii) to the knowledge of the Company, the Company’s and its subsidiaries’ conduct of their respective businesses has not infringed, misappropriated or otherwise violated any Intellectual Property of any third party; (iii) there is no pending action, suit, investigation, proceeding or claim by others, and the Company and its subsidiaries have not received any written notice, alleging infringement, misappropriation or other violation of any Intellectual Property of any third party or challenging the ownership, validity, enforceability or scope of any Intellectual Property of the Company or any of its subsidiaries; (iv) to the knowledge of the Company, the Intellectual Property of the Company and its subsidiaries has not been infringed, misappropriated or otherwise violated by any third party; (v) to the knowledge of the Company, all Intellectual Property of the Company and its subsidiaries is valid and enforceable; and (vi) the Company and its subsidiaries have at all times taken reasonable steps in accordance with normal industry practice to maintain the confidentiality of all Intellectual Property, the value of which to the Company or its subsidiaries is contingent upon maintaining the confidentiality thereof.

(xxiii) *No Undisclosed Relationships.* No relationship, direct or indirect, exists between or among the Company or any of its subsidiaries, on the one hand, and the directors, officers, stockholders, customers, suppliers or other affiliates of the Company or any of its subsidiaries, on the other, that is required by the Securities Act to be described in each of the Registration Statement and the Prospectus and that is not so described in such documents.

(xxiv) *Investment Company Act.* The Company is not and, immediately after giving effect to the offering and sale of the Shares and the application of the proceeds thereof as described in the Registration Statement and the Prospectus, will not be required to register as an “investment company” or an entity “controlled” by an “investment company” within the meaning of the Investment Company Act of 1940, as amended, and the rules and regulations of the Commission thereunder.

(xxv) *Taxes.* The Company and its subsidiaries have paid all federal, state, local and foreign taxes and filed all tax returns required to be paid or filed, as applicable, through the date hereof (taking into account any duly obtained extensions), except where the failure to file such tax returns or pay such taxes, as applicable, would not reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect; and except as otherwise disclosed in each of the Registration Statement and the Prospectus, there is no tax deficiency that has been, or could reasonably be expected to be, asserted against the Company or any of its subsidiaries except as would not reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect.

(xxvi) *No Taxes or Fees Due Upon Issuance.* No stamp, issue, registration, documentary, transfer or other similar taxes and duties, including interest and penalties, are payable on or in connection with the issuance and sale of the Shares by the Company or the execution and delivery of this Agreement.

(xxvii) *No Immunity.* Neither the Company nor any of its subsidiaries, nor any of their respective properties or assets, has any immunity from the jurisdiction of any court or from any legal process (whether through service or notice, attachment to prior judgment, attachment in aid of execution or otherwise) under the laws of any jurisdiction in which it is organized, headquartered or doing business.

(xxviii) *No Legal, Accounting or Tax Advice.* The Company has not relied upon the Agent or legal counsel for the Agent for any legal, tax or accounting advice in connection with the offering and sale of the Shares.

(xxix) *Licenses and Permits.* The Company and its subsidiaries possess all licenses, sub-licenses, certificates, permits and other authorizations issued by, and have made all declarations and filings with, the appropriate federal, state, local or foreign governmental or regulatory authorities that are necessary for the ownership or lease of their respective properties or the conduct of their respective businesses as described in each of the Registration Statement and the Prospectus, except where the failure to possess or make the same would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect; and except as described in each of the Registration Statement and the Prospectus, neither the Company nor any of its subsidiaries has received notice of any revocation or modification of any such license, sub-license, certificate, permit or authorization or has any reason to believe that any such license, sub-license, certificate, permit or authorization will not be renewed in the ordinary course, except where such revocation; modification or nonrenewal would not, individually or in the aggregate, reasonably be expected to have a Materially Adverse Effect. The Company and its subsidiaries are, and at all times have been, in material compliance with all statutes, rules and regulations applicable to the ownership, testing, development, manufacture, packaging, processing, use, distribution, storage, import, export or disposal of any product manufactured or distributed by the Company or its subsidiaries.



(xxx) *No Labor Disputes.* No labor disturbance by or dispute with employees of the Company or any of its subsidiaries exists or, to the knowledge of the Company, is contemplated or threatened, and the Company is not aware of any existing or imminent labor disturbance by, or dispute with, the employees of any of its or its subsidiaries' principal suppliers, contractors or customers, except as would not reasonably be expected to have a Material Adverse Effect. Neither the Company nor any of its subsidiaries are party to any collective bargaining agreements.

(xxxi) *Certain Environmental Matters and Hazardous Materials.* (i) The Company and its subsidiaries (x) are in compliance with all, and have not violated any, applicable federal, state, local and foreign laws (including common law), rules, regulations, requirements, decisions, judgments, decrees, orders and other legally enforceable requirements relating to pollution or the protection of human health or safety, the environment, natural resources, hazardous or toxic substances or wastes, pollutants or contaminants (collectively, "**Environmental Laws**"); (y) have received and are in compliance with all, and have not violated any, permits, licenses, certificates or other authorizations or approvals required of them under applicable Environmental Laws to conduct their respective businesses; and (z) have not received notice of any actual or potential liability or obligation under or relating to, or any actual or potential violation of, any Environmental Laws, including for the investigation or remediation of any disposal or release of hazardous or toxic substances or wastes, pollutants or contaminants, and have no knowledge of any event or condition that would reasonably be expected to result in any such notice; (ii) there are no costs or liabilities associated with Environmental Laws of or relating to the Company or its subsidiaries, except in the case of each of (i) and (ii) above, for any such matter as would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect; and (iii) except as described in the Prospectus, (x) there is no proceeding that is pending, or that is known by the Company to be contemplated, against the Company or any of its subsidiaries under any applicable Environmental Laws in which a governmental entity is also a party, other than such proceeding regarding which it is reasonably believed no monetary sanctions of \$300,000 or more will be imposed, (y) the Company and its subsidiaries are not aware of any facts or issues regarding compliance with Environmental Laws, or liabilities or other obligations under Environmental Laws or concerning hazardous or toxic substances or wastes, pollutants or contaminants, that would reasonably be expected to have a Material Adverse Effect, and (z) none of the Company or its subsidiaries anticipates material capital expenditures relating to any Environmental Laws. There has been no storage, generation, transportation, use, handling, treatment, Release or threat of Release of Hazardous Materials by, relating to or caused by the Company or the Company's subsidiaries (or, to the knowledge of the Company, any other entity (including any predecessor) for whose acts or omissions the Company or any of the Company's subsidiaries is or would reasonably be expected to be liable) at, on, under or from any property or facility now or previously owned, operated or leased by the Company or the Company's subsidiaries, or to the knowledge of the Company, at, on, under or from any other property or facility, in material violation by the Company or its subsidiaries of any Environmental Laws or in a manner or amount or to a location that would reasonably be expected to result in any material liability to the Company or its subsidiaries under any Environmental Law. "Hazardous Materials" means any material, chemical, substance, waste, pollutant, contaminant, compound, mixture, or constituent thereof, in any form or amount, including petroleum (including crude oil or any fraction thereof) and petroleum products, natural gas liquids, asbestos and asbestos-containing materials, naturally occurring radioactive materials, brine, and drilling mud, regulated or which can give rise to liability under any Environmental Law. "Release" means any spilling, leaking, seepage, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, disposing, depositing, dispersing, or migrating in, into or through the environment, or in, into, from or through any building or structure.

(xxxii) *Compliance with ERISA.* (i) Each employee benefit plan, within the meaning of Section 3(3) of the Employee Retirement Income Security Act of 1974, as amended (“**ERISA**”), provided to employees of the Company working in the United States for which the Company or any member of its “Controlled Group” (defined as any entity, whether or not incorporated, that is under common control with the Company within the meaning of Section 4001(a)(14) of ERISA or any entity that would be regarded as a single employer with the Company under Section 414(b),(c),(m) or (o) of the Code would have any liability (each, a “**Plan**”) has been maintained in compliance with its terms and the requirements of any applicable statutes, orders, rules and regulations, including but not limited to ERISA and the Code; (ii) no prohibited transaction, within the meaning of Section 406 of ERISA or Section 4975 of the Code, has occurred with respect to any Plan, excluding transactions effected pursuant to a statutory or administrative exemption; (iii) for each Plan that is subject to the funding rules of Section 412 of the Code or Section 302 of ERISA, no Plan has failed (whether or not waived), or is reasonably expected to fail, to satisfy the minimum funding standards (within the meaning of Section 302 of ERISA or Section 412 of the Code) applicable to such Plan; (iv) no Plan is, or is reasonably expected to be, in “at risk status” (within the meaning of Section 303(i) of ERISA) and no Plan that is a “multiemployer plan” within the meaning of Section 4001(a)(3) of ERISA is in “endangered status” or “critical status” (within the meaning of Sections 304 and 305 of ERISA) (v) the fair market value of the assets of each Plan that is required to be funded exceeds the present value of all benefits accrued under such Plan (determined based on those assumptions used to fund such Plan); (vi) no “reportable event” (within the meaning of Section 4043(c) of ERISA and the regulations promulgated thereunder) has occurred or is reasonably expected to occur with respect to any Plan; (vii) each Plan that is intended to be qualified under Section 401(a) of the Code is so qualified, and nothing has occurred, to the knowledge of the Company, whether by action or by failure to act, which would reasonably be expected to cause the loss of such qualification; (viii) neither the Company nor any member of the Controlled Group has incurred, nor reasonably expects to incur, any liability under Title IV of ERISA (other than contributions to the Plan or premiums to the Pension Benefit Guarantee Corporation, in the ordinary course and without default) in respect of a Plan (including a “multiemployer plan” within the meaning of Section 4001(a)(3) of ERISA); and (ix) none of the following events has occurred or is reasonably likely to occur: (A) a material increase in the aggregate amount of contributions required to be made to all Plans by the Company or its Controlled Group affiliates in the current fiscal year of the Company and its Controlled Group affiliates compared to the amount of such contributions made in the Company’s and its Controlled Group affiliates’ most recently completed fiscal year; or (B) a material increase in the Company and its subsidiaries’ “accumulated post-retirement benefit obligations” (within the meaning of Accounting Standards Codification Topic 715-60) compared to the amount of such obligations in the Company and its subsidiaries’ most recently completed fiscal year, except in each case with respect to the events or conditions set forth in (i) through (ix) hereof, as would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

(xxxiii) *Disclosure Controls*. The Company and its subsidiaries maintain an effective system of “disclosure controls and procedures” (as defined in Rule 13a-15(e) of the Exchange Act) that complies with the requirements of the Exchange Act and that has been designed to ensure that information required to be disclosed by the Company in reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the Commission’s rules and forms, including controls and procedures designed to ensure that such information is accumulated and communicated to the Company’s management as appropriate to allow timely decisions regarding required disclosure. The Company and its subsidiaries have carried out evaluations of the effectiveness of their disclosure controls and procedures as required by Rule 13a-15 of the Exchange Act.

(xxxiv) *Accounting Controls*. The Company and its subsidiaries maintain systems of “internal control over financial reporting” (as defined in Rule 13a-15(f) of the Exchange Act) that have been designed to comply with the requirements of the Exchange Act applicable to the Company and have been designed by, or under the supervision of, their respective principal executive and principal financial officers, or persons performing similar functions, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with GAAP. The Company and its subsidiaries maintain internal accounting controls designed to provide reasonable assurance that (i) transactions are executed in accordance with management’s general or specific authorizations; (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with GAAP and to maintain asset accountability; (iii) access to assets is permitted only in accordance with management’s general or specific authorization; (iv) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any differences; and (v) the interactive data in eXtensible Business Reporting Language included or incorporated by reference in the Registration Statement and the Prospectus fairly present the information called for in all material respects and are prepared in accordance with the Commission’s rules and guidelines applicable thereto. There are no material weaknesses in the Company’s internal control over financial reporting. The Company’s auditors and the Audit Committee of the Board of Directors of the Company have been advised of: (i) all significant deficiencies and material weaknesses, if any, in the design or operation of internal controls over financial reporting which have adversely affected or are reasonably likely to adversely affect the Company’s ability to record, process, summarize and report financial information; and (ii) any fraud, whether or not material, that involves management or other employees who have a significant role in the Company’s internal controls over financial reporting.

(xxxv) *Critical Accounting Policies*. The section entitled “Critical Accounting Policies” incorporated by reference in the Registration Statement and the Prospectus accurately describes in all material respects (i) the accounting policies that the Company believes are the most important in the portrayal of the Company’s financial condition and results of operations and that require management’s most difficult, subjective or complex judgments (“**Critical Accounting Policies**”); (ii) the judgments and uncertainties affecting the application of Critical Accounting Policies; and (iii) the likelihood that materially different amounts would be reported under different conditions or using different assumptions, and an explanation thereof.

(xxxvi) *Privacy*. Except as would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect, (i) the Company and its subsidiaries have complied with and presently comply with applicable laws and statutes governing data collection, processing, use, protection, privacy, and security (including without limitation, to the extent applicable, the Health Insurance Portability and Accountability Act of 1996, as amended by the Health Information Technology for Economic and Clinical Health Act, the California Consumer Privacy Act and the European Union General Data Protection Regulation), as well as the written internal and external policies and contractual obligations of the Company and/or its subsidiaries that are applicable to data collection, processing, use, protection, privacy, and security (“**Data Security Obligations**”); (ii) neither the Company nor its subsidiaries have received any written notification of or written complaint regarding non-compliance with any Data Security Obligation and (iii) to the knowledge of the Company, there is no pending or threatened, action, suit or proceeding by or before any court or governmental agency, authority or body alleging that the Company or any of its subsidiaries is not compliant with any Data Security Obligation.

(xxxvii) *Insurance*. The Company and its subsidiaries have insurance covering their respective properties, operations, personnel and businesses, including business interruption insurance, which insurance is in amounts and insures against such losses and risks as are generally maintained by similarly situated companies and which the Company believes are reasonably adequate to protect the Company and its subsidiaries and their respective businesses; and neither the Company nor any of its subsidiaries has (i) received notice from any insurer or agent of such insurer that capital improvements or other expenditures are required or necessary to be made in order to continue such insurance or (ii) any reason to believe that it will not be able to renew its existing insurance coverage as and when such coverage expires or to obtain similar coverage at comparable cost from similar insurers as may be necessary to continue its business in all material respects.

(xxxviii) *Cybersecurity; Data Protection.* The Company and its subsidiaries' information technology assets and equipment, computers, systems, networks, hardware, software, websites, applications, and databases (collectively, "**IT Systems**") are adequate for, and operate and perform, in all material respects as required in connection with the operation of the business of the Company and its subsidiaries as currently conducted, and, to the Company's knowledge, are free and clear of all material bugs, errors, defects, Trojan horses, time bombs, malware and other corruptants. The Company and its subsidiaries have implemented and maintained commercially reasonable controls, policies, procedures, and safeguards to maintain and protect their material confidential information and the integrity, continuous operation, redundancy and security of their IT Systems and any data defined as "personal information," "personally identifiable information," "personal data" or other similar protected data or information under applicable law or regulation collected, processed, stored or used by or on behalf of the Company or its subsidiaries in connection with their businesses ("**Personal Data**"). Other than as described in the Registration Statement, to the Company's knowledge, there have been no breaches, violations or unauthorized uses of or access to the IT Systems or Personal Data, except for those that have been remedied without material cost or liability or the duty to notify any other person or entity.

(xxxix) *No Unlawful Payments.* Neither the Company nor any of its subsidiaries nor any director, officer or employee of the Company or any of its subsidiaries, nor, to the knowledge of the Company, any agent, affiliate, representative or other person associated with or acting on behalf of the Company or any of its subsidiaries has (i) used any corporate funds for any unlawful contribution, gift, entertainment or other unlawful expense relating to political activity; (ii) made or taken an act in furtherance of an offer, promise or authorization of any direct or indirect unlawful payment or benefit to any foreign or domestic government official or employee, including of any government-owned or controlled entity or of a public international organization, or any person acting in an official capacity for or on behalf of any of the foregoing, or any political party or party official or candidate for political office; (iii) violated or is in violation of any provision of the Foreign Corrupt Practices Act of 1977, as amended, or any applicable law or regulation implementing the OECD Convention on Combating Bribery of Foreign Public Officials in International Business Transactions, or committed an offence under the Bribery Act 2010 of the United Kingdom or any other applicable anti-bribery or anti-corruption law; or (iv) made, offered, agreed, requested or taken an act in furtherance of any unlawful bribe or other unlawful benefit, including, without limitation, any unlawful rebate, payoff, influence payment, kickback or other unlawful or improper payment or benefit. The Company and its subsidiaries have instituted, maintain and enforce, and will continue to maintain and enforce policies and procedures designed to promote and ensure compliance with all applicable anti-bribery and anti-corruption laws.

(xl) *Compliance with Anti-Money Laundering Laws.* The operations of the Company and its subsidiaries are and have been conducted at all times in compliance with applicable financial recordkeeping and reporting requirements, including those of the Currency and Foreign Transactions Reporting Act of 1970, as amended, the applicable money laundering statutes of all jurisdictions where the Company or any of its subsidiaries conducts business, the rules and regulations thereunder and any related or similar rules, regulations or guidelines issued, administered or enforced by any governmental agency with respect to any jurisdiction where the Company and each of its subsidiaries conduct business (collectively, the “**Anti-Money Laundering Laws**”) and no action, suit or proceeding by or before any court or governmental agency, authority or body or any arbitrator involving the Company or any of its subsidiaries with respect to the Anti-Money Laundering Laws is pending or, to the knowledge of the Company, threatened.

(xli) *No Conflicts with Sanctions Laws.* Neither the Company nor any of its subsidiaries, directors, officers, employees nor, to the knowledge of the Company, any agent, representative, affiliate or other person associated with or acting on behalf of the Company or any of its subsidiaries is currently the subject or the target of any sanctions administered or enforced by the U.S. government, (including, without limitation, the Office of Foreign Assets Control of the U.S. Department of the Treasury or the U.S. Department of State and including, without limitation, the designation as a “specially designated national” or “blocked person”), the United Nations Security Council, the European Union, Her Majesty’s Treasury or other relevant sanctions authority (collectively, “**Sanctions**”), nor is the Company or any of its subsidiaries located, organized or resident in a country or territory that is the subject or target of Sanctions, including, without limitation, the so-called Donetsk People’s Republic, the so-called Luhansk People’s Republic, the Crimea Region of Ukraine, Cuba, Iran, North Korea and Syria (each, a “**Sanctioned Country**”); and the Company will not directly or indirectly use the proceeds of the offering of the Shares hereunder, or lend, contribute or otherwise make available such proceeds to any subsidiary, joint venture partner or other person or entity (i) to fund or facilitate any activities of or business with any person that, at the time of such funding or facilitation, is the subject or target of Sanctions, (ii) to fund or facilitate any activities of or business in any Sanctioned Country or (iii) in any other manner that will result in a violation by any person (including any person participating in the transaction, whether as underwriter, advisor, investor or otherwise) of Sanctions. For the past five years, the Company and its subsidiaries have not knowingly engaged in and are not now knowingly engaged in any dealings or transactions with any person that at the time of the dealing or transaction is or was the subject or the target of Sanctions or with any Sanctioned Country.

(xlii) *No Restrictions on Subsidiaries.* No subsidiary of the Company is currently prohibited, directly or indirectly, under any agreement or other instrument to which it is a party or is subject, from paying any dividends to the Company, from making any other distribution on such subsidiary’s capital stock or similar ownership interest, from repaying to the Company any loans or advances to such subsidiary from the Company or from transferring any of such subsidiary’s properties or assets to the Company or any other subsidiary of the Company.

(xlili) *No Broker's Fees.* Neither the Company nor any of its subsidiaries is a party to any contract, agreement or understanding with any person (other than this Agreement) that would give rise to a valid claim against any of them or any Underwriter for a brokerage commission, finder's fee or like payment in connection with the offering and sale of the Shares.

(xliv) *No Registration Rights.* No person has the right to require the Company or any of its subsidiaries to register any securities for sale under the Securities Act by reason of the filing of the Registration Statement with the Commission or the issuance and sale of the Shares; except for any such rights that have been validly waived.

(xlv) *No Stabilization.* Neither the Company nor any of its subsidiaries or, to the Company's knowledge, affiliates have taken, directly or indirectly, any action designed to or that would reasonably be expected to cause or result in any stabilization or manipulation of the price of the Shares.

(xlvi) *Exchange Act Registration and Listing of the Common Stock.* The shares of Common Stock are registered pursuant to Section 12(b) of the Exchange Act and listed on the Nasdaq Global Select Market; the Company has taken no action designed to, or reasonably likely to have the effect of, terminating the registration of the Common Stock under the Exchange Act or delisting the Common Stock from the Nasdaq Global Select Market, nor has the Company received any notification that the Commission or Nasdaq Global Select Market is contemplating terminating such registration or listing.

(xlvii) *Margin Rules.* Neither the issuance, sale and delivery of the Shares nor the application of the proceeds thereof by the Company as described in each of the Registration Statement and the Prospectus will violate Regulation T, U or X of the Board of Governors of the Federal Reserve System or any other regulation of such Board of Governors.

(xlviii) *Forward-Looking Statements.* No forward-looking statement (within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act) included or incorporated by reference in either the Registration Statement or the Prospectus has been made or reaffirmed without a reasonable basis or has been disclosed other than in good faith.

(xlix) *Statistical and Market Data.* Nothing has come to the attention of the Company that has caused the Company to believe that the statistical and market-related data included or incorporated by reference in each of the Registration Statement and the Prospectus is not based on or derived from sources that are reliable and accurate in all material respects.

(l) *Sarbanes-Oxley Act.* There is and has been no failure on the part of the Company or, to the knowledge of the Company, any of the Company's directors or officers, in their capacities as such, to comply with any applicable provision of the Sarbanes-Oxley Act of 2002, as amended and the rules and regulations promulgated in connection therewith (the "*Sarbanes-Oxley Act*"), including Section 402 related to loans and Sections 302 and 906 related to certifications.

(li) *Status under the Securities Act.* At the time of filing the Registration Statement and any post-effective amendment thereto, at the earliest time thereafter that the Company or any offering participant made a *bona fide* offer (within the meaning of Rule 164(h)(2) under the Securities Act) of the Shares and at the date hereof, the Company was not and is not an “ineligible issuer,” as defined in Rule 405 under the Securities Act. The Company has paid the registration fee for this offering pursuant to Rule 456(b)(1) under the Securities Act or will pay such fee within the time period required by such rule (without giving effect to the proviso therein) and in any event prior to the first Settlement Date.

(lii) *No Ratings.* There are (and prior to each Settlement Date, will be) no debt securities, convertible securities or preferred stock issued or guaranteed by the Company or any of its subsidiaries that are rated by a “nationally recognized statistical rating organization”, as such term is defined in Section 3(a)(62) under the Exchange Act.

(liii) *Regulatory Matters.* The Company has operated and currently is in compliance in all material respects with applicable provisions of the Federal, Food, Drug, and Cosmetic Act (21 U.S.C. § 301 et seq.) and applicable provisions of the regulations promulgated thereunder (the “*FDCA*”).

(liv) *Description of Health Care Laws.* The statements included or incorporated by reference in the Registration Statement and the Prospectus under the caption: “Government Regulation” are true and correct in all material respects; and there are no U.S. Food and Drug Administration (“*FDA*”) rules or regulations, which as of this date are material to the businesses of the Company or the Company’s subsidiaries which are not described in the Registration Statement or the Prospectus.

(lv) *Accuracy of Certain Summaries and Statements.* The statements included or incorporated by reference in the Registration Statement and the Prospectus under the captions “Description of Common Stock and Preferred Stock,” and in the Company’s Annual Report on Form 10-K for the year ended December 31, 2021 under the captions “Legal Proceedings” and “Certain Relationships and Related Transactions, and Director Independence”, insofar as they purport to summarize the provisions of the laws and documents referred to therein, are accurate summaries in all material respects.

(lvi) *Product Manufacturing.* The manufacture of the Company’s products by or, to the knowledge of the Company, on behalf of the Company, is not subject to the FDA’s Quality System Regulation set forth at 21 CFR Part 820, or any similar legal requirement promulgated by governmental authorities in the United Kingdom and the European Union, except where failures to so comply, whether individually or in the aggregate, would not reasonably be expected to have a Material Adverse Effect. The Company has not had any manufacturing site (whether Company-owned or, to the knowledge of the Company, that of a third-party manufacturer for the Company’s products) subject to a governmental authority (including FDA) shutdown or import or export prohibition.



(lvii) *No Integration*. The Company has not sold or issued any securities that would be integrated with the offering of the Shares contemplated by this Agreement pursuant to the Securities Act or the interpretations thereof by the Commission.

(lviii) *Certificate as Representation and Warranty*. Any certificate signed by any officer of the Company and delivered to the Agent or the Agent's counsel in connection with the offering of the Shares shall be deemed a representation and warranty by the Company to the Agent as to the matters covered thereby.

(lix) *eXtensible Business Reporting Language*. The interactive data in eXtensible Business Reporting Language included or incorporated by reference in the Registration Statement fairly presents the information called for in all material respects and has been prepared in accordance with the Commission's rules and guidelines applicable thereto.

## 2. **Purchase, Sale and Delivery of Shares.**

(a) *At-the-Market Sales*. On the basis of the representations, warranties and agreements herein contained, but subject to the terms and conditions herein set forth, the Company agrees to issue and sell through the Agent as sales agent, and the Agent agrees to use its commercially reasonable efforts to sell for and on behalf of the Company, the Shares on the following terms and conditions; *provided, however*, that any obligation of the Agent to use such commercially reasonable efforts shall be subject to the continuing accuracy of the representations and warranties of the Company herein, the performance by the Company of its covenants and obligations hereunder and the continuing satisfaction of the additional conditions specified in Section 4 of this Agreement. The Company acknowledges and agrees that (i) there can be no assurance that the Agent will be successful in selling Shares, and (ii) the Agent will incur no liability or obligation to the Company or any other person or entity if it does not sell Shares for any reason other than a failure by the Agent to use its commercially reasonable efforts consistent with its normal trading and sales practices to sell such Shares as required under this Section 2.

(i) Each time that the Company wishes to issue and sell the Shares hereunder (each, a "**Placement**"), it will notify the Agent by email notice (or other method mutually agreed to in writing by the parties) (a "**Placement Notice**") containing the parameters in accordance with which it desires the Shares to be sold, which shall at a minimum include the number of Shares to be issued, the time period during which sales are requested to be made, any limitation on the number of Shares that may be sold in any one Trading Day (as defined below) and any minimum price below which sales may not be made, a form of which containing such minimum sales parameters necessary is attached hereto as Schedule 1. The Placement Notice shall originate from any of the individuals from the Company set forth on Schedule 2 (with a copy to each of the other individuals from the Company listed on such schedule), and shall be addressed to each of the individuals from the Agent set forth on Schedule 2, as such Schedule 2 may be amended from time to time. The Placement Notice shall be effective upon receipt by the Agent unless and until (i) in accordance with the notice requirements set forth in Section 2(a)(iii) of this Agreement, the Agent declines to accept the terms contained therein for any reason, in its sole discretion, (ii) the entire amount of the Shares have been sold, (iii) the Company suspends or terminates the Placement Notice in accordance with the notice requirements set forth in Section 2(a)(iii) below, (iv) the Company issues a subsequent Placement Notice with parameters superseding those on the earlier dated Placement Notice, or (v) this Agreement has been terminated under the provisions of Section 7. The amount of any commission or other compensation to be paid by the Company to the Agent in connection with the sale of the Shares shall be calculated in accordance with the terms set forth in Section 2(a)(v) below. It is expressly acknowledged and agreed that neither the Company nor the Agent will have any obligation whatsoever with respect to a Placement or any Shares unless and until the Company delivers a Placement Notice to the Agent and the Agent does not decline such Placement Notice pursuant to the terms set forth above, and then only upon the terms specified therein and herein. In the event of a conflict between the terms of this Agreement and the terms of the Placement Notice, the terms of the Placement Notice will control. For the purposes hereof, "**Trading Day**" means any day on which the Company's Common Stock is purchased and sold on the principal market on which the Common Stock is listed or quoted.

(ii) The Shares are to be sold by the Agent on a daily basis or otherwise as shall be agreed to by the Company and the Agent on any day that is a trading day for The Nasdaq Stock Market (other than a day on which The Nasdaq Stock Market is scheduled to close prior to its regular weekday closing time). The gross sales price of the Shares sold under this Section 2(a) shall be the market price for the Company's Common Stock sold by the Agent under this Section 2(a) at the time of such sale.

(iii) Notwithstanding the foregoing, the Company may instruct the Agent by telephone (confirmed promptly by email) not to sell the Shares if such sales cannot be effected at or above the price designated by the Company in any such instruction. Furthermore, the Company shall not authorize the issuance and sale of, and the Agent shall not be obligated to use its commercially reasonable efforts to sell, any Share at a price lower than the minimum price therefor designated from time to time by the Company's Board of Directors (or any committees thereof) and notified to the Agent in writing. In addition, the Company or the Agent may, upon notice to the other party hereto by telephone (confirmed promptly by email), suspend the offering of the Shares, whereupon the Agent shall so suspend the offering of Shares until further notice is provided to the other party to the contrary; *provided, however*, that such suspension or termination shall not affect or impair the parties' respective obligations with respect to the Shares sold hereunder prior to the giving of such notice. Notwithstanding any other provision of this Agreement, during any period in which the Company is in possession of material non-public information, the Company and the Agent agree that (i) no sale of Shares will take place, (ii) the Company shall not request the sale of any Shares, and (iii) the Agent shall not be obligated to sell or offer to sell any Shares.

(iv) Subject to the terms of the Placement Notice, the Agent may sell the Shares by any method permitted by law deemed to be an “at the market offering” as defined in Rule 415(a)(4) under the Securities Act, including sales made directly on or through the Nasdaq Global Select Market. Subject to the terms of any Placement Notice, the Agent may also sell Shares in negotiated transactions at market prices prevailing at the time of sale or at prices related to such prevailing market prices and/or any other method permitted by law, subject to the prior written consent of the Company.

(v) The compensation to the Agent for sales of the Shares, as an agent of the Company, shall be 3.0% of the gross sales price of the Shares sold pursuant to this Section 2(a), payable in cash (the “**Sales Commission**”); *provided that* the combined Sales Commission and reimbursement of the Agent for its out-of-pocket expenses pursuant to Section 3(g), including reasonable fees and disbursements of the Agent’s counsel, shall not exceed 8.0% of the gross sales price of the Shares. The remaining proceeds, after further deduction for any transaction fees imposed by any governmental or self-regulatory organization in respect of such sales, and reimbursement of expenses that the Agent may be entitled to pursuant to Section 3(g), shall constitute the net proceeds to the Company for such Shares (the “**Net Proceeds**”).

(vi) The Agent will provide written confirmation to the Company (including by email correspondence to each of the individuals of the Company set forth on Schedule 2), no later than the opening of the Trading Day immediately following the Trading Day on which it has made sales of Shares hereunder, setting forth the number of Shares sold on such day, the volume-weighted average price of the Shares sold, and the Net Proceeds payable to the Company.

(vii) All Shares sold pursuant to this Section 2(a) will be delivered by the Company to the Agent for the account of the Agent, against payment of the Net Proceeds therefor, by wire transfer of same-day funds payable to the order of the Company at the offices of Piper Sandler & Co., U.S. Bancorp Center, 800 Nicollet Mall, Minneapolis, Minnesota, or such other location as may be mutually acceptable, at 9:00 a.m. Central Time on the second full business day following the date on which such Shares are sold, or at such other time and date as the Agent and the Company determine pursuant to Rule 15c6-1(a) under the Exchange Act, each such time and date of delivery being herein referred to as a “**Settlement Date**.” If the Agent so elects, delivery of the Shares may be made by credit through full fast transfer to an account or accounts at The Depository Trust Company designated by the Agent. On each Settlement Date, the Agent will deliver the Net Proceeds in same day funds to an account designated by the Company on, or prior to, such Settlement Date. The Company agrees that if the Company, or its transfer agent (if applicable), defaults in its obligation to timely deliver duly authorized Shares on a Settlement Date, the Company agrees that in addition to and in no way limiting the rights and obligations set forth in Section 5 hereto, it will (i) hold the Agent harmless against any loss, claim, damage, or expense (including reasonable legal fees and expenses), as incurred, arising out of or in connection with such default by the Company, (ii) reimburse the Agent for any losses incurred by the Agent attributable, directly or indirectly, to such default and (iii) pay to the Agent any commission or other compensation to which the Agent would otherwise have been entitled absent such default.

(b) *Maximum Amount.* Under no circumstances shall the aggregate number or aggregate value of the Shares sold pursuant to this Agreement exceed: (i) the aggregate number and aggregate dollar amount of shares of Common Stock available for issuance and sale under the currently effective Registration Statement (including any limit set forth in General Instruction I.B.6 thereof, if applicable), (ii) the aggregate number of authorized but unissued shares of Common Stock that are available for issuance under the Company's certificate of incorporation or certificate of designation or (iii) the aggregate number or aggregate dollar amount of shares of Common Stock for which the Company has filed any Prospectus and/or any prospectus supplement in connection with the Shares (the lesser of (i), (ii) and (iii), the "**Maximum Amount**").

(c) *No Association or Partnership.* Nothing herein contained shall constitute the Agent as an unincorporated association or partner with the Company.

(d) *Duration.* Under no circumstances shall any Shares be sold pursuant to this Agreement after the date which is three years after the Registration Statement is first declared effective by the Commission.

(e) *Market Transactions by Agent.* The Company acknowledges and agrees that the Agent has informed the Company that the Agent may, to the extent permitted under the Securities Act, the Exchange Act and this Agreement, purchase and sell shares of Common Stock for its own account while this Agreement is in effect, *provided, that* (i) no sale for its own account shall take place while a Placement Notice is in effect (except to the extent the Agent may engage in sales of Shares purchased or deemed purchased from the Company as a "riskless principal" or in a similar capacity) and (ii) the Company shall not be deemed to have authorized or consented to any such purchases or sales by the Agent. The Company consents to the Agent trading in the Common Stock for the account of any of its clients at the same time as sales of the Shares occur pursuant to this Agreement.

**3. Covenants of the Company.** The Company covenants and agrees with the Agent as follows:

(a) *Amendments to Registration Statement and Prospectus.* After the date of this Agreement and during any period in which a Prospectus relating to any Shares is required to be delivered by the Agent under the Securities Act (including in circumstances where such requirement may be satisfied pursuant to Rule 172 under the Securities Act), the Company agrees that it will: (i) notify the Agent promptly of the time when any subsequent amendment to the Registration Statement, other than documents incorporated by reference or amendments not related to the Shares, has been filed with the Commission and/or has become effective or any subsequent supplement to the Prospectus related to the Shares has been filed and of any request by the Commission for any amendment or supplement to the Registration Statement (insofar as it relates to the transactions contemplated hereby) or Prospectus or for additional information; (ii) prepare and file with the Commission, promptly upon the Agent's written request, any amendments or supplements to the Registration Statement or Prospectus that, in the Agent's reasonable opinion, may be necessary or advisable in connection with the sale of the Shares by the Agent (*provided, however, that the failure of the Agent to make such written request shall not relieve the Company of any obligation or liability hereunder, or affect the Agent's right to rely on the representations and warranties made by the Company in this Agreement*); (iii) not file any amendment or supplement to the Registration Statement or Prospectus, other than documents incorporated by reference, relating to the Shares or a security convertible into the Shares unless a copy thereof has been submitted to the Agent within a reasonable period of time before the filing and the Agent has not reasonably objected thereto (*provided, however, that (A) the failure of the Agent to make such objection shall not relieve the Company of any obligation or liability hereunder, or affect the Agent's right to rely on the representations and warranties made by the Company in this Agreement*), (B) the Company has no obligation to provide the Agent any advance copy of such filing or to provide the Agent an opportunity to object to such filing if the filing does not name the Agent or does not relate to a Placement or other transaction contemplated hereunder, and (C) the only remedy that the Agent shall have with respect to the failure by the Company to provide the Agent with such copy or the filing of such amendment or supplement despite the Agent's objection shall be to cease making sales under this Agreement); (iv) furnish to the Agent at the time of filing thereof a copy of any document that upon filing is deemed to be incorporated by reference into the Registration Statement or Prospectus, except for those documents available via EDGAR; and (v) cause each amendment or supplement to the Prospectus, other than documents incorporated by reference, to be filed with the Commission as required pursuant to the applicable paragraph of Rule 424(b) of the Securities Act.

(b) *Stop Order.* The Company will advise the Agent, promptly after it receives notice or obtains knowledge thereof, of the issuance or threatened issuance by the Commission of any stop order suspending the effectiveness of the Registration Statement, of the suspension of the qualification of the Shares for offering or sale in any jurisdiction, or of the initiation or threatening of any proceeding for any such purpose, and it will promptly use its commercially reasonable efforts to prevent the issuance of any stop order or to obtain its withdrawal if such a stop order should be issued.

(c) *Continuing Amendments.* During any period in which a Prospectus relating to the Shares is required to be delivered by the Agent under the Securities Act with respect to any Placement or pending sale of the Shares, (including in circumstances where such requirement may be satisfied pursuant to Rule 172 under the Securities Act), the Company will comply with all requirements imposed upon it by the Securities Act, as from time to time in force, and to file on or before their respective due dates all reports (taking into account any extensions available under the Exchange Act) and any definitive proxy or information statements required to be filed by the Company with the Commission pursuant to Sections 13(a), 13(c), 14, 15(d) or any other provision of or under the Exchange Act. If during such period any event occurs as a result of which the Prospectus as then amended or supplemented would include an untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in the light of the circumstances then existing, not misleading, or if during such period it is necessary to amend or supplement the Registration Statement or Prospectus to comply with the Securities Act, the Company will promptly notify the Agent to suspend the offering of Shares during such period and the Company will promptly amend or supplement the Registration Statement or Prospectus (at the expense of the Company) so as to correct such statement or omission or effect such compliance.

(d) *Qualification of the Shares.* The Company shall take or cause to be taken all necessary action to qualify the Shares for sale under the securities laws of such jurisdictions as the Agent reasonably designates and to continue such qualifications in effect so long as required for the distribution of the Shares, except that the Company shall not be required in connection therewith to qualify as a foreign corporation or to execute a general consent to service of process in any state. The Company shall promptly advise the Agent of the receipt by the Company of any notification with respect to the suspension of the qualification of the Shares for offer or sale in any jurisdiction or the initiation or threatening of any proceeding for such purpose.

(e) *Copies of Registration Statement and Prospectus.* The Company will furnish to the Agent and counsel for the Agent copies of the Registration Statement (which will include three complete manually signed copies of the Registration Statement and all consents and exhibits filed therewith), the Prospectus and all amendments and supplements to such documents, in each case as soon as available and in such quantities as the Agent may from time to time reasonably request; *provided, however*, that the Company shall not be required to furnish any document to the extent such document is available on EDGAR.

(f) *Section 11(a).* The Company will make generally available to its security holders as soon as practicable an earnings statement (which need not be audited) covering a 12-month period that shall satisfy the provisions of Section 11(a) of the Securities Act and Rule 158 promulgated thereunder.

(g) *Expenses.* The Company, whether or not the transactions contemplated hereunder are consummated or this Agreement is terminated, will pay or cause to be paid (i) all expenses (including stock or transfer taxes and stamp or similar duties allocated to the respective transferees) incurred in connection with the registration, issue, sale and delivery of the Shares, (ii) all expenses and fees (including, without limitation, fees and expenses of the Company's accountants and counsel) in connection with the preparation, printing, filing, delivery, and shipping of the Registration Statement (including the financial statements therein and all amendments, schedules, and exhibits thereto), the Shares, the Prospectus and any amendment thereof or supplement thereto, and the producing, word-processing, printing, delivery, and shipping of this Agreement and other underwriting documents or closing documents, including Blue Sky Memoranda (covering the states and other applicable jurisdictions) and including the cost to furnish copies of each thereof to the Agent, (iii) all filing fees, (iv) the reasonable and documented fees and disbursements of the Agent's counsel incurred in connection with the qualification of the Shares for offering and sale by the Agent or by dealers under the securities or blue sky laws of the states and other jurisdictions which the Agent shall designate, (v) the fees and expenses of any transfer agent or registrar, (vi) the filing fees and reasonable and documented fees and disbursements of the Agent's counsel incident to any required review and approval by FINRA of the terms of the sale of the Shares, (vii) listing fees, if any, (viii) the cost and expenses of the Company relating to investor presentations or any "roadshow" undertaken in connection with marketing of the Shares, and (ix) all other reasonable costs and expenses incident to the performance of its obligations hereunder that are not otherwise specifically provided for herein. In addition to (iv) and (vi) above, the Company shall reimburse the Agent for its out-of-pocket expenses, including reasonable and documented fees and disbursements of the Agent's counsel of up to (a) \$75,000 in connection with the preparation, execution and filing of this Agreement, the Registration Statement and the Prospectus and (b) \$15,000 in connection with each Representation Date on which a Representation Certificate is delivered by the Company pursuant to Section 3(q) below.

(h) *Use of Proceeds.* The Company will apply the net proceeds from the sale of the Shares in the manner described in the Prospectus under the heading “Use of Proceeds”.

(i) *Restrictions on Future Sales.* During the term of this Agreement, the Company will not, offer for sale, sell, contract to sell, pledge, grant any option for the sale of, enter into any transaction which is designed to, or might reasonably be expected to, result in the disposition of Common Stock (whether by actual disposition or effective economic disposition due to cash settlement or otherwise) by the Company or any affiliate, or otherwise issue or dispose of, directly or indirectly (or publicly disclose the intention to make any such offer, sale, pledge, grant, issuance or other disposition), any Common Stock or any securities convertible into or exchangeable for, or any options or rights to purchase or acquire, Common Stock, or permit the registration under the Securities Act of any Common Stock, such securities, options or rights, except for: (i) the registration of the Shares and the sales through the Agent pursuant to this Agreement, (ii) sales of shares through any dividend reinvestment and stock purchase plan of the Company, (iii) sales of shares of restricted stock, restricted stock units and options granted pursuant to employee benefit plans existing as of the date hereof, and the Common Stock issuable upon the exercise of such outstanding options or vesting of such restricted stock units, and (iv) the issuance of shares pursuant to the exercise of warrants, in the case of each of (ii), (iii) and (iv), without giving the Agent at least three business days’ prior written notice specifying the nature of the proposed sale and the date of such proposed sale, so as to permit the Agent to suspend activity under this Agreement for such period of time as requested by the Company.

(j) *No Stabilization or Manipulation.* The Company has not taken and will not take, directly or indirectly, any action designed to, or which might reasonably be expected to cause or result in, or which constitutes: (i) the stabilization or manipulation of the price of the Common Stock or any other security of the Company to facilitate the sale or resale of the Shares, (ii) a violation of Regulation M. The Company shall notify the Agent of any violation of Regulation M by the Company or any of its subsidiaries or any of their respective officers or directors promptly after the Company has received notice or obtained knowledge of any such violation. The Company shall not invest in futures contracts, options on futures contracts or options on commodities, unless the Company is exempt from the registration requirements of the Commodity Exchange Act, as amended (the “**Commodity Act**”), or otherwise complies with the Commodity Act. The Company will not engage in any activities bearing on the Commodity Act, unless such activities are exempt from the Commodity Act or otherwise comply with the Commodity Act.

(k) *No Other Broker.* The Company will not incur any liability for any finder’s or broker’s fee or agent’s commission in connection with the execution and delivery of this Agreement, or the consummation of the transactions contemplated hereby.

(l) *Timely Securities Act and Exchange Act Reports.* During any prospectus delivery period, the Company will use its commercially reasonable efforts to file on a timely basis with the Commission such periodic and special reports as required by the Securities Act and the Exchange Act.

(m) *Internal Controls.* The Company and its subsidiaries will maintain such controls and other procedures, including without limitation, those required by Sections 302 and 906 of the Sarbanes-Oxley Act and the applicable regulations thereunder, that are designed to ensure that information required to be disclosed by the Company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the Commission's rules and forms, including without limitation, controls and procedures designed to ensure that information required to be disclosed by the Company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the Company's management, including its principal executive officer and its principal financial officer, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure, to ensure that material information relating to Company, including its subsidiaries, is made known to them by others within those entities.

(n) *Permitted Free Writing Prospectus.* The Company represents and agrees that, unless it obtains the prior written consent of the Agent, and the Agent severally represents and agrees that, unless it obtains the prior written consent of the Company, it has not made and will not make any offer relating to the Shares that would constitute an "issuer free writing prospectus," as defined in Rule 433 under the Securities Act, or that would otherwise constitute a "free writing prospectus," as defined in Rule 405 under the Securities Act, required to be filed with the Commission. Any such free writing prospectus consented to by the Company and the Agent is hereinafter referred to as a "**Permitted Free Writing Prospectus.**" The Company represents that it has treated or agrees that it will treat each Permitted Free Writing Prospectus as an "issuer free writing prospectus," as defined in Rule 433, and has complied and will comply with the requirements of Rule 433 applicable to any Permitted Free Writing Prospectus, including timely Commission filing where required, legending and record keeping.

(o) *Representation Date and Opinions of Counsel.* Prior to the date of the first Placement Notice, and thereafter during the term of this Agreement, each time the Company (A) files an amendment to the Registration Statement or Prospectus (other than relating solely to the offering of securities other than the Shares), (B) files an annual report on Form 10-K under the Exchange Act or files its quarterly reports on Form 10-Q under the Exchange Act; and (C) files a report on Form 8-K containing amended financial statements (other than an earnings release) under the Exchange Act, (each of the dates in (A), (B) and (C) are referred to herein as a "**Representation Date**"), the Company shall cause:

(i) DLA Piper LLP (US), counsel for the Company, to furnish to the Agent the opinion and negative assurance letter of such counsel, dated as of such date and addressed to the Agent, in form and substance reasonably satisfactory to the Agent; provided however, only a negative assurance letter of such counsel shall be required for each subsequent Representation Date.

(ii) Wilson Sonsini Goodrich & Rosati, P.C. and Fish & Richardson P.C., each intellectual property and patent counsel for the Company, to furnish to the Agent the opinion of such counsel, dated as of such date and addressed to the Agent, in form and substance reasonably satisfactory to the Agent; provided however, the opinion of counsel shall only be required for the first Settlement Date.



Notwithstanding the foregoing, the requirement to provide counsel opinions under this Section 3(o) shall be waived for any Representation Date occurring at a time at which no Placement Notice is pending, which waiver shall continue until the date the Company delivers a Placement Notice to the Agent. Notwithstanding the foregoing, if the Company subsequently decides to sell Shares following a Representation Date when the Company relied on such waiver and did not provide the Agent with opinions under this Section 3(o), then before the Agent sells any Shares pursuant to Section 2(a), the Company shall cause the opinions (including the opinion pursuant to Section 3(o) if not delivered on the date of the prior Form 10-K), comfort letter, certificates and documents that would be delivered on a Representation Date to be delivered.

(p) *Representation Date and Comfort Letter.* Prior to the date of the first Placement Notice and thereafter during the term of this Agreement, on each Representation Date to which a waiver does not apply, the Company shall cause RSM US LLP, or other independent accountants satisfactory to the Agent (the “**Accountants**”), to deliver to the Agent a letter, dated as of such date and addressed to the Agent, confirming that they are independent public accountants within the meaning of the Securities Act and are in compliance with the applicable requirements relating to the qualifications of accountants under Rule 2-01 of Regulation S-X of the Commission, and stating the conclusions and findings of said firm with respect to the financial information and other matters covered by its letter in form and substance satisfactory to the Agent of the same tenor as the first such letter received hereunder.

(q) *Representation Date and Representation Certificate.* Prior to the date of the First Placement Notice and thereafter during the term of this Agreement, on each Representation Date to which a waiver does not apply, the Company shall furnish to the Agent a certificate (the “**Representation Certificate**”), substantially in the form of Schedule 3 hereto and dated as of such date, addressed to the Agent and signed by the chief executive officer and by the chief financial officer of the Company.

(r) *Disclosure of Shares Sold.* The Company shall disclose in its quarterly reports on Form 10-Q and in its annual report on Form 10-K the number of the Shares sold through the Agent under this Agreement, the net proceeds to the Company and the compensation paid by the Company with respect to sales of the Shares pursuant to this Agreement during the relevant quarter.

(s) *Continued Listing of Shares.* The Company shall use its commercially reasonable efforts to maintain the listing of the Common Stock on the Nasdaq Global Select Market.

(t) *Notice of Changes.* At any time prior to tendering a Placement Notice for a sale of Shares hereunder, as supplemented from time to time, the Company shall advise the Agent as soon as practicable after it shall have received notice or obtain knowledge thereof, of any information or fact that would alter or affect in any material respect any opinion, certificate, letter and other document provided to the Agent pursuant to this Section 3.

(u) *Maximum Amount.* The Company will not instruct the Agent to sell or otherwise attempt to sell Shares pursuant to this Agreement in excess of the Maximum Amount.

**4. Conditions of Agent's Obligations.** The obligations of the Agent hereunder are subject to (i) the accuracy, as of the date of this Agreement, each Representation Date, each Notice Date, each Applicable Time, and each Settlement Date (in each case, as if made at such date) of and compliance with all representations, warranties and agreements of the Company contained herein, (ii) the performance by the Company of its obligations hereunder and (iii) the following additional conditions:

(a) *Continuing Amendments; No Stop Order.* If filing of the Prospectus, or any amendment or supplement thereto, or any Permitted Free Writing Prospectus, is required under the Securities Act, the Company shall have filed the Prospectus (or such amendment or supplement) or such Permitted Free Writing Prospectus with the Commission in the manner and within the time period so required (without reliance on Rule 424(b)(8) or Rule 164(b) under the Securities Act); the Registration Statement shall be effective; no stop order suspending the effectiveness of the Registration Statement or any part thereof, any registration statement filed pursuant to Rule 462(b) under the Securities Act, or any amendment thereof, nor suspending or preventing the use of the Prospectus shall have been issued; no proceedings for the issuance of such an order shall have been initiated or threatened; and any request of the Commission for additional information (to be included in the Registration Statement, the Prospectus or otherwise) shall have been complied with to the Agent's reasonable satisfaction.

(b) *Absence of Certain Events.* None of the following events shall have occurred and be continuing: (i) receipt by the Company or any of its subsidiaries of any request for additional information from the Commission or any other federal or state governmental authority during the period of effectiveness of the Registration Statement, the response to which would require any post-effective amendments or supplements to the Registration Statement or the Prospectus; (ii) the issuance by the Commission or any other federal or state governmental authority of any stop order suspending the effectiveness of the Registration Statement or the initiation of any proceedings for that purpose; (iii) receipt by the Company of any notification with respect to the suspension of the qualification or exemption from qualification of any of the Shares for sale in any jurisdiction or the initiation or threatening of any proceeding for such purpose; (iv) the occurrence of any event that makes any material statement made in the Registration Statement or the Prospectus or any material document incorporated or deemed to be incorporated therein by reference untrue in any material respect or that requires the making of any changes in the Registration Statement, related Prospectus or such documents so that, in the case of the Registration Statement, it will not contain any materially untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein not misleading and, that in the case of the Prospectus, it will not contain any materially untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading

(c) *No Material Misstatement or Omission.* The Agent shall not have advised the Company that the Registration Statement or any the Prospectus, contains an untrue statement of fact which, in the Agent's opinion, is material, or omits to state a fact which, in the Agent's opinion, is material and is required to be stated therein or necessary to make the statements therein not misleading.

(d) *No Adverse Changes.* Except as contemplated in the Prospectus, subsequent to the respective dates as of which information is given in the Prospectus, neither the Company nor any of its subsidiaries shall have incurred any material liabilities or obligations, direct or contingent, or entered into any material transactions, or declared or paid any dividends or made any distribution of any kind with respect to its capital stock; and there shall not have been any change in the capital stock (other than a change in the number of outstanding shares of Common Stock due to the issuance of shares of Common Stock upon the exercise of outstanding options or warrants), or any material change in the short-term or long-term debt of the Company, or any issuance of options, warrants, convertible securities or other rights to purchase the capital stock of the Company or any of its subsidiaries, or any development involving a prospective Material Adverse Effect (whether or not arising in the ordinary course of business), or any loss by strike, fire, flood, earthquake, accident or other calamity, whether or not covered by insurance, incurred by the Company or any of its subsidiaries, the effect of which, in any such case described above, in the Agent's judgment, makes it impractical or inadvisable to offer or deliver the Shares on the terms and in the manner contemplated in the Prospectus.

(e) *No Rating Downgrade.* On or after each Applicable Time (i) no downgrading shall have occurred in the rating accorded any of the Company's securities by any "nationally recognized statistical organization," as that term is defined by the Commission for purposes of Rule 436(g)(2) under the Securities Act, and (ii) no such organization shall have publicly announced that it has under surveillance or review, with possible negative implications, its rating of any of the Company's securities.

(f) *Compliance with Certain Obligations.* The Company shall have performed each of its obligations under Section 3(o) – 3(q).

(g) *Opinion of Agent Counsel.* On each Representation Date to which a waiver does not apply, there shall have been furnished to the Agent the opinion and negative assurance letter of Davis Polk & Wardwell LLP, counsel for the Agent, dated as of such Representation Date and addressed to the Agent, in a form reasonably satisfactory to the Agent, and such counsel shall have received such papers and information as they request to enable them to pass upon such matters; provided however, the opinion of Davis Polk & Wardwell LLP shall only be required prior to the first Placement Notice, and thereafter, only a negative assurance letter of such counsel shall be required for each subsequent Representation Date.

(h) *Representation Certificate.* On or prior to the first Placement Notice, the Agent shall have received the Representation Certificate in form and substance satisfactory to the Agent and its counsel.

(i) *No Objection by FINRA*. FINRA shall have raised no objection to the fairness and reasonableness of the underwriting terms and arrangements.

(j) *Timely Filing of Prospectus and Any Prospectus Supplement*. All filings with the Commission required by Rule 424 under the Securities Act to have been filed by the Settlement Date, as the case may be, shall have been made within the applicable time period prescribed for such filing by Rule 424 under the Securities Act.

(k) *Additional Documents and Certificates*. The Company shall have furnished to the Agent and the Agent's counsel such additional documents, certificates and evidence as they may have reasonably requested.

All opinions, certificates, letters and other documents described in this Section 4 will be in compliance with the provisions hereof only if they are reasonably satisfactory in form and substance to the Agent and the Agent's counsel. The Company will furnish the Agent with such conformed copies of such opinions, certificates, letters and other documents as the Agent shall reasonably request.

#### **5. Indemnification and Contribution.**

(a) *Company Indemnification*. The Company agrees to indemnify and hold harmless the Agent, its affiliates, directors, officers and employees, and each person, if any, who controls the Agent within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act against any losses, claims, damages or liabilities, joint or several, to which the Agent may become subject, under the Securities Act or otherwise (including in settlement of any litigation), insofar as such losses, claims, damages or liabilities (or actions in respect thereof) arise out of or are based upon, in whole or in part:

(i) an untrue statement or alleged untrue statement of a material fact contained in the Registration Statement, including the Rule 430B Information (as defined below) and at any subsequent time pursuant to Rules 430A and 430B promulgated under the Securities Act, and any other information deemed to be part of the Registration Statement at the time of effectiveness, and at any subsequent time pursuant to the Securities Act or the Exchange Act, and the Prospectus, or any amendment or supplement thereto (including any documents filed under the Exchange Act and deemed to be incorporated by reference into the Prospectus), any Permitted Free Writing Prospectus, or any roadshow as defined in Rule 433(h) under the Securities Act (a "**road show**"), or an omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading,

(ii) any inaccuracy in the representations and warranties of the Company contained herein;

(iii) any investigation or proceeding by any governmental authority, commenced or threatened (whether or not the Agent is a target of or party to such investigation or proceeding);

(iv) any failure of the Company to perform its respective obligations hereunder or under law;

and will reimburse the Agent for any legal or other expenses reasonably incurred by it in connection with investigating or defending against such loss, claim, damage, liability or action; *provided, however*, that the Company shall not be liable in any such case of (i) through (iv) to the extent that any such loss, claim, damage, liability or action arises out of or is based upon an untrue statement or alleged untrue statement or omission or alleged omission made in the Registration Statement, the Prospectus, or any such amendment or supplement, in reliance upon and in conformity with written information furnished to the Company by the Agent specifically for use in the preparation thereof. “**Rule 430B Information**,” as used herein, means information with respect to the Shares and the offering thereof permitted to be omitted from the Registration Statement when it becomes effective pursuant to Rule 430B.

In addition to its other obligations under this Section 5(a), the Company agrees that, as an interim measure during the pendency of any claim, action, investigation, inquiry or other proceeding arising out of or based upon any statement or omission, or any alleged statement or omission, described in this Section 5(a), it will reimburse the Agent on a monthly basis for all reasonable legal fees or other expenses incurred in connection with investigating or defending any such claim, action, investigation, inquiry or other proceeding, notwithstanding the absence of a judicial determination as to the propriety and enforceability of the Company’s obligation to reimburse the Agent for such expenses and the possibility that such payments might later be held to have been improper by a court of competent jurisdiction. Any such interim reimbursement payments which are not made to the Agent within 30 days of a request for reimbursement shall bear interest at the WSJ Prime Rate (as published from time to time by the Wall Street Journal).

(b) *Agent Indemnification.* The Agent will indemnify and hold harmless the Company against any losses, claims, damages or liabilities to which the Company may become subject, under the Securities Act or otherwise (including in settlement of any litigation, if such settlement is effected with the written consent of the Agent), but only insofar as such losses, claims, damages or liabilities (or actions in respect thereof) arise out of or are based upon an untrue statement or alleged untrue statement of a material fact contained in the Registration Statement, the Prospectus, any amendment or supplement thereto, or arise out of or are based upon the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, in each case to the extent, but only to the extent, that such untrue statement or alleged untrue statement or omission or alleged omission was made in conformity with written information furnished to the Company by the Agent specifically for use in the preparation thereof, it being understood and agreed that the only information furnished by the Agent for use in the Registration Statement or the Prospectus consists of the statements set forth in the ninth paragraph under the caption “Plan of Distribution” in the Prospectus, and will reimburse the Company for any legal or other expenses reasonably incurred by the Company in connection with investigating or defending against any such loss, claim, damage, liability or action.

(c) *Notice and Procedures.* Promptly after receipt by an indemnified party under subsection (a) or (b) above of notice of the commencement of any action, such indemnified party shall, if a claim in respect thereof is to be made against the indemnifying party under such subsection, notify the indemnifying party in writing of the commencement thereof; but the omission so to notify the indemnifying party shall not relieve the indemnifying party from any liability that it may have to any indemnified party except to the extent such indemnifying party has been materially prejudiced by such failure. In case any such action shall be brought against any indemnified party, and it shall notify the indemnifying party of the commencement thereof, the indemnifying party shall be entitled to participate in, and, to the extent that it shall wish, jointly with any other indemnifying party similarly notified, to assume the defense thereof, with counsel reasonably satisfactory to such indemnified party, and after notice from the indemnifying party to such indemnified party of the indemnifying party's election so to assume the defense thereof, the indemnifying party shall not be liable to such indemnified party under such subsection for any legal or other expenses subsequently incurred by such indemnified party in connection with the defense thereof other than reasonable costs of investigation; *provided, however*, that if, in the sole judgment of the Agent, it is advisable for the Agent to be represented by separate counsel, the Agent shall have the right to employ a single counsel to represent the Agent, in which event the reasonable fees and expenses of such separate counsel shall be borne by the indemnifying party or parties and reimbursed to the Agent as incurred (in accordance with the provisions of the second paragraph in subsection (a) above).

The indemnifying party under this Section 5 shall not be liable for any settlement of any proceeding effected without its written consent, but if settled with such consent or if there be a final judgment for the plaintiff, the indemnifying party agrees to indemnify the indemnified party against any loss, claim, damage, liability or expense by reason of such settlement or judgment. Notwithstanding the foregoing sentence, if at any time an indemnified party shall have requested an indemnifying party to reimburse the indemnified party for fees and expenses of counsel as contemplated by this Section 5, the indemnifying party agrees that it shall be liable for any settlement of any proceeding effected without its written consent if (i) such settlement is entered into more than 30 days after receipt by such indemnifying party of the aforesaid request, (ii) such indemnifying party shall have received notice of the terms of such settlement at least 30 days prior to such settlement being entered into, and (iii) such indemnifying party shall not have reimbursed the indemnified party in accordance with such request prior to the date of such settlement. No indemnifying party shall, without the prior written consent of the indemnified party, effect any settlement, compromise or consent to the entry of judgment in any pending or threatened action, suit or proceeding in respect of which any indemnified party is or could have been a party and indemnity was or could have been sought hereunder by such indemnified party, unless such settlement, compromise or consent (a) includes an unconditional release of such indemnified party from all liability on claims that are the subject matter of such action, suit or proceeding and (b) does not include a statement as to or an admission of fault, culpability or a failure to act by or on behalf of any indemnified party.

(d) *Contribution; Limitations on Liability; Non-Exclusive Remedy.* If the indemnification provided for in this Section 5 is unavailable or insufficient to hold harmless an indemnified party under subsection (a) or (b) above, then each indemnifying party shall contribute to the amount paid or payable by such indemnified party as a result of the losses, claims, damages or liabilities referred to in subsection (a) or (b) above, (i) in such proportion as is appropriate to reflect the relative benefits received by the Company on the one hand and the Agent on the other from the offering of the Shares, or (ii) if the allocation provided by clause (i) above is not permitted by applicable law, in such proportion as is appropriate to reflect not only the relative benefits referred to in clause (i) above but also the relative fault of the Company on the one hand and the Agent on the other in connection with the statements or omissions that resulted in such losses, claims, damages or liabilities, as well as any other relevant equitable considerations. The relative benefits received by the Company on the one hand and the Agent on the other shall be deemed to be in the same proportion as the total net proceeds from the offering (before deducting expenses) received by the Company bear to the total commissions received by the Agent (before deducting expenses) from the sale of the Shares. The relative fault shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission or alleged omission to state a material fact relates to information supplied by the Company or the Agent, the intent of the parties and their relative knowledge, access to information and opportunity to correct or prevent such untrue statement or omission. The Company and the Agent agree that it would not be just and equitable if contributions pursuant to this subsection (d) were to be determined by pro rata allocation or by any other method of allocation which does not take account of the equitable considerations referred to in this subsection (d). The amount paid or payable by an indemnified party as a result of the losses, claims, damages or liabilities referred to in this subsection (d) shall be deemed to include any legal or other expenses reasonably incurred by such indemnified party in connection with investigating or defending against any action or claim which is the subject of this subsection (d). Notwithstanding the provisions of this subsection (d), the Agent shall not be required to contribute any amount in excess of the commissions received by it under this Agreement. No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation.

**6. Representations and Agreements to Survive Delivery.** All representations, warranties, and agreements of the Company herein or in certificates delivered pursuant hereto, including but not limited to the agreements of the Agent and the Company contained in Section 5 hereof, shall remain operative and in full force and effect regardless of any investigation made by or on behalf of the Agent or any controlling person thereof, or the Company or any of its officers, directors, or controlling persons, and shall survive delivery of, and payment for, the Shares to and by the Agent hereunder.

**7. Termination of this Agreement.**

(a) The Company shall have the right, by giving ten (10) days' written notice as hereinafter specified, to terminate the provisions of this Agreement relating to the solicitation of offers to purchase the Shares in its sole discretion at any time. Any such termination shall be without liability of any party to any other party except that (i) with respect to any pending sale, through the Agent for the Company, the obligations of the Company, including in respect of compensation of the Agent, shall remain in full force and effect notwithstanding the termination and (ii) the provisions of Section 3(g), Section 5 and Section 6 of this Agreement shall remain in full force and effect notwithstanding such termination.

(b) The Agent shall have the right, by giving written notice as hereinafter specified, to terminate the provisions of this Agreement relating to the solicitation of offers to purchase the Shares in its sole discretion at any time. Any such termination shall be without liability of any party to any other party except that the provisions of Section 3(g), Section 5 and Section 6 of this Agreement shall remain in full force and effect notwithstanding such termination.

(c) Unless earlier terminated pursuant to this Section 7, this Agreement shall automatically terminate upon the earlier to occur of the issuance and sale of all of the Shares through the Agent on the terms and subject to the conditions set forth herein, except that the provisions of Section 3(g), Section 5 and Section 6 of this Agreement shall remain in full force and effect notwithstanding such termination.

(d) This Agreement shall remain in full force and effect unless terminated pursuant to Sections 7(a), (b) or (c) above or otherwise by mutual agreement of the parties; provided that any such termination by mutual agreement shall in all cases be deemed to provide that Section 3(g), Section 5 and Section 6 shall remain in full force and effect.

(e) Any termination of this Agreement shall be effective on the date specified in such notice of termination; provided that such termination shall not be effective until the close of business on the date of receipt of such notice by the Agent or the Company, as the case may be. If such termination shall occur prior to the Settlement Date for any sale of the Shares, such sale shall settle in accordance with the provisions of Section 2(a)(vii) of this Agreement.

**8. Default by the Company.** If the Company shall fail at any Settlement Date to sell and deliver the number of Shares which it is obligated to sell hereunder, then this Agreement shall terminate without any liability on the part of the Agent or, except as provided in Section 3(g) hereof, any non-defaulting party. No action taken pursuant to this Section shall relieve the Company from liability, if any, in respect of such default, and the Company shall (A) hold the Agent harmless against any loss, claim or damage arising from or as a result of such default by the Company and (B) pay the Agent any commission to which it would otherwise be entitled absent such default.

**9. Notices.** Except as otherwise provided herein, all communications under this Agreement shall be in writing and, if to the Agent, shall be delivered via overnight delivery services to (i) Piper Sandler & Co., U.S. Bancorp Center, 800 Nicollet Mall, Minneapolis, Minnesota 55402, Attention: Equity Capital Markets, with a copy to Piper Sandler General Counsel at 800 Nicollet Mall, Minneapolis, MN 55402 and LegalCapMarkets@pjc.com; and (ii) the Company at 100 Campus Drive, 6th Floor, Marlborough, MA 01752, Attention: Brian McKelligon, with a copy to DLA Piper LLP (US), 4365 Executive Drive, Suite 1100, San Diego, CA, 92121-2133, Attention: Michael S. Kagnoff and Patrick O'Malley; or in each case to such other address as the person to be notified may have requested in writing. Any party to this Agreement may change such address for notices by sending to the parties to this Agreement written notice of a new address for such purpose.

**10. Persons Entitled to Benefit of Agreement.** This Agreement shall inure to the benefit of and be binding upon the parties hereto and their respective successors and assigns and the controlling persons, officers and directors referred to in Section 5. Nothing in this Agreement is intended or shall be construed to give to any other person, firm or corporation any legal or equitable remedy or claim under or in respect of this Agreement or any provision herein contained. The term "successors and assigns" as herein used shall not include any purchaser, as such purchaser, of any of the Shares from the Agent.



**11. Absence of Fiduciary Relationship.** The Company, having been advised by counsel, acknowledges and agrees that: (a) the Agent has been retained solely to act as a sales agent in connection with the sale of the Shares and that no fiduciary, advisory or agency relationship between the Company (including any of the Company's affiliates (including directors), equity holders, creditors, employees or agents, hereafter, "**Company Representatives**"), on the one hand, and the Agent on the other, has been created or will be created in respect of any of the transactions contemplated by this Agreement, irrespective of whether the Agent has advised or is advising the Company on other matters and irrespective of the use of the defined term "Agent;" (b) neither the Agent nor any of its affiliates (including directors), equity holders, creditors, employees or agents, hereafter, "**Agent Representatives**") shall have any duty or obligation to the Company or any Company Representative except as set forth in this Agreement; (c) the price and other terms of any Placement executed pursuant to this Agreement, as well as the terms of this Agreement, are deemed acceptable to the Company and its counsel, following discussions and arms-length negotiations with the Agent; (d) the Company is capable of evaluating and understanding, and in fact has evaluated, understands and accepts the terms, risks and conditions of any Placement Notice to be executed pursuant to this Agreement, and any other transactions contemplated by this Agreement; (e) the Company has been advised that the Agent and the Agent Representatives are engaged in a broad range of transactions which may involve interests that differ from those of the Company and that the Agent and the Agent Representatives have no obligation to disclose any such interests and transactions to the Company by virtue of any fiduciary, advisory or agency relationship, or otherwise; (f) the Company has been advised that the Agent is acting, in respect of any Placement and the transactions contemplated by this Agreement, solely for the benefit of the Agent, and not on behalf of the Company; and (g) the Company and the Company Representatives waive, to the fullest extent permitted by law, any claims that they may have against the Agent or any of the Agent Representatives for breach of fiduciary duty or alleged breach of fiduciary duty in respect of any Placement or any of the transactions contemplated by this Agreement and agree that the Agent and the Agent Representatives shall have no liability (whether direct or indirect, in contract, tort or otherwise) to the Company or any of the Company Representatives in respect of any person asserting any claim of breach of any fiduciary duty on behalf of or in right of the Company or any of the Company Representatives.

**12. Recognition of the U.S. Special Resolution Regimes.**

(a) In the event that any Underwriter that is a Covered Entity becomes subject to a proceeding under a U.S. Special Resolution Regime, the transfer from such Underwriter of this Agreement, and any interest and obligation in or under this Agreement, will be effective to the same extent as the transfer would be effective under the U.S. Special Resolution Regime if this Agreement, and any such interest and obligation, were governed by the laws of the United States or a state of the United States.

(b) In the event that any Underwriter that is a Covered Entity or a BHC Act Affiliate of such Underwriter becomes subject to a proceeding under a U.S. Special Resolution Regime, Default Rights under this Agreement that may be exercised against such Underwriter are permitted to be exercised to no greater extent than such Default Rights could be exercised under the U.S. Special Resolution Regime if this Agreement were governed by the laws of the United States or a state of the United States.

(c) As used in this section:

“**BHC Act Affiliate**” has the meaning assigned to the term “affiliate” in, and shall be interpreted in accordance with, 12 U.S.C. § 1841(k);

“**Covered Entity**” means any of the following: (i) a “covered entity” as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 252.82(b); (ii) a “covered bank” as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 47.3(b); or (iii) a “covered FSI” as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 382.2(b);

“**Default Right**” has the meaning assigned to that term in, and shall be interpreted in accordance with, 12 C.F.R. §§ 252.81, 47.2 or 382.1, as applicable; and

“**U.S. Special Resolution Regime**” means each of (i) the Federal Deposit Insurance Act and the regulations promulgated thereunder and (ii) Title II of the Dodd-Frank Wall Street Reform and Consumer Protection Act and the regulations promulgated thereunder.

**13. Governing Law and Waiver of Jury Trial.** This Agreement and any transaction contemplated by this Agreement and any claim, controversy or dispute arising under or related thereto shall be governed by and construed in accordance with the laws of the State of New York without regard to principles of conflict of laws that would result in the application of any other law than the laws of the State of New York. THE COMPANY (ON ITS OWN BEHALF AND ON BEHALF OF ITS STOCKHOLDERS AND AFFILIATES) HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY LEGAL PROCEEDING ARISING OUT OF OR RELATING TO THIS AGREEMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY.

**14. Submission to Jurisdiction, Etc.** Each party hereby submits to the exclusive jurisdiction of the U.S. federal and New York state courts sitting in the Borough of Manhattan, City of New York, in any suit or proceeding arising out of or relating to this Agreement or the transactions contemplated hereby. The parties hereby irrevocably and unconditionally waive any objection to the laying of venue of any lawsuit, action or other proceeding in such courts, and hereby further irrevocably and unconditionally waive and agree not to plead or claim in any such court that any such lawsuit, action or other proceeding brought in any such court has been brought in an inconvenient forum.

**15. Counterparts.** This Agreement may be executed in counterparts, each of which shall be deemed an original, and all of which together shall constitute one and the same instrument. Counterparts may be delivered via facsimile or electronic mail (including, without limitation, “pdf”, “tif” or “jpg”) and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes. The words “execution,” “signed,” “signature,” “delivery,” and words of like import in or relating to this Agreement or any document to be signed in connection with this Agreement shall be deemed to include electronic signatures, deliveries or the keeping of records in electronic form, each of which shall be of the same legal effect, validity or enforceability as a manually executed signature, physical delivery thereof or the use of a paper-based recordkeeping system, as the case may be, and the parties hereto consent to conduct the transactions contemplated hereunder by electronic means. The headings of the sections of this Agreement have been inserted for convenience of reference only and shall not be deemed a part of this Agreement.

**16. Construction.** The section and exhibit headings herein are for convenience only and shall not affect the construction hereof. References herein to any law, statute, ordinance, code, regulation, rule or other requirement of any governmental authority shall be deemed to refer to such law, statute, ordinance, code, regulation, rule or other requirement of any governmental authority as amended, reenacted, supplemented or superseded in whole or in part and in effect from time to time and also to all rules and regulations promulgated thereunder. This Agreement constitutes the entire agreement of the parties to this Agreement and supersedes all prior written or oral and all contemporaneous oral agreements, understandings and negotiations with respect to the subject matter hereof. This Agreement may not be amended or modified unless in writing by all of the parties hereto, and no condition herein (express or implied) may be waived unless waived in writing by each party whom the condition is meant to benefit.

[Signature Pages Follow]

Please sign and return to the Company the enclosed duplicates of this letter whereupon this letter will become a binding agreement between the Company and the Agent in accordance with its terms.

Very truly yours,

**AKOYA BIOSCIENCES, INC.**

By: /s/ Brian McKelligon  
Name: Brian McKelligon  
Title: CEO

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Confirmed as of the date first  
above mentioned.

**PIPER SANDLER & CO.**

By: /s/ Neil Riley

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Name: Neil Riley

Title: Managing Director

---

SCHEDULE 1

FORM OF PLACEMENT NOTICE

No Facsimile and No Voicemail

From: Akoya Sciences, Inc.

To: Piper Sandler & Co.

Attention:

Neil A. Riley  
[Neil.Riley@psc.com](mailto:Neil.Riley@psc.com)

Michael W. Bassett  
[Michael.Bassett@psc.com](mailto:Michael.Bassett@psc.com)

Connor N. Anderson  
[Connor.Anderson@psc.com](mailto:Connor.Anderson@psc.com)

Tom Wright  
[Thomas.Wright@psc.com](mailto:Thomas.Wright@psc.com)

Jay A. Hershey  
[Jay.Hershey@psc.com](mailto:Jay.Hershey@psc.com)

Date: [●], 20[●]

Subject: Equity Distribution Agreement – Placement Notice

Gentlemen:

Pursuant to the terms and subject to the conditions contained in the Equity Distribution Agreement between Akoya Biosciences, Inc. (“**Company**”), and Piper Sandler & Co. (“**Agent**”) dated [●], 20[●] [(the “**Agreement**”), the Company hereby requests that Agent sell up to [●] shares of the Company’s common stock, par value \$0.00001 per share, at a minimum market price of \$[●] per share. Sales should begin on the date of this Placement Notice and shall continue until [●] / [all shares are sold].

---

**SCHEDULE 2**  
**NOTICE PARTIES**

**Akoya Biosciences, Inc.**

Brian McKelligon  
[bmckelligon@akoyabio.com](mailto:bmckelligon@akoyabio.com)

Joe Driscoll  
[jdriscoll@akoyabio.com](mailto:jdriscoll@akoyabio.com)

**Piper Sandler & Co.**

Neil A. Riley  
[Neil.Riley@psc.com](mailto:Neil.Riley@psc.com)

Michael W. Bassett  
[Michael.Bassett@psc.com](mailto:Michael.Bassett@psc.com)

Connor N. Anderson  
[Connor.Anderson@psc.com](mailto:Connor.Anderson@psc.com)

Tom Wright  
[Thomas.Wright@psc.com](mailto:Thomas.Wright@psc.com)

Jay A. Hershey  
[Jay.Hershey@psc.com](mailto:Jay.Hershey@psc.com)

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SCHEDULE 3

FORM OF REPRESENTATION CERTIFICATE  
PURSUANT TO SECTION 3(q) OF THE AGREEMENT

[Date]

Piper Sandler & Co.  
800 Nicollet Mall  
Minneapolis, MN 55402

Sir:

The undersigned, the duly qualified and elected [•], of Akoya Biosciences, Inc., a Delaware corporation (the “**Company**”), does hereby certify in such capacity and on behalf of the Company, pursuant to Section 3(q) of the Equity Distribution Agreement, dated November 7, 2022 (the “**Equity Distribution Agreement**”), between the Company and Piper Sandler & Co., that to the best of the knowledge of the undersigned:

(i) The representations and warranties of the Company in this Agreement are true and correct, in all material respects, as if made at and as of the date of the certificate, and the Company has complied with all the agreements and satisfied all the conditions on its part to be performed or satisfied at or prior to the date of the certificate;

(ii) No stop order or other order suspending the effectiveness of the Registration Statement or any part thereof or any amendment thereof or the qualification of the Shares for Registration Statement, nor suspending or preventing the use of the base prospectus, the Prospectus or any Permitted Free Writing Prospectus, has been issued, and no proceeding for that purpose has been instituted or, to the best of the Company’s knowledge, is contemplated by the Commission or any state or regulatory body;

(iii) The Shares have been duly and validly authorized by the Company and that all corporate action required to be taken for the authorization, issuance and sale of the Shares has been validly and sufficiently taken;

(iv) The signers of this certificate have carefully examined the Registration Statement, the base prospectus, the Prospectus and any Permitted Free Writing Prospectus, and any amendments thereof or supplements thereto (including any documents filed under the Exchange Act and deemed to be incorporated by reference into the base prospectus, the Prospectus and any Permitted Free Writing Prospectus),

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(A) each part of the Registration Statement and the Prospectus, and any amendments thereof or supplements thereto (including any documents filed under the Exchange Act and deemed to be incorporated by reference into the Prospectus) contain, and contained when such part of the Registration Statement (or such amendment) became effective, all statements and information required to be included therein, each part of the Registration Statement, or any amendment thereof, does not contain, and did not contain, when such part of the Registration Statement (or such amendment) became effective, any untrue statement of a material fact or omit to state, and did not omit to state when such part of the Registration Statement (or such amendment) became effective, any material fact required to be stated therein or necessary to make the statements therein not misleading, and the Prospectus, as amended or supplemented, does not include and did not include as of its date, or the time of first use within the meaning of the Securities Act, any untrue statement of a material fact or omit to state and did not omit to state as of its date, or the time of first use within the meaning of the Securities Act, a material fact necessary to make the statements therein, in light of the circumstances under which they were made, not misleading,

(B) at no time during the period that begins on the earlier of the date of such base prospectus, Prospectus, or Permitted Free Writing Prospectus and the date such base prospectus, Prospectus, or Permitted Free Writing Prospectus was filed with the Commission and ends on the date of this certificate did such base prospectus, Prospectus, or Permitted Free Writing Prospectus, as then amended or supplemented, include an untrue statement of a material fact or omit to state any material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading,

(C) since the date of the Equity Distribution Agreement, there has occurred no event required to be set forth in an amended or supplemented prospectus which has not been so set forth, and there has been no document required to be filed under the Exchange Act that upon such filing would be deemed to be incorporated by reference into the base prospectus, the Prospectus or any Permitted Free Writing Prospectus that has not been so filed,

(D) except as stated in the Prospectus or any Permitted Free Writing Prospectus, the Company has not incurred any material liabilities or obligations, direct or contingent, or entered into any material transactions, not in the ordinary course of business, or declared or paid any dividends or made any distribution of any kind with respect to its capital stock, and except as disclosed in the base prospectus, the Prospectus, and any Permitted Free Writing Prospectus, there has not been any change in the capital stock (other than a change in the number of outstanding Common Stock due to sales of Shares pursuant to the Equity Distribution Agreement and the issuance of shares of Common Stock upon the exercise of equity awards or warrants), or any material change in the short term or long term debt, or any Material Adverse Effect or any development involving a prospective Material Adverse Effect (whether or not arising in the ordinary course of business), or any loss by strike, fire, flood, earthquake, accident or other calamity, whether or not covered by insurance, incurred by the Company, and

(E) except as stated in the base prospectus, the Prospectus, and any Permitted Free Writing Prospectus, there is not pending, or, to the knowledge of the Company, threatened or contemplated, any action, suit or proceeding to which the Company is a party before or by any court or governmental agency, authority or body, or any arbitrator, which might result in a Material Adverse Effect.

Davis Polk & Wardwell LLP, DLA Piper LLP (US) Wilson Sonsini Goodrich & Rosati, P.C. and Fish & Richardson P.C. are entitled to rely on this certificate in connection with the respective opinions such firms are rendering pursuant to the Equity Distribution Agreement.

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Capitalized terms used herein without definition shall have the meanings given to such terms in the Equity Distribution Agreement.

AKOYA BIOSCIENCES, INC.

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

---

AKOYA BIOSCIENCES, INC.

ISSUER

AND

[TRUSTEE],

TRUSTEE

INDENTURE

DATED AS OF , 20

SENIOR DEBT SECURITIES

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TABLE OF CONTENTS

	<u>Page</u>
ARTICLE ONE - DEFINITIONS AND OTHER PROVISIONS OF GENERAL APPLICATION	2
SECTION 101. Definitions	2
SECTION 102. Compliance Certificates and Opinions	11
SECTION 103. Form of Documents Delivered to Trustee	12
SECTION 104. Acts of Holders	12
SECTION 105. Notices, etc., to Trustee and Company	14
SECTION 106. Notice to Holders; Waiver	14
SECTION 107. Counterparts; Effect of Headings and Table of Contents	15
SECTION 108. Successors and Assigns	15
SECTION 109. Severability Clause	15
SECTION 110. Benefits of Indenture	15
SECTION 111. Governing Law	16
SECTION 112. Legal Holidays	16
SECTION 113. Limited Liability; Immunity of Stockholders, Directors, Officers and Agents of the Company	16
SECTION 114. Conflict with Trust Indenture Act	16
ARTICLE TWO - SECURITIES FORMS	17
SECTION 201. Forms of Securities	17
SECTION 202. Form of Trustee's Certificate of Authentication	17
SECTION 203. Securities Issuable in Global Form	17
ARTICLE THREE - THE SECURITIES	18
SECTION 301. Amount Unlimited; Issuable in Series	18
SECTION 302. Denominations	22
SECTION 303. Execution, Authentication, Delivery and Dating	22
SECTION 304. Temporary Securities.	24
SECTION 305. Registration, Registration of Transfer, Conversion and Exchange	27
SECTION 306. Mutilated, Destroyed, Lost and Stolen Securities	30
SECTION 307. Payment of Interest; Interest Rights Preserved	31
SECTION 308. Persons Deemed Owners	33
SECTION 309. Cancellation	34
SECTION 310. Computation of Interest	35
SECTION 311. CUSIP Numbers	35
ARTICLE FOUR - SATISFACTION AND DISCHARGE	35
SECTION 401. Satisfaction and Discharge of Indenture	35
SECTION 402. Application of Trust Funds	36
ARTICLE FIVE - REMEDIES	36
SECTION 501. Events of Default	36
SECTION 502. Acceleration of Maturity; Rescission and Annulment	38
SECTION 503. Collection of Indebtedness and Suits for Enforcement by Trustee	39
SECTION 504. Trustee May File Proofs of Claim	40

TABLE OF CONTENTS  
(continued)

	<u>Page</u>
SECTION 505. Trustee May Enforce Claims Without Possession of Securities or Coupons	41
SECTION 506. Application of Money Collected	41
SECTION 507. Limitation on Suits	41
SECTION 508. Unconditional Right of Holders to Receive Principal, Premium or Make-Whole Amount, if any, and Interest	42
SECTION 509. Restoration of Rights and Remedies	42
SECTION 510. Rights and Remedies Cumulative	42
SECTION 511. Delay or Omission Not Waiver	42
SECTION 512. Control by Holders of Securities	43
SECTION 513. Waiver of Past Defaults	43
SECTION 514. Waiver of Usury, Stay or Extension Laws	43
SECTION 515. Undertaking for Costs	44
 ARTICLE SIX - THE TRUSTEE	 44
SECTION 601. Notice of Defaults	44
SECTION 602. Certain Rights of Trustee	44
SECTION 603. Not Responsible for Recitals or Issuance of Securities	46
SECTION 604. May Hold Securities	47
SECTION 605. Money Held in Trust	47
SECTION 606. Compensation and Reimbursement	47
SECTION 607. Corporate Trustee Required; Eligibility; Conflicting Interests	48
SECTION 608. Resignation and Removal; Appointment of Successor	48
SECTION 609. Acceptance of Appointment by Successor	49
SECTION 610. Merger, Conversion, Consolidation or Succession to Business	50
SECTION 611. Appointment of Authenticating Agent	51
SECTION 612. Certain Duties and Responsibilities of the Trustee	52
 ARTICLE SEVEN - HOLDERS' LISTS AND REPORTS BY TRUSTEE AND COMPANY	 53
SECTION 701. Disclosure of Names and Addresses of Holders	53
SECTION 702. Reports by Trustee	53
SECTION 703. Reports by Company	54
SECTION 704. Company to Furnish Trustee Names and Addresses of Holders	54
 ARTICLE EIGHT - CONSOLIDATION, MERGER, SALE, LEASE OR CONVEYANCE	 55
SECTION 801. Consolidations and Mergers of Company and Sales, Leases and Conveyances Permitted Subject to Certain Conditions	55
SECTION 802. Rights and Duties of Successor Corporation	55
SECTION 803. Officers' Certificate and Opinion of Counsel	56
 ARTICLE NINE - SUPPLEMENTAL INDENTURES	 56
SECTION 901. Supplemental Indentures Without Consent of Holders	56
SECTION 902. Supplemental Indentures with Consent of Holders	57

TABLE OF CONTENTS  
(continued)

	<u>Page</u>
SECTION 903. Execution of Supplemental Indentures	58
SECTION 904. Effect of Supplemental Indentures	59
SECTION 905. Conformity with Trust Indenture Act	59
SECTION 906. Reference in Securities to Supplemental Indentures	59
 ARTICLE TEN - COVENANTS	 59
SECTION 1001. Payment of Principal, Premium or Make-Whole Amount, if any; and Interest	59
SECTION 1002. Maintenance of Office or Agency	59
SECTION 1003. Money for Securities Payments to Be Held in Trust	61
SECTION 1004. Existence	62
SECTION 1005. Maintenance of Properties	62
SECTION 1006. Insurance	63
SECTION 1007. Payment of Taxes and Other Claims	63
SECTION 1008. Statement as to Compliance	63
SECTION 1009. Waiver of Certain Covenants	63
 ARTICLE ELEVEN - REDEMPTION OF SECURITIES	 63
SECTION 1101. Applicability of Article	63
SECTION 1102. Election to Redeem; Notice to Trustee	63
SECTION 1103. Selection by Trustee of Securities to Be Redeemed	64
SECTION 1104. Notice of Redemption	64
SECTION 1105. Deposit of Redemption Price	65
SECTION 1106. Securities Payable on Redemption Date	66
SECTION 1107. Securities Redeemed in Part	67
 ARTICLE TWELVE - SINKING FUNDS	 67
SECTION 1201. Applicability of Article	67
SECTION 1202. Satisfaction of Sinking Fund Payments with Securities	67
SECTION 1203. Redemption of Securities for Sinking Fund	67
 ARTICLE THIRTEEN - REPAYMENT AT THE OPTION OF HOLDERS	 68
SECTION 1301. Applicability of Article	68
SECTION 1302. Repayment of Securities	68
SECTION 1303. Exercise of Option	68
SECTION 1304. When Securities Presented for Repayment Become Due and Payable	69
SECTION 1305. Securities Repaid in Part	70
 ARTICLE FOURTEEN - DEFEASANCE AND COVENANT DEFEASANCE	 70
SECTION 1401. Applicability of Article; Company's Option to Effect Defeasance or Covenant Defeasance	70
SECTION 1402. Defeasance and Discharge	70
SECTION 1403. Covenant Defeasance	71
SECTION 1404. Conditions to Defeasance or Covenant Defeasance	71

TABLE OF CONTENTS  
(continued)

	<u>Page</u>
SECTION 1405. Deposited Money and Government Obligations to Be Held in Trust; Other Miscellaneous Provisions	73
ARTICLE FIFTEEN - MEETINGS OF HOLDERS OF SECURITIES	74
SECTION 1501. Purposes for Which Meetings May Be Called	74
SECTION 1502. Call, Notice and Place of Meetings	74
SECTION 1503. Persons Entitled to Vote at Meetings	74
SECTION 1504. Quorum; Action	75
SECTION 1505. Determination of Voting Rights; Conduct and Adjournment of Meetings	76
SECTION 1506. Counting Votes and Recording Action of Meetings	76
ARTICLE SIXTEEN - CONVERSION OF SECURITIES	77
SECTION 1601. Applicability of Article; Conversion Privilege and Conversion Price	77
SECTION 1602. Exercise of Conversion Privilege	78
SECTION 1603. Fractions of Shares	79
SECTION 1604. Adjustment of Conversion Price	79
SECTION 1605. Notice of Adjustments of Conversion Price	83
SECTION 1606. Notice of Certain Corporate Action	83
SECTION 1607. Company to Reserve Common Stock	84
SECTION 1608. Taxes on Conversion	84
SECTION 1609. Covenants as to Common Stock	84
SECTION 1610. Cancellation of Converted Securities	84
SECTION 1611. Provisions in Case of Consolidation, Merger or Sale of Assets; Special Distributions	84
SECTION 1612. Trustee Adjustment Disclaimer; Company Determination Final	86
SECTION 1613. When No Adjustment Required	86
SECTION 1614. Equivalent Adjustments	86

AKOYA BIOSCIENCES, INC.

Reconciliation and tie between the Trust Indenture Act of 1939, as amended (the “Trust Indenture Act” or “TIA”) and the Indenture, dated as of , 20 .

Trust Indenture Act Section	Indenture Section
§ 310(a)(1)	607
(a)(2)	607
(b)	607, 608
§ 312(c)	701
§ 313(a)	702
(c)	702
§ 314(a)	703
(a)(4)	1008
(c)(1)	102
(c)(2)	102
(e)	102
§ 315(b)	601
§ 316(a) (last sentence)	101(“Outstanding”)
(a)(1)(A)	502, 512
(a)(1)(B)	513
(b)	508
§ 317(a)(1)	503
(a)(2)	504
§ 318(a)	111
(c)	111

NOTE: This reconciliation and tie shall not, for any purpose, be deemed to be a part of the Indenture.

Attention should also be directed to Section 318(c) of the Trust Indenture Act, which provides that the provisions of Sections 310 to and including 317 of the Trust Indenture Act are a part of and govern every qualified indenture, whether or not physically contained therein



INDENTURE, dated as of , 20 , between AKOYA BIOSCIENCES, INC., a corporation organized under the laws of the State of Delaware (hereinafter called the “Company”), having its principal office at 100 Campus Drive, 6th Floor, Marlborough, Massachusetts, and , as Trustee hereunder (hereinafter called the “Trustee”), having a Corporate Trust Office at [ ].

#### RECITALS OF THE COMPANY

The Company deems it necessary to issue from time to time for its lawful purposes senior debt securities (hereinafter called the “Securities”) evidencing its unsecured and senior indebtedness, and has duly authorized the execution and delivery of this Indenture to provide for the issuance from time to time of the Securities, to be issued in one or more Series as provided in this Indenture.

This Indenture is subject to the provisions of the Trust Indenture Act of 1939, as amended (the “Trust Indenture Act” or “TIA”), that are deemed to be incorporated into this Indenture and shall, to the extent applicable, be governed by such provisions.

All things necessary to make this Indenture a valid and legally binding agreement of the Company, in accordance with its terms, have been done. NOW, THEREFORE, THIS INDENTURE WITNESSETH:

For and in consideration of the premises and the purchase of the Securities by the Holders thereof, it is mutually covenanted and agreed, for the equal and proportionate benefit of all Holders of the Securities or of a Series thereof, as follows:

#### ARTICLE ONE - DEFINITIONS AND OTHER PROVISIONS OF GENERAL APPLICATION

SECTION 101. Definitions. For all purposes of this Indenture, except as otherwise expressly provided or unless the context otherwise requires:

- (1) the terms defined in this Article have the meanings assigned to them in this Article, and include the plural as well as the singular;
- (2) all other terms used herein which are defined in the TIA, either directly or by reference therein, have the meanings assigned to them therein, and the terms “cash transactions” and “self-liquidating paper,” as used in TIA Section 311, shall have the meanings assigned to them in the rules of the Commission adopted under the TIA;
- (3) all accounting terms not otherwise defined herein have the meanings assigned to them in accordance with GAAP;
- (4) any reference to an “Article” or a “Section” refers to an Article or Section, as the case may be, of this Indenture; and
- (5) the words “herein,” “hereof” and “hereunder” and other words of similar import refer to this Indenture as a whole and not to any particular Article, Section or other subdivision.

“Act,” when used with respect to any Holder, has the meaning specified in Section 104.

“Affiliate” of any specified Person means any other Person directly or indirectly controlling or controlled by or under direct or indirect common control with such specified Person. For the purposes of this definition, “control” when used with respect to any specified Person means the power to direct the management and policies of such Person, directly or indirectly, whether through the ownership of voting securities, by contract or otherwise; and the terms “controlling” and “controlled” have meanings correlative to the foregoing.

“Authenticating Agent” means any Person authorized by the Trustee pursuant to Section 611 hereof to act on behalf of the Trustee to authenticate Securities of one or more Series.

“Authorized Newspaper” means a newspaper, printed in the English language or in an official language of the country of publication, customarily published on each Business Day, whether or not published on Saturdays, Sundays or holidays, and of general circulation in each place in connection with which the term is used or in the financial community of each such place. Whenever successive publications are required to be made in Authorized Newspapers, the successive publications may be made in the same or in different Authorized Newspapers in the same city meeting the foregoing requirements and in each case on any Business Day.

“Bankruptcy Law” has the meaning specified in Section 501.

“Bearer Security” means any Security established pursuant to Section 201 which is payable to the bearer.

“Board of Directors” when used with reference to the Company, means the board of directors of the Company, or any committee of that board duly authorized to act hereunder, or any director or directors and/or officer or officers of the Company, to whom the board or committee shall have duly delegated its authority.

“Board Resolution” means a copy of (1) a resolution certified by the Secretary or an Assistant Secretary of the Company to have been duly adopted by the Board of Directors or a duly authorized committee of the Board of Directors and to be in full force and effect on the date of such certification, or (2) a certificate signed by the director or directors and/or officer or officers to whom the Board of Directors shall have duly delegated its authority, together with a resolution certified by the Secretary or an Assistant Secretary of the Company to have been duly adopted by the Board of Directors and to be in full force and effect on the date of such certification authorizing such delegation, and, in each case, delivered to the Trustee.

“Business Day,” when used with respect to any Place of Payment or any other particular location referred to in this Indenture or in the Securities, means, unless otherwise specified with respect to any Securities issued pursuant to Section 301, any day, other than a Saturday or Sunday, that is neither a legal holiday nor a day on which banking institutions in that Place of Payment or particular location are authorized or required by law, regulation or executive order to close.

“Capital Stock” means, with respect to any Person, any capital stock (including preferred stock), shares, interests, participations or other ownership interests (however designated) of such Person and any rights (other than debt securities convertible into or exchangeable for corporate stock), warrants or options to purchase any thereof.

“Clearstream” means Clearstream Banking Luxembourg, société anonyme, or its successor.

“Closing Price” means the closing price of a share of Common Stock of the Company as reported on The Nasdaq Global Select Market.

“Code” means the Internal Revenue Code of 1986, as amended, and the regulations thereunder.

“Commission” means the Securities and Exchange Commission, as from time to time constituted, created under the Exchange Act, or, if at any time after execution of this instrument such Commission is not existing and performing the duties now assigned to it under the Trust Indenture Act, then the body performing such duties on such date.

“Common Depository” has the meaning specified in Section 304.

“Common Stock” means, with respect to any Person, all shares of capital stock issued by such Person other than Preferred Stock.

“Company” means the Person named as the “Company” in the first paragraph of this Indenture until a successor corporation shall have become such pursuant to the applicable provisions of this Indenture, and thereafter “Company” shall mean such successor corporation.

“Company Request” and “Company Order” mean, respectively, a written request or order signed in the name of the Company by the Chief Executive Officer, the President, or a Vice President, and by its Treasurer, an Assistant Treasurer, the Secretary or an Assistant Secretary, of the Company, and delivered to the Trustee.

“Constituent Person” has the meaning specified in Section 1611.

“Conversion Event” means the cessation of use of (i) a Foreign Currency both by the government of the country which issued such currency and for the settlement of transactions by a central bank or other public institutions of or within the international banking community, (ii) the ECU both within the European Monetary System and for the settlement of transactions by public institutions of or within the European Communities or (iii) any currency unit (or composite currency) other than the ECU for the purposes for which it was established.

“Conversion Price” has the meaning specified in Section 1601.

“Corporate Trust Office” means the office of the Trustee at which, at any particular time, its corporate trust business shall be principally administered, which office at the date hereof is located at [ ].

“corporation” includes corporations, associations, companies and business trusts.

“coupon” means any interest coupon appertaining to a Bearer Security.

“Covenant Defeasance” has the meaning specified in Section 1403.

“Custodian” has the meaning specified in Section 501.

“Defaulted Interest” has the meaning specified in Section 307.

“Defeasance” has the meaning specified in Section 1402.

“Distribution Record Date” has the meaning specified in Section 1611.

“Dividend Record Date” has the meaning specified in Section 1604.

“Dollar” or the sign “\$” means a dollar or other equivalent unit in such coin or currency of the United States of America as at the time of payment is legal tender for the payment of public and private debts.

“DTC” means The Depository Trust Company and any successor to DTC in its capacity as depository for any Securities.

“ECU” means the European Currency Unit as defined and revised from time to time by the Council of the European Communities. “Euroclear” means the operator of the Euroclear System.

“European Communities” means the European Economic Community, the European Coal and Steel Community and the European Atomic Energy Community.

“European Monetary System” means the European Monetary System established by the Resolution of December 5, 1978 of the Council of the European Communities.

“Event of Default” has the meaning specified in Article Five.

“Exchange Act” means the Securities Exchange Act of 1934, as amended, as in force at the date as of which this Indenture was executed; provided, however, that in the event the Exchange Act is amended after such date, “Exchange Act” means to the extent required by any such amendment, the Exchange Act as so amended.

“Exchange Date” has the meaning specified in Section 304.

“FINRA” means the Financial Industry Regulatory Authority, Inc.

“Foreign Currency” means any currency, currency unit or composite currency, including, without limitation, the ECU issued by the government of one or more countries other than the United States of America or by any recognized confederation or association of such governments.

“GAAP” means, except as otherwise provided herein, generally accepted accounting principles, as in effect from time to time, as used in the United States applied on a consistent basis.

“Global Security” means a Security evidencing all or a part of a series of Securities issued to and registered in the name of the depository for such series, or its nominee, in accordance with Section 305, and bearing the legend prescribed in Section 203.

“Government Obligations” means (i) securities which are (A) direct obligations of the United States of America or the government which issued the Foreign Currency in which the Securities of a particular series are payable, for the payment of which its full faith and credit is pledged or (B) obligations of a Person controlled or supervised by and acting as an agency or instrumentality of the United States of America or such government which issued the Foreign Currency in which the Securities of such series are payable, the payment of which is unconditionally guaranteed as a full faith and credit obligation by the United States of America or such other government, which, in either case, are not callable or redeemable at the option of the issuer thereof, and (iii) a depository receipt issued by a bank or trust company as custodian with respect to any such Government Obligation or a specific payment of interest on or principal of any such Government Obligation held by such custodian for the account of the holder of a depository receipt, provided that (except as required by law) such custodian is not authorized to make any deduction from the amount payable to the holder of such depository receipt from any amount received by the custodian in respect of the Government Obligation or the specific payment of interest on or principal of the Government Obligation evidenced by such depository receipt.

“Holder” means, in the case of a Registered Security, the Person in whose name a Security is registered in the Security Register and, in the case of a Bearer Security, the bearer thereof and, when used with respect to any coupon, shall mean the bearer thereof.

“Indenture” means this instrument as originally executed or as it may be supplemented or amended from time to time by one or more indentures supplemental hereto entered into pursuant to the applicable provisions hereof, and shall include the terms of particular series of Securities established as contemplated by Section 301; provided, however, that, if at any time more than one Person is acting as Trustee under this instrument, “Indenture” shall mean, with respect to any one or more series of Securities for which such Person is Trustee, this instrument as originally executed or as it may be supplemented or amended from time to time by one or more indentures supplemental hereto entered into pursuant to the applicable provisions hereof and shall include the terms of the or those particular series of Securities for which such Person is Trustee established as contemplated by Section 301, exclusive, however, of any provisions or terms which relate solely to other series of Securities for which such Person is Trustee, regardless of when such terms or provisions were adopted, and exclusive of any provisions or terms adopted by means of one or more indentures supplemental hereto executed and delivered after such Person had become such Trustee but to which such Person, as such Trustee, was not a party.

“Indexed Security” means a Security the terms of which provide that the principal amount thereof payable at Stated Maturity may be more or less than the principal face amount thereof at original issuance.

“Interest,” when used with respect to an Original Issue Discount Security which by its terms bears interest only after Maturity, shall mean interest payable after Maturity.

“Interest Payment Date,” when used with respect to any Security, means the Stated Maturity of an installment of interest on such Security.

“Make-Whole Amount,” when used with respect to any Security, means the amount, if any, in addition to principal (and accrued interest thereon, if any) which is required by a Security, under the terms and conditions specified therein or as otherwise specified as contemplated by Section 301, to be paid by the Company to the Holder thereof in connection with any optional redemption or accelerated payment of such Security.

“Mandatory sinking fund payment” has the meaning specified in Section 1201.

“Market Value of the Distribution” has the meaning specified in Section 1604.

“Maturity,” when used with respect to any Security, means the date on which the principal (or, if the context so requires, in the case of an Original Issue Discount Security, or lesser amount or, in the case of an Indexed Security, an amount determined in accordance with the specified terms of that Security) of such Security or an installment of principal becomes due and payable as therein or herein provided, whether at the Stated Maturity or by declaration of acceleration, notice of redemption, notice of option to elect repayment or otherwise.

“Officers’ Certificate” means a certificate signed by the Chief Executive Officer, the President, or a Vice President (whether or not designated by a number or word or words added before or after the title “Vice President”), and by the Treasurer, an Assistant Treasurer, the Secretary or an Assistant Secretary of the Company, and delivered to the Trustee.

“Opinion of Counsel” means a written opinion of counsel, who may be counsel for the Company or who may be an employee of or other counsel for the Company.

“optional sinking fund payment” has the meaning specified in Section 1201.

“Original Issue Discount Security” means any Security which provides for an amount (excluding any amounts attributable to accrued but unpaid interest thereon) less than the principal amount thereof to be due and payable upon a declaration of acceleration of the Maturity thereof pursuant to Section 502.

“Outstanding,” when used with respect to Securities, means, as of the date of determination, all Securities theretofore authenticated and delivered under this Indenture, except:

(i) Securities theretofore canceled by the Trustee or delivered to the Trustee for cancellation;

(ii) Securities, or portions thereof, for whose payment or redemption (including repayment at the option of the Holder) money in the necessary amount has been theretofore deposited with the Trustee or any Paying Agent (other than the Company) in trust or set aside and segregated in trust by the Company (if the Company shall act as its own Paying Agent) for the Holders of such Securities and any coupons appertaining thereto; provided, however, that, if such Securities are to be redeemed, notice of such redemption has been duly given pursuant to this Indenture or provision therefor satisfactory to the Trustee has been made;

(iii) Securities, except to the extent provided in Sections 1402 and 1403, with respect to which the Company has effected Defeasance and/or Covenant Defeasance as provided in Article Fourteen; and

(iv) Securities which have been paid pursuant to Section 306 or in exchange for or in lieu of which other Securities have been authenticated and delivered pursuant to this Indenture, other than any such Securities in respect of which there shall have been presented to the Trustee proof satisfactory to it that such Securities are held by a bona fide purchaser in whose hands such Securities are valid obligations of the Company;

provided, however, that in determining whether the Holders of the requisite principal amount of the Outstanding Securities have given any request, demand, authorization, direction, notice, consent or waiver hereunder or are present at a meeting of Holders for quorum purposes, and for the purpose of making the calculations required by TIA Section 313, (i) the principal amount of an Original Issue Discount Security that may be counted in making such determination or calculation and that shall be deemed to be Outstanding for such purpose shall be equal to the amount of principal thereof that would be (or shall have been declared to be) due and payable, at the time of such determination, upon a declaration of acceleration of the maturity thereof pursuant to Section 502, (ii) the principal amount of any Security denominated in a Foreign Currency that may be counted in making such determination or calculation and that shall be deemed Outstanding for such purpose shall be equal to the Dollar equivalent, determined pursuant to Section 301 as of the date such Security is originally issued by the Company, of the principal amount (or, in the case of an Original Issue Discount Security, the Dollar equivalent as of such date of original issuance of the amount determined as provided in clause (i) above) of such Security, (iii) the principal amount of any Indexed Security that may be counted in making such determination or calculation and that shall be deemed outstanding for such purpose shall be equal to the principal face amount of such Indexed Security at original issuance, unless otherwise provided with respect to such Security pursuant to Section 301, and (iv) Securities owned by the Company or any other obligor upon the Securities or any Affiliate of the Company or of such other obligor shall be disregarded and deemed not to be Outstanding, except that, in determining whether the Trustee shall be protected in making such calculation or in relying upon any such request, demand, authorization, direction, notice, consent or waiver, only Securities which a Responsible Officer of the Trustee actually knows to be so owned shall be so disregarded. Securities owned as provided in clause (iv) above which have been pledged in good faith may be regarded as Outstanding if the pledgee establishes to the satisfaction of the Trustee the pledgee's right so to act with respect to such Securities and that the pledgee is not the Company or any other obligor upon the Securities or any Affiliate of the Company or of such other obligor. In case of a dispute as to such right, the advice of counsel shall be full protection in respect of any decision made by the Trustee in accordance with such advice.

“Paying Agent” means any Person authorized by the Company to pay the principal of (and premium or Make-Whole Amount, if any) or interest on any Securities or coupons on behalf of the Company.

“Person” means any individual, corporation, limited liability company, partnership, joint venture, association, joint-stock company, trust, unincorporated organization or government or any agency or political subdivision thereof, or any other entity or organization.

“Place of Payment,” when used with respect to the Securities of or within any series, means the place or places where the principal of (and premium or Make-Whole Amount, if any) and interest on such Securities are payable as specified as contemplated by Sections 301 and 1002.

“Predecessor Security” of any particular Security means every previous Security evidencing all or a portion of the same debt as that evidenced by such particular Security; and, for the purposes of this definition, any Security authenticated and delivered under Section 306 in exchange for or in lieu of a mutilated, destroyed, lost or stolen Security or a Security to which a mutilated, destroyed, lost or stolen coupon appertains shall be deemed to evidence the same debt as the mutilated, destroyed, lost or stolen Security or the Security to which the mutilated, destroyed, lost or stolen coupon appertains.

“Preferred Stock” means, with respect to any Person, all capital stock issued by such Person that is entitled to a preference or priority over any other capital stock issued by such Person with respect to any distribution of such Person’s assets, whether by dividend or upon any voluntary or involuntary liquidation, dissolution or winding up.

“Redemption Date,” when used with respect to any Security to be redeemed, in whole or in part, means the date fixed for such redemption by or pursuant to this Indenture.

“Redemption Price,” when used with respect to any Security to be redeemed, means the price specified in the related Officers’ Certificate or supplemental indenture contemplated by and pursuant to Section 301, at which it is to be redeemed pursuant to this Indenture.

“Reference Date” has the meaning specified in Section 1604.

“Registered Security” shall mean any Security which is registered in the Security Register.

“Regular Record Date” for the interest payable on any Interest Payment Date on the Registered Securities of or within any series means the date specified for that purpose as contemplated by Section 301, whether or not a Business Day.

“Repayment Date” means, when used with respect to any Security to be repaid at the option of the Holder, the date fixed for such repayment by or pursuant to this Indenture.

“Repayment Price” means, when used with respect to any Security to be repaid at the option of the Holder, the price at which it is to be repaid by or pursuant to this Indenture.



“Responsible Officer,” when used with respect to the Trustee, means any Vice President (whether or not designated by a number or a word or words added before or after the title “Vice President”), Assistant Vice President, Trust Officer or Assistant Trust Officer working in its Corporate Trust Department, or any other officer of the Trustee customarily performing functions similar to those performed by any of the above designated officers and working in its Corporate Trust Department, and also means, with respect to a particular corporate trust matter, any other officer to whom such matter is referred because of such officer’s knowledge and familiarity with the particular subject and who shall have direct responsibility for the administration of this Indenture.

“Rights” has the meaning specified in Section 1604.

“Rights Record Date” has the meaning specified in Section 1604.

“Security” and “Securities” has the meaning stated in the first recital of this Indenture and, more particularly, means any Security or Securities authenticated and delivered under this Indenture; provided, however, that, if at any time there is more than one Person acting as Trustee under this Indenture, “Securities” with respect to the Indenture as to which such Person is Trustee shall have the meaning stated in the first recital of this Indenture and shall more particularly mean Securities authenticated and delivered under this Indenture, exclusive, however, of Securities of any series as to which such Person is not Trustee.

“Security Register” and “Security Registrar” have the respective meanings specified in Section 305.

A “Series” of Securities means all securities denoted as part of the same series authorized by or pursuant to a particular Board Resolution.

“Short Term Rights” has the meaning specified in Section 1604.

“Special Record Date” for the payment of any Defaulted Interest on the Registered Securities of or within any series means a date fixed by the Company pursuant to Section 307.

“Stated Maturity,” when used with respect to any Security or any installment of principal thereof or interest thereon, means the date specified in such Security or a coupon representing such installment of interest as the fixed date on which the principal of such Security or such installment of principal or interest is due and payable.

“Trading Day” means any day on which The Nasdaq Global Select Market is open for business.

“Trigger Events” has the meaning specified in Section 1604.

“Trust Indenture Act” or “TIA” means the Trust Indenture Act of 1939, as amended and as in force at the date as of which this Indenture was executed, except as provided in Section 905.

“Trustee” means the Person named as the “Trustee” in the first paragraph of this Indenture until a successor Trustee shall have become such pursuant to the applicable provisions of this Indenture, and thereafter “Trustee” shall mean or include each Person who is then a Trustee hereunder; provided, however, that if at any time there is more than one such Person, “Trustee” as used with respect to the Securities of any series shall mean only the Trustee with respect to Securities of that series.

“Unadjusted Distribution” has the meaning specified in Section 1604.

“United States” means, unless otherwise specified with respect to any Securities pursuant to Section 301, the United States of America (including the states and the District of Columbia), its territories, its possessions and other areas subject to its jurisdiction.

“United States Person” means, unless otherwise specified with respect to any Securities pursuant to Section 301, an individual who is a citizen or resident of the United States, a corporation, partnership or other entity created or organized in or under the laws of the United States or an estate or trust the income of which is subject to United States Federal income taxation regardless of its source.

“Yield to Maturity” means the yield to maturity, computed at the time of issuance of a Security (or, if applicable, at the most recent redetermination of interest on such Security) and as set forth in such Security in accordance with generally accepted United States bond yield computation principles.

SECTION 102. Compliance Certificates and Opinions. Upon any application or request by the Company to the Trustee to take any action under any provision of this Indenture, the Company shall furnish to the Trustee an Officers’ Certificate stating that all conditions precedent, if any, provided for in this Indenture relating to the proposed action have been complied with and an Opinion of Counsel stating that in the opinion of such counsel all such conditions precedent, if any, have been complied with, except that in the case of any such application or request as to which the furnishing of such documents is specifically required by any provision of this Indenture relating to such particular application or request, no additional certificate or opinion need be furnished.

Every certificate or opinion with respect to compliance with a condition or covenant provided for in this Indenture (including certificates delivered pursuant to Section 1008) shall include:

- (1) a statement that each individual signing such certificate or opinion has read such condition or covenant and the definitions herein relating thereto;
- (2) a brief statement as to the nature and scope of the examination or investigation upon which the statements or opinions contained in such certificate or opinion are based;
- (3) a statement that, in the opinion of each such individual, he has made such examination or investigation as is necessary to enable him to express an informed opinion as to whether or not such condition or covenant has been complied with; and

(4) a statement as to whether, in the opinion of each such individual, such condition or covenant has been complied with.

SECTION 103. Form of Documents Delivered to Trustee. In any case where several matters are required to be certified by, or covered by an opinion of, any specified Person, it is not necessary that all such matters be certified by, or covered by the opinion of, only one such Person, or that they be so certified or covered by only one document, but one such Person may certify or give an opinion with respect to some matters and one or more other such Persons as to other matters, and any such Person may certify or give an opinion as to such matters in one or several documents.

Any certificate or opinion of an officer of the Company may be based, insofar as it relates to legal matters, upon an Opinion of Counsel, or a certificate or representations by counsel, unless such officer knows, or in the exercise of reasonable care should know, that the opinion, certificate or representations with respect to the matters upon which his certificate or opinion is based are erroneous. Any such Opinion of Counsel or certificate or representations may be based, insofar as it relates to factual matters, upon a certificate or opinion of, or representations by, an officer or officers of the Company stating that the information as to such factual matters is in the possession of the Company, unless such counsel knows, or in the exercise of reasonable care should know, that the certificate or opinion or representations with respect to such matters are erroneous.

Where any Person is required to make, give or execute two or more applications, requests, consents, certificates, statements, opinions or other instruments under this Indenture, they may, but need not, be consolidated and form one instrument.

SECTION 104. Acts of Holders.

(a) Any request, demand, authorization, direction, notice, consent, waiver or other action provided by this Indenture to be given or taken by Holders of the Outstanding Securities of all series or one or more series, as the case may be, may be embodied in and evidenced by one or more instruments of substantially similar tenor signed by such Holders in person or by agents duly appointed in writing. If Securities of a series are issuable as Bearer Securities, any request, demand, authorization, direction, notice, consent, waiver or other action provided by this Indenture to be given or taken by Holders of Securities of such series may, alternatively, be embodied in and evidenced by the record of Holders of Securities of such series voting in favor thereof, either in person or by proxies duly appointed in writing, at any meeting of Holders of Securities of such series duly called and held in accordance with the provisions of Article Fifteen, or a combination of such instruments and any such record. Except as herein otherwise expressly provided, such action shall become effective when such instrument or instruments or record or both are delivered to the Trustee and, where it is hereby expressly required, to the Company. Such instrument or instruments and any such record (and the action embodied therein and evidenced thereby) are herein sometimes referred to as the "Act" of the Holders signing such instrument or instruments or so voting at any such meeting. Proof of execution of any such instrument or of a writing appointing any such agent, or of the holding by any Person of a Security, shall be sufficient for any purpose of this Indenture and conclusive in favor of the Trustee and the Company and any agent of the Trustee or the Company, if made in the manner provided in this Section. The record of any meeting of Holders of Securities shall be proved in the manner provided in Section 1506.

(b) The fact and date of the execution by any Person of any such instrument or writing may be proved by the affidavit of a witness of such execution or by a certificate of a notary public or other officer authorized by law to take acknowledgments of deeds, certifying that the individual signing such instrument or writing acknowledged to him the execution thereof. Where such execution is by a signer acting in a capacity other than his individual capacity, such certificate or affidavit shall also constitute sufficient proof of his authority. The fact and date of the execution of any such instrument or writing, or the authority of the Person executing the same, may also be proved in any other reasonable manner which the Trustee deems sufficient.

(c) The ownership of Registered Securities shall be proved by the Security Register. As to any matter relating to beneficial ownership interests in any Global Security, the appropriate depository's records shall be dispositive for purposes of this Indenture.

(d) The ownership of Bearer Securities may be proved by the production of such Bearer Securities or by a certificate executed, as depository, by any trust company, bank, banker or other depository, wherever situated, if such certificate shall be deemed by the Trustee to be satisfactory, showing that at the date therein mentioned such Person had on deposit with such depository, or exhibited to it, the Bearer Securities therein described; or such facts may be proved by the certificate or affidavit of the Person holding such Bearer Securities, if such certificate or affidavit is deemed by the Trustee to be satisfactory. The Trustee and the Company may assume that such ownership of any Bearer Security continues until (1) another certificate or affidavit bearing a later date issued in respect of the same Bearer Security is produced, or (2) such Bearer Security is produced to the Trustee by some other Person, or (3) such Bearer Security is surrendered in exchange for a Registered Security, or (4) such Bearer Security is no longer Outstanding. The ownership of Bearer Securities may also be proved in any other manner which the Trustee deems sufficient.

(e) If the Company shall solicit from the Holders of Registered Securities any request, demand, authorization, direction, notice, consent, waiver or other Act, the Company may, at its option, in or pursuant to a Board Resolution, fix in advance a record date for the determination of Holders entitled to give such request, demand, authorization, direction, notice, consent, waiver or other Act, but the Company shall have no obligation to do so. Notwithstanding TIA Section 316(c), such record date shall be the record date specified in or pursuant to such Board Resolution, which shall be a date not earlier than the date 30 days prior to the first solicitation of Holders generally in connection therewith and not later than the date such solicitation is completed. If such a record date is fixed, such request, demand, authorization, direction, notice, consent, waiver or other Act may be given before or after such record date, but only the Holders of record at the close of business on such record date shall be deemed to be Holders for the purposes of determining whether Holders of the requisite proportion of Outstanding Securities have authorized or agreed or consented to such request, demand, authorization, direction, notice, consent, waiver or other Act, and for that purpose the Outstanding Securities shall be computed as of such record date; provided that no such authorization, agreement or consent by the Holders on such record date shall be deemed effective unless it shall become effective pursuant to the provisions of this Indenture not later than eleven months after the record date.

(f) Any request, demand, authorization, direction, notice, consent, waiver or other Act of the Holder of any Security shall bind every future Holder of the same Security and the Holder of every Security issued upon the registration of transfer thereof or upon the conversion thereof or in exchange therefor or in lieu thereof in respect of anything done, omitted or suffered to be done by the Trustee, any Security Registrar, any Paying Agent, any Authenticating Agent or the Company in reliance thereon, whether or not notation of such action is made upon such Security.

SECTION 105. Notices, etc., to Trustee and Company. Any request, demand, authorization, direction, notice, consent, waiver or Act of Holders or other document provided or permitted by this Indenture to be made upon, given or furnished to, or filed with,

(1) the Trustee by any Holder or by the Company shall be sufficient for every purpose hereunder if made, given, furnished or filed in writing to or with the Trustee at [ ] or at any other address previously furnished in writing to the Company by the Trustee, Attention: [ ]; or

(2) the Company by the Trustee or by any Holder shall be sufficient for every purpose hereunder (unless otherwise herein expressly provided) if in writing and mailed, first-class postage prepaid, to the Company addressed to it at the address of its principal office specified in the first paragraph of this Indenture or at any other address previously furnished in writing to the Trustee by the Company, Attention: [ ]; or

(3) either the Trustee or the Company, by the other party or by any Holder, shall be sufficient for every purpose hereunder if given by facsimile transmission, receipt confirmed by telephone followed by an original copy delivered by guaranteed overnight courier; if to the Trustee at facsimile number [ ]; and if to the Company at facsimile number [ ].

SECTION 106. Notice to Holders; Waiver. Where this Indenture provides for notice of any event to Holders of Registered Securities by the Company or the Trustee, such notice shall be sufficiently given (unless otherwise herein expressly provided) if in writing and mailed, first-class postage prepaid, to each such Holder affected by such event, at his address as it appears in the Security Register, not later than the latest date, if any, and not earlier than the earliest date, if any, prescribed for the giving of such notice. In any case where notice to Holders of Registered Securities is given by mail, neither the failure to mail such notice, nor any defect in any notice so mailed, to any particular Holder shall affect the sufficiency of such notice with respect to other Holders of Registered Securities or the sufficiency of any notice to Holders of Bearer Securities given as provided herein. Any notice mailed to a Holder in the manner herein prescribed shall be conclusively deemed to have been received by such Holder, whether or not such Holder actually receives such notice.

If by reason of the suspension of or irregularities in regular mail service or by reason of any other cause it shall be impracticable to give such notice by mail, then such notification to Holders of Registered Securities as shall be made with the approval of the Trustee shall constitute a sufficient notification to such Holders for every purpose hereunder.

Except as otherwise expressly provided herein or otherwise specified with respect to any Securities pursuant to Section 301, where this Indenture provides for notice to Holders of Bearer Securities of any event, such notice shall be sufficiently given if published in an Authorized Newspaper in The City of New York and in such other city or cities as may be specified in such Securities on a Business Day, such publication to be not later than the latest date, if any, and not earlier than the earliest date, if any, prescribed for the giving of such notice. Any such notice shall be deemed to have been given on the date of such publication or, if published more than once, on the date of the first such publication.

If by reason of the suspension of publication of any Authorized Newspaper or Authorized Newspapers or by reason of any other cause it shall be impracticable to publish any notice to Holders of Bearer Securities as provided above, then such notification to Holders of Bearer Securities as shall be given with the approval of the Trustee shall constitute sufficient notice to such Holders for every purpose hereunder. Neither the failure to give notice by publication to any particular Holder of Bearer Securities as provided above, nor any defect in any notice so published, shall affect the sufficiency of such notice with respect to other Holders of Bearer Securities or the sufficiency of any notice to Holders of Registered Securities given as provided herein.

Any request, demand, authorization, direction, notice, consent or waiver required or permitted under this Indenture shall be in the English language, except that any published notice may be in an official language of the country of publication.

Where this Indenture provides for notice in any manner, such notice may be waived in writing by the Person entitled to receive such notice, either before or after the event, and such waiver shall be the equivalent of such notice. Waivers of notice by Holders shall be filed with the Trustee, but such filing shall not be a condition precedent to the validity of any action taken in reliance upon such waiver.

SECTION 107. Counterparts; Effect of Headings and Table of Contents. This Indenture may be executed in any number of counterparts, each of which so executed shall be deemed to be an original, but all such counterparts shall together constitute but one and the same Indenture. The Article and Section headings herein and the Table of Contents are for convenience only and shall not affect the construction hereof.

SECTION 108. Successors and Assigns. All covenants and agreements in this Indenture by the Company shall bind its successors and assigns, whether so expressed or not.

SECTION 109. Severability Clause. In case any provision in this Indenture or in any Security or coupon shall be held invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired thereby.

SECTION 110. Benefits of Indenture. Nothing in this Indenture or in the Securities or coupons, if any, express or implied, shall give to any Person, other than the parties hereto, any Security Registrar, any Paying Agent, any Authenticating Agent and their successors hereunder and the Holders any benefit or any legal or equitable right, remedy or claim under this Indenture.

SECTION 111. Governing Law. This Indenture and the Securities and coupons shall be governed by and construed in accordance with the laws of the State of New York. This Indenture is subject to the provisions of the TIA that are required to be part of this Indenture and shall, to the extent applicable, be governed by such provisions.

SECTION 112. Legal Holidays. In any case where any Interest Payment Date, Redemption Date, Repayment Date, sinking fund payment date, Stated Maturity or Maturity of any Security or the last date on which a Holder has the right to convert or exchange a Security shall not be a Business Day at any Place of Payment, then (notwithstanding any other provision of this Indenture or any Security or coupon other than a provision in the Securities of any series which specifically states that such provision shall apply in lieu hereof), payment of interest or principal (and premium or Make-Whole Amount, if any) or conversion or exchange of such Security need not be made at such Place of Payment on such date, but (except as otherwise provided in the supplemental indenture with respect to such Security) may be made on the next succeeding Business Day at such Place of Payment with the same force and effect as if made on the Interest Payment Date, Redemption Date, Repayment Date or sinking fund payment date, or at the Stated Maturity or Maturity, or on such last day for conversion or exchange, provided that no interest shall accrue on the amount so payable for the period from and after such Interest Payment Date, Redemption Date, Repayment Date, sinking fund payment date, Stated Maturity or Maturity, as the case may be.

SECTION 113. Limited Liability; Immunity of Stockholders, Directors, Officers and Agents of the Company. Notwithstanding any other provision of this Indenture or of the Securities of any series to the contrary, no recourse under or upon any obligation, covenant or agreement contained in this Indenture or in any Security, or for the payment of any sums due on account of any indebtedness evidenced thereby, including without limitation principal, premium or interest, if any, or for any claim based on this Indenture or any Security or otherwise in respect of this Indenture or any Security, shall be had, whether by levy or execution or otherwise, against (i) the Company, the Company's assets or against any past, present or future stockholder, employee, officer, director or agent, as such, of the Company or any successor, either directly or through the Company or any successor, under any rule of law, statute, constitutional provision or by the enforcement of any assessment or penalty, or by any legal or equitable proceeding or otherwise, nor shall any such parties be personally liable for any such amounts, obligations or claims, or liable for any deficiency judgment based thereon or with respect thereto, it being expressly understood that the sole remedies hereunder or under any other document with respect to the Securities against such parties with respect to such amounts, obligations or claims shall be against the Company and that all such liability of and recourse against such parties is expressly waived and released by the acceptance of the Securities by the Holders and as part of the consideration for the issue of the Securities.

SECTION 114. Conflict with Trust Indenture Act. If any provision hereof limits, qualifies or conflicts with another provision hereof which is required or deemed to be included in this Indenture by any of the provisions of the Trust Indenture Act, such required provision shall control. If any provision of this Indenture modifies or excludes any provision of the Trust Indenture Act that may be so modified or excluded, the latter provision shall be deemed to apply to this Indenture as so modified or to be excluded, as the case may be.

ARTICLE TWO - SECURITIES FORMS

SECTION 201. Forms of Securities. The Registered Securities, if any, of each series and the Bearer Securities, if any, of each series and related coupons shall be substantially in the form of Exhibit A hereto or in such other form as shall be established in one or more indentures supplemental hereto or approved from time to time by or pursuant to a Board Resolution in accordance with Section 301, shall have such appropriate insertions, omissions, substitutions and other variations as are required or permitted by this Indenture or any indenture supplemental hereto, and may have such letters, numbers or other marks of identification or designation and such legends or endorsements placed thereon as the Company may deem appropriate and as are not inconsistent with the provisions of this Indenture, or as may be required to comply with any law or with any rule or regulation made pursuant thereto or with any rule or regulation of any over-the-counter market or securities exchange, on which the Securities may be quoted or listed, or to conform to usage.

Unless otherwise specified as contemplated by Section 301, Bearer Securities shall have interest coupons attached.

The definitive Securities and coupons shall be printed, lithographed or engraved or produced by any combination of these methods on a steel engraved border or steel engraved borders or mechanically reproduced on safety paper or may be produced in any other manner, all as determined by the officers executing such Securities or coupons, as evidenced by their execution of such Securities or coupons.

SECTION 202. Form of Trustee's Certificate of Authentication. Subject to Section 611, the Trustee's certificate of authentication shall be in substantially the following form:

This is one of the Securities of the series designated therein referred to in the within-mentioned Indenture.

\_\_\_\_\_  
as Trustee

Dated: \_\_\_\_\_

By: \_\_\_\_\_  
Authorized Signatory

SECTION 203. Securities Issuable in Global Form. If Securities of or within a series are issuable in the form of one or more Global Securities, then, notwithstanding clause (8) of Section 301 and the provisions of Section 302, any such Global Security or Securities may provide that it or they shall represent the aggregate amount of all Outstanding Securities of such series (or such lesser amount as is permitted by the terms thereof) from time to time endorsed thereon and may also provide that the aggregate amount of Outstanding Securities of such series represented thereby may from time to time be increased or decreased to reflect exchanges. Any endorsement of any Global Security to reflect the amount, or any increase or decrease in the amount, or changes in the rights of Holders thereof, of Outstanding Securities represented thereby shall be made (or caused to be made) by the Trustee in such manner or by such Person or Persons as shall be specified therein or in the Company Order to be delivered to the Trustee pursuant to Section 303 or 304. Subject to the provisions of Section 303 and, if applicable, Section 304, the Trustee shall deliver and redeliver any Global Security in permanent global form in the manner and upon instructions given by the Person or Persons specified therein or in the applicable Company Order. If a Company Order pursuant to Section 303 or 304 has been, or simultaneously is, delivered, any instructions by the Company with respect to endorsement or delivery or redelivery of a Global Security shall be in writing but need not comply with Section 102 and need not be accompanied by an Opinion of Counsel.



The provisions of the last sentence of Section 303 shall apply to any Security represented by a Global Security if such Security was never issued and sold by the Company and the Company delivers to the Trustee the Global Security together with written instructions (which need not comply with Section 102 and need not be accompanied by an Opinion of Counsel) with regard to the reduction in the principal amount of Securities represented thereby, together with the written statement contemplated by the last sentence of Section 303.

Notwithstanding the provisions of Section 307, unless otherwise specified as contemplated by Section 301, payment of principal of and any premium or Make-Whole Amount, if any, and interest on any Global Security in permanent global form shall be made to the registered Holder thereof.

Notwithstanding the provisions of Section 308 and except as provided in the preceding paragraph, the Company, the Trustee and any agent of the Company and the Trustee shall treat as the Holder of such principal amount of Outstanding Securities represented by a permanent Global Security (i) in the case of a permanent Global Security in registered form, the Holder of such permanent Global Security in registered form, or (ii) in the case of a permanent Global Security in bearer form, Euroclear or Clearstream.

Any Global Security authenticated and delivered hereunder shall bear a legend in substantially the following form:

“This Security is a Global Security within the meaning set forth in the Indenture hereinafter referred to and is registered in the name of a Depository or a nominee of a Depository. This Security is exchangeable for Securities registered in the name of a person other than the Depository or its nominee only in the limited circumstances described in the Indenture, and may not be transferred except as a whole by the Depository to a nominee of the Depository or by a nominee of the Depository to the Depository or another nominee of the Depository or by the Depository or its nominee to a successor Depository or its nominee.”

### ARTICLE THREE - THE SECURITIES

SECTION 301. Amount Unlimited; Issuable in Series. The aggregate principal amount of Securities which may be authenticated and delivered under this Indenture is unlimited.

The Securities may be issued in one or more series, each of which shall be authorized pursuant to Board Resolutions of the Company. There shall be established in one or more Board Resolutions or pursuant to authority granted by one or more Board Resolutions and, subject to Section 303, set forth in an Officers' Certificate, or established in one or more indentures supplemental hereto, prior to the issuance of Securities of any series:

- (1) The title of the Securities of the series, including "CUSIP" numbers (which shall distinguish the Securities of such series from all other series of Securities);
- (2) Any limit upon the aggregate principal amount of the Securities of the series that may be authenticated and delivered under this Indenture (except for Securities authenticated and delivered upon registration of transfer of, or upon conversion of, or in exchange for, or in lieu of, other Securities of the series pursuant to Section 304, 305, 306, 906, 1107 or 1305) and the minimum authorized denominations with respect to the Securities of such series;
- (3) The price (expressed as a percentage of the principal amount thereof) at which such Securities will be issued and, if other than the principal amount thereof, the portion of the principal amount thereof payable upon declaration of acceleration of the maturity thereof or (if applicable) the portion of the principal amount of such Securities that is convertible into Common Stock or Preferred Stock or the method by which any such portion shall be determined;
- (4) If convertible, the terms on which such Securities are convertible, including the initial conversion price or rate and the conversion period and any applicable limitations on the ownership or transferability of Common Stock or Preferred Stock receivable on conversion;
- (5) The date or dates, or the method for determining such date or dates, on which the principal of such Securities will be payable;
- (6) The rate or rates (which may be fixed or variable), or the method by which such rate or rates shall be determined, at which such Securities will bear interest, if any;
- (7) The date or dates, or the method for determining such date or dates, from which any such interest will accrue, the Interest Payment Dates on which any such interest will be payable, the Regular Record Dates for such Interest Payment Dates, or the method by which such dates shall be determined, the Persons to whom such interest shall be payable, and the basis upon which interest shall be calculated if other than that of a 360-day year of twelve 30-day months;
- (8) The Make-Whole Amount, if any, or method for determining the Make-Whole Amount, if any, payable with respect to such Securities, and the terms upon which such amount, if any, will be payable;
- (9) The place or places where the principal of (and premium or Make-Whole Amount, if any) and interest, if any, on such Securities will be payable, where such Securities may be surrendered for registration of transfer or conversion or exchange and where notices or demands to or upon the Company in respect of such Securities and this Indenture may be served;

(10) The period or periods, if any, within which, the price or prices at which and the other terms and conditions upon which such Securities may, pursuant to any optional or mandatory redemption provisions, be redeemed, as a whole or in part, at the option of the Company;

(11) The obligation, if any, of the Company to redeem, repay or purchase such Securities pursuant to any sinking fund or analogous provision or at the option of a Holder thereof, and the period or periods within which, the price or prices at which and the other terms and conditions upon which such Securities will be redeemed, repaid or purchased, as a whole or in part, pursuant to such obligation;

(12) If other than Dollars, the currency or currencies in which such Securities are denominated and payable, which may be a foreign currency or units of two or more foreign currencies or a composite currency or currencies, the manner of determining the equivalent thereof in Dollars for purposes of the definition of "Outstanding" in Section 101, and the terms and conditions relating thereto;

(13) Whether the amount of payments of principal of (and premium or Make-Whole Amount, if any, including any amount due upon redemption, if any) or interest on such Securities may be determined with reference to an index, formula or other method (which index, formula or method may, but need not be, based on the yield on or trading price of other securities, including United States Treasury securities or on a currency, currencies, currency unit or units, or composite currency or currencies) and the manner in which such amounts shall be determined;

(14) Whether the principal of (and premium or Make-Whole Amount, if any) or interest on the Securities of the series are to be payable, at the election of the Company or a Holder thereof, in a currency or currencies, currency unit or units or composite currency or currencies other than that in which such Securities are denominated or stated to be payable, the period or periods within which, and the terms and conditions upon which, such election may be made, and the time and manner of, and identity of the exchange rate agent with responsibility for, determining the exchange rate between the currency or currencies, currency unit or units or composite currency or currencies in which such Securities are denominated or stated to be payable and the currency or currencies, currency unit or units or composite currency or currencies in which such Securities are to be so payable;

(15) Provisions, if any, granting special rights to the Holders of Securities of the series upon the occurrence of such events as may be specified;

(16) Any deletions from, modifications of or additions to the Events of Default or covenants of the Company with respect to Securities of the series, whether or not such Events of Default or covenants are consistent with the Events of Default or covenants set forth herein;

(17) Whether and under what circumstances the Company will pay any additional amounts on such Securities in respect of any tax, assessment or governmental charge and, if so, whether the Company will have the option to redeem such Securities in lieu of making such payment;

(18) Whether Securities of the series are to be issuable as Registered Securities, Bearer Securities (with or without coupons) or both, any restrictions applicable to the offer, sale or delivery of Bearer Securities and the terms upon which Bearer Securities of the series may be exchanged for Registered Securities of the series and vice versa (if permitted by applicable laws and regulations), whether any Securities of the series are to be issuable initially in temporary global form and whether any Securities of the series are to be issuable in permanent global form with or without coupons and, if so, whether beneficial owners of interests in any such permanent global Security may, or shall be required to, exchange such interests for Securities of such series and of like tenor of any authorized form and denomination and the circumstances under which any such exchanges may, or shall be required to, occur, if other than in the manner provided in the Indenture, and, if Registered Securities of the series are to be issuable as a Global Security, the identity of the depository for such series;

(19) The date as of which any Bearer Securities of the series and any temporary Global Security representing outstanding Securities of the series shall be dated if other than the date of original issuance of the first Security of the series to be issued;

(20) The Person to whom any interest on any Registered Security of the series shall be payable, if other than the Person in whose name that Security (or one or more Predecessor Securities) is registered at the close of business on the Regular Record Date for such interest the manner in which, or the Person to whom, any interest on any Bearer Security of the series shall be payable, if otherwise than upon presentation and surrender of the coupons appertaining thereto as they severally mature, and the extent to which, or the manner in which, any interest payable on a temporary Global Security on an Interest Payment Date will be paid if other than in the manner provided herein; provided, however, in each case, that the manner of determining such Person or making such payment shall be acceptable to the Trustee (as not imposing on it any undue administrative burden or risk of liability);

(21) The applicability, if any, of the Defeasance and Covenant Defeasance provisions of Article Fourteen hereof to the Securities of the series;

(22) The obligation, if any, of the Company to permit the conversion of the Securities of such series into Common Stock or Preferred Stock, as the case may be, and the terms and conditions upon which such conversion shall be effected (including, without limitation, the initial conversion price or rate, the conversion period, any adjustment of the applicable conversion price and any requirements relative to the reservation of such shares for purposes of conversion);

(23) If the Securities of such series are to be issuable in definitive form (whether upon original issue or upon exchange of a temporary Security of such series) only upon receipt of certain certificates or other documents or satisfaction of other conditions, then the form and/or terms of such certificates, documents or conditions;

(24) Designation of the Trustee, if different from the Trustee under the Indenture, with respect to such series and the terms applicable to such Trustee (which shall be accepted by such Trustee by its execution and delivery of a supplemental indenture as provided therein); and

(25) Any other terms of the series (which terms shall not be inconsistent with the provisions of this Indenture).

All Securities of any one series and the coupons appertaining to any Bearer Securities of such series shall be substantially identical except, in the case of Registered Securities, as to denomination and except as may otherwise be provided in or pursuant to such Board Resolution (subject to Section 303) and set forth in such Officers' Certificate or in any such indenture supplemental hereto. All Securities of any one series need not be issued at the same time and, unless otherwise provided, a series may be reopened, without the consent of the Holders, for issuances of additional Securities of such series.

If any of the terms of the Securities of any series are established by action taken pursuant to one or more Board Resolutions, a copy of an appropriate record of such action(s) shall be certified by the Secretary or an Assistant Secretary of the Company and delivered to the Trustee at or prior to the delivery of the Officers' Certificate setting forth the terms of the Securities of such series.

SECTION 302. Denominations. The Securities of each series shall be issuable in such denominations as shall be specified as contemplated by Section 301. With respect to Securities of any series denominated in Dollars, in the absence of any such provisions with respect to the Securities of any series, the Securities of such series, other than Global Securities (which may be of any denomination), shall be issuable in denominations of \$1,000 and any integral multiple thereof or the equivalent amounts thereof in the case of Securities denominated in the Foreign Currency or currency unit.

SECTION 303. Execution, Authentication, Delivery and Dating. The Securities and any coupons appertaining thereto shall be executed on behalf of the Company by its Chief Executive Officer, its President, or one of its Vice Presidents, under its corporate seal reproduced thereon, and attested by its Secretary or one of its Assistant Secretaries. The signature of any of these officers on the Securities and coupons may be manual or facsimile signatures of the present or any future such authorized officer and may be imprinted or otherwise reproduced on the Securities.

Securities and coupons bearing the manual or facsimile signatures of individuals who were at any time the proper officers of the Company shall bind the Company, notwithstanding that such individuals or any of them have ceased to hold such offices prior to the authentication and delivery of such Securities or did not hold such offices at the date of such Securities or coupons.

At any time and from time to time after the execution and delivery of this Indenture, the Company may deliver Securities of any series, together with any coupon appertaining thereto, executed by the Company to the Trustee for authentication, together with a Company Order for the authentication and delivery of such Securities (accompanied by a copy of the Board Resolution and the Officers' Certificate or supplemental indenture contemplated by Section 301), and the Trustee in accordance with the Company Order shall authenticate and deliver such Securities; provided, however, that, in connection with its original issuance, no Bearer Security shall be mailed or otherwise delivered to any location in the United States; and provided further that, unless otherwise specified with respect to any series of Securities pursuant to Section 301, a Bearer Security may be delivered in connection with its original issuance only if the Person entitled to receive such Bearer Security shall have furnished a certificate to Euroclear or Clearstream, as the case may be, in the form set forth in Exhibit B-1 to this Indenture or such other certificate as may be specified by the Company with respect to any series of Securities pursuant to Section 301, dated no earlier than 15 days prior to the earlier of the date on which such Bearer Security is delivered and the date on which any temporary Security first becomes exchangeable for such Bearer Security in accordance with the terms of such temporary Security and this Indenture. If any Security shall be represented by a permanent Global Security, then, for purposes of this Section and Section 304, the notation of a beneficial owner's interest therein upon original issuance of such Security or upon exchange of a portion of a temporary Global Security shall be deemed to be delivery in connection with its original issuance of such beneficial owner's interest in such permanent Global Security. Except as permitted by Section 306, the Trustee shall not authenticate and deliver any Bearer Security unless all appurtenant coupons for interest then matured have been detached and canceled.

If all the Securities of any series are not to be issued at one time and if the Board Resolution or supplemental indenture establishing such series shall so permit, such Company Order may set forth procedures acceptable to the Trustee for the issuance of such Securities and determining the terms of particular Securities of such series, such as interest rate or formula, maturity date, date of issuance and date from which interest shall accrue. In authenticating such Securities, and accepting the additional responsibilities under this Indenture in relation to such Securities, the Trustee shall be entitled to receive, and (subject to TIA Section 315(a) through 315(d)) shall be fully protected in relying upon,

- (i) an Opinion of Counsel stating that
  - (a) the form or forms of such Securities and any coupons have been established in conformity with the provisions of this Indenture;
  - (b) the terms of such Securities and any coupons have been established in conformity with the provisions of this Indenture; and
  - (c) such Securities, together with any coupons appertaining thereto, when completed by appropriate insertions and executed and delivered by the Company to the Trustee for authentication in accordance with this Indenture, authenticated and delivered by the Trustee in accordance with this Indenture and issued by the Company in the manner and subject to any conditions specified in such Opinion of Counsel, will constitute legal, valid and legally binding obligations of the Company, enforceable in accordance with their terms, subject to applicable bankruptcy, insolvency, fraudulent transfer, reorganization and other similar laws of general applicability relating to or affecting the enforcement of creditors' rights generally and to general equitable principles; and

(ii) an Officers' Certificate stating that all conditions precedent provided for in this Indenture relating to the issuance of the Securities have been complied with and that, to the best of the knowledge of the signers of such certificate, that no Event of Default with respect to any of the Securities shall have occurred and be continuing.

If such form or terms have been so established, the Trustee shall not be required to authenticate such Securities (or to enter into the related supplemental indenture, if applicable) if the issue of such Securities pursuant to this Indenture will affect the Trustee's own rights, duties, obligations or immunities under the Securities and this Indenture or otherwise in a manner which is not reasonably acceptable to the Trustee.

Notwithstanding the provisions of Section 301 and of the preceding paragraph, if all the Securities of any series are not to be issued at one time, it shall not be necessary to deliver an Officers' Certificate otherwise required pursuant to Section 301 or a Company Order, or an Opinion of Counsel or an Officers' Certificate otherwise required pursuant to the preceding paragraph at the time of issuance of each Security of such series, but such order, opinion and certificates, with appropriate modifications to cover such future issuances, shall be delivered at or before the time of issuance of the first Security of such series.

Each Registered Security shall be dated the date of its authentication and each Bearer Security shall be dated as of the date specified as contemplated by Section 301.

No Security or coupon shall be entitled to any benefit under this Indenture or be valid or obligatory for any purpose unless there appears on such Security or Security to which such coupon appertains a certificate of authentication substantially in the form provided for herein duly executed by the Trustee (subject to Section 611) by manual signature of an authorized signatory, and such certificate upon any Security shall be conclusive evidence, and the only evidence, that such Security has been duly authenticated and delivered hereunder and is entitled to the benefits of this Indenture.

Notwithstanding the foregoing, if any Security (including a Global Security) shall have been authenticated and delivered hereunder but never issued and sold by the Company, and the Company shall deliver such Security to the Trustee for cancellation as provided in Section 309 together with a written statement (which need not comply with Section 102 and need not be accompanied by an Opinion of Counsel) stating that such Security has never been issued and sold by the Company, for all purposes of this Indenture such Security shall be deemed never to have been authenticated and delivered hereunder and shall never be entitled to the benefits of this Indenture.

#### SECTION 304. Temporary Securities.

(a) Pending the preparation of definitive Securities of any series, the Company may execute, and upon Company Order the Trustee shall authenticate and deliver, temporary Securities which are printed, lithographed, typewritten, mimeographed or otherwise produced, in any authorized denomination, substantially of the tenor of the definitive Securities in lieu of which they are issued, in registered form, or, if authorized, in bearer form with one or more coupons or without coupons, and with such appropriate insertions, omissions, substitutions and other variations as the officers executing such Securities may determine, as conclusively evidenced by their execution of such Securities. In the case of Securities of any series, such temporary Securities may be in global form.

Except in the case of temporary Global Securities (which shall be exchanged as otherwise provided herein or as otherwise provided in or pursuant to a Board Resolution or supplemental indenture pursuant to Section 301), if temporary Securities of any series are issued, the Company will cause definitive Securities of that series to be prepared without unreasonable delay. After the preparation of definitive Securities of such series, the temporary Securities of such series shall be exchangeable for definitive Securities of such series upon surrender of the temporary Securities of such series at the office or agency of the Company in a Place of Payment for that series, without charge to the Holder. Upon surrender for cancellation of any one or more temporary Securities of any series (accompanied by any non-matured coupons appertaining thereto), the Company shall execute (in accordance with a Company Order delivered at or prior to the authentication of the first definitive security to such series) and the Trustee shall authenticate and deliver in exchange therefor a like principal amount of definitive Securities of the same series of authorized denominations; provided, however, that no definitive Bearer Security shall be delivered in exchange for a temporary Registered Security; and provided further that a definitive Bearer Security shall be delivered in exchange for a temporary Bearer Security only in compliance with the conditions set forth in Section 303. Until so exchanged, the temporary Securities of any series shall in all respects be entitled to the same benefits under this Indenture as definitive Securities of such series.

(b) Unless otherwise provided in or pursuant to a Board Resolution or supplemental indenture pursuant to Section 301, the following provisions of this Section 304(b) shall govern the exchange of temporary Securities other than through the facilities of the DTC. If any such temporary Security is issued in global form, then such temporary Global Security shall, unless otherwise provided therein, be delivered to the London office of a depository or common depository upon and pursuant to written direction of the Company (the “Common Depository”), for the benefit of Euroclear and Clearstream, for credit to the respective accounts of the beneficial owners of such Securities (or to such other accounts as they may direct).

Without unnecessary delay but in any event not later than the date specified in, or determined pursuant to the terms of, any such temporary Global Security (the “Exchange Date”), the Company shall deliver to the Trustee definitive Securities, in aggregate principal amount equal to the principal amount of such temporary Global Security, executed by the Company. On or after the Exchange Date, such temporary Global Security shall be surrendered by the Common Depository to the Trustee, as the Company’s agent for such purpose, to be exchanged, in whole or from time to time in part, for definitive Securities without charge, and the Trustee shall authenticate and deliver, in exchange for each portion of such temporary Global Security, an equal aggregate principal amount of definitive Securities of the same series of authorized denominations and of like tenor as the portion of such temporary Global Security to be exchanged. The definitive Securities to be delivered in exchange for any such temporary Global Security shall be in bearer form, registered form, permanent global bearer form or permanent global registered form, or any combination thereof, as specified as contemplated by Section 301, and, if any combination thereof is so specified, as requested by the beneficial owner thereof (as directed by or pursuant to information provided by the Common Depository); provided, however, that, unless otherwise specified in such temporary Global Security, upon such presentation by the Common Depository, such temporary Global Security shall be accompanied by a certificate dated the Exchange Date or a subsequent date and signed by Euroclear as to the portion of such temporary Global Security held for its account then to be exchanged and a certificate dated the Exchange Date or a subsequent date and signed by Clearstream as to the portion of such temporary Global Security held for its account then to be exchanged, each in the form set forth in Exhibit B-2 to this Indenture or in such other form as may be established pursuant to Section 301; and provided further that definitive Bearer Securities shall be delivered in exchange for a portion of a temporary Global Security only in compliance with the requirements of Section 303.



Unless otherwise specified in such temporary Global Security, the interest of a beneficial owner of Securities of a series in a temporary Global Security shall be exchanged for definitive Securities of the same series and of like tenor following the Exchange Date when the account holder instructs Euroclear or Clearstream, as the case may be, to request such exchange on his behalf and delivers to Euroclear or Clearstream, as the case may be, a certificate in the form set forth in Exhibit B-1 to this Indenture (or in such other form as may be established pursuant to Section 301), dated no earlier than 15 days prior to the Exchange Date, copies of which certificate shall be available from the offices of Euroclear and Clearstream, the Trustee, any Authenticating Agent appointed for such series of Securities and each Paying Agent. Unless otherwise specified in such temporary Global Security, any such exchange shall be made free of charge to the beneficial owners of such temporary Global Security, except that a Person receiving definitive Securities must bear the cost of insurance, postage, transportation and the like unless such Person takes delivery of such definitive Securities in person at the offices of Euroclear or Clearstream. Definitive Securities in bearer form to be delivered in exchange for any portion of a temporary Global Security shall be delivered only to an address located outside the United States.

Until exchanged in full as hereinabove provided, the temporary Securities of any series shall in all respects be entitled to the same benefits under this Indenture as definitive Securities of the same series and of like tenor authenticated and delivered hereunder, except that, unless otherwise specified as contemplated by Section 301, interest payable on a temporary Global Security on an Interest Payment Date for Securities of such series occurring prior to the applicable Exchange Date shall be payable to Euroclear and Clearstream on such Interest Payment Date upon delivery by Euroclear and Clearstream to the Trustee of a certificate or certificates in the form set forth in Exhibit B-2 to this Indenture (or in such other forms as may be established pursuant to Section 301), for credit without further interest on or after such Interest Payment Date to the respective accounts of Persons who are the beneficial owners of such temporary Global Security on such Interest Payment Date and who have each delivered to Euroclear or Clearstream, as the case may be, a certificate dated no earlier than 15 days prior to the Interest Payment Date occurring prior to such Exchange Date in the form set forth as Exhibit B-1 to this Indenture (or in such other forms as may be established pursuant to Section 301). Notwithstanding anything to the contrary herein contained, the certifications made pursuant to this paragraph shall satisfy the certification requirements of the preceding two paragraphs of this Section 304(b) and of the third paragraph of Section 303 of this Indenture and the interests of the Persons who are the beneficial owners of the temporary Global Security with respect to which such certification was made will be exchanged for definitive Securities of the same series and of like tenor on the Exchange Date or the date of certification if such date occurs after the Exchange Date, without further act or deed by such beneficial owners. Except as otherwise provided in this paragraph, no payments of principal or interest owing with respect to a beneficial interest in a temporary Global Security will be made unless and until such interest in such temporary Global Security shall have been exchanged for an interest in a definitive Security. Any interest so received by Euroclear and Clearstream and not paid as herein provided shall be returned to the Trustee prior to the expiration of two years after such Interest Payment Date in order to be repaid to the Company.

With respect to Exhibit B-1 or B-2 to this Indenture, the Company may, in its discretion and if required or desirable under applicable law, substitute one or more other forms of such exhibits for such exhibits, eliminate the requirement that any or all certificate be provided, or change the time that any certificate may be required, provided that such substitute form or forms or notice of elimination or change of such certification requirement have theretofore been delivered to the Trustee with a Company Request and such form or forms, elimination or change is reasonably acceptable to the Trustee.

**SECTION 305. Registration, Registration of Transfer, Conversion and Exchange.** The Company shall cause to be kept at the Corporate Trust Office of the Trustee or in any office or agency of the Company in a Place of Payment a register for each series of Securities (the registers maintained in such office or in any such office or agency of the Company in a Place of Payment being herein sometimes referred to collectively as the “Security Register”) in which, subject to such reasonable regulations as it may prescribe, the Company shall provide for the registration of Registered Securities and of transfers of Registered Securities. The Security Register shall be in written form or any other form capable of being converted into written form within a reasonable time. The Trustee, at its Corporate Trust Office, is hereby initially appointed “Security Registrar” for the purpose of registering Registered Securities and transfers of Registered Securities on such Security Register as herein provided. In the event that the Trustee shall cease to be Security Registrar, it shall have the right to examine, and be provided a copy of, the Security Register at all reasonable times.

Subject to the provisions of this Section 305, upon surrender for registration of transfer of any Registered Security of any series at any office or agency of the Company in a Place of Payment for that series, the Company shall execute, and the Trustee shall authenticate and deliver, in the name of the designated transferee or transferees, one or more new Registered Securities of the same series, of any authorized denominations and of a like aggregate principal amount, bearing a number not contemporaneously outstanding, and containing identical terms and provisions.

Subject to the provisions of this Section 305, at the option of the Holder, Registered Securities of any series may be exchanged for other Registered Securities of the same series, of any authorized denomination or denominations and of a like aggregate principal amount, containing identical terms and provisions, upon surrender of the Registered Securities to be exchanged at any such office or agency. Whenever any such Registered Securities are so surrendered for exchange, the Company shall execute, and the Trustee shall authenticate and deliver, the Registered Securities which the Holder making the exchange is entitled to receive. Unless otherwise specified with respect to any series of Securities as contemplated by Section 301, Bearer Securities may not be issued in exchange for Registered Securities.

If (but only if) permitted by the applicable Board Resolution and (subject to Section 303) set forth in the applicable Officers' Certificate, or in any indenture supplemental hereto, delivered as contemplated by Section 301, at the option of the Holder, Bearer Securities of any series may be exchanged for Registered Securities of the same series of any authorized denominations and of a like aggregate principal amount and tenor, upon surrender of the Bearer Securities to be exchanged at any such office or agency, with all unmatured coupons and all matured coupons in default thereto appertaining. If the Holder of a Bearer Security is unable to produce any such unmatured coupon or coupons or matured coupon or coupons in default, any such permitted exchange may be effected if the Bearer Securities are accompanied by payment in funds acceptable to the Company (or to the Trustee for the Security in case of matured coupons in default) in an amount equal to the face amount of such missing coupon or coupons, or the surrender of such missing coupon or coupons may be waived by the Company and the Trustee if there is furnished to them such security or indemnity as they may require to save each of them and any Paying Agent harmless. If thereafter the Holder of such Security shall surrender to any Paying Agent any such missing coupon in respect of which such a payment shall have been made, such Holder shall be entitled to receive the amount of such payment; provided, however, that, except as otherwise provided in Section 1002, interest represented by coupons shall be payable only upon presentation and surrender of those coupons at an office or agency located outside the United States. Notwithstanding the foregoing, in case a Bearer Security of any series is surrendered at any such office or agency in a permitted exchange for a Registered Security of the same series and like tenor after the close of business at such office or agency on (i) any Regular Record Date and before the opening of business at such office or agency on the relevant Interest Payment Date, or (ii) any Special Record Date and before the opening of business at such office or agency on the related proposed date for payment of Defaulted Interest, such Bearer Security shall be surrendered without the coupon relating to such Interest Payment Date or proposed date for payment, as the case may be, and interest or Defaulted Interest, as the case may be, will not be payable on such Interest Payment Date or proposed date for payment, as the case may be, in respect of the Registered Security issued in exchange for such Bearer Security, but will be payable only to the Holder of such coupon when due in accordance with the provisions of this Indenture. Whenever any Securities are so surrendered for exchange, the Company shall execute, and the Trustee shall authenticate and deliver, the Securities which the Holder making the exchange is entitled to receive.

Notwithstanding the foregoing, except as otherwise specified as contemplated by Section 301, any permanent Global Security shall be exchangeable only as provided in this paragraph. If the depository for any permanent Global Security is DTC, then, unless the terms of such Global Security expressly permit such Global Security to be exchanged in whole or in part for definitive Securities, a Global Security may be transferred, in whole but not in part, only to a nominee of DTC, or by a nominee of DTC to DTC, or to a successor to DTC for such Global Security selected or approved by the Company or to a nominee of such successor to DTC. If at any time DTC notifies the Company that it is unwilling or unable to continue as depository for the applicable Global Security or Securities or if at any time DTC ceases to be a clearing agency registered under the Exchange Act if so required by applicable law or regulation, the Company shall appoint a successor depository with respect to such Global Security or Securities. If (w) a successor depository for such Global Security or Securities is not appointed by the Company within 90 days after the Company receives such notice or becomes aware of such unwillingness, inability or ineligibility, (x) the Company delivers to the Trustee for Securities of such series in registered form a Company Order stating that the Securities of such series shall be exchangeable, (y) an Event of Default has occurred and is continuing and the beneficial owners representing a majority in principal amount of the applicable series of Securities represented by such Global Security or Securities advise DTC to cease acting as depository for such Global Security or Securities or (z) the Company, in its sole discretion, determines at any time that all Outstanding Securities (but not less than all) of any series issued or issuable in the form of one or more Global Securities shall no longer be represented by such Global Security or Securities, then the Company shall execute, and the Trustee shall authenticate and deliver definitive Securities of like series, rank, tenor and terms in definitive form in an aggregate principal amount equal to the principal amount of such Global Security or Securities. If any beneficial owner of an interest in a permanent global Security is otherwise entitled to exchange such interest for Securities of such series and of like tenor and principal amount of another authorized form and denomination, as specified as contemplated by Section 301 and provided that any applicable notice provided in the permanent Global Security shall have been given, then without unnecessary delay but in any event not later than the earliest date on which such interest may be so exchanged, the Company shall execute, and the Trustee shall authenticate and deliver definitive Securities in aggregate principal amount equal to the principal amount of such beneficial owner's interest in such permanent Global Security. On or after the earliest date on which such interests may be so exchanged, such permanent Global Security shall be surrendered for exchange by DTC or such other depository as shall be specified in the Company Order with respect thereto to the Trustee, as the Company's agent for such purpose; provided, however, that no such exchanges may occur during a period beginning at the opening of business 15 days before any selection of Securities to be redeemed and ending on the relevant Redemption Date if the Security for which exchange is requested may be among those selected for redemption; and provided further that no Bearer Security delivered in exchange for a portion of a permanent Global Security shall be mailed or otherwise delivered to any location in the United States. If a Registered Security is issued in exchange for any portion of a permanent Global Security after the close of business at the office or agency where such exchange occurs on (i) any Regular Record Date and before the opening of business at such office or agency on the relevant Interest Payment Date, or (ii) any Special Record Date and the opening of business at such office or agency on the related proposed date for payment of Defaulted Interest, interest or Defaulted Interest, as the case may be, will not be payable on such Interest Payment Date or proposed date for payment, as the case may be, in respect of such Registered Security, but will be payable on such Interest Payment Date or proposed date for payment, as the case may be, only to the Person to whom interest in respect of such portion of such permanent Global Security is payable in accordance with the provisions of this Indenture.

All Securities issued upon any registration of transfer or conversion or exchange of Securities shall be the valid obligations of the Company, evidencing the same debt, and entitled to the same benefits under this Indenture, as the Securities surrendered upon such registration of transfer or conversion or exchange.

Every Registered Security presented or surrendered for registration of transfer or for conversion, exchange or redemption shall (if so required by the Company or the Security Registrar) be duly endorsed, or be accompanied by a written instrument of transfer in form satisfactory to the Company and the Security Registrar, duly executed by the Holder thereof or his attorney duly authorized in writing.

No service charge shall be made to the Holder for any registration of transfer or conversion or exchange of Securities, but the Company may require payment of a sum sufficient to cover any tax or other governmental charge that may be imposed in connection with any registration of transfer or conversion or exchange of Securities, other than exchanges pursuant to Section 304, 906, 1107 or 1305 not involving any transfer.

The Company or the Trustee, as applicable, shall not be required (i) to issue, register the transfer of or exchange any Security if such Security may be among those selected for redemption during a period beginning at the opening of business 15 days before selection of the Securities to be redeemed under Section 1103 and ending at the close of business on (A) if such Securities are issuable only as Registered Securities, the day of the mailing of the relevant notice of redemption and (B) if such Securities are issuable as Bearer Securities, the day of the first publication of the relevant notice of redemption or, if such Securities are also issuable as Registered Securities and there is no publication, the mailing of the relevant notice of redemption, or (ii) to register the transfer of or exchange any Registered Security so selected for redemption in whole or in part, except, in the case of any Registered Security to be redeemed in part, the portion thereof not to be redeemed, or (iii) to exchange any Bearer Security so selected for redemption except that such a Bearer Security may be exchanged for a Registered Security of that series and like tenor, provided that such Registered Security shall be simultaneously surrendered for redemption, or (iv) to issue, register the transfer of or exchange any Security which has been surrendered for repayment at the option of the Holder, except the portion, if any, of such Security not to be so repaid.

Furthermore, notwithstanding any other provision of this Section 305, the Company will not be required to exchange any Securities if, as a result of the exchange, the Company would suffer adverse consequences under any United States law or regulation.

SECTION 306. Mutilated, Destroyed, Lost and Stolen Securities. If any mutilated Security or a Security with a mutilated coupon appertaining to it is surrendered to the Trustee or the Company, together with, in proper cases, such security or indemnity as may be required by the Company or the Trustee to save each of them or any agent of either of them harmless, the Company shall execute and the Trustee shall authenticate and deliver in exchange therefor a new Security of the same series and principal amount, containing identical terms and provisions and bearing a number not contemporaneously outstanding, with coupons corresponding to the coupons, if any, appertaining to the surrendered Security.

If there shall be delivered to the Company and to the Trustee (i) evidence to their satisfaction of the destruction, loss or theft of any Security or coupon, and (ii) such security or indemnity as may be required by them to save each of them and any agent of either of them harmless, then, in the absence of notice to the Company or the Trustee that such Security or coupon has been acquired by a bona fide purchaser, the Company shall execute and upon its request the Trustee shall authenticate and deliver, in lieu of any such destroyed, lost or stolen Security or in exchange for the Security to which a destroyed, lost or stolen coupon appertains (with all appurtenant coupons not destroyed, lost or stolen), a new Security of the same series and principal amount, containing identical terms and provisions and bearing a number not contemporaneously outstanding, with coupons corresponding to the coupons, if any, appertaining to such destroyed, lost or stolen Security or to the Security to which such destroyed, lost or stolen coupon appertains.

Notwithstanding the provisions of the previous two paragraphs, in case any such mutilated, destroyed, lost or stolen Security or coupon has become or is about to become due and payable, the Company in its discretion may, instead of issuing a new Security, with coupons corresponding to the coupons, if any, appertaining to such destroyed, lost or stolen Security or to the Security to which such destroyed, lost or stolen coupon appertains, pay such Security or coupon if the applicant for such payment shall furnish to the Company and the Trustee for such Security such security or indemnity as may be required by them to save each of them harmless, and in the case of destruction, loss or theft, evidence satisfactory to the Company and Trustee and any agent of any of them of the destruction, loss or theft of such Security and the ownership thereof; provided, however, that payment of principal of (and premium or Make-Whole Amount, if any), and interest, if any, on, Bearer Securities shall, except as otherwise provided in Section 1002, be payable only at an office or agency located outside the United States and, unless otherwise specified as contemplated by Section 301, any interest on Bearer Securities shall be payable only upon presentation and surrender of the coupons appertaining thereto.

Upon the issuance of any new Security under this Section, the Company may require the payment of a sum sufficient to cover any tax or other governmental charge that may be imposed in relation thereto and any other expenses (including the fees and expenses of the Trustee) connected therewith.

Every new Security of any series with its coupons, if any, issued pursuant to this Section in lieu of any destroyed, lost or stolen Security, or in exchange for a Security to which a destroyed, lost or stolen coupon appertains, shall constitute an original additional contractual obligation of the Company, whether or not the destroyed, lost or stolen Security and its coupons, if any, or the destroyed, lost or stolen coupon shall be at any time enforceable by anyone, and shall be entitled to all the benefits of this Indenture equally and proportionately with any and all other Securities of that series and their coupons, if any, duly issued hereunder.

The provisions of this Section are exclusive and shall preclude (to the extent lawful) all other rights and remedies with respect to the replacement or payment of mutilated, destroyed, lost or stolen Securities or coupons.

SECTION 307. Payment of Interest; Interest Rights Preserved. Except as otherwise specified with respect to a series of Securities in accordance with the provisions of Section 301, interest on any Registered Security that is payable, and is punctually paid or duly provided for, on any Interest Payment Date shall be paid to the Person in whose name that Security (or one or more Predecessor Securities) is registered at the close of business on the Regular Record Date for such interest payment at the office or agency of the Company maintained for such purpose pursuant to Section 1002; provided, however, that each installment of interest on any Registered Security may at the Company's option be paid by (i) mailing a check for such interest, payable to or upon the written order of the Person entitled thereto pursuant to Section 308, to the address of such Person as it appears on the Security Register or (ii) transfer to an account maintained by the payee located inside the United States.

Unless otherwise provided as contemplated by Section 301 with respect to the Securities of any series, payment of interest may be made, in the case of a Bearer Security, by transfer to an account maintained by the payee with a bank located outside the United States.

Unless otherwise provided as contemplated by Section 301, every permanent Global Security will provide that interest, if any, payable on any Interest Payment Date will be paid to DTC, Euroclear and/or Clearstream, as the case may be, with respect to that portion of such permanent Global Security held for its account by Cede & Co. or the Common Depository, as the case may be, for the purpose of permitting such party to credit the interest received by it in respect of such permanent Global Security to the accounts of the beneficial owners thereof.

In case a Bearer Security of any series is surrendered in exchange for a Registered Security of such series after the close of business (at an office or agency in a Place of Payment for such series) on any Regular Record Date and before the opening of business (at such office or agency) on the next succeeding Interest Payment Date, such Bearer Security shall be surrendered without the coupon relating to such Interest Payment Date and interest will not be payable on such Interest Payment Date in respect of the Registered Security issued in exchange for such Bearer Security, but will be payable only to the Holder of such coupon when due in accordance with the provisions of this Indenture.

Except as otherwise specified with respect to a series of Securities in accordance with the provisions of Section 301, any interest on any Registered Security of any series that is payable, but is not punctually paid or duly provided for, on any Interest Payment Date (herein called "Defaulted Interest") shall forthwith cease to be payable to the registered Holder thereof on the relevant Regular Record Date by virtue of having been such Holder, and such Defaulted Interest may be paid by the Company, at its election in each case, as provided in clause (1) or (2) below:

(1) The Company may elect to make payment of any Defaulted Interest to the Persons in whose names the Registered Securities of such series (or their respective Predecessor Securities) are registered at the close of business on a Special Record Date for the payment of such Defaulted Interest, which shall be fixed in the following manner. The Company shall notify the Trustee in writing of the amount of Defaulted Interest proposed to be paid on each Registered Security of such series and the date of the proposed payment (which shall not be less than 20 days after such notice is received by the Trustee), and at the same time the Company shall deposit with the Trustee an amount of money in the currency or currencies, currency unit or units or composite currency or currencies in which the Securities of such series are payable (except as otherwise specified pursuant to Section 301 for the Securities of such series) equal to the aggregate amount proposed to be paid in respect of such Defaulted Interest or shall make arrangements satisfactory to the Trustee for such deposit on or prior to the date of the proposed payment, such money when deposited to be held in trust for the benefit of the Persons entitled to such Defaulted Interest as in this clause provided. Thereupon the Trustee shall fix a Special Record Date for the payment of such Defaulted Interest which shall be not more than 15 days and not less than 10 days prior to the date of the proposed payment and not less than 10 days after the receipt by the Trustee of the notice of the proposed payment. The Trustee shall promptly notify the Company of such Special Record Date and, in the name and at the expense of the Company, shall cause notice of the proposed payment of such Defaulted Interest and the Special Record Date therefor to be mailed, first-class postage prepaid, to each Holder of Registered Securities of such series at his address as it appears in the Security Register not less than 10 days prior to such Special Record Date. The Trustee may, in its discretion, in the name and at the expense of the Company, cause a similar notice to be published at least once in an Authorized Newspaper in each Place of Payment, but such publications shall not be a condition precedent to the establishment of such Special Record Date. Notice of the proposed payment of such Defaulted Interest and the Special Record Date therefor having been mailed as aforesaid, such Defaulted Interest shall be paid to the Persons in whose names the Registered Securities of such series (or their respective Predecessor Securities) are registered at the close of business on such Special Record Date and shall no longer be payable pursuant to the following clause (2). In case a Bearer Security of any series is surrendered at the office or agency in a Place of Payment for such series in exchange for a Registered Security of such series after the close of business at such office or agency on any Special Record Date and before the opening of business at such office or agency on the related proposed date for payment of Defaulted Interest, such Bearer Security shall be surrendered without the coupon relating to such proposed date of payment and Defaulted Interest will not be payable on such proposed date of payment in respect of the Registered Security issued in exchange for such Bearer Security, but will be payable only to the Holder of such coupon when due in accordance with the provisions of this Indenture.

(2) The Company may make payment of any Defaulted Interest on the Registered Securities of any series in any other lawful manner not inconsistent with the requirements of any over-the-counter market or securities exchange on which such Securities may be quoted or listed, and upon such notice as may be required by such market or exchange, if, after notice given by the Company to the Trustee of the proposed payment pursuant to this clause, such manner of payment shall be deemed practicable by the Trustee.

Subject to the foregoing provisions of this Section and Section 305, each Security delivered under this Indenture upon registration of transfer of or upon conversion of or in exchange for or in lieu of any other Security shall carry the rights to interest accrued and unpaid, and to accrue, which were carried by such other Security.

SECTION 308. Persons Deemed Owners. Prior to due presentment of a Registered Security for registration of transfer, the Company, the Trustee and any agent of the Company or the Trustee may treat the Person in whose name such Registered Security is registered as the owner of such Security for the purpose of receiving payment of principal of (and premium or Make-Whole Amount, if any), and (subject to Sections 305 and 307) interest on, such Registered Security and for all other purposes whatsoever, whether or not such Registered Security be overdue, and neither the Company, the Trustee nor any agent of the Company or the Trustee shall be affected by notice to the contrary. All such payments so made to any such Person, or upon such Person's order, shall be valid, and, to the extent of the sum or sums so paid, effectual to satisfy and discharge the liability for money payable upon any such Security.



Title to any Bearer Security and any coupons appertaining thereto shall pass by delivery. The Company, the Trustee and any agent of the Company or the Trustee may treat the Holder of any Bearer Security and the Holder of any coupon as the absolute owner of such Security or coupon for the purpose of receiving payment thereof or on account thereof and for all other purposes whatsoever, whether or not such Security or coupon be overdue, and neither the Company, the Trustee nor any agent of the Company or the Trustee shall be affected by notice to the contrary.

No holder of any beneficial interest in any Global Security held on its behalf by a depository shall have any rights under this Indenture with respect to such Global Security and such depository (which is the Holder of such security) shall be treated by the Company, the Trustee, and any agent of the Company or the Trustee as the owner of such Global Security for all purposes whatsoever. None of the Company, the Trustee, any Paying Agent or the Security Registrar will have any responsibility or liability for any aspect of the records relating to or payments made on account of beneficial ownership interests of a Global Security or for maintaining, supervising or reviewing any records relating to such beneficial ownership interests.

Notwithstanding the foregoing, with respect to any Global Security, nothing herein shall prevent the Company, the Trustee, or any agent of the Company or the Trustee, from giving effect to any written certification, proxy or other authorization furnished by any depository, as a Holder, with respect to such Global Security or impair, as between such depository and owners of beneficial interests in such Global Security, the operation of customary practices governing the exercise of the rights of such depository (or its nominee) as Holder of such Global Security.

SECTION 309. Cancellation. All Securities and coupons surrendered for payment, redemption, repayment at the option of the Holder, registration of transfer or conversion or exchange or for credit against any sinking fund payment shall, if surrendered to any Person other than the Trustee, be delivered to the Trustee, and any such Securities and coupons and Securities and coupons surrendered directly to the Trustee for any such purpose, upon direction by the Company, shall be promptly cancelled by it. The Company may at any time deliver to the Trustee for cancellation any Securities previously authenticated and delivered hereunder which the Company may have acquired in any manner whatsoever, and may deliver to the Trustee (or to any other Person for delivery to the Trustee) for cancellation any Securities previously authenticated hereunder which the Company has not issued and sold, and all Securities so delivered shall be promptly cancelled by the Trustee. If the Company shall so acquire any of the Securities, however, such acquisition shall not operate as a redemption or satisfaction of the indebtedness represented by such Securities unless and until the same are surrendered to the Trustee for cancellation. No Securities shall be authenticated in lieu of or in exchange for any Securities cancelled as provided in this Section, except as expressly permitted by this Indenture. Cancelled Securities and coupons held by the Trustee shall be disposed of by the Trustee in accordance with its customary practices (subject to the record retention requirements of the Exchange Act).

SECTION 310. Computation of Interest. Except as otherwise specified as contemplated by Section 301 with respect to Securities of any series, interest on the Securities of each series shall be computed on the basis of a 360-day year consisting of twelve 30-day months.

SECTION 311. CUSIP Numbers. The Company in issuing the Securities may use "CUSIP" numbers (if then generally in use), and, if so, the Trustee shall use "CUSIP" numbers in notices of redemption as a convenience to Holders; provided, however, that any such notice may state that no representation is made as to the correctness of such numbers either as printed on the Securities or as contained in any notice of a redemption and that reliance may be placed only on the other identification numbers printed on the Securities, and any such redemption shall not be affected by any defect in or omission of such numbers. The Company will promptly notify the Trustee of any change in the "CUSIP" numbers.

#### ARTICLE FOUR - SATISFACTION AND DISCHARGE

SECTION 401. Satisfaction and Discharge of Indenture. This Indenture shall upon Company Request cease to be of further effect with respect to any series of Securities specified in such Company Request (except as to any surviving rights of registration of transfer or conversion or exchange of Securities of such series herein expressly provided for), and the Trustee, upon receipt of a Company Order, and at the expense of the Company, shall execute instruments in form and substance satisfactory to the Trustee and the Company acknowledging satisfaction and discharge of this Indenture as to such series when

(1) either

(A) all Securities of such series theretofore authenticated and delivered and all coupons, if any, appertaining thereto (other than (i) coupons appertaining to Bearer Securities surrendered for exchange for Registered Securities and maturing after such exchange, whose surrender is not required or has been waived as provided in Section 305, (ii) Securities and coupons of such series which have been destroyed, lost or stolen and which have been replaced or paid as provided in Section 306, (iii) coupons appertaining to Securities called for redemption and maturing after the relevant Redemption Date, whose surrender has been waived as provided in Section 1106, and (iv) Securities and coupons of such series for whose payment money has theretofore been deposited in trust or segregated and held in trust by the Company and thereafter repaid to the Company or discharged from such trust, as provided in Section 1003) have been delivered to the Trustee for cancellation; or

(B) all Securities of such series and, in the case of (i) or (ii) below, any coupons appertaining thereto not theretofore delivered to the Trustee for cancellation

(i) have become due and payable, or

(ii) will become due and payable at their Stated Maturity within one year, or

(iii) if redeemable at the option of the Company, are to be called for redemption within one year under arrangements satisfactory to the Trustee for the giving of notice of redemption by the Trustee in the name, and at the expense, of the Company,

and the Company, in the case of (i), (ii) or (iii) above, has irrevocably deposited or caused to be deposited with the Trustee as trust funds in trust for the purpose an amount in the currency or currencies, currency unit or units or composite currency or currencies in which the Securities of such series are payable, sufficient to pay and discharge the entire indebtedness on such Securities and such coupons not theretofore delivered to the Trustee for cancellation, for principal (and premium or Make-Whole Amount, if any) and interest to the date of such deposit (in the case of Securities which have become due and payable) or to the Stated Maturity or Redemption Date, as the case may be;

(2) the Company has paid or caused to be paid all other sums payable hereunder by the Company; and

(3) the Company has delivered to the Trustee an Officers' Certificate and an Opinion of Counsel, each stating that all conditions precedent herein provided for relating to the satisfaction and discharge of this Indenture as to such series have been complied with.

Notwithstanding the satisfaction and discharge of this Indenture, the obligations of the Company to the Trustee and any predecessor Trustee under Section 606, the obligations of the Company to any Authenticating Agent under Section 611 and, if money shall have been deposited with and held by the Trustee pursuant to subclause (B) of clause (1) of this Section, the obligations of the Trustee under Section 402 and the last paragraph of Section 1003 shall survive such satisfaction and discharge.

SECTION 402. Application of Trust Funds. Subject to the provisions of the last paragraph of Section 1003, all money deposited with the Trustee pursuant to Section 401 shall be held in trust and applied by it, in accordance with the provisions of the Securities, the coupons and this Indenture, to the payment, either directly or through any Paying Agent (including the Company acting as its own Paying Agent) as the Trustee may determine, to the Persons entitled thereto, of the principal (and premium or Make-Whole Amount, if any), and any interest for whose payment such money has been deposited with or received by the Trustee, but such money need not be segregated from other funds except to the extent required by law.

#### ARTICLE FIVE - REMEDIES

SECTION 501. Events of Default. "Event of Default," wherever used herein with respect to any particular series of Securities, means any one of the following events (whatever the reason for such Event of Default and whether or not it shall be voluntary or involuntary or be effected by operation of law or pursuant to any judgment, decree or order of any court or any order, rule or regulation of any administrative or governmental body):

(1) default in the payment of any interest on any Security of that series or of any coupon appertaining thereto, when such interest or coupon becomes due and payable, and continuance of such default for a period of 30 days; or

(2) default in the payment of the principal of (or premium or Make-Whole Amount, if any, on) any Security of that series when it becomes due and payable at its Maturity; or

(3) default in the deposit of any sinking fund payment, to the extent applicable to such series of Securities, when and as due by the terms of any Security of that series; or

(4) default in the performance, or breach, of any covenant or warranty of the Company in this Indenture with respect to any Security of that series (other than a covenant or warranty a default in whose performance or whose breach is elsewhere in this Section specifically dealt with or which has expressly been included in this Indenture solely for the benefit of a series of Securities other than that series), and continuance of such default or breach for a period of 60 days after there has been given, by registered or certified mail, to the Company by the Trustee or to the Company and the Trustee by the Holders of at least 25% in principal amount of the Outstanding Securities of that series a written notice specifying such default or breach and requiring it to be remedied and stating that such notice is a "Notice of Default" hereunder; or

(5) default under any bond, debenture, note, mortgage, indenture or instrument under which there may be issued or by which there may be secured or evidenced any indebtedness for money borrowed by the Company, having an aggregate principal amount outstanding of at least \$30,000,000, whether such indebtedness now exists or shall hereafter be created, which default shall have resulted in such indebtedness becoming or being declared due and payable prior to the date on which it would otherwise have become due and payable, without such indebtedness having been discharged, or such acceleration having been rescinded or annulled, within a period of 30 days after there shall have been given, by registered or certified mail, to the Company by the Trustee or to the Company and the Trustee by the Holders of at least 10% in principal amount of the Outstanding Securities of that series a written notice specifying such default and requiring the Company to cause such indebtedness to be discharged or cause such acceleration to be rescinded or annulled and stating that such notice is a "Notice of Default" hereunder; provided, however, that, subject to the provisions of Sections 601 and 602, the Trustee shall not be deemed to have knowledge of such default unless either (A) a Responsible Officer of the Trustee shall have knowledge of such default or (B) the Trustee shall have received written notice thereof from the Company, from any Holder, from the holder of any such indebtedness or from the trustee under any such mortgage, indenture or other instrument; or

(6) the Company pursuant to or within the meaning of any Bankruptcy Law:

(A) commences a voluntary case,

- (B) consents to the entry of an order for relief against it in an involuntary case,
  - (C) consents to the appointment of a Custodian of it or for all or substantially all of its property, or
  - (D) makes a general assignment for the benefit of its creditors; or
- (7) a court of competent jurisdiction enters an order or decree under any Bankruptcy Law that:
- (A) is for relief against the Company in an involuntary case,
  - (B) appoints a Custodian of the Company or for all or substantially all of its property, or
  - (C) orders the liquidation of the Company, and the order or decree remains unstayed and in effect for 90 days; or
- (8) any other Event of Default provided with respect to Securities of that series.

As used in this Section 501, the term “Bankruptcy Law” means title 11, U.S. Code or any similar Federal or state law for the relief of debtors and the term “Custodian” means any receiver, trustee, assignee, liquidator or other similar official under any Bankruptcy Law.

SECTION 502. Acceleration of Maturity; Rescission and Annulment. If an Event of Default with respect to Securities of any series at the time Outstanding occurs and is continuing, then and in every such case the Trustee or the Holders of not less than 25% in principal amount of the Outstanding Securities of that series may declare the principal amount (or, if Securities of that Series are Original Issue Discount Securities or Indexed Securities, such portion of the principal as may be specified in the terms thereof) of all the Securities of that series to be due and payable immediately, by a notice in writing to the Company (and to the Trustee if given by the Holders), and upon any such declaration such principal or specified portion thereof shall become immediately due and payable.

At any time after such a declaration of acceleration with respect to Securities of any series has been made and before a judgment or decree for payment of the money due has been obtained by the Trustee as hereinafter in this Article provided, the Holders of a majority in principal amount of the Outstanding Securities of that series, by written notice to the Company and the Trustee, may rescind and annul such declaration of acceleration and its consequences if:

- (1) the Company has paid or deposited with the Trustee a sum sufficient to pay in the currency, currency unit or composite currency in which the Securities of such series are payable (except as otherwise specified pursuant to Section 301 for the Securities of such series);

(A) all overdue installments of interest on all Outstanding Securities of that series and any related coupons,

(B) the principal of (and premium or Make-Whole Amount, if any, on) any Outstanding Securities of that series which have become due otherwise than by such declaration of acceleration and interest thereon at the rate or rates borne by or provided for in such Securities,

(C) to the extent that payment of such interest is lawful, interest upon overdue installments of interest at the rate or rates borne by or provided for in such Securities, and

(D) all sums paid or advanced by the Trustee hereunder and the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel; and

(2) all Events of Default with respect to Securities of that series, other than the nonpayment of the principal of (or premium or Make-Whole Amount, if any) or interest on Securities of that series which have become due solely by such declaration of acceleration, have been cured or waived as provided in Section 513.

No such rescission shall affect any subsequent default or impair any right consequent thereon.

SECTION 503. Collection of Indebtedness and Suits for Enforcement by Trustee. The Company covenants that if:

(1) default is made in the payment of any installment of interest on any Security of any series and any related coupon when such interest becomes due and payable and such default continues for a period of 30 days, or

(2) default is made in the payment of the principal of (or premium or Make-Whole Amount, if any, on) any Security of any series at its Maturity, then the Company will, upon demand of the Trustee, pay to the Trustee, for the benefit of the Holders of such Securities of such series and coupons, the whole amount then due and payable on such Securities and coupons for principal (and premium or Make-Whole Amount, if any) and interest, with interest upon any overdue principal (and premium or Make-Whole Amount, if any) and, to the extent that payment of such interest shall be legally enforceable, upon any overdue installments of interest at the rate or rates borne by or provided for in such Securities, and, in addition thereto, such further amount as shall be sufficient to cover the costs and expenses of collection, including the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel.

If the Company fails to pay such amounts forthwith upon such demand, the Trustee, in its own name and as trustee of an express trust, may institute a judicial proceeding for the collection of the sums so due and unpaid, and may prosecute such proceeding to judgment or final decree, and may enforce the same against the Company or any other obligor upon such Securities of such series and collect the moneys adjudged or decreed to be payable in the manner provided by law out of the property of the Company or any other obligor upon such Securities of such series, wherever situated.

If an Event of Default with respect to Securities of any series occurs and is continuing, the Trustee may in its discretion proceed to protect and enforce its rights and the rights of the Holders of Securities of such series and any related coupons by such appropriate judicial proceedings as the Trustee shall deem necessary to protect and enforce any such rights, whether for the specific enforcement of any covenant or agreement in this Indenture or in aid of the exercise of any power granted herein, or to enforce any other proper remedy.

SECTION 504. Trustee May File Proofs of Claim. In case of the pendency of any receivership, insolvency, liquidation, bankruptcy, reorganization, arrangement, adjustment, composition or other judicial proceeding relative to the Company or any other obligor upon the Securities or the property of the Company or of such other obligor or their creditors, the Trustee (irrespective of whether the principal of the Securities of any series shall then be due and payable as therein expressed or by declaration or otherwise and irrespective of whether the Trustee shall have made any demand on the Company for the payment of overdue principal, premium or Make-Whole Amount, if any, or interest) shall be entitled and empowered, by intervention in such proceeding or otherwise:

(i) to file and prove a claim for the whole amount, or such lesser amount as may be provided for in the Securities of such series, of principal (and premium or Make-Whole Amount, if any) and interest owing and unpaid in respect of the Securities and to file such other papers or documents as may be necessary or advisable in order to have the claims of the Trustee (including any claim for the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel) and of the Holders allowed in such judicial proceeding, and

(ii) to collect and receive any moneys or other property payable or deliverable on any such claims and to distribute the same;

and any custodian, receiver, assignee, trustee, liquidator, sequestrator (or other similar official) in any such judicial proceeding is hereby authorized by each Holder of Securities of such series and coupons to make such payments to the Trustee, and in the event that the Trustee shall consent to the making of such payments directly to the Holders, to pay to the Trustee any amount due to it for the reasonable compensation, expenses, disbursements and advances of the Trustee and any predecessor Trustee, their agents and counsel, and any other amounts due the Trustee or any predecessor Trustee under Section 606.

Nothing herein contained shall be deemed to authorize the Trustee to authorize or consent to or accept or adopt on behalf of any Holder of a Security or coupon any plan of reorganization, arrangement, adjustment or composition affecting the Securities or coupons or the rights of any Holder thereof, or to authorize the Trustee to vote in respect of the claim of any Holder of a Security or coupon in any such proceeding.

In any proceedings brought by the Trustee (and also any proceedings involving the interpretation of any provision of this Indenture to which the Trustee shall be a party) the Trustee shall be held to represent all the Holders of the Securities, and it shall not be necessary to make any Holders of the Securities parties to any such proceedings.

SECTION 505. Trustee May Enforce Claims Without Possession of Securities or Coupons. All rights of action and claims under this Indenture or any of the Securities or coupons may be prosecuted and enforced by the Trustee without the possession of any of the Securities or coupons or the production thereof in any proceeding relating thereto, and any such proceeding instituted by the Trustee shall be brought in its own name as trustee of an express trust, and any recovery of judgment shall, after provision for the payment of the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel, be for the ratable benefit of the Holders of the Securities and coupons in respect of which such judgment has been recovered.

SECTION 506. Application of Money Collected. Any money collected by the Trustee pursuant to this Article shall be applied in the following order, at the date or dates fixed by the Trustee and, in case of the distribution of such money on account of principal (or premium or Make-Whole Amount, if any) or interest, upon presentation of the Securities or coupons, or both, as the case may be, and the notation thereon of the payment if only partially paid and upon surrender thereof if fully paid:

FIRST: To the payment of all amounts due the Trustee and any predecessor Trustee under Section 606;

SECOND: To the payment of the amounts then due and unpaid upon the Securities and coupons for principal (and premium or Make-Whole Amount, if any) and interest, in respect of which or for the benefit of which such money has been collected, ratably, without preference or priority of any kind, according to the aggregate amounts due and payable on such Securities and coupons for principal (and premium or Make-Whole Amount, if any) and interest, respectively; and

THIRD: To the payment of the remainder, if any, to the Company.

SECTION 507. Limitation on Suits. No Holder of any Security of any series or any related coupon shall have any right to institute any proceeding, judicial or otherwise, with respect to this Indenture or the Securities or any related coupon, or for the appointment of a receiver or trustee, or for any other remedy hereunder, unless:

- (1) such Holder has previously given written notice to the Trustee of a continuing Event of Default with respect to the Securities of that series;
- (2) the Holders of not less than 25% in principal amount of the Outstanding Securities of that series shall have made written request to the Trustee to institute proceedings in respect of such Event of Default in its own name as Trustee hereunder;
- (3) such Holder or Holders have offered to the Trustee indemnity reasonably satisfactory to the Trustee against the costs, expenses and liabilities to be incurred in compliance with such request;



(4) the Trustee for 60 days after its receipt of such notice, request and offer of indemnity has failed to institute any such proceeding;  
and

(5) no direction inconsistent with such written request has been given to the Trustee during such 60-day period by the Holders of a majority in principal amount of the Outstanding Securities of that series;

it being understood and intended that no one or more of such Holders shall have any right in any manner whatever by virtue of, or by availing of, any provision of this Indenture to affect, disturb or prejudice the rights of any other of such Holders, or to obtain or to seek to obtain priority or preference over any other of such Holders or to enforce any right under this Indenture or the Securities, except in the manner herein provided and for the equal and ratable benefit of all such Holders.

SECTION 508. Unconditional Right of Holders to Receive Principal, Premium or Make-Whole Amount, if any, and Interest. Notwithstanding any other provision in this Indenture, the Holder of any Security or coupon shall have the right which is absolute and unconditional to receive payment of the principal of (and premium or Make-Whole Amount, if any) and (subject to Sections 305 and 307) interest on such Security or payment of such coupon on the respective due dates expressed in such Security or coupon (or, in the case of redemption, on the Redemption Date) and to institute suit for the enforcement of any such payment, and such rights shall not be impaired without the consent of such Holder.

SECTION 509. Restoration of Rights and Remedies. If the Trustee or any Holder of a Security or coupon has instituted any proceeding to enforce any right or remedy under this Indenture and such proceeding has been discontinued or abandoned for any reason, or has been determined adversely to the Trustee or to such Holder, then and in every such case, the Company, the Trustee and the Holders of Securities and coupons shall, subject to any determination in such proceeding, be restored severally and respectively to their former positions hereunder and thereafter all rights and remedies of the Trustee and the Holders shall continue as though no such proceeding had been instituted.

SECTION 510. Rights and Remedies Cumulative. Except as otherwise provided with respect to the replacement or payment of mutilated, destroyed, lost or stolen Securities or coupons in the last paragraph of Section 306, no right or remedy herein conferred upon or reserved to the Trustee or to the Holders of Securities or coupons is intended to be exclusive of any other right or remedy, and every right and remedy shall, to the extent permitted by law, be cumulative and in addition to every other right and remedy given hereunder or now or hereafter existing at law or in equity or otherwise. The assertion or employment of any right or remedy hereunder, or otherwise, shall not prevent the concurrent assertion or employment of any other appropriate right or remedy.

SECTION 511. Delay or Omission Not Waiver. No delay or omission of the Trustee or of any Holder of any Security or coupon to exercise any right or remedy accruing upon any Event of Default shall impair any such right or remedy or constitute a waiver of any such Event of Default or an acquiescence therein. Every right and remedy given by this Article or by law to the Trustee or to the Holders may be exercised from time to time, and as often as may be deemed expedient, by the Trustee or by the Holders of Securities or coupons, as the case may be.

SECTION 512. Control by Holders of Securities. The Holders of not less than a majority in principal amount of the Outstanding Securities of any series shall have the right to direct the time, method and place of conducting any proceeding for any remedy available to the Trustee or exercising any trust or power conferred on the Trustee with respect to the Securities of such series, provided that:

- (1) such direction shall not be in conflict with any rule of law or with this Indenture,
- (2) the Trustee may take any other action deemed proper by the Trustee which is not inconsistent with such direction, and
- (3) the Trustee need not take any action which might involve it in personal liability or be unduly prejudicial to the Holders of Securities of such series not joining therein.

Nothing in this Indenture shall impair the right of the Trustee in its discretion to take any action deemed proper by the Trustee and which is not inconsistent with such direction by Holders.

SECTION 513. Waiver of Past Defaults. The Holders of not less than a majority in principal amount of the Outstanding Securities of any series may on behalf of the Holders of all the Securities of such series and any related coupons waive any past default hereunder with respect to such series and its consequences, except a default

- (1) in the payment of the principal of (or premium or Make-Whole Amount, if any) or interest on any Security of such series or any related coupons, or
- (2) in respect of a covenant or provision hereof which under Article Nine cannot be modified or amended without the consent of the Holder of each Outstanding Security of such series affected; or
- (3) in respect of a covenant or provision hereof for the benefit or protection of the Trustee, without its express written consent.

Upon any such waiver, such default shall cease to exist, and any Event of Default arising therefrom shall be deemed to have been cured, for every purpose of this Indenture; but no such waiver shall extend to any subsequent or other default or Event of Default or impair any right consequent thereon.

SECTION 514. Waiver of Usury, Stay or Extension Laws. The Company covenants (to the extent that it may lawfully do so) that it will not at any time insist upon, or plead, or in any manner whatsoever claim or take the benefit or advantage of, any usury, stay or extension law wherever enacted, now or at any time hereafter in force, which may affect the covenants or the performance of this Indenture; and the Company (to the extent that it may lawfully do so) hereby expressly waives all benefit or advantage of any such law, and covenants that it will not hinder, delay or impede the execution of any power herein granted to the Trustee, but will suffer and permit the execution of every such power as though no such law had been enacted.

SECTION 515. Undertaking for Costs. All parties to this Indenture agree, and each Holder of any Security by his acceptance thereof shall be deemed to have agreed, that any court may in its discretion require, in any suit for the enforcement of any right or remedy under this Indenture, or in any suit against the Trustee for any action taken or omitted by it as Trustee, the filing by any party litigant in such suit of an undertaking to pay the costs of such suit, and that such court may in its discretion assess reasonable costs, including reasonable attorneys' fees and expenses, against any party litigant in such suit having due regard to the merits and good faith of the claims or defenses made by such party litigant; but the provisions of this Section shall not apply to any suit instituted by the Trustee, to any suit instituted by any Holder, or group of Holders, holding in the aggregate more than 10% in principal amount of the Outstanding Securities of any series, or to any suit instituted by any Holder for the enforcement of the payment of the principal of (or premium or Make-Whole Amount, if any) or interest on any Security on or after the respective Stated Maturities expressed in such Security (or, in the case of redemption, on or after the Redemption Date).

#### ARTICLE SIX - THE TRUSTEE

SECTION 601. Notice of Defaults. Within 90 days after the occurrence of any default hereunder with respect to the Securities of any series, the Trustee shall transmit in the manner and to the extent provided in TIA Section 313(c), notice of such default hereunder known to the Trustee, unless such default shall have been cured or waived; provided, however, that, except in the case of a default in the payment of the principal of (or premium or Make-Whole Amount, if any) or interest on any Security of such series, or in the payment of any sinking or purchase fund installment with respect to the Securities of such series, the Trustee shall be protected in withholding such notice if and so long as the board of directors, the executive committee, or a trust committee of directors and/or Responsible Officers of the Trustee in good faith determine that the withholding of such notice is in the interests of the Holders of the Securities and coupons of such series; and provided further that in the case of any default or breach of the character specified in Section 501(4) with respect to the Securities and coupons of such series, no such notice to Holders shall be given until at least 60 days after the occurrence thereof. For the purpose of this Section, the term "default" means any event which is, or after notice or lapse of time or both would become, an Event of Default with respect to the Securities of such series.

SECTION 602. Certain Rights of Trustee. Subject to the provisions of TIA Section 315(a) through 315(d):

(1) the Trustee may conclusively rely and shall be fully protected in acting or refraining from acting upon any resolution, certificate, statement, instrument, opinion, report, notice, request, direction, consent, order, bond, debenture, note, coupon or other paper or document (whether in its original or facsimile form) reasonably believed by it to be genuine and to have been signed or presented by the proper party or parties;

(2) any request or direction of the Company mentioned herein shall be sufficiently evidenced by a Company Request or Company Order (other than delivery of any Security, together with any coupons appertaining thereto, to the Trustee for authentication and delivery pursuant to Section 303 which shall be sufficiently evidenced as provided therein) and any resolution of the Board of Directors may be sufficiently evidenced by a Board Resolution;

(3) whenever in the administration of this Indenture the Trustee shall deem it desirable that a matter be proved or established prior to taking, suffering or omitting any action hereunder, the Trustee (unless other evidence be herein specifically prescribed) may, in the absence of bad faith on its part, rely upon an Officers' Certificate;

(4) the Trustee may consult with counsel of its own selection and the written advice of such counsel or any Opinion of Counsel shall be full and complete authorization and protection in respect of any action taken, suffered or omitted by it hereunder in good faith and in reliance thereon;

(5) the Trustee shall be under no obligation to exercise any of the rights or powers vested in it by this Indenture at the request or direction of any of the Holders of Securities of any series or any related coupons pursuant to this Indenture, unless such Holders shall have offered to the Trustee security or indemnity reasonably satisfactory to the Trustee against the costs, expenses and liabilities which might be incurred by it in compliance with such request or direction;

(6) the Trustee shall not be bound to make any investigation into the facts or matters stated in any resolution, certificate, statement, instrument, opinion, report, notice, request, direction, consent, order, bond, debenture, note, coupon or other paper or document, unless requested in writing so to do by the Holders of not less than a majority in aggregate principal amount of the Outstanding Securities of any series; provided that, if the payment within a reasonable time to the Trustee of the costs, expenses or liabilities likely to be incurred by it in the making of such investigation is, in the opinion of the Trustee, not reasonably assured to the Trustee by the security afforded to it by the terms of this Indenture, the Trustee may require reasonable indemnity against such expenses or liabilities as a condition to proceeding; the reasonable expenses of every such examination shall be paid by the Holders or, if paid by the Trustee, shall be repaid by the Holders upon demand. The Trustee, in its discretion, may make such further inquiry or investigation into such facts or matters as it may see fit, and, if the Trustee shall determine to make such further inquiry or investigation, it shall be entitled to examine the books, records and premises of the Company, relevant to the facts or matters that are the subject of its inquiry, personally or by agent or attorney at the expense of the Company and shall incur no liability or additional liability of any kind by reason of such inquiry or investigation;

(7) the Trustee may execute any of the trusts or powers hereunder or perform any duties hereunder either directly or by or through agents or attorneys and the Trustee shall not be responsible for any misconduct or negligence on the part of any agent or attorney appointed with due care by it hereunder;

(8) the Trustee shall not be liable for any action taken, suffered or omitted by it in good faith and reasonably believed by it to be authorized or within the discretion or rights or powers conferred upon it by this Indenture;

(9) any permissive right or power available to the Trustee under this Indenture or any supplement hereto shall not be construed to be a mandatory duty or obligation;

(10) the Trustee shall not be charged with knowledge of any matter (including any default, other than as described in Section 501(1), (2) or (3)) unless and except to the extent actually known to a Responsible Officer of the Trustee or to the extent written notice thereof is received by the Trustee at the Corporate Trust Office;

(11) the Trustee shall have no liability for any inaccuracy in the books and records of, or for any actions or omissions of, DTC, Euroclear or Clearstream or any depository acting on behalf of any of them;

(12) the rights, privileges, protections, immunities and benefits given to the Trustee, including, without limitation, its right to be indemnified, are extended to, and shall be enforceable by, the Trustee in each of its capacities hereunder, and each agent, custodian and other Person employed by the Trustee to act hereunder; and

(13) the Trustee may request that the Company deliver an Officers' Certificate setting forth the names of individuals and/or titles of officers authorized at such time to take specified actions pursuant to this Indenture, which Officers' Certificate may be signed by any person authorized to sign an Officers' Certificate, including any person specified as so authorized in any such certificate previously delivered and not superseded.

The Trustee shall not be required to expend or risk its own funds or otherwise incur any financial liability in the performance of any of its duties hereunder, or in the exercise of any of its rights or powers, if it shall have reasonable grounds for believing that repayment of such funds or adequate indemnity against such risk or liability is not reasonably assured to it.

Except during the continuance of an Event of Default, the Trustee undertakes to perform only such duties as are specifically set forth in this Indenture, and no implied covenants or obligations shall be read into this Indenture against the Trustee.

SECTION 603. Not Responsible for Recitals or Issuance of Securities. The recitals contained herein and in the Securities, except the Trustee's certificate of authentication, and in any coupons shall be taken as the statements of the Company, and neither the Trustee nor any Authenticating Agent assumes any responsibility for their correctness. The Trustee makes no representations as to the validity or sufficiency of this Indenture or of the Securities or coupons, except that the Trustee represents that it is duly authorized to execute and deliver this Indenture, authenticate the Securities and perform its obligations hereunder. Neither the Trustee nor any Authenticating Agent shall be accountable for the use or application by the Company of Securities or the proceeds thereof. The Trustee shall have no responsibility with respect to any information, statement or recital in any offering prospectus or other disclosure materials prepared or distributed with respect to the Securities.

SECTION 604. May Hold Securities. The Trustee, any Paying Agent, Security Registrar, Authenticating Agent or any other agent of the Company, in its individual or any other capacity, may become the owner or pledgee of Securities and coupons and, subject to TIA Sections 310(b) and 311, may otherwise deal with the Company with the same rights it would have if it were not Trustee, Paying Agent, Security Registrar, Authenticating Agent or such other agent.

SECTION 605. Money Held in Trust. Money held by the Trustee in trust hereunder need not be segregated from other funds except to the extent required by law. The Trustee shall be under no liability for interest on any money received by it hereunder except as otherwise agreed in writing with the Company.

SECTION 606. Compensation and Reimbursement. The Company agrees:

(1) to pay to the Trustee as agreed upon in writing from time to time reasonable compensation for all services rendered by it hereunder (which compensation shall not be limited by any provision of law in regard to the compensation of a trustee of an express trust);

(2) except as otherwise expressly provided herein, to reimburse each of the Trustee and any predecessor Trustee upon its request for all reasonable expenses, and disbursements incurred by the Trustee in accordance with any provision of this Indenture (including the reasonable compensation and the reasonable expenses and disbursements of its agents and counsel), except any such expense or disbursement as shall be determined to have been caused by its own negligence, willful misconduct or bad faith; and

(3) to indemnify each of the Trustee and any predecessor Trustee for, and to hold it harmless against, any loss, liability, claim, damage or expense incurred without negligence, willful misconduct or bad faith on its part, arising out of or in connection with the acceptance or administration of the trust or trusts hereunder, including the costs and expenses of defending itself against any claim or liability in connection with the exercise or performance of any of its powers or duties hereunder.

When the Trustee incurs expenses or renders services in connection with an Event of Default specified in Section 501(7) or Section 501(8), the expenses (including the reasonable charges and expenses of its counsel) and the compensation for the services are intended to constitute expenses of administration under any applicable Federal or state bankruptcy, insolvency or other similar law.

As security for the performance of the obligations of the Company under this Section, the Trustee shall have a lien for payment of the Trustee's fees and expenses prior to the Securities upon all property and funds held or collected by the Trustee as such, except funds held in trust for the payment of principal of (or premium or Make-Whole Amount, if any) or interest on particular Securities or any coupons.

The provisions of this Section shall survive the termination of this Indenture and the resignation or removal of the Trustee.

SECTION 607. Corporate Trustee Required; Eligibility; Conflicting Interests. There shall at all times be a Trustee hereunder which shall be eligible to act as Trustee under TIA Section 310(a)(1) and shall have at all times a combined capital and surplus of at least \$50,000,000 (or which shall have a combined capital and surplus of at least \$10,000,000 and whose ultimate parent holding company shall have a combined capital and surplus of at least \$50,000,000. If the Trustee publishes reports of condition at least annually, pursuant to law or the requirements of Federal, state, territorial or District of Columbia supervising or examining authority, then for the purposes of this Section, the combined capital and surplus of the Trustee shall be deemed to be its combined capital and surplus as set forth in its most recent report of condition so published. If at any time the Trustee shall cease to be eligible in accordance with the provisions of this Section, it shall resign immediately in the manner and with the effect hereinafter specified in this Article. Neither the Company nor any Person directly or indirectly controlling, controlled by, or under common control with the Company shall serve as Trustee.

SECTION 608. Resignation and Removal; Appointment of Successor.

(a) No resignation or removal of the Trustee and no appointment of a successor Trustee pursuant to this Article shall become effective until the acceptance of appointment by the successor Trustee in accordance with the applicable requirements of Section 609.

(b) The Trustee may resign at any time with respect to the Securities of one or more series by giving written notice thereof to the Company. If an instrument of acceptance by a successor Trustee shall not have been delivered to the Trustee within 60 days after the giving of such notice of resignation, the resigning Trustee may petition, at the expense of the Company, any court of competent jurisdiction for the appointment of a successor Trustee.

(c) The Trustee may be removed at any time with respect to the Securities of any series by Act of the Holders of a majority in principal amount of the Outstanding Securities of such series delivered to the Trustee and to the Company. If an instrument of acceptance by a successor Trustee shall not have been delivered to the Trustee within 60 days after the giving of such notice of resignation, the resigning Trustee may petition, at the expense of the Company, any court of competent jurisdiction for the appointment of a successor Trustee.

(d) If at any time:

(1) the Trustee shall fail to comply with the provisions of TIA Section 310(b) after written request therefor by the Company or by any Holder of a Security who has been a bona fide Holder of a Security for at least six months, or

(2) the Trustee shall cease to be eligible under Section 607 and shall fail to resign after written request therefor by the Company or by any Holder of a Security who has been a bona fide Holder of a Security for at least six months, or

(3) the Trustee shall become incapable of acting or shall be adjudged a bankrupt or insolvent or a receiver of the Trustee or of its property shall be appointed or any public officer shall take charge or control of the Trustee or of its property or affairs for the purpose of rehabilitation, conservation or liquidation, then, in any such case, (i) the Company by or pursuant to a Board Resolution may remove the Trustee and appoint a successor Trustee with respect to all Securities, or (ii) subject to TIA Section 315(e), any Holder of a Security who has been a bona fide Holder of a Security for at least six months may, on behalf of himself and all others similarly situated, petition any court of competent jurisdiction for the removal of the Trustee with respect to all Securities and the appointment of a successor Trustee or Trustees.

(e) If the Trustee shall resign, be removed or become incapable of acting, or if a vacancy shall occur in the office of Trustee for any cause with respect to the Securities of one or more series, the Company, by or pursuant to a Board Resolution, shall promptly appoint a successor Trustee or Trustees with respect to the Securities of that or those series (it being understood that any such successor Trustee may be appointed with respect to the Securities of one or more or all of such series and that at any time there shall be only one Trustee with respect to the Securities of any particular series). If, within one year after such resignation, removal or incapability, or the occurrence of such vacancy, a successor Trustee with respect to the Securities of any series shall be appointed by Act of the Holders of a majority in principal amount of the Outstanding Securities of such series delivered to the Company and the retiring Trustee, the successor Trustee so appointed shall, forthwith upon its acceptance of such appointment, become the successor Trustee with respect to the Securities of such series and to that extent supersede the successor Trustee appointed by the Company. If no successor Trustee with respect to the Securities of any series shall have been so appointed by the Company or the Holders of Securities and accepted appointment in the manner hereinafter provided, any Holder of a Security who has been a bona fide Holder of a Security of such series for at least six months may, on behalf of himself and all others similarly situated, petition any court of competent jurisdiction for the appointment of a successor Trustee with respect to Securities of such series.

(f) The Company shall give notice of each resignation and each removal of the Trustee with respect to the Securities of any series and each appointment of a successor Trustee with respect to the Securities of any series in the manner provided for notices to the Holders of Securities in Section 106. Each notice shall include the name of the successor Trustee with respect to the Securities of such series and the address of its Corporate Trust Office.

**SECTION 609. Acceptance of Appointment by Successor.**

(a) In case of the appointment hereunder of a successor Trustee with respect to all Securities, every such successor Trustee so appointed shall execute, acknowledge and deliver to the Company and to the retiring Trustee an instrument accepting such appointment, and thereupon the resignation or removal of the retiring Trustee shall become effective and such successor Trustee, without any further act, deed or conveyance, shall become vested with all the rights, powers, trusts and duties of the retiring Trustee; but, on request of the Company or the successor Trustee, such retiring Trustee shall, upon payment of its charges, execute and deliver an instrument transferring to such successor Trustee all the rights, powers and trusts of the retiring Trustee, and shall duly assign, transfer and deliver to such successor Trustee all property and money held by such retiring Trustee hereunder, subject nevertheless to its claim, if any, provided for in Section 606.



(b) In case of the appointment hereunder of a successor Trustee with respect to the Securities of one or more (but not all) series, the Company, the retiring Trustee and each successor Trustee with respect to the Securities of one or more series shall execute and deliver an indenture supplemental hereto, pursuant to Article Nine hereof, wherein each successor Trustee shall accept such appointment and which (1) shall contain such provisions as shall be necessary or desirable to transfer and confirm to, and to vest in, each successor Trustee all the rights, powers, trusts and duties of the retiring Trustee with respect to the Securities of that or those series to which the appointment of such successor Trustee relates, (2) if the retiring Trustee is not retiring with respect to all Securities, shall contain such provisions as shall be deemed necessary or desirable to confirm that all the rights, powers, trusts and duties of the retiring Trustee with respect to the Securities of that or those series as to which the retiring Trustee is not retiring shall continue to be vested in the retiring Trustee, and (3) shall add to or change any of the provisions of this Indenture as shall be necessary to provide for or facilitate the administration of the trusts hereunder by more than one Trustee, it being understood that nothing herein or in such supplemental indenture shall constitute such Trustees co-trustees of the same trust and that each such Trustee shall be trustee of a trust or trusts hereunder separate and apart from any trust or trusts hereunder administered by any other such Trustee; and upon the execution and delivery of such supplemental indenture the resignation or removal of the retiring Trustee shall become effective to the extent provided therein and each such successor Trustee, without any further act, deed or conveyance, shall become vested with all the rights, powers, trusts and duties of the retiring Trustee with respect to the Securities of that or those series to which the appointment of such successor Trustee relates; but, on request of the Company or any successor Trustee, such retiring Trustee shall duly assign, transfer and deliver to such successor Trustee all property and money held by such retiring Trustee hereunder with respect to the Securities of that or those series to which the appointment of such successor Trustee relates.

(c) Upon request of any such successor Trustee, the Company shall execute any and all instruments for more fully and certainly vesting in and confirming to such successor Trustee all such rights, powers and trusts referred to in paragraph (a) or (b) of this Section 609, as the case may be.

(d) No successor Trustee shall accept its appointment unless at the time of such acceptance such successor Trustee shall be qualified and eligible under this Article.

SECTION 610. Merger, Conversion, Consolidation or Succession to Business. Any corporation into which the Trustee may be merged or converted or with which it may be consolidated, or any corporation resulting from any merger, conversion or consolidation to which the Trustee shall be a party, or any corporation succeeding to all or substantially all of the corporate trust business of the Trustee, shall be the successor of the Trustee hereunder, provided such corporation shall be otherwise qualified and eligible under this Article, without the execution or filing of any paper or any further act on the part of any of the parties hereto. In case any Securities or coupons shall have been authenticated, but not delivered, by the Trustee then in office, any successor by merger, conversion or consolidation to such authenticating Trustee may adopt such authentication and deliver the Securities or coupons so authenticated with the same effect as if such successor Trustee had itself authenticated such Securities or coupons. In case any Securities or coupons shall not have been authenticated by such predecessor Trustee, any such successor Trustee may authenticate and deliver such Securities or coupons, in either its own name or that of its predecessor Trustee, with the full force and effect which this Indenture provides for the certificate of authentication of the Trustee.

SECTION 611. Appointment of Authenticating Agent. At any time when any of the Securities remain Outstanding, the Trustee may appoint an Authenticating Agent or Agents with respect to one or more series of Securities which shall be authorized to act on behalf of the Trustee to authenticate Securities of such series issued upon conversion or exchange, registration of transfer or partial redemption or repayment thereof, and Securities so authenticated shall be entitled to the benefits of this Indenture and shall be valid and obligatory for all purposes as if authenticated by the Trustee hereunder. Any such appointment shall be evidenced by an instrument in writing signed by a Responsible Officer of the Trustee, a copy of which instrument shall be promptly furnished to the Company. Wherever reference is made in this Indenture to the authentication and delivery of Securities by the Trustee or the Trustee's certificate of authentication, such reference shall be deemed to include authentication and delivery on behalf of the Trustee by an Authenticating Agent and a certificate of authentication executed on behalf of the Trustee by an Authenticating Agent. Each Authenticating Agent shall be acceptable to the Company and shall at all times be a bank or trust company or corporation organized and doing business and in good standing under the laws of the United States of America or of any state or the District of Columbia, authorized under such laws to act as Authenticating Agent, having a combined capital and surplus of not less than \$50,000,000 and subject to supervision or examination by Federal or state authorities. If such Authenticating Agent publishes reports of condition at least annually, pursuant to law or the requirements of the aforesaid supervising or examining authority, then for the purposes of this Section, the combined capital and surplus of such Authenticating Agent shall be deemed to be its combined capital and surplus as set forth in its most recent report of condition so published. In case at any time an Authenticating Agent shall cease to be eligible in accordance with the provisions of this Section, such Authenticating Agent shall resign immediately in the manner and with the effect specified in this Section.

Any corporation into which an Authenticating Agent may be merged or converted or with which it may be consolidated, or any corporation resulting from any merger, conversion or consolidation to which such Authenticating Agent shall be a party, or any corporation succeeding to the corporate agency or corporate trust business of an Authenticating Agent, shall continue to be an Authenticating Agent, provided such corporation shall be otherwise eligible under this Section, without the execution or filing of any paper or further act on the part of the Trustee or the Authenticating Agent.

An Authenticating Agent for any series of Securities may at any time resign by giving written notice of resignation to the Trustee for such series and to the Company. The Trustee for any series of Securities may at any time terminate the agency of an Authenticating Agent by giving written notice of termination to such Authenticating Agent and to the Company. Upon receiving such a notice of resignation or upon such a termination, or in case at any time such Authenticating Agent shall cease to be eligible in accordance with the provisions of this Section, the Trustee for such series may appoint a successor Authenticating Agent which shall be acceptable to the Company and shall give notice of such appointment to all Holders of Securities of the series with respect to which such Authenticating Agent will serve in the manner set forth in Section 106. Any successor Authenticating Agent upon acceptance of its appointment hereunder shall become vested with all the rights, powers and duties of its predecessor hereunder, with like effect as if originally named as an Authenticating Agent herein. No successor Authenticating Agent shall be appointed unless eligible under the provisions of this Section.

The Company agrees to pay to each Authenticating Agent from time to time reasonable compensation including reimbursement of its reasonable expenses for its services under this Section, subject to Section 606.

If an appointment with respect to one or more series is made pursuant to this Section, the Securities of such series may have endorsed thereon, in addition to or in lieu of the Trustee's certificate of authentication, an alternate certificate of authentication substantially in the following form:

This is one of the Securities of the series designated therein referred to in the within- mentioned Indenture.

\_\_\_\_\_  
as Trustee

Dated: \_\_\_\_\_ By: \_\_\_\_\_  
as Authenticating Agent

Dated: \_\_\_\_\_ By: \_\_\_\_\_  
as Authenticating Agent

**SECTION 612. Certain Duties and Responsibilities of the Trustee.**

(a) With respect to the Securities of any series, except during the continuance of an Event of Default with respect to the Securities of such series:

(1) the Trustee undertakes to perform such duties and only such duties as are specifically set forth in this Indenture, and no implied covenants or obligations shall be read into this Indenture against the Trustee; and

(2) in the absence of bad faith on its part, the Trustee may conclusively rely, as to the truth of the statements and the correctness of the opinions expressed therein, upon certificates or opinions furnished to the Trustee and conforming to the requirements of this Indenture; but in the case of any such certificates or opinions which by any provision hereof are specifically required to be furnished to the Trustee, the Trustee shall be under a duty to examine the same to determine whether or not they conform to the requirements of this Indenture, but shall not be under any duty to verify the contents or accuracy thereof.

(b) In case an Event of Default with respect to the Securities of any series has occurred and is continuing, the Trustee shall, with respect to Securities of such series, exercise such of the rights and powers vested in it by this Indenture, and use the same degree of care and skill in their exercise, as a prudent man would exercise or use under the circumstances in the conduct of his own affairs.

(c) No provision of this Indenture shall be construed to relieve the Trustee from liability for its own negligent action, its own negligent failure to act, or its own willful misconduct, except that:

(1) this Subsection shall not be construed to limit the effect of Subsection (a) of this Section;

(2) the Trustee shall not be liable for any error of judgment made in good faith by a Responsible Officer, unless it shall be proved that the Trustee was negligent in ascertaining the pertinent facts;

(3) the Trustee shall not be liable with respect to any action taken or omitted to be taken by it in good faith in accordance with the direction of the Holders of a majority in principal amount of the Outstanding Securities of any series relating to the time, method and place of conducting any proceeding for any remedy available to the Trustee, or exercising any trust or power conferred upon the Trustee, under this Indenture with respect to the Securities of such series; and

(4) no provision of this Indenture shall require the Trustee to expend or risk its own funds or otherwise incur any financial liability in the performance of any of its duties hereunder, or in the exercise of any of its rights or powers, if it shall have reasonable grounds for believing that repayment of such funds or adequate indemnity against such risk or liability is not reasonably assured to it; and, the Trustee shall be under no obligation to exercise any of its rights and powers under this Indenture at the request of any Holder, unless such Holder shall have offered to the Trustee security and indemnity satisfactory to it against any loss, liability or expense.

(d) Whether or not therein expressly so provided, every provision of this Indenture relating to the conduct or affecting the liability of or affording protection to the Trustee shall be subject to the provisions of this Section 612.

(e) The Trustee shall not be liable for interest on any money or assets held by it except to the extent the Trustee may agree in writing with the Company. Assets held in trust by the Trustee need not be segregated from other assets except to the extent required by law.

#### ARTICLE SEVEN - HOLDERS' LISTS AND REPORTS BY TRUSTEE AND COMPANY

SECTION 701. Disclosure of Names and Addresses of Holders. Every Holder of Securities or coupons, by receiving and holding the same, agrees with the Company and the Trustee that neither the Company nor the Trustee nor any Authenticating Agent nor any Paying Agent nor any Security Registrar shall be held accountable by reason of the disclosure of any information as to the names and addresses of the Holders of Securities in accordance with TIA Section 312, regardless of the source from which such information was derived, and that the Trustee shall not be held accountable by reason of mailing any material pursuant to a request made under TIA Section 312(b).

SECTION 702. Reports by Trustee. The Trustee shall transmit to Holders such reports concerning the Trustee and its actions under this Indenture as may be required by TIA Section 313 at the times and in the manner provided by the TIA, which shall initially be not less than every twelve months commencing on , 20 . A copy of each such report shall, at the time of such transmission to Holders, be filed by the Trustee with each over-the-counter market or securities exchange, if any, upon which any Securities are quoted or listed, with the Commission and with the Company. The Company will notify the Trustee when any Securities are quoted or listed on any over-the-counter market or securities exchange or delisted therefrom.

SECTION 703. Reports by Company. The Company will:

(1) file with the Trustee, within 15 days after the Company is required to file the same with the Commission, copies of the annual reports and of the information, documents and other reports (or copies of such portions of any of the foregoing as the Commission may from time to time by rules and regulations prescribe) which the Company may be required to file with the Commission pursuant to Section 13 or Section 15(d) of the Exchange Act; or, if the Company is not required to file information, documents or reports pursuant to either of such Sections, then it will file with the Trustee and the Commission, in accordance with rules and regulations prescribed from time to time by the Commission, such of the supplementary and periodic information, documents and reports which may be required pursuant to Section 13 of the Exchange Act in respect of a security quoted or listed and registered on an over-the-counter market or national securities exchange as may be prescribed from time to time in such rules and regulations;

(2) file with the Trustee and the Commission, in accordance with rules and regulations prescribed from time to time by the Commission, such additional information, documents and reports with respect to compliance by the Company with the conditions and covenants of this Indenture as may be required from time to time by such rules and regulations;

(3) transmit by mail to the Holders of Securities, within 30 days after the filing thereof with the Trustee, in the manner and to the extent provided in TIA Section 313(c), such summaries of any information, documents and reports required to be filed by the Company pursuant to paragraphs (1) and (2) of this Section as may be required by rules and regulations prescribed from time to time by the Commission; and

(4) delivery of such reports, information and documents to the Trustee is for informational purposes only and the Trustee's receipt of such shall not constitute constructive notice of any information contained therein or determinable from information contained therein, including the Company's compliance with any of its covenants hereunder (as to which the Trustee is entitled to rely exclusively on Officers' Certificates).

SECTION 704. Company to Furnish Trustee Names and Addresses of Holders. The Company will furnish or cause to be furnished to the Trustee:

(a) semiannually, not later than 15 days after the Regular Record Date for interest for each series of Securities, a list, in such form as the Trustee may reasonably require, of the names and addresses of the Holders of Registered Securities of such series as of such Regular Record Date, or if there is no Regular Record Date for interest for such series of Securities, semiannually, upon such dates as are set forth in the Board Resolution or indenture supplemental hereto authorizing such series, and

(b) at such other times as the Trustee may request in writing, within 30 days after the receipt by the Company of any such request, a list of similar form and content as of a date not more than 15 days prior to the time such list is furnished, provided, however, that, so long as the Trustee is the Security Registrar, no such list shall be required to be furnished.

#### ARTICLE EIGHT - CONSOLIDATION, MERGER, SALE, LEASE OR CONVEYANCE

SECTION 801. Consolidations and Mergers of Company and Sales, Leases and Conveyances Permitted Subject to Certain Conditions. The Company may consolidate with, or sell, lease or convey all or substantially all of its assets to, or merge with or into any other corporation, provided that in any such case, (1) either the Company shall be the continuing corporation, or the successor corporation shall be a corporation organized and existing under the laws of the United States or a State thereof and such successor corporation shall expressly assume the due and punctual payment of the principal of (and premium or Make-Whole Amount, if any) and any interest on all of the Securities, according to their tenor, and the due and punctual performance and observance of all of the covenants and conditions of this Indenture to be performed by the Company by supplemental indenture, complying with Article Nine hereof, satisfactory to the Trustee, executed and delivered to the Trustee by such corporation, (2) immediately after giving effect to such transaction and treating any indebtedness which becomes an obligation of the Company as a result thereof as having been incurred by the Company at the time of such transaction, no Event of Default, and no event which, after notice or the lapse of time, or both, would become an Event of Default, shall have occurred and be continuing and (3) the Company shall have delivered to the Trustee the Officer's Certificate and Opinion of Counsel required pursuant to Section 803 below.

SECTION 802. Rights and Duties of Successor Corporation. In case of any such consolidation, merger, sale, lease or conveyance and upon any such assumption by the successor corporation, such successor corporation shall succeed to and be substituted for the Company, with the same effect as if it had been named herein as the party of the first part, and the predecessor corporation, except in the event of a lease, shall be relieved of any further obligation under this Indenture and the Securities. Such successor corporation thereupon may cause to be signed, and may issue either in its own name or in the name of the Company, any or all of the Securities issuable hereunder which theretofore shall not have been signed by the Company and delivered to the Trustee; and, upon the order of such successor corporation, instead of the Company, and subject to all the terms, conditions and limitations in this Indenture prescribed, the Trustee shall authenticate and shall deliver any Securities which previously shall have been signed and delivered by the officers of the Company to the Trustee for authentication, and any Securities which such successor corporation thereafter shall cause to be signed and delivered to the Trustee for that purpose. All the Securities so issued shall in all respects have the same legal rank and benefit under this Indenture as the Securities theretofore or thereafter issued in accordance with the terms of this Indenture as though all of such Securities had been issued at the date of the execution hereof.

In case of any such consolidation, merger, sale, lease or conveyance, such changes in phraseology and form (but not in substance) may be made in the Securities thereafter to be issued as may be appropriate.

SECTION 803. Officers' Certificate and Opinion of Counsel. Any consolidation, merger, sale, lease or conveyance permitted under Section 801 is also subject to the condition that the Trustee receive an Officers' Certificate and an Opinion of Counsel to the effect that any such consolidation, merger, sale, lease or conveyance, and the assumption by any successor corporation, complies with the provisions of this Article and that all conditions precedent herein provided for relating to such transaction have been complied with.

#### ARTICLE NINE - SUPPLEMENTAL INDENTURES

SECTION 901. Supplemental Indentures Without Consent of Holders. Without the consent of any Holders of Securities or coupons, the Company, when authorized by or pursuant to a Board Resolution, and the Trustee, at any time and from time to time, may enter into one or more indentures supplemental hereto, in form satisfactory to the Trustee, for any of the following purposes:

- (1) to evidence the succession of another Person to the Company and the assumption by any such successor of the covenants of the Company contained herein and in the Securities; or
- (2) to add to the covenants of the Company for the benefit of the Holders of all or any series of Securities (and if such covenants are to be for the benefit of less than all series of Securities, stating that such covenants are expressly being included solely for the benefit of such series) or to surrender any right or power herein conferred upon the Company; or
- (3) to add any additional Events of Default for the benefit of the Holders of all or any series of Securities (and if such Events of Default are to be for the benefit of less than all series of Securities, stating that such Events of Default are expressly being included solely for the benefit of such series); provided, however, that in respect of any such additional Events of Default such supplemental indenture may provide for a particular period of grace after default (which period may be shorter or longer than that allowed in the case of other defaults) or may provide for an immediate enforcement upon such default or may limit the remedies available to the Trustee upon such default or may limit the right of the Holders of a majority in aggregate principal amount of that or those series of Securities to which such additional Events of Default apply to waive such default; or
- (4) to add to or change any of the provisions of this Indenture to provide that Bearer Securities may be registrable as to principal, to change or eliminate any restrictions on the payment of principal of or premium or Make-Whole Amount, if any, or interest on Bearer Securities, to permit Bearer Securities to be issued in exchange for Registered Securities, to permit Bearer Securities to be issued in exchange for Bearer Securities of other authorized denominations or to permit or facilitate the issuance of Securities in uncertificated form, provided that any such action shall not adversely affect the interests of the Holders of Securities of any series or any related coupons in any material respect; or

- (5) to change or eliminate any of the provisions of this Indenture, provided that any such change or elimination shall become effective only when there is no Security Outstanding of any series created prior to the execution of such supplemental indenture which is entitled to the benefit of such provision; or
- (6) to secure the Securities; or
- (7) to establish the form or terms of Securities of any series and any related coupons as permitted or contemplated by Sections 201 and 301; or
- (8) to evidence and provide for the acceptance of appointment hereunder by a successor Trustee with respect to the Securities of one or more series and to add to or change any of the provisions of this Indenture as shall be necessary to provide for or facilitate the administration of the trusts hereunder by more than one Trustee; or
- (9) to cure any ambiguity, to correct or supplement any provision herein which may be defective or inconsistent with any other provision herein, or to make any other provisions with respect to matters or questions arising under this Indenture which shall not be inconsistent with the provisions of this Indenture, provided such provisions shall not adversely affect the interests of the Holders of Securities of any series or any related coupons in any material respect; or
- (10) to supplement any of the provisions of this Indenture to such extent as shall be necessary to permit or facilitate the Defeasance and discharge of any series of Securities pursuant to Sections 401, 1402 and 1403; provided that any such action shall not adversely affect the interests of the Holders of Securities of such series and any related coupons or any other series of Securities in any material respect; or
- (11) to make provisions with respect to Holders' rights of conversion with respect to any series of Securities pursuant to Article Sixteen.

SECTION 902. Supplemental Indentures with Consent of Holders. With the consent of the Holders of not less than a majority in principal amount of all Outstanding Securities affected by such supplemental indenture, by Act of said Holders delivered to the Company and the Trustee, the Company, when authorized by or pursuant to a Board Resolution, and the Trustee may enter into an indenture or indentures supplemental hereto for the purpose of adding any provisions to or changing in any manner or eliminating any of the provisions of this Indenture or of modifying in any manner the rights of the Holders of Securities and any related coupons under this Indenture; provided, however, that no such supplemental indenture shall, without the consent of the Holder of each Outstanding Security affected thereby:

- (1) change the Stated Maturity of the principal of (or premium or Make-Whole Amount, if any, on) or any installment of principal of or interest on, any Security; or reduce the principal amount thereof or the rate or amount of interest thereon, or any premium or Make-Whole Amount payable upon the redemption thereof, or reduce the amount of the principal of an Original Issue Discount Security that would be due and payable upon a declaration of acceleration of the Maturity thereof pursuant to Section 502 or the amount thereof provable in bankruptcy pursuant to Section 504, or adversely affect any right of repayment at the option of the Holder of any Security, or change any Place of Payment where, or the currency or currencies, currency unit or units or composite currency or currencies in which, any Security or any premium or Make-Whole Amount or the interest thereon is payable, or impair the right to institute suit for the enforcement of any such payment on or after the Stated Maturity thereof (or, in the case of redemption or repayment at the option of the Holder, on or after the Redemption Date or the Repayment Date, as the case may be), or (if Securities of such series are convertible) adversely affect the right of the Holder to convert any Security as provided in Article Sixteen; or



(2) reduce the percentage in principal amount of the Outstanding Securities of any series, the consent of whose Holders is required for any such supplemental indenture, or the consent of whose Holders is required for any waiver with respect to such series (or compliance with certain provisions of this Indenture or certain defaults hereunder and their consequences) provided for in this Indenture, or reduce the requirements of Section 1504 for quorum or voting, or

(3) modify any of the provisions of this Section, Section 513 or Section 1009, except to increase the required percentage to effect such action or to provide that certain other provisions of this Indenture cannot be modified or waived without the consent of the Holder of each Outstanding Security affected thereby, provided, however, that this clause shall not be deemed to require the consent of any Holder with respect to changes in the references to “the Trustee” and concomitant changes in this Section 902 and Section 1009, or the deletion of this proviso, in accordance with the requirements of Sections 609(b) and 901(11).

It shall not be necessary for any Act of Holders under this Section 902 to approve the particular form of any proposed supplemental indenture, but it shall be sufficient if such Act shall approve the substance thereof.

A supplemental indenture which changes or eliminates any covenant or other provision of this Indenture which has expressly been included solely for the benefit of one or more particular series of Securities, or which modifies the rights of the Holders of Securities of such series with respect to such covenant or other provision, shall be deemed not to affect the rights under this Indenture of the Holders of Securities of any other series.

SECTION 903. Execution of Supplemental Indentures. In executing, or accepting the additional trusts created by, any supplemental indenture permitted by this Article or the modification thereby of the trusts created by this Indenture, the Trustee shall be entitled to receive, and (subject to Section 612) shall be fully protected in relying upon, an Opinion of Counsel stating that the execution of such supplemental indenture is authorized or permitted by this Indenture. The Trustee may, but shall not be obligated to, enter into any such supplemental indenture which affects the Trustee’s own rights, duties or immunities under this Indenture or otherwise.

SECTION 904. Effect of Supplemental Indentures. Upon the execution of any supplemental indenture under this Article, this Indenture shall be modified in accordance therewith, and such supplemental indenture shall form a part of this Indenture for all purposes; and every Holder of Securities theretofore or thereafter authenticated and delivered hereunder and of any coupon appertaining thereto shall be bound thereby.

SECTION 905. Conformity with Trust Indenture Act. Every supplemental indenture executed pursuant to this Article shall conform to the requirements of the Trust Indenture Act as then in effect.

SECTION 906. Reference in Securities to Supplemental Indentures. Securities of any series authenticated and delivered after the execution of any supplemental indenture pursuant to this Article may, and shall, if required by the Trustee, bear a notation in form approved by the Trustee as to any matter provided for in such supplemental indenture. If the Company shall so determine, new Securities of any series so modified as to conform, in the opinion of the Trustee and the Company, to any such supplemental indenture may be prepared and executed by the Company and authenticated and delivered by the Trustee in exchange for Outstanding Securities of such series.

#### ARTICLE TEN - COVENANTS

SECTION 1001. Payment of Principal, Premium or Make-Whole Amount, if any; and Interest. The Company covenants and agrees for the benefit of the Holders of each series of Securities that it will duly and punctually pay the principal of (and premium or Make-Whole Amount, if any) and interest on the Securities of that series in accordance with the terms of such series of Securities, any coupons appertaining thereto and this Indenture. Unless otherwise specified as contemplated by Section 301 with respect to any series of Securities, any interest due on Bearer Securities on or before Maturity shall be payable only upon presentation and surrender of the several coupons for such interest installments as are evidenced thereby as they severally mature. Unless otherwise specified with respect to Securities of any series pursuant to Section 301, at the option of the Company (upon written notice to the Trustee), all payments of principal may be paid by check to the registered Holder of the Registered Security or other Person entitled thereto against surrender of such Security.

SECTION 1002. Maintenance of Office or Agency. If Securities of a series are issuable only as Registered Securities, the Company shall maintain in each Place of Payment for any series of Securities an office or agency where Securities of that series may be presented or surrendered for payment or conversion, where Securities of that series may be surrendered for registration of transfer or conversion or exchange and where notices and demands to or upon the Company in respect of the Securities of that series and this Indenture may be served. If Securities of a series are issuable as Bearer Securities, the Company will maintain: (A) in the Borough of Manhattan, The City of New York, an office or agency where any Registered Securities of that series may be presented or surrendered for payment or conversion, where any Registered Securities of that series may be surrendered for registration of transfer, where Securities of that series may be surrendered for conversion or exchange, where notices and demands to or upon the Company in respect of the Securities of that series and this Indenture may be served and where Bearer Securities of that series and related coupons may be presented or surrendered for payment or conversion in the circumstances described in the following paragraph (and not otherwise); (B) subject to any laws or regulations applicable thereto, in a Place of Payment for that series which is located outside the United States, an office or agency where Securities of that series and related coupons may be presented and surrendered for payment; provided, however, that if the Securities of that series are listed on any stock exchange located outside the United States and such stock exchange shall so require, the Company will maintain a Paying Agent for the Securities of that series in any required city located outside the United States, as the case may be, so long as the Securities of that series are listed on such exchange; and (C) subject to any laws or regulations applicable thereto, in a Place of Payment for that series located outside the United States an office or agency where any Registered Securities of that series may be surrendered for registration of transfer, where Securities of that series may be surrendered for conversion or exchange and where notices and demands to or upon the Company in respect of the Securities of that series and this Indenture may be served. The Company will give prompt written notice to the Trustee of the location, and any change in the location, of each such office or agency. If at any time the Company shall fail to maintain any such required office or agency or shall fail to furnish the Trustee with the address thereof, such presentations, surrenders, notices and demands may be made or served at the Corporate Trust Office of the Trustee, except that Bearer Securities of that series and the related coupons may be presented and surrendered for payment or conversion at the offices specified in the Security, in London, England, and the Company hereby appoints the same as its agent to receive such respective presentations, surrenders, notices and demands, and the Company hereby appoints the Trustee its agent to receive all such presentations, surrenders, notices and demands.

Unless otherwise specified with respect to any Securities pursuant to Section 301, no payment of principal, premium or Make-Whole Amount or interest on Bearer Securities shall be made at any office or agency of the Company in the United States or by check mailed to any address in the United States or by transfer to an account maintained with a bank located in the United States; provided, however, that, if the Securities of a series are payable in Dollars, payment of principal of and any premium or Make-Whole Amount and interest on any Bearer Security shall be made at the office of the Company's Paying Agent in the Borough of Manhattan, The City of New York, if (but only if) payment in Dollars of the full amount of such principal, premium or Make-Whole Amount, or interest, as the case may be, at all offices or agencies outside the United States maintained for the purpose by the Company in accordance with this Indenture, is illegal or effectively precluded by exchange controls or other similar restrictions.

The Company may from time to time designate one or more other offices or agencies (in or outside the Place of Payment) where the Securities of one or more series may be presented or surrendered for any or all of such purposes, and may from time to time rescind such designations; provided, however, that no such designation or rescission shall in any manner relieve the Company of its obligation to maintain an office or agency in accordance with the requirements set forth above for Securities of any series for such purposes. The Company will give prompt written notice to the Trustee of any such designation or rescission and of any change in the location of any such other office or agency. Unless otherwise specified with respect to any Securities pursuant to Section 301 with respect to a series of Securities, the Company hereby designates as a Place of Payment for each series of Securities, each of (i) the office or agency of the Company in the Borough of Manhattan, The City of New York, and (ii) the Corporate Trust Office of the Trustee (as Paying Agent); and the Company hereby initially appoints the Trustee at its Corporate Trust Office as Paying Agent in such city; and the Company hereby initially appoints as its agent to receive all such presentations, surrenders, notices and demands each of the Trustee, at its Corporate Trust Office.

Unless otherwise specified with respect to any Securities pursuant to Section 301, if and so long as the Securities of any series (i) are denominated in a Foreign Currency or (ii) may be payable in a Foreign Currency, or so long as it is required under any other provision of the Indenture, then the Company will maintain with respect to each such series of Securities, or as so required, at least one exchange rate agent (of which it shall give written notice to the Trustee).

SECTION 1003. Money for Securities Payments to Be Held in Trust. If the Company shall at any time act as its own Paying Agent with respect to any series of any Securities and any related coupons, it will, on or before each due date of the principal of (and premium or Make-Whole Amount, if any), or interest on any of the Securities of that series, segregate and hold in trust for the benefit of the Persons entitled thereto a sum in the currency or currencies, currency unit or units or composite currency or currencies in which the Securities of such series are payable (except as otherwise specified pursuant to Section 301 for the Securities of such series) sufficient to pay the principal (and premium or Make-Whole Amount, if any) or interest so becoming due until such sums shall be paid to such Persons or otherwise disposed of as herein provided, and will promptly notify the Trustee of its action or failure so to act.

Whenever the Company shall have one or more Paying Agents for any series of Securities and any related coupons, it will, on or before each due date of the principal of (and premium or Make-Whole Amount, if any), or interest on any Securities of that series, deposit with a Paying Agent a sum (in the currency or currencies, currency unit or units or composite currency or currencies described in the preceding paragraph) sufficient to pay the principal (and premium or Make-Whole Amount, if any) or interest so becoming due, such sum to be held in trust for the benefit of the Persons entitled to such principal, premium or Make-Whole Amount, if any, or interest and (unless such Paying Agent is the Trustee) the Company will promptly notify the Trustee of its action or failure so to act.

The Company will cause each Paying Agent for any series of Securities other than the Trustee to execute and deliver to the Trustee an instrument in which such Paying Agent shall agree with the Trustee, subject to the provisions of this Section, that such Paying Agent will

- (1) hold all sums held by it for the payment of principal of (and premium or Make-Whole Amount, if any) or interest on Securities in trust for the benefit of the Persons entitled thereto until such sums shall be paid to such Persons or otherwise disposed of as herein provided;
- (2) give the Trustee notice of any default by the Company (or any other obligor upon the Securities) in the making of any such payment of principal (and premium or Make-Whole Amount, if any) or interest on the Securities of that series; and

(3) at any time during the continuance of any such default upon the written request of the Trustee, forthwith pay to the Trustee all sums so held in trust by such Paying Agent.

The Company may at any time, for the purpose of obtaining the satisfaction and discharge of this Indenture or for any other purpose, pay, or by Company Order direct any Paying Agent to pay, to the Trustee all sums held in trust by the Company or such Paying Agent, such sums to be held by the Trustee upon the same trusts as those upon which such sums were held by the Company or such Paying Agent; and, upon such payment by any Paying Agent to the Trustee, such Paying Agent shall be released from all further liability with respect to such sums.

Except as otherwise provided in the Securities of any series, and subject to applicable laws, any money deposited with the Trustee or any Paying Agent, or then held by the Company, in trust for the payment of the principal of (and premium or Make-Whole Amount, if any) or interest on any Security of any series and remaining unclaimed for two years after such principal (and premium or Make-Whole Amount, if any) or interest has become due and payable shall be paid to the Company upon Company Request or (if then held by the Company) shall be discharged from such trust; and the Holder of such Security shall thereafter, as an unsecured general creditor, look only to the Company for payment of such principal of (and premium or Make-Whole Amount, if any) or interest on any Security, without interest thereon, and all liability of the Trustee or such Paying Agent with respect to such trust money, and all liability of the Company as trustee thereof, shall thereupon cease; provided, however, that the Trustee or such Paying Agent, before being required to make any such repayment, may at the expense of the Company cause to be published once, in an Authorized Newspaper, notice that such money remains unclaimed and that, after a date specified therein, which shall not be less than 30 days from the date of such publication, any unclaimed balance of such money then remaining will be repaid to the Company.

SECTION 1004. Existence. Subject to Article Eight, the Company will do or cause to be done all things necessary to preserve and keep in full force and effect its corporate existence, all material rights (by certificate of incorporation, bylaws and statute) and material franchises; provided, however, that the Company shall not be required to preserve any such right or franchise if the Board of Directors shall determine that the preservation thereof is no longer desirable in the conduct of the business of the Company.

SECTION 1005. Maintenance of Properties. The Company will cause all of its material properties used or useful in the conduct of its business to be maintained and kept in good condition, repair and working order, normal wear and tear, casualty and condemnation excepted, and supplied with all necessary equipment and will cause to be made all necessary repairs, renewals, replacements, betterments and improvements thereof (and the Company may take out of service for a period of time, any of its properties that have been condemned or suffered any loss due to casualty in order to make such repairs, betterments and improvements), all as in the judgment of the Company may be necessary so that the business carried on in connection therewith may be properly and advantageously conducted at all times; provided, however, that the Company shall not be prevented from (i) removing permanently any property that has been condemned or suffered a loss due to casualty based on the Company's reasonable judgment that such removal is in the best interest of the Company, or (ii) selling or otherwise disposing of its properties for value in the ordinary course of business.

SECTION 1006. Insurance. The Company will cause its insurable properties to be insured against loss or damage in an amount deemed reasonable by the Board of Directors with insurers of recognized responsibility.

SECTION 1007. Payment of Taxes and Other Claims. The Company will pay or discharge or cause to be paid or discharged, before the same shall become delinquent, (1) all taxes, assessments and governmental charges levied or imposed upon it or upon the income, profits or property of the Company, and (2) all lawful claims for labor, materials and supplies which, if unpaid, might by law become a lien upon the property of the Company; provided, however, that the Company shall not be required to pay or discharge or cause to be paid or discharged any such tax, assessment, charge or claim whose amount, applicability or validity is being contested in good faith by appropriate proceedings.

SECTION 1008. Statement as to Compliance. The Company will deliver to the Trustee, within 120 days after the end of each fiscal year, a brief certificate from the principal executive officer, principal financial officer or principal accounting officer as to his or her knowledge of the Company's compliance with all conditions and covenants under this Indenture and, in the event of any noncompliance, specifying such noncompliance and the nature and status thereof. For purposes of this Section 1008, such compliance shall be determined without regard to any period of grace or requirement of notice under this Indenture.

SECTION 1009. Waiver of Certain Covenants. The Company may omit in any particular instance to comply with any term, provision or condition set forth in Sections 1004 to 1008, inclusive, if before or after the time for such compliance the Holders of at least a majority in principal amount of all outstanding Securities of such series, by Act of such Holders, either waive such compliance in such instance or generally waive compliance with such covenant or condition, but no such waiver shall extend to or affect such covenant or condition except to the extent so expressly waived, and, until such waiver shall become effective, the obligations of the Company and the duties of the Trustee in respect of any such term, provision or condition shall remain in full force and effect.

#### ARTICLE ELEVEN - REDEMPTION OF SECURITIES

SECTION 1101. Applicability of Article. Securities of any series which are redeemable before their Stated Maturity shall be redeemable in accordance with their terms and (except as otherwise specified as contemplated by Section 301 for Securities of any series) in accordance with this Article.

SECTION 1102. Election to Redeem; Notice to Trustee. The election of the Company to redeem any Securities shall be evidenced by or pursuant to a Board Resolution. In case of any redemption at the election of the Company of less than all of the Securities of any series, the Company shall, at least 45 days prior to the giving of the notice of redemption in Section 1104 (unless a shorter notice shall be satisfactory to the Trustee), notify the Trustee of such Redemption Date and of the principal amount of Securities of such series to be redeemed. In the case of any redemption of Securities prior to the expiration of any restriction on such redemption provided in the terms of such Securities or elsewhere in this Indenture, the Company shall furnish the Trustee with an Officers' Certificate evidencing compliance with such restriction.

SECTION 1103. Selection by Trustee of Securities to Be Redeemed. If less than all the Securities of any series issued on the same day with the same terms are to be redeemed, the particular Securities to be redeemed shall be selected not more than 60 days prior to the Redemption Date by the Trustee, from the Outstanding Securities of such series issued on such date with the same terms not previously called for redemption, by such method as the Trustee shall deem fair and appropriate and which may provide for the selection for redemption of portions (equal to the minimum authorized denomination for Securities of that series or any integral multiple thereof) of the principal amount of Securities of such series of a denomination larger than the minimum authorized denomination for Securities of that series.

The Trustee shall promptly notify the Company and the Security Registrar (if other than itself) in writing of the Securities selected for redemption and, in the case of any Securities selected for partial redemption, the principal amount thereof to be redeemed.

For all purposes of this Indenture, unless the context otherwise requires, all provisions relating to the redemption of Securities shall relate, in the case of any Security redeemed or to be redeemed only in part, to the portion of the principal amount of such Security which has been or is to be redeemed.

SECTION 1104. Notice of Redemption. Notice of redemption shall be given in the manner provided in Section 106, not less than 30 days nor more than 60 days prior to the Redemption Date, unless a shorter period is specified by the terms of such series established pursuant to Section 301, to each Holder of Securities to be redeemed, but failure to give such notice in the manner herein provided to the Holder of any Security designated for redemption as a whole or in part, or any defect in the notice to any such Holder, shall not affect the validity of the proceedings for the redemption of any other such Security or portion thereof.

Any notice that is mailed to the Holders of Registered Securities in the manner herein provided shall be conclusively presumed to have been duly given, whether or not the Holder receives the notice.

All notices of redemption shall state:

- (1) the Redemption Date,
- (2) the Redemption Price, accrued interest to the Redemption Date payable as provided in Section 1106, if any,
- (3) if less than all Outstanding Securities of any series are to be redeemed, the identification (and, in the case of partial redemption, the principal amount) of the particular Security or Securities to be redeemed,
- (4) in case any Security is to be redeemed in part only, the notice which relates to such Security shall state that on and after the Redemption Date, upon surrender of such Security, the holder will receive, without a charge, a new Security or Securities of authorized denominations for the principal amount thereof remaining unredeemed,

(5) that on the Redemption Date the Redemption Price and accrued interest to the Redemption Date payable as provided in Section 1106, if any, will become due and payable upon each such Security, or the portion thereof, to be redeemed and, if applicable, that interest thereon shall cease to accrue on and after said date,

(6) the Place or Places of Payment where such Securities, together in the case of Bearer Securities with all coupons appertaining thereto, if any, maturing after the Redemption Date, are to be surrendered for payment of the Redemption Price and accrued interest, if any, or for conversion,

(7) that the redemption is for a sinking fund, if such is the case,

(8) that, unless otherwise specified in such notice, Bearer Securities of any series, if any, surrendered for redemption must be accompanied by all coupons maturing subsequent to the date fixed for redemption or the amount of any such missing coupon or coupons will be deducted from the Redemption Price, unless security or indemnity satisfactory to the Company, the Trustee for such series and any Paying Agent is furnished,

(9) if Bearer Securities of any series are to be redeemed and any Registered Securities of such series are not to be redeemed, and if such Bearer Securities may be exchanged for Registered Securities not subject to redemption on this Redemption Date pursuant to Section 305 or otherwise, the last date, as determined by the Company, on which such exchanges may be made,

(10) the CUSIP number of such Security, if any, and

(11) if applicable, that a Holder of Securities who desires to convert Securities for redemption must satisfy the requirements for conversion contained in such Securities, the then existing conversion price or rate, the place or places where such Securities may be surrendered for conversion, and the date and time when the option to convert shall expire.

Notice of redemption of Securities to be redeemed at the election of the Company shall be given by the Company or, at the Company's request, by the Trustee in the name and at the expense of the Company.

SECTION 1105. Deposit of Redemption Price. On or prior to any Redemption Date, the Company shall deposit with the Trustee or with a Paying Agent (or, if the Company is acting as its own Paying Agent, which it may not do in the case of a sinking fund payment under Article Twelve, segregate and hold in trust as provided in Section 1003) an amount of money in the currency or currencies, currency unit or units or composite currency or currencies in which the Securities of such series are payable (except as otherwise specified pursuant to Section 301 for the Securities of such series) sufficient to pay on the Redemption Date the Redemption Price of, and (except if the Redemption Date shall be an Interest Payment Date) accrued interest on, all the Securities or portions thereof which are to be redeemed on that date.



If any Securities called for redemption are converted, any money deposited with the Trustee or with any Paying Agent or so segregated and held in trust for the redemption of such Security shall be paid to the Company upon Company Request or, if then held by the Company, shall be discharged from such trust.

SECTION 1106. Securities Payable on Redemption Date. Notice of redemption having been given as aforesaid, the Securities so to be redeemed shall, on the Redemption Date, become due and payable at the Redemption Price therein specified in the currency or currencies, currency unit or units or composite currency or currencies in which the Securities of such series are payable (except as otherwise specified pursuant to Section 301 for the Securities of such series) (together with accrued interest, if any, to the Redemption Date), and from and after such date (unless the Company shall default in the payment of the Redemption Price and accrued interest) such Securities shall, if the same were interest-bearing, cease to bear interest and the coupons for such interest appertaining to any Bearer Securities so to be redeemed, except to the extent provided below, shall be void. Upon surrender of any such Security for redemption in accordance with said notice, together with all coupons, if any, appertaining thereto maturing after the Redemption Date, such Security shall be paid by the Company at the Redemption Price, together with accrued interest, if any, to the Redemption Date; provided, however, that installments of interest on Bearer Securities whose Stated Maturity is on or prior to the Redemption Date shall be payable only at an office or agency located outside the United States (except as otherwise provided in Section 1002) and, unless otherwise specified as contemplated by Section 301, only upon presentation and surrender of coupons for such interest; and provided further that except as otherwise provided with respect to Securities convertible into the Company's Common Stock or Preferred Stock, installments of interest on Registered Securities whose Stated Maturity is on or prior to the Redemption Date shall be payable to the Holders of such Securities, or one or more Predecessor Securities, registered as such at the close of business on the relevant Record Dates according to their terms and the provisions of Section 307.

If any Bearer Security surrendered for redemption shall not be accompanied by all appurtenant coupons maturing after the Redemption Date, such Security may be paid after deducting from the Redemption Price an amount equal to the face amount of all such missing coupons, or the surrender of such missing coupon or coupons may be waived by the Company and the Trustee if there be furnished to them such security or indemnity as they may require to save each of them and any Paying Agent harmless. If thereafter the Holder of such Security shall surrender to the Trustee or any Paying Agent any such missing coupon in respect of which a deduction shall have been made from the Redemption Price, such Holder shall be entitled to receive the amount so deducted; provided, however, that interest represented by coupons shall be payable only at an office or agency located outside the United States (except as otherwise provided in Section 1002) and, unless otherwise specified as contemplated by Section 301, only upon presentation and surrender of those coupons.

If any Security called for redemption shall not be so paid upon surrender thereof for redemption, the principal (and premium or Make-Whole Amount, if any) shall, until paid, bear interest from the Redemption Date at the rate borne by the Security.

SECTION 1107. Securities Redeemed in Part. Any Registered Security which is to be redeemed only in part (pursuant to the provisions of this Article or of Article Twelve) shall be surrendered at a Place of Payment therefor (with, if the Company or the Trustee so requires, due endorsement by, or a written instrument of transfer in form satisfactory to the Company and the Trustee duly executed by, the Holder thereof or his attorney duly authorized in writing) and the Company shall execute and the Trustee shall authenticate and deliver to the Holder of such Security without service charge a new Security or Securities of the same series, of any authorized denomination as requested by such Holder in aggregate principal amount equal to and in exchange for the unredeemed portion of the principal of the Security so surrendered. If a Global Security is so surrendered, the Company shall execute and the Trustee shall authenticate and deliver to the depository, without service charge, a new Global Security in a denomination equal to and in exchange for the unredeemed portion of the principal of the Global Security so surrendered.

#### ARTICLE TWELVE - SINKING FUNDS

SECTION 1201. Applicability of Article. The provisions of this Article shall be applicable to any sinking fund for the retirement of Securities of a series except as otherwise specified as contemplated by Section 301 for Securities of such series.

The minimum amount of any sinking fund payment provided for by the terms of Securities of any series is herein referred to as a “mandatory sinking fund payment,” and any payment in excess of such minimum amount provided for by the terms of such Securities of any series is herein referred to as an “optional sinking fund payment.” If provided for by the terms of any Securities of any series, the cash amount of any mandatory sinking fund payment may be subject to reduction as provided in Section 1202. Each sinking fund payment shall be applied to the redemption of Securities of any series as provided for by the terms of Securities of such series.

SECTION 1202. Satisfaction of Sinking Fund Payments with Securities. The Company may, in satisfaction of all or any part of any mandatory sinking fund payment with respect to the Securities of a series, (1) deliver Outstanding Securities of such series (other than any previously called for redemption) together in the case of any Bearer Securities of such series with all unmatured coupons appertaining thereto and (2) apply as a credit Securities of such series which have been redeemed either at the election of the Company pursuant to the terms of such Securities or through the application of permitted optional sinking fund payments pursuant to the terms of such Securities, as provided for by the terms of such Securities, or which have otherwise been acquired by the Company; provided that such Securities so delivered or applied as a credit have not been previously so credited. Such Securities shall be received and credited for such purpose by the Trustee at the applicable Redemption Price specified in such Securities for redemption through operation of the sinking fund and the amount of such mandatory sinking fund payment shall be reduced accordingly.

SECTION 1203. Redemption of Securities for Sinking Fund. Not less than 60 days prior to each sinking fund payment date for Securities of any series, the Company will deliver to the Trustee an Officers’ Certificate specifying the amount of the next ensuing mandatory sinking fund payment for that series pursuant to the terms of that series, the portion thereof, if any, which is to be satisfied by payment of cash in the currency or currencies, currency unit or units or composite currency or currencies in which the Securities of such series are payable (except as otherwise specified pursuant to Section 301 for the Securities of such series) and the portion thereof, if any, which is to be satisfied by delivering and crediting Securities of that series pursuant to Section 1202, and the optional amount, if any, to be added in cash to the next ensuing mandatory sinking fund payment, and will also deliver to the Trustee any Securities to be so delivered and credited. If such Officers’ Certificate shall specify an optional amount to be added in cash to the next ensuing mandatory sinking fund payment, the Company shall thereupon be obligated to pay the amount therein specified. Not less than 30 days before each such sinking fund payment date the Trustee shall select the Securities to be redeemed upon such sinking fund payment date in the manner specified in Section 1103 and cause notice of the redemption thereof to be given in the name of and at the expense of the Company in the manner provided in Section 1104. Such notice having been duly given, the redemption of such Securities shall be made upon the terms and in the manner stated in Sections 1106 and 1107.

ARTICLE THIRTEEN - REPAYMENT AT THE OPTION OF HOLDERS

SECTION 1301. Applicability of Article. Repayment of Securities of any series before their Stated Maturity at the option of Holders thereof shall be made in accordance with the terms of such Securities, if any, and (except as otherwise specified by the terms of such series established pursuant to Section 301) in accordance with this Article.

SECTION 1302. Repayment of Securities. Securities of any series subject to repayment in whole or in part at the option of the Holders thereof will, unless otherwise provided in the terms of such Securities, be repaid at a price equal to the principal amount thereof, together with interest, if any, thereon accrued to the Repayment Date specified in or pursuant to the terms of such Securities. The Company covenants that on or prior to the Repayment Date it will deposit with the Trustee or with a Paying Agent (or, if the Company is acting as its own Paying Agent, segregate and hold in trust as provided in Section 1003) an amount of money in the currency or currencies, currency unit or units or composite currency or currencies in which the Securities of such series are payable (except as otherwise specified pursuant to Section 301 for the Securities of such series) sufficient to pay the principal (or, if so provided by the terms of the Securities of any series, a percentage of the principal) of, and (except if the Repayment Date shall be an Interest Payment Date) accrued interest on, all the Securities or portions thereof, as the case may be, to be repaid on such date.

SECTION 1303. Exercise of Option. Securities of any series subject to repayment at the option of the Holders thereof will contain an "Option to Elect Repayment" form on the reverse of such Securities. In order for any Security to be repaid at the option of the Holder, the Trustee must receive at the Place of Payment therefor specified in the terms of such Security (or at such other place or places of which the Company shall from time to time notify the Holders of such Securities) not earlier than 60 days nor later than 30 days prior to the Repayment Date (1) the Security so providing for such repayment together with the "Option to Elect Repayment" form on the reverse thereof duly completed by the Holder (or by the Holder's attorney duly authorized in writing) or (2) a telegram, telex, facsimile transmission or a letter from a member of a national securities exchange, or the FINRA, or a commercial bank or trust company in the United States setting forth the name of the Holder of the Security, the principal amount of the Security, the principal amount of the Security to be repaid, the CUSIP number, if any, or a description of the tenor and terms of the Security, a statement that the option to elect repayment is being exercised thereby and a guarantee that the Security to be repaid, together with the duly completed form entitled "Option to Elect Repayment" on the reverse of the Security, will be received by the Trustee not later than the fifth Business Day after the date of such telegram, telex, facsimile transmission or letter; provided, however, that such telegram, telex, facsimile transmission or letter shall only be effective if such Security and form duly completed are received by the Trustee by such fifth Business Day. If less than the entire principal amount of such Security is to be repaid in accordance with the terms of such Security, the principal amount of such Security to be repaid, in increments of the minimum denomination for Securities of such series, and the denomination or denominations of the Security or Securities to be issued to the Holder for the portion of the principal amount of such Security surrendered that is not to be repaid, must be specified. The principal amount of any Security providing for repayment at the option of the Holder thereof may not be repaid in part if, following such repayment, the unpaid principal amount of such Security would be less than the minimum authorized denomination of Securities of the series of which such Security to be repaid is a part. Except as otherwise may be provided by the terms of any Security providing for repayment at the option of the Holder thereof, exercise of the repayment option by the Holder shall be irrevocable unless waived by the Company.

SECTION 1304. When Securities Presented for Repayment Become Due and Payable. If Securities of any series providing for repayment at the option of the Holders thereof shall have been surrendered as provided in this Article and as provided by or pursuant to the terms of such Securities, such Securities or the portions thereof, as the case may be, to be repaid shall become due and payable and shall be paid by the Company on the Repayment Date therein specified, and on and after such Repayment Date (unless the Company shall default in the payment of such Securities on such Repayment Date) such Securities shall, if the same were interest-bearing, cease to bear interest and the coupons for such interest appertaining to any Bearer Securities so to be repaid, except to the extent provided below, shall be void. Upon surrender of any such Security for repayment in accordance with such provisions, together with all coupons, if any, appertaining thereto maturing after the Repayment Date, the principal amount of such Security so to be repaid shall be paid by the Company, together with accrued interest, if any, to the Repayment Date; provided, however, that coupons whose Stated Maturity is on or prior to the Repayment Date shall be payable only at an office or agency located outside the United States (except as otherwise provided in Section 1002) and, unless otherwise specified pursuant to Section 301, only upon presentation and surrender of such coupons; and provided further that, in the case of Registered Securities, installments of interest, if any, whose Stated Maturity is on or prior to the Repayment Date shall be payable (but without interest thereon, unless the Company shall default in the payment thereof) to the Holders of such Securities, or one or more Predecessor Securities, registered as such at the close of business on the relevant Record Dates according to their terms and the provisions of Section 307.

If any Bearer Security surrendered for repayment shall not be accompanied by all appurtenant coupons maturing after the Repayment Date, such Security may be paid after deducting from the amount payable therefor as provided in Section 1302 an amount equal to the face amount of all such missing coupons, or the surrender of such missing coupon or coupons may be waived by the Company and the Trustee if there be furnished to them such security or indemnity as they may require to save each of them and any Paying Agent harmless. If thereafter the Holder of such Security shall surrender to the Trustee or any Paying Agent any such missing coupon in respect of which a deduction shall have been made as provided in the preceding sentence, such Holder shall be entitled to receive the amount so deducted; provided, however, that interest represented by coupons shall be payable only at an office or agency located outside the United States (except as otherwise provided in Section 1002) and, unless otherwise specified as contemplated by Section 301, only upon presentation and surrender of those coupons.

If the principal amount of any Security surrendered for repayment shall not be so repaid upon surrender thereof, such principal amount (together with interest, if any, thereon accrued to such Repayment Date) shall, until paid, bear interest from the Repayment Date at the rate of interest or Yield to Maturity (in the case of Original Issue Discount Securities) set forth in such Security.

SECTION 1305. Securities Repaid in Part. Upon surrender of any Registered Security which is to be repaid in part only, the Company shall execute and the Trustee shall authenticate and deliver to the Holder of such Security, without service charge and at the expense of the Company, a new Registered Security or Securities of the same series, of any authorized denomination specified by the Holder, in an aggregate principal amount equal to and in exchange for the portion of the principal of such Security so surrendered which is not to be repaid.

#### ARTICLE FOURTEEN - DEFEASANCE AND COVENANT DEFEASANCE

SECTION 1401. Applicability of Article; Company's Option to Effect Defeasance or Covenant Defeasance. If, pursuant to Section 301, provision is made for either or both of (a) Defeasance of the Securities of or within a series under Section 1402 or (b) Covenant Defeasance of the Securities of or within a series under Section 1403, then the provisions of such Section or Sections, as the case may be, together with the other provisions of this Article (with such modifications thereto as may be specified pursuant to Section 301 with respect to any Securities), shall be applicable to such Securities and any coupons appertaining thereto, and the Company may at its option by Board Resolution, at any time, with respect to such Securities and any coupons appertaining thereto, elect to have Section 1402 (if applicable) or Section 1403 (if applicable) be applied to such Outstanding Securities and any coupons appertaining thereto upon compliance with the conditions set forth below in this Article.

SECTION 1402. Defeasance and Discharge. Upon the Company's exercise of the above option applicable to this Section with respect to any Securities of or within a series, the Company shall be deemed to have been discharged from its obligations with respect to such Outstanding Securities and any coupons appertaining thereto on the date the conditions set forth in Section 1404 are satisfied (hereinafter, "Defeasance"). For this purpose, such Defeasance means that the Company shall be deemed to have paid and discharged the entire indebtedness represented by such Outstanding Securities and any coupons appertaining thereto, which shall thereafter be deemed to be "Outstanding" only for the purposes of Section 1405 and the other Sections of this Indenture referred to in clauses (A) and (B) below, and to have satisfied all of its other obligations under such Securities and any coupons appertaining thereto and this Indenture insofar as such Securities and any coupons appertaining thereto are concerned (and the Trustee, at the expense of the Company, shall execute proper instruments acknowledging the same), except for the following which shall survive until otherwise terminated or discharged hereunder: (A) the rights of Holders of such Outstanding Securities and any coupons appertaining thereto to receive, solely from the trust fund described in Section 1404 and as more fully set forth in such Section, payments in respect of the principal of (and premium or Make-Whole Amount, if any) and interest, if any, on such Securities and any coupons appertaining thereto when such payments are due, (B) the Company's obligations with respect to such Securities under Sections 305, 306, 1002 and 1003, and the Company's obligations under Section 606 hereof (C) the rights, powers, trusts, duties and immunities of the Trustee hereunder and (D) this Article. Subject to compliance with this Article Fourteen, the Company may exercise its option under this Section notwithstanding the prior exercise of its option under Section 1403 with respect to such Securities and any coupons appertaining thereto.

SECTION 1403. Covenant Defeasance. Upon the Company's exercise of the above option applicable to this Section with respect to any Securities of or within a series, the Company shall be released from its obligations under Sections 1004 to 1009, inclusive, and, if specified pursuant to Section 301, its obligations under any other covenant contained herein or in any indenture supplemental hereto, with respect to such Outstanding Securities and any coupons appertaining thereto on and after the date the conditions set forth in Section 1404 are satisfied (hereinafter, "Covenant Defeasance"), and such Securities and any coupons appertaining thereto shall thereafter be deemed to be not "Outstanding" for the purposes of any direction, waiver, consent or declaration or Act of Holders (and the consequences of any thereof) in connection with Sections 1004 to 1009, inclusive, or such other covenant, but shall continue to be deemed "Outstanding" for all other purposes hereunder. For this purpose, such Covenant Defeasance means that, with respect to such Outstanding Securities and any coupons appertaining thereto, the Company may omit to comply with and shall have no liability in respect of any term, condition or limitation set forth in any such Section or such other covenant, whether directly or indirectly, by reason of any reference elsewhere herein to any such Section or such other covenant or by reason of reference in any such Section or such other covenant to any other provision herein or in any other document and such omission to comply shall not constitute a default or an Event of Default under Section 501(4) or 501(8) or otherwise, as the case may be, but, except as specified above, the remainder of this Indenture and such Securities and any coupons appertaining thereto shall be unaffected thereby.

SECTION 1404. Conditions to Defeasance or Covenant Defeasance. The following shall be the conditions to application of Section 1402 or Section 1403 to any Outstanding Securities of or within a series and any coupons appertaining thereto:

(a) The Company shall irrevocably have deposited or caused to be deposited with the Trustee (or another trustee satisfying the requirements of Section 607 who shall agree to comply with the provisions of this Article Fourteen applicable to it) as trust funds in trust for the purpose of making the following payments, specifically pledged as security for, and dedicated solely to, the benefit of the Holders of such Securities and any coupons appertaining thereto, (1) an amount in such currency, currencies or currency unit in which such Securities and any coupons appertaining thereto are then specified as payable at Stated Maturity, or (2) Government Obligations applicable to such Securities and coupons appertaining thereto (determined on the basis of the currency, currencies or currency unit in which such Securities and coupons appertaining thereto are then specified as payable at Stated Maturity) which through the scheduled payment of principal and interest in respect thereof in accordance with their terms will provide, not later than the due date of any payment of principal of (and premium or Make-Whole Amount, if any) and interest, if any, on such Securities and any coupons appertaining thereto, money in an amount, or (3) a combination thereof, in any case, in an amount, sufficient, without consideration of any reinvestment of such principal and interest, in the opinion of a nationally recognized firm of independent public accountants expressed in a written certification thereof delivered to the Trustee, to pay and discharge, and which shall be applied by the Trustee (or other qualifying trustee) to pay and discharge, (i) the principal of (and premium or Make-Whole Amount, if any) and interest, if any, on such Outstanding Securities and any coupons appertaining thereto on the Stated Maturity of such principal or installment of principal or interest and (ii) any mandatory sinking fund payments or analogous payments applicable to such Outstanding Securities and any coupons appertaining thereto on the day on which such payments are due and payable in accordance with the terms of this Indenture and of such Securities and any coupons appertaining thereto.

(b) Such Defeasance or Covenant Defeasance shall not result in a breach or violation of, or constitute a default under, this Indenture or any other material agreement or instrument to which the Company is a party or by which it is bound.

(c) No Event of Default or event which with notice or lapse of time or both would become an Event of Default with respect to such Securities and any coupons appertaining thereto shall have occurred and be continuing on the date of such deposit or, insofar as Sections 501(6) and 501(7) are concerned, at any time during the period ending on the 91st day after the date of such deposit (it being understood that this condition shall not be deemed satisfied until the expiration of such period).

(d) In the case of an election under Section 1402, the Company shall have delivered to the Trustee an Opinion of Counsel stating that (i) the Company has received from, or there has been published by, the Internal Revenue Service a ruling, or (ii) since the date of execution of this Indenture, there has been a change in the applicable Federal income tax law, in either case to the effect that, and based thereon such opinion shall confirm that, the Holders of such Outstanding Securities and any coupons appertaining thereto will not recognize income, gain or loss for Federal income tax purposes as a result of such Defeasance and will be subject to Federal income tax on the same amounts, in the same manner and at the same times as would have been the case if such Defeasance had not occurred.

(e) In the case of an election under Section 1403, the Company shall have delivered to the Trustee an Opinion of Counsel to the effect that the Holders of such Outstanding Securities and any coupons appertaining thereto will not recognize income, gain or loss for Federal income tax purposes as a result of such Covenant Defeasance and will be subject to Federal income tax on the same amounts, in the same manner and at the same times as would have been the case if such Covenant Defeasance had not occurred.

(f) The Company shall have delivered to the Trustee an Officers' Certificate and an Opinion of Counsel, each stating that all conditions precedent to the Defeasance under Section 1402 or the Covenant Defeasance under Section 1403 (as the case may be) have been complied with and an Opinion of Counsel to the effect that either (i) as a result of a deposit pursuant to subsection (a) above and the related exercise of the Company's option under Section 1402 or Section 1403 (as the case may be), registration is not required under the Investment Company Act of 1940, as amended, by the Company, with respect to the trust funds representing such deposit or by the Trustee for such trust funds or (ii) all necessary registrations under said Act have been effected.

(g) Notwithstanding any other provisions of this Section, such Defeasance or Covenant Defeasance shall be effected in compliance with any additional or substitute terms, conditions or limitations which may be imposed on the Company in connection therewith pursuant to Section 301.

(h) The payment of amounts payable to the Trustee pursuant to this Indenture shall be paid or provided for to the reasonable satisfaction of the Trustee.

**SECTION 1405. Deposited Money and Government Obligations to Be Held in Trust; Other Miscellaneous Provisions.** Subject to the provisions of the last paragraph of Section 1003, all money and Government Obligations (or other property as may be provided pursuant to Section 301) (including the proceeds thereof) deposited with the Trustee (or other qualifying trustee, collectively for purposes of this Section 1405, the “Trustee”) pursuant to Section 1404 in respect of any Outstanding Securities of any series and any coupons appertaining thereto shall be held in trust and applied by the Trustee, in accordance with the provisions of such Securities and any coupons appertaining thereto and this Indenture, to the payment, either directly or through any Paying Agent (including the Company acting as its own Paying Agent) as the Trustee may determine, to the Holders of such Securities and any coupons appertaining thereto of all sums due and to become due thereon in respect of principal (and premium or Make-Whole Amount, if any) and interest, but such money need not be segregated from other funds except to the extent required by law.

Unless otherwise specified with respect to any Security pursuant to Section 301, if, after a deposit referred to in Section 1404(a) has been made, (a) the Holder of a Security in respect of which such deposit was made is entitled to, and does, elect pursuant to Section 301 or the terms of such Security to receive payment in a currency or currency unit other than that in which the deposit pursuant to Section 1404(a) has been made in respect of such Security, or (b) a Conversion Event occurs in respect of the currency or currency unit in which the deposit pursuant to Section 1404(a) has been made, the indebtedness represented by such Security and any coupons appertaining thereto shall be deemed to have been, and will be, fully discharged and satisfied through the payment of the principal of (and premium or Make-Whole Amount, if any), and interest, if any, on such Security as the same becomes due out of the proceeds yielded by converting (from time to time as specified below in the case of any such election) the amount or other property deposited in respect of such Security into the currency or currency unit in which such Security becomes payable as a result of such election or Conversion Event based on the applicable market exchange rate for such currency or currency unit in effect on the second Business Day prior to each payment date, except, with respect to a Conversion Event, for such currency or currency unit in effect (as nearly as feasible) at the time of the Conversion Event.



The Company shall pay and indemnify the Trustee against any tax, fee or other charge imposed on or assessed against the Government Obligations deposited pursuant to Section 1404 or the principal and interest received in respect thereof other than any such tax, fee or other charge which by law is for the account of the Holders of such Outstanding Securities and any coupons appertaining thereto.

Anything in this Article to the contrary notwithstanding, subject to Section 606, the Trustee shall deliver or pay to the Company from time to time upon Company Request any money or Government Obligations (or other property and any proceeds therefrom) held by it as provided in Section 1404 which, in the opinion of a nationally recognized firm of independent public accountants expressed in a written certification thereof delivered to the Trustee, are in excess of the amount thereof which would then be required to be deposited to effect a Defeasance or Covenant Defeasance, as applicable, in accordance with this Article.

#### ARTICLE FIFTEEN - MEETINGS OF HOLDERS OF SECURITIES

SECTION 1501. Purposes for Which Meetings May Be Called. A meeting of Holders of Securities of any series may be called at any time and from time to time pursuant to this Article to make, give or take any request, demand, authorization, direction, notice, consent, waiver or other action provided by this Indenture to be made, given or taken by Holders of Securities of such series.

#### SECTION 1502. Call, Notice and Place of Meetings.

(a) The Trustee may at any time call a meeting of Holders of Securities of any series for any purpose specified in Section 1501, to be held at such time and at such place as the Trustee shall determine. Notice of every meeting of Holders of Securities of any series, setting forth the time and the place of such meeting and in general terms the action proposed to be taken at such meeting, shall be given, in the manner provided in Section 106, not less than 20 nor more than 180 days prior to the date fixed for the meeting.

(b) In case at any time the Company, pursuant to a Board Resolution, or the Holders of at least 25% in principal amount of the Outstanding Securities of any series shall have requested the Trustee to call a meeting of the Holders of Securities of such series for any purpose specified in Section 1501, by written request setting forth in reasonable detail the action proposed to be taken at the meeting, and the Trustee shall not have made the first publication of the notice of such meeting within 20 days after receipt of such request or shall not thereafter proceed to cause the meeting to be held as provided herein, then the Company or the Holders of Securities of such series in the amount above specified, as the case may be, may determine the time and the place for such meeting and may call such meeting for such purposes by giving notice thereof as provided in subsection (a) of this Section.

SECTION 1503. Persons Entitled to Vote at Meetings. To be entitled to vote at any meeting of Holders of Securities of any series, a Person shall be (1) a Holder of one or more Outstanding Securities of such series, or (2) a Person appointed by an instrument in writing as proxy for a Holder or Holders of one or more Outstanding Securities of such series by such Holder or Holders. The only Persons who shall be entitled to be present or to speak at any meeting of Holders of Securities of any series shall be the Persons entitled to vote at such meeting and their counsel, any representatives of the Trustee and its counsel and any representatives of the Company and its counsel.

SECTION 1504. Quorum; Action. The Persons entitled to vote a majority in principal amount of the Outstanding Securities of a series shall constitute a quorum for a meeting of Holders of Securities of such series; provided, however, that if any action is to be taken at such meeting with respect to a consent or waiver which this Indenture expressly provides may be given by the Holders of not less than a specified percentage in principal amount of the Outstanding Securities of a series, the Persons entitled to vote such specified percentage in principal amount of the Outstanding Securities of such series shall constitute a quorum. In the absence of a quorum within 30 minutes after the time appointed for any such meeting, the meeting shall, if convened at the request of Holders of Securities of such series, be dissolved. In any other case the meeting may be adjourned for a period of not less than 10 days as determined by the chairman of the meeting prior to the adjournment of such meeting. In the absence of a quorum at the reconvening of any such adjourned meeting, such adjourned meeting may be further adjourned for a period of not less than 10 days; at the reconvening of any meeting adjourned or further adjourned for lack of a quorum, the Persons entitled to vote 25% in aggregate principal amount of the then Outstanding Securities shall constitute a quorum for the taking of any action set forth in the notice of the original meeting. Notice of the reconvening of any adjourned meeting shall be given as provided in Section 1502(a), except that such notice need be given only once not less than five days prior to the date on which the meeting is scheduled to be reconvened.

Except as limited by the proviso to Section 902, any resolution presented to a meeting or adjourned meeting duly reconvened at which a quorum is present as aforesaid may be adopted by the affirmative vote of the Persons entitled to vote a majority in aggregate principal amount of the Outstanding Securities represented at such meeting; provided, however, that, except as limited by the proviso to Section 902, any resolution with respect to any request, demand, authorization, direction, notice, consent, waiver or other action which this Indenture expressly provides may be made, given or taken by the Holders of a specified percentage, which is less than a majority, in principal amount of the Outstanding Securities of a series may be adopted at a meeting or an adjourned meeting duly reconvened and at which a quorum is present as aforesaid by the affirmative vote of the Holders of such specified percentage in principal amount of the Outstanding Securities of that series.

Any resolution passed or decision taken at any meeting of Holders of Securities of any series duly held in accordance with this Section shall be binding on all the Holders of Securities of such series and the related coupons, whether or not present or represented at the meeting.

Notwithstanding the foregoing provisions of this Section 1504, if any action is to be taken at a meeting of Holders of Securities of any series with respect to any request, demand, authorization, direction, notice, consent, waiver or other action that this Indenture expressly provides may be made, given or taken by the Holders of a specified percentage in principal amount of all Outstanding Securities affected thereby, or of the Holders of such series and one or more additional series:

(i) there shall be no minimum quorum requirement for such meeting; and

(ii) the principal amount of the Outstanding Securities of such series that vote in favor of such request, demand, authorization, direction, notice, consent, waiver or other action shall be taken into account in determining whether such request, demand, authorization, direction, notice, consent, waiver or other action has been made, given or taken under this Indenture.

SECTION 1505. Determination of Voting Rights; Conduct and Adjournment of Meetings.

(a) Notwithstanding any provisions of this Indenture, the Trustee may make such reasonable regulations as it may deem advisable for any meeting of Holders of Securities of a series in regard to proof of the holding of Securities of such series and of the appointment of proxies and in regard to the appointment and duties of inspectors of votes, the submission and examination of proxies, certificates and other evidence of the right to vote, and such other matters concerning the conduct of the meeting as it shall deem appropriate. Except as otherwise permitted or required by any such regulations, the holding of Securities shall be proved in the manner specified in Section 104 and the appointment of any proxy shall be proved in the manner specified in Section 104 or by having the signature of the Person executing the proxy witnessed or guaranteed by any trust company, bank or banker authorized by Section 104 to certify to the holding of Bearer Securities. Such regulations may provide that written instruments appointing proxies, regular on their face, may be presumed valid and genuine without the proof specified in Section 104 or other proof.

(b) The Trustee shall, by an instrument in writing appoint a temporary chairman of the meeting, unless the meeting shall have been called by the Company or by Holders of Securities as provided in Section 1502(b), in which case the Company or the Holders of Securities of the series calling the meeting, as the case may be, shall in like manner appoint a temporary chairman. A permanent chairman and a permanent secretary of the meeting shall be elected by vote of the Persons entitled to vote a majority in principal amount of the Outstanding Securities of such series represented at the meeting.

(c) At any meeting each Holder of a Security of such series or proxy shall be entitled to one vote for each \$1,000 principal amount of the Outstanding Securities of such series held or represented by him; provided, however, that no vote shall be cast or counted at any meeting in respect of any Security challenged as not Outstanding and ruled by the chairman of the meeting to be not Outstanding. The chairman of the meeting shall have no right to vote, except as a Holder of a Security of such series or proxy.

(d) Any meeting of Holders of Securities of any series duly called pursuant to Section 1502 at which a quorum is present may be adjourned from time to time by Persons entitled to vote a majority in principal amount of the Outstanding Securities of such series represented at the meeting, and the meeting may be held as so adjourned without further notice.

SECTION 1506. Counting Votes and Recording Action of Meetings. The vote upon any resolution submitted to any meeting of Holders of Securities of any series shall be by written ballots on which shall be subscribed the signatures of the Holders of Securities of such series or of their representatives by proxy and the principal amounts and serial numbers of the Outstanding Securities of such series held or represented by them. The permanent chairman of the meeting shall appoint two inspectors of votes who shall count all votes cast at the meeting for or against any resolution and who shall make and file with the secretary of the meeting their verified written reports in duplicate of all votes cast at the meeting. A record, at least in duplicate, of the proceedings of each meeting of Holders of Securities of any Series shall be prepared by the secretary of the meeting and there shall be attached to said record the original reports of the inspectors of votes on any vote by ballot taken thereat and affidavits by one or more persons having knowledge of the fact, setting forth a copy of the notice of the meeting and showing that said notice was given as provided in Section 1502 and, if applicable, Section 1504. Each copy shall be signed and verified by the affidavits of the permanent chairman and secretary of the meeting and one such copy shall be delivered to the Company and another to the Trustee to be preserved by the Trustee, the latter to have attached thereto the ballots voted at the meeting. Any record so signed and verified shall be conclusive evidence of the matters therein stated.

## ARTICLE SIXTEEN - CONVERSION OF SECURITIES

SECTION 1601. Applicability of Article; Conversion Privilege and Conversion Price. Securities of any series which are convertible shall be convertible in accordance with their terms and (except as otherwise specified as contemplated by Section 301 for Securities of any series) in accordance with this Article Sixteen. Subject to and upon compliance with the provisions of this Article Sixteen, at any time during the period specified in the Securities, at the option of the Holder thereof, any Security or any portion of the principal amount thereof which is \$1,000 or an integral multiple of \$1,000 may be converted at the principal amount thereof, or of such portion thereof, into fully paid and nonassessable shares (calculated as to each conversion to the nearest 1/100 of a share) of Common Stock of the Company, at the Conversion Price, determined as hereinafter provided, in effect at the time of conversion. In case a Security or portion thereof is called for redemption, such conversion right in respect of the Security or portion so called shall expire at the close of business on the Business Day immediately preceding the Redemption Date, unless the Company defaults in making the payment due upon redemption, in which case such conversion right shall terminate on the date such default is cured.

The price at which shares of Common Stock shall be delivered upon conversion (herein called the "Conversion Price") of Securities of any series shall be specified in such Securities. The Conversion Price shall be adjusted in certain instances as provided in Section 1604.

In case the Company shall, by dividend or otherwise, declare or make a distribution on its Common Stock referred to in paragraph (4) of Section 1604, the Holder of each Security, upon the conversion thereof pursuant to this Article Sixteen subsequent to the close of business on the date fixed for the determination of stockholders entitled to receive such distribution and prior to the effectiveness of the Conversion Price adjustment in respect of such distribution pursuant to paragraph (4) of Section 1604, shall be entitled to receive for each share of Common Stock into which such Security is converted, the portion of the evidence of indebtedness, shares of Capital Stock or assets so distributed applicable to one share of Common Stock; provided, however, that, at the election of the Company (whose election shall be evidenced by a Board Resolution filed with the Trustee) with respect to all Holders so converting, the Company may, in lieu of distributing to such Holder any portion of such distribution not consisting of cash or securities of the Company, pay such Holder an amount in cash equal to the fair market value thereof (as determined in good faith by the Board of Directors, whose determination shall be conclusive and described in a Board Resolution filed with the Trustee). If any conversion of a Security entitled to the benefits described in the immediately preceding sentence occurs prior to the payment date for a distribution to holders of Common Stock which the Holder of the Security so converted is entitled to receive in accordance with the immediately preceding sentence, the Company may elect (such election to be evidenced by a Board Resolution filed with the Trustee) to distribute to such Holder a due bill for the evidences of indebtedness, shares of Capital Stock or assets to which such Holder is so entitled, provided that such due bill (i) meets any applicable requirements of the principal over-the-counter market or national securities exchange or other market on which the Common Stock is then traded, and (ii) requires payment or delivery of such evidences of indebtedness or assets no later than the date of payment or delivery thereof to holders of Common Stock receiving such distribution.

SECTION 1602. Exercise of Conversion Privilege. In order to exercise the conversion privilege, the Holder of any Security to be converted shall surrender such Security, duly endorsed or assigned to the Company or in blank, at any office or agency maintained by the Company pursuant to Section 1002, accompanied by written notice to the Company at such office or agency that the Holder elects to convert such Security or, if less than the entire principal amount thereof is to be converted, the portion thereof to be converted and shall comply with any additional requirements set forth in such Security. Securities surrendered for conversion during the period from the close of business on any Regular Record Date next preceding any Interest Payment Date to the opening of business on such Interest Payment Date shall (except for Securities the Maturity of which is prior to such Interest Payment Date) be accompanied by payment in funds acceptable to the Company of an amount equal to the interest payable on such Interest Payment Date on the principal amount of Securities being surrendered for conversion and such interest shall be paid on such Interest Payment Date as provided in Section 307. Except as provided in the preceding sentence, no payment or adjustment shall be made upon any conversion on account of any interest accrued on the Securities surrendered for conversion or on account of any dividends on the Common Stock issued upon conversion.

The Company's delivery to the Holder of the fixed number of shares of the Common Stock of the Company (and any cash in lieu of any fractional share of Common Stock) into which the Security is convertible shall be deemed to satisfy the Company's obligation to pay the principal amount of the Security and all accrued interest and original issue discount that has not previously been paid. The shares of Common Stock of the Company so delivered shall be treated as issued first in payment of accrued interest and original issue discount and then in payment of principal. Thus, accrued interest and original issue discount shall be treated as paid, rather than canceled, extinguished or forfeited.

Securities shall be deemed to have been converted immediately prior to the close of business on the day of surrender of such Securities for conversion in accordance with the foregoing provisions, and at such time the rights of the Holders of such Securities as Holders shall cease, and the Person or Persons entitled to receive the Common Stock issuable upon conversion shall be treated for all purposes as the record holder or holders of such Common Stock at such time. As promptly as practicable on or after the conversion date, the Company shall issue and shall deliver at such office or agency a certificate or certificates for the number of full shares of Common Stock issuable upon conversion, together with payment in lieu of any fraction of a share, as provided in Section 1603.

In the case of any Security which is converted in part only, as promptly as practicable on or after the conversion date the Company shall execute and the Trustee shall authenticate and make available for delivery to the Holder thereof (or the Depository in the case of a Global Security), at the expense of the Company, a new Security or Securities, of authorized denominations in aggregate principal amount equal to the unconverted portion of the principal amount of such Security.

SECTION 1603. Fractions of Shares. No fractional shares of Common Stock shall be issued upon conversion of Securities. If more than one Security shall be surrendered for conversion at one time by the same Holder, the number of full shares of Common Stock which shall be issuable upon conversion thereof shall be computed on the basis of the aggregate principal amount of the Securities (or specified portions thereof) so surrendered. Instead of any fractional share of Common Stock which would otherwise be issuable upon conversion of any Security or Securities (or specified portions thereof), the Company shall pay a cash adjustment (rounded to the nearest cent) in respect of such fraction in an amount equal to the same fraction of the Closing Price per share of the Common Stock on the day of conversion (or, if such day is not a Trading Day, on the Trading Day immediately preceding such day).

SECTION 1604. Adjustment of Conversion Price. The Conversion Price shall be subject to adjustment from time to time as follows:

(1) If the Company pays or makes a dividend or other distribution (a) on its Common Stock exclusively in Common Stock or (b) on any other class of Capital Stock of the Company, which dividend or distribution includes Common Stock of the Company, the Conversion Price in effect at the opening of business on the day following the date fixed for the determination of stockholders entitled to receive such dividend or other distribution (the "Dividend Record Date") shall be reduced by multiplying such Conversion Price by a fraction of which the numerator shall be the number of shares of Common Stock of the Company outstanding at the close of business on the Dividend Record Date and the denominator shall be the sum of such number of shares and the total number of shares constituting such dividend or other distribution. Such reduction shall become effective immediately after the opening of business on the day following the date fixed for such determination. For the purposes of this paragraph (1), the number of shares of Common Stock of the Company at any time outstanding shall not include shares held in the treasury of the Company, but shall include shares issuable in respect of scrip certificates issued in lieu of fractions of shares of Common Stock. The Company shall not pay any dividend or make any distribution on shares of Common Stock held in the treasury of the Company.

(2) Subject to paragraph (6) of this Section, if the Company pays or makes a dividend or other distribution on its Common Stock consisting exclusively of Short Term Rights (as defined below), or otherwise issues Short Term Rights to all holders of its Common Stock, the Conversion Price in effect at the opening of business on the day following the record date for the determination of holders of Common Stock entitled to receive such Short Term Rights (the "Rights Record Date") shall be reduced by multiplying such Conversion Price by a fraction of which the numerator shall be the number of shares of Common Stock of the Company outstanding at the close of business on the Rights Record Date plus the number of shares of Common Stock of the Company which the aggregate of the offering price of the total number of shares of Common Stock so offered for subscription or purchase would purchase at such current market price and the denominator shall be the number of shares of Common Stock of the Company outstanding at the close of business on the Rights Record Date plus the number of shares of Common Stock so offered for subscription or purchase. Such reduction shall become effective immediately after the opening of business on the day following the Rights Record Date. For the purposes of this paragraph (2), the number of shares of Common Stock of the Company at any time outstanding shall not include shares held in the treasury of the Company, but shall include shares issuable in respect of scrip certificates issued in lieu of fractions of shares of Common Stock of the Company. The Company shall not issue any rights, options or warrants in respect of shares of its Common Stock held in the treasury of the Company. When used in this Section 1604, the term "Short Term Rights" shall mean rights, warrants or options entitling the holders thereof (for a period commencing no earlier than the Rights Record Date and expiring not more than 45 days after the Rights Record Date) to subscribe for or purchase shares of Common Stock of the Company at a price per share less than the current market price per share (determined as provided in paragraph (7) of this Section 1604) of the Common Stock of the Company on the Rights Record Date.

(3) In case outstanding shares of Common Stock of the Company shall be subdivided into a greater number of shares of Common Stock, the Conversion Price in effect at the opening of business on the day following the day upon which such subdivision becomes effective shall be proportionately reduced, and, conversely, in case outstanding shares of Common Stock of the Company shall be combined into a smaller number of shares of Common Stock, the Conversion Price in effect at the opening of business on the day following the day upon which such combination becomes effective shall be proportionately increased, such reduction or increase, as the case may be, to become effective immediately after the opening of business on the day following the day upon which such subdivision or combination becomes effective.

(4) Subject to the last sentence of this paragraph (4) of this Section, if the Company, by dividend or otherwise, (a) distributes to all holders of its Common Stock evidences of its indebtedness, shares of any class of Capital Stock of the Company or other assets (other than cash dividends out of current or retained earnings), or (b) distributes to substantially all holders of Common Stock rights or warrants to subscribe for securities (other than Short Term Rights to which paragraph (2) of this Section 1604 applies), the Conversion Price shall be reduced by multiplying such Conversion Price by a fraction of which the numerator shall be the current market price per share (determined as provided in paragraph (7) of this Section 1604) of the Common Stock of the Company on the Reference Date (as defined below) less the fair market value (as determined in good faith by the Board of Directors, whose determination shall be conclusive and described in a Board Resolution filed with the Trustee), on the Reference Date, of the portion of the evidences of indebtedness and other assets so distributed or of such subscription rights or warrants applicable to one share of Common Stock (collectively, the "Market Value of the Distribution") and the denominator shall be such current market price per share of the Common Stock of the Company. Such reduction shall become effective immediately prior to the opening of business on the day (the "Reference Date") following the later of (a) the date fixed for the payment of such distribution and (b) the date 20 days after notice relating to such distribution is required to be given pursuant to Section 1606(a). If the Board of Directors determines the fair market value of any distribution for purposes of this paragraph (4) by reference to the actual or when issued trading market for any securities comprising such distribution, it must in doing so consider the prices in such market over the same period used in computing the current market price per share pursuant to paragraph (7) of this Section 1604. In the event that, with respect to any distribution to which this paragraph (4) of Section 1604 would otherwise apply, the Market Value of the Distribution is greater than the current market price per share of the Common Stock (such distribution being referred to herein as an "Unadjusted Distribution"), then the adjustment provided by this paragraph (4) shall not be made and in lieu thereof the provisions of Section 1611 shall apply with respect to such Unadjusted Distribution.

(5) The Company may, but shall not be required to, make such reductions in the Conversion Price, in addition to those required by paragraphs (1), (2), (3), and (4) of this Section 1604, as it considers to be advisable in order that any event treated for federal income tax purposes as a dividend of stock or stock rights shall not be taxable to the recipients. In addition, the Company, from time to time, may decrease the Conversion Price by any amount and for any reason, temporarily or otherwise, including situations where the Board of Directors determines such decrease to be fair and appropriate with respect to transactions in which holders of Common Stock have the right to participate.

(6) Rights or warrants issued or distributed by the Company to all holders of its Common Stock entitling the holders thereof to subscribe for or purchase shares of Common Stock or Preferred Stock, which rights or warrants (i) are deemed to be transferred with such shares of Common Stock, (ii) are not exercisable and (iii) are also issued or distributed in respect of future issuances of Common Stock, in each case in clauses (i) through (iii) until the occurrence of a specified event or events (“Trigger Events”), shall for purposes of this Section 1604 not be deemed issued or distributed until the occurrence of the earliest Trigger Event. Each share of Common Stock issued upon conversion of Securities pursuant to this Article Sixteen shall be entitled to receive the appropriate number of Common Stock purchase rights (the “Rights”), if any, and the certificates representing the Common Stock issued upon conversion shall bear such legends, if any. Notwithstanding anything to the contrary in this Article Sixteen, there shall not be any adjustment to the Conversion Price as a result of (i) the distribution of separate certificates representing the Rights; (ii) the occurrence of certain events entitling holders of Rights to receive, upon exercise thereof, Common Stock or other securities of the Company or other securities of another corporation; or (iii) the exercise of such Rights. No adjustment in the Conversion Price need be made for rights to purchase or the sale of Common Stock pursuant to a Company plan providing for reinvestment of dividends or interest.



(7) For the purpose of any computation under paragraph (2), (4) or (5) of this Section 1604, the “current market price” per share of Common Stock of the Company on any date shall be deemed to be the average of the daily Closing Prices for the 15 consecutive Trading Days selected by the Company commencing not more than 30 Trading Days before, and ending not later than, the date in question.

(8) No adjustment in the Conversion Price shall be required unless such adjustment would require an increase or decrease of at least 1% in the Conversion Price; provided, however, that any adjustments which by reason of this paragraph (8) are not required to be made shall be carried forward and taken into account in any subsequent adjustment. All calculations under this Article Sixteen shall be made to the nearest cent or to the nearest one-hundredth of a share of Common Stock, as the case may be.

(9) Anything herein to the contrary notwithstanding, in the event the Company shall declare any dividend or distribution requiring an adjustment in the Conversion Price hereunder and shall, thereafter and before the payment of such dividend or distribution to stockholders, legally abandon its plan to pay such dividend or distribution, the Conversion Price then in effect hereunder, if changed to reflect such dividend or distribution, shall upon the legal abandonment of such plan be changed to the Conversion Price which would have been in effect at the time of such abandonment (after giving effect to all other adjustments not so legally abandoned pursuant to the provisions of this Article Sixteen) had such dividend or distribution never been declared.

(10) Notwithstanding any other provision of this Section 1604, no adjustment to the Conversion Price shall reduce the Conversion Price below the then par value per share of the Common Stock of the Company, and any such purported adjustment shall instead reduce the Conversion Price to such par value. Notwithstanding the foregoing sentence, the Company hereby covenants that it will from time to time take all such action as may be required to assure that the par value per share of the Common Stock is at all times equal to or less than the Conversion Price.

(11) In the event that this Article Sixteen requires adjustments to the Conversion Price under more than one of paragraphs (1), (2), (3) or (4) of this Section 1604, and the record or effective dates for the transaction giving rise to such adjustments shall occur on the same date, then such adjustments shall be made by applying (to the extent they are applicable), first, the provisions of paragraph (3) of this Section 1604, second, the provisions of paragraph (1) of this Section 1604, third, the provisions of paragraph (4) of this Section 1604 and, fourth, the provisions of paragraph (2) of this Section 1604. Anything herein to the contrary notwithstanding, no single event shall require or result in duplicative adjustments in the Conversion Price pursuant to this Section 1604. After an adjustment to the Conversion Price under this Article Sixteen, any subsequent event requiring an adjustment under this Article Sixteen shall cause an adjustment to the Conversion Price as so adjusted. If, after an adjustment, a Holder of a Security upon conversion of such Security receives shares of two or more classes of Capital Stock of the Company, the Conversion Price shall thereafter be subject to adjustment upon the occurrence of an action taken with respect to any such class of Capital Stock as is contemplated by this Article Sixteen with respect to the Common Stock in this Article Sixteen.

SECTION 1605. Notice of Adjustments of Conversion Price. Whenever the Conversion Price is adjusted as herein provided:

(1) the Company shall compute the adjusted Conversion Price in accordance with Section 1604 or Section 1611 and shall prepare an Officer's Certificate setting forth the adjusted Conversion Price and showing in reasonable detail the facts upon which such adjustment is based, and such certificate shall forthwith be filed (with a copy to the Trustee) at each office or agency maintained for the purpose of conversion of any Securities pursuant to Section 1002; and

(2) a notice stating that the Conversion Price has been adjusted and setting forth the adjusted Conversion Price shall forthwith be required, and as soon as practicable after it is required, such notice shall be mailed by the Company to all Holders at their last addresses as they shall appear in the Security Register.

SECTION 1606. Notice of Certain Corporate Action. In case:

(1) the Company shall take any action that would require a Conversion Price adjustment pursuant to Section 1604 or Section 1611; or

(2) there shall occur any reclassification of the Common Stock of the Company (other than a subdivision or combination of its outstanding shares of Common Stock), or any consolidation or merger to which the Company is a party, or the sale, transfer or lease of all or substantially all of the assets of the Company and for which approval of any stockholders of the Company is required; or

(3) there shall occur the voluntary or involuntary dissolution, liquidation or winding up of the Company, then the Company shall cause to be filed at each office or agency maintained for the purpose of conversion of Securities pursuant to Section 1002, and shall cause to be mailed to all Holders at their last addresses as they shall appear in the Security Register, at least 10 days prior to the applicable record, effective or expiration date hereinafter specified, a notice stating (x) the date on which a record is to be taken for the purpose of any dividend, distribution or granting of rights, warrants or options, or, if a record is not to be taken, the date as of which the holders of Common Stock of record to be entitled to such dividend, distribution, rights, options or warrants are to be determined, or (y) the date on which such reclassification, consolidation, merger, sale, transfer, dissolution, liquidation or winding up is expected to become effective, and, if applicable, the date as of which it is expected that holders of Common Stock of record shall be entitled to exchange their shares of Common Stock for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer, dissolution, liquidation or winding up.

SECTION 1607. Company to Reserve Common Stock. The Company shall at all times reserve and keep available, free from preemptive rights, out of its authorized but unissued Common Stock, for the purpose of effecting the conversion of Securities, a number of shares of Common Stock for the conversion of all outstanding Securities of any series which is convertible into Common Stock.

SECTION 1608. Taxes on Conversion. The Company will pay any and all taxes that may be payable in respect of the issue or delivery of shares of Common Stock on conversion of Securities pursuant hereto. The Company shall not, however, be required to pay any tax which may be payable in respect of any transfer involved in the issue and delivery of shares of Common Stock in a name other than that of the Holder of the Security or Securities to be converted, and no such issue or delivery shall be made unless and until the Person requesting such issue has paid to the Company the amount of any such tax, or has established to the satisfaction of the Company that such tax has been paid.

SECTION 1609. Covenants as to Common Stock. The Company covenants that all shares of Common Stock which may be issued upon conversion of Securities will upon issue be duly and validly issued, fully paid and nonassessable, free of preemptive or any similar rights, and, except as provided in Section 1608, the Company will pay all taxes, liens and charges with respect to the issue thereof.

The Company will endeavor promptly to comply with all Federal and state securities laws regulating the offer and delivery of shares of Common Stock upon conversion of Securities, if any, and will list or cause to have quoted such shares of Common Stock on each national securities exchange or in the over-the-counter market or such other market on which the Common Stock is then listed or quoted.

SECTION 1610. Cancellation of Converted Securities. All Securities delivered for conversion shall be delivered to the Trustee to be cancelled by or at the direction of the Trustee, which shall dispose of the same as provided in Section 309.

SECTION 1611. Provisions in Case of Consolidation, Merger or Sale of Assets; Special Distributions. If any of the following shall occur, namely: (i) any reclassification or change of outstanding shares of Common Stock issuable upon conversion of Securities (other than a change in par value, or from par value to no par value, or from no par value to par value, or as a result of a subdivision or combination), (ii) any consolidation or merger to which the Company is a party other than a merger in which the Company is the continuing corporation and which does not result in any reclassification of, or change (other than a change in name, or par value, or from par value to no par value, or from no par value to par value or as a result of a subdivision or combination) in, outstanding shares of Common Stock or (iii) any sale or conveyance of all or substantially all of the property or business of the Company as an entirety, then the Person formed by such consolidation or resulting from such merger or which acquires such properties or assets, as the case may be, shall as a condition precedent to such transaction execute and deliver to the Trustee a supplemental indenture providing that the Holder of each Security then outstanding shall have the right thereafter, during the period such Security shall be convertible as specified in Section 1601, to convert such Security only into the kind and amount of securities, cash and other property receivable, if any, upon such consolidation, merger, sale, transfer or lease by a holder of the number of shares of Common Stock of the Company into which such Security might have been converted immediately prior to such consolidation, merger, sale, transfer or lease; provided that the kind and amount of securities, cash and other property so receivable shall be determined on the basis of the following assumptions. The holder of Common Stock referred to in the foregoing sentence:

(1) is not (a) a Person with which the Company consolidated, (b) a Person into which the Company merged or which merged into the Company, or (c) a Person to which such sale, transfer or lease was made (any Person described in the foregoing clauses (a), (b), or (c), hereinafter referred to as a "Constituent Person"), or (d) an Affiliate of a Constituent Person; and

(2) failed to exercise his rights of election, if any, as to the kind or amount of securities, cash and other property receivable upon such consolidation, merger, sale, transfer or lease (provided that if the kind or amount of securities, cash and other property receivable upon such consolidation, merger, sale transfer or lease is not the same for each share of Common Stock of the Company in respect of which such rights of election shall not have been exercised, then for the purpose of this Section 1611 the kind and amount of securities, cash and other property receivable upon such consolidation, merger, sale, transfer or lease shall be deemed to be the kind and amount so receivable per share by a plurality of such shares of Common Stock).

Such supplemental indenture shall provide for adjustments which, for events subsequent to the effective date of such supplemental indenture, shall be as nearly equivalent as may be practicable to the adjustments provided for in this Article Sixteen. If, in the case of any such consolidation, merger, sale transfer or lease the stock or other securities and property (including cash) receivable thereupon by a holder of Common Stock includes shares of stock or other securities and property of a corporation other than the successor or purchasing corporation, as the case may be, in such consolidation, merger, sale, transfer or lease then such supplemental indenture shall also be executed by such other corporation and shall contain such additional provisions to protect the interests of the Holders of the Securities as the Board of Directors of the Company shall reasonably consider necessary by reason of the foregoing. The above provisions of this Section 1611 shall similarly apply to successive consolidations, mergers, sales, transfers or leases.

In the event the Company shall execute a supplemental indenture pursuant to this Section 1611, the Company shall promptly file with the Trustee an Officers' Certificate briefly stating the reasons therefor, the kind or amount of shares of stock or securities or property (including cash) receivable by Holders of the Securities upon the conversion of their Securities after any such reclassification, change, consolidation, merger, sale, transfer or lease and any adjustment to be made with respect thereto.

If the Company makes a distribution to all holders of its Common Stock that constitutes an Unadjusted Distribution pursuant to the last sentence of paragraph (4) of Section 1604, then, from and after the record date for determining the holders of Common Stock entitled to receive such distribution (the "Distribution Record Date"), a Holder of a Security who converts such Security in accordance with the provisions of this Indenture shall, upon conversion, be entitled to receive, in addition to the shares of Common Stock into which the Security is convertible, the kind and amount of evidences of indebtedness, shares of Capital Stock, or other assets or subscription rights or warrants, as the case may be, comprising the distribution that such Holder would have received if such Holder had converted the Security immediately prior to the Distribution Record Date.

SECTION 1612. Trustee Adjustment Disclaimer; Company Determination Final. The Trustee has no duty to determine when an adjustment under this Article Sixteen should be made, how it should be made or what it should be. The Trustee has no duty to determine whether a supplemental indenture under Section 1611 need be entered into or whether any provisions of any supplemental indenture are correct. The Trustee shall not be accountable for and makes no representation as to the validity or value of any securities or assets issued upon conversion of Securities. The Trustee shall not be responsible for the Company's failure to comply with this Article Sixteen. Any determination that the Company or the Board of Directors must make pursuant to this Article Sixteen is conclusive, absent manifest error.

SECTION 1613. When No Adjustment Required. Except as expressly set forth in Section 1604, no adjustment in the Conversion Price shall be made because the Company issues, in exchange for cash, property or services, shares of its Common Stock, or any securities convertible into or exchangeable for shares of its Common Stock, or securities (including warrants, rights and options) carrying the right to subscribe for or purchase shares of its Common Stock or such convertible or exchangeable securities.

(1) Notwithstanding anything herein to the contrary, no adjustment in the Conversion Price shall be made pursuant to Section 1604 in respect of any dividend or distribution if the Holders may participate therein (on a basis to be determined in good faith by the Board of Directors) and receive the same consideration they would have received if they had converted the Securities immediately prior to the record date with respect to such dividend or distribution.

SECTION 1614. Equivalent Adjustments. In the event that, as a result of an adjustment made pursuant to Section 1604 above, the holder of any Security thereafter surrendered for conversion shall become entitled to receive any shares of Capital Stock of the Company other than shares of its Common Stock, thereafter the Conversion Price of such other shares so receivable upon conversion of any Securities shall be subject to adjustment from time to time in a manner and on terms as nearly equivalent as practicable to the provisions with respect to Common Stock contained in this Article Sixteen.

SIGNATURES

IN WITNESS WHEREOF, the parties hereto have caused this Indenture to be duly executed all as of the day and year first above written.

AKOYA BIOSCIENCES, INC.

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

as Trustee

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

EXHIBIT A

FORM OF REDEEMABLE OR NON-REDEEMABLE SENIOR SECURITY

[Face of Security]

[If the Holder of this Security (as indicated below) is The Depository Trust Company (“DTC”) or a nominee of DTC, this Security is a Global Security and the following two legends apply:

**Unless this Security is presented by an authorized representative of The Depository Trust Company, a New York corporation, (“DTC”) to the Company or its agent for registration of transfer, conversion, exchange or payment, and such Security issued is registered in the name of Cede & Co., or in such other name as requested by an authorized representative of DTC (and any payment is made to Cede & Co. or to such other entity as is requested by an authorized representative of DTC), ANY TRANSFER, PLEDGE OR OTHER USE HEREOF FOR VALUE OR OTHERWISE BY OR TO ANY PERSON IS WRONGFUL, inasmuch as the registered owner hereof, Cede & Co., has an interest herein.**

**Unless and until this Security is exchanged in whole or in part for Securities in certificated form, this Security may not be transferred except as a whole by DTC to a nominee thereof or by a nominee thereof to DTC or another nominee of DTC or by DTC or any such nominee to a successor of DTC or a nominee of such successor.]**

[If this Security is an Original Issue Discount Security, insert — FOR PURPOSES OF SECTION 1273 and 1275 OF THE UNITED STATES INTERNAL REVENUE CODE, THE AMOUNT OF ORIGINAL ISSUE DISCOUNT ON THIS SECURITY IS % OF ITS PRINCIPAL AMOUNT, THE ISSUE DATE IS , 20 , AND THE YIELD TO MATURITY IS %. THE METHOD USED TO DETERMINE THE AMOUNT OF ORIGINAL ISSUE DISCOUNT APPLICABLE TO THE SHORT ACCRUAL PERIOD OF , 20 TO , 20 , IS % OF THE PRINCIPAL AMOUNT OF THIS SECURITY.]

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Exhibit A-1

AKOYA BIOSCIENCES, INC.

[Designation of Series]

No.

\$

CUSIP No.

AKOYA BIOSCIENCES, INC., a Delaware corporation (herein referred to as the “Company,” which term includes any successor corporation under the Indenture referred to on the reverse hereof), for value received, hereby promises to pay to or registered assigns the principal sum of Dollars on (the “Stated Maturity Date”) [or insert date fixed for earlier redemption (the “Redemption Date,” and together with the Stated Maturity Date with respect to principal repayable on such date, the “Maturity Date.”)]

[If the Security is to bear interest prior to Maturity, insert — and to pay interest thereon from or from the most recent Interest Payment Date to which interest has been paid or duly provided for, semi-annually on and in each year (each, an “Interest Payment Date”), commencing , at the rate of % per annum, until the principal hereof is paid or duly provided for. The interest so payable, and punctually paid or duly provided for, on any Interest Payment Date will, as provided in such Indenture, be paid to the Holder in whose name this Security (or one or more Predecessor Securities) is registered at the close of business on the Regular Record Date for such interest, which shall be the or (whether or not a Business Day), as the case may be, next preceding such Interest Payment Date [at the office or agency of the Company maintained for such purpose; provided, however, that such interest may be paid, at the Company’s option, by mailing a check to such Holder at its registered address or by transfer of funds to an account maintained by such Holder within the United States]. Any such interest not so punctually paid or duly provided for shall forthwith cease to be payable to the Holder on such Regular Record Date, and may be paid to the Holder in whose name this Security (or one or more Predecessor Securities) is registered at the close of business on a Special Record Date for the payment of such Defaulted Interest to be fixed by the Trustee, notice whereof shall be given to Holders of Securities of this series not less than 10 days prior to such Special Record Date, or may be paid at any time in any other lawful manner not inconsistent with the requirements of any over-the-counter market or securities exchange on which the Securities of this series may be quoted or listed, and upon such notice as may be required by such market or exchange, all as more fully provided in the Indenture. Interest will be computed on the basis of a 360-day year of twelve 30-day months.]

[If the Security is not to bear interest prior to Maturity, insert — The principal of this Security shall not bear interest except in the case of a default in payment of principal upon acceleration, upon redemption or at the [Stated] Maturity Date and in such case the overdue principal of this Security shall bear interest at the rate of % per annum (to the extent that the payment of such interest shall be legally enforceable), which shall accrue from the date of such default in payment to the date payment of such principal has been made or duly provided for. Interest on any overdue principal shall be payable on demand. Any such interest on any overdue principal that is not so paid on demand shall bear interest at the rate of % per annum (to the extent that the payment of such interest shall be legally enforceable), which shall accrue from the date of such demand for payment to the date payment of such interest has been made or duly provided for, and such interest shall also be payable on demand.]



The principal of this Security payable on the Stated Maturity Date [or the principal of, premium or Make-Whole Amount, if any, and, if the Redemption Date is not an Interest Payment Date, interest on this Security payable on the Redemption Date] will be paid against presentation of this Security at the office or agency of the Company maintained for that purpose in , in such coin or currency of the United States of America as at the time of payment is legal tender for the payment of public and private debts.

Interest payable on this Security on any Interest Payment Date and on the [Stated] Maturity Date [or Redemption Date, as the case may be,] will include interest accrued from and including the next preceding Interest Payment Date in respect of which interest has been paid or duly provided for (or from and including , if no interest has been paid on this Security) to but excluding such Interest Payment Date or the [Stated] Maturity Date [or Redemption Date, as the case may be.] If any Interest Payment Date or the [Stated] Maturity Date or [Redemption Date] falls on a day that is not a Business Day, as defined below, principal, premium or Make-Whole Amount, if any, and/or interest payable with respect to such Interest Payment Date or [Stated] Maturity Date [or Redemption Date, as the case may be,] will be paid on the next succeeding Business Day with the same force and effect as if it were paid on the date such payment was due, and no interest shall accrue on the amount so payable for the period from and after such Interest Payment Date or [Stated] Maturity Date [or Redemption Date, as the case may be.] “Business Day” means any day, other than a Saturday or Sunday, that is neither a legal holiday nor a day on which banking institutions in The City of New York are required or authorized by law, regulation or executive order to close.

[If this Security is a Global Security, insert — All payments of principal, premium or Make-Whole Amount, if any, and interest in respect of this Security will be made by the Company in immediately available funds.]

Reference is hereby made to the further provisions of this Security set forth on the reverse hereof, which further provisions shall for all purposes have the same effect as if set forth at this place.

Unless the Certificate of Authentication hereon has been executed by the Trustee by manual signature of one of its authorized signatories, this Security shall not be entitled to any benefit under the Indenture, or be valid or obligatory for any purpose.

IN WITNESS WHEREOF, the Company has caused this instrument to be duly executed under its facsimile corporate seal.

Dated:

AKOYA BIOSCIENCES, INC.

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

Attest: \_\_\_\_\_  
Secretary

Exhibit A-4

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[Reverse of Security]

AKOYA BIOSCIENCES, INC.

This Security is one of a duly authorized issue of securities of the Company (herein called the “Securities”), issued and to be issued in one or more series under an

Indenture, dated as of , 20 (herein called the “Indenture”) between the Company and , as Trustee (herein called the “Trustee,” which term includes any successor trustee under the Indenture with respect to the series of which this Security is a part), to which Indenture and all indentures supplemental thereto reference is hereby made for a statement of the respective rights, limitations of rights, duties and immunities thereunder of the Company, the Trustee and the Holders of the Securities, and of the terms upon which the Securities are, and are to be, authenticated and delivered. This Security is one of the duly authorized series of Securities designated on the face hereof (collectively, the “Securities”), [if applicable, insert — and the aggregate principal amount of the Securities to be issued under such series is limited to \$ (except for Securities authenticated and delivered upon transfer of, or in exchange for, or in lieu of other Securities).] All terms used in this Security which are defined in the Indenture shall have the meanings assigned to them in the Indenture.

If an Event of Default, as defined in the Indenture, shall occur and be continuing, the principal of the Securities of this series may be declared due and payable in the manner and with the effect provided in the Indenture.

[If applicable, insert — The Securities may not be redeemed prior to the Stated Maturity Date.]

[If applicable, insert — The Securities are subject to redemption [ (1) (If applicable, insert — on in any year commencing with the year and ending with the year through operation of the sinking fund for this series at a Redemption Price equal to 100% of the principal amount, and (2) ] [If applicable, insert — at any time [on or after ], as a whole or in part, at the election of the Company, at the following Redemption Prices (expressed as percentages of the principal amount):

If redeemed on or before , % and if redeemed during the 12-month period beginning of the years indicated at the Redemption Prices indicated below.

Year	Redemption Price	Year	Redemption Price

and thereafter at a Redemption Price equal to % of the principal amount, together in the case of any such redemption [If applicable, insert — (whether through operation of the sinking fund or otherwise)] with accrued interest to the Redemption Date; provided, however, that installments of interest on this Security whose Stated Maturity is on or prior to such Redemption Date will be payable to the Holder of this Security, or one or more Predecessor Securities, of record at the close of business on the relevant Record Dates referred to on the face hereof, all as provided in the Indenture.]

[If applicable, insert] — The Securities are subject to redemption (1) on in any year commencing with the year and ending with the year through operation of the sinking fund for this series at the Redemption Prices for redemption through operation of the sinking fund (expressed as percentages of the principal amount) set forth in the table below, and (2) at any time [on or after ], as a whole or in part, at the election of the Company, at the Redemption Prices for redemption otherwise than through operation of the sinking fund (expressed as percentages of the principal amount) set forth in the table below: If redeemed during the 12-month period beginning of the years indicated,

Year	Redemption Price for Redemption Through Operation of the Sinking Fund	Redemption Price for Redemption Otherwise Than Through Operation of the Sinking Fund

and thereafter at a Redemption Price equal to % of the principal amount, together in the case of any such redemption (whether through operation of the sinking fund or otherwise) with accrued interest to the Redemption Date; provided, however, that installments of interest on this Security whose Stated Maturity is on or prior to such Redemption Date will be payable to the Holder of this Security, or one or more Predecessor Securities, of record at the close of business on the relevant Record Dates referred to on the face hereof, all as provided in the Indenture.]

[If applicable, insert] — Notwithstanding the foregoing, the Company may not, prior to , redeem any Securities as contemplated by [Clause (2) of] the preceding paragraph as a part of, or in anticipation of, any refunding operation by the application, directly or indirectly, of moneys borrowed having an interest cost to the Company (calculated in accordance with generally accepted financial practice) of less than % per annum.]

[If applicable, insert] — The sinking fund for the Securities provides for the redemption on in each year, beginning with the year and ending with the year , of [not less than] \$ ] [(“mandatory sinking fund”) and not more than \$ ] aggregate principal amount of the Securities. [The Securities acquired or redeemed by the Company otherwise than through [mandatory] sinking fund payments may be credited against subsequent [mandatory] sinking fund payments otherwise required to be made in the [describe order] order in which they become due.]]

Notice of redemption will be given by mail to Holders of Securities, not less than 30 nor more than 60 days prior to the Redemption Date, all as provided in the Indenture.

In the event of redemption of this Security in part only, a new Security or Securities for the unredeemed portion hereof shall be issued in the name of the Holder hereof upon the cancellation hereof.

[If applicable, insert conversion provisions set forth in any Board Resolution or indenture supplemental to the Indenture.]

The Indenture permits, with certain exceptions as therein provided, the amendment thereof and the modification of the rights and obligations of the Company and the rights of the Holders of the Securities under the Indenture at any time by the Company and the Trustee with the consent of the Holders of not less than a majority of the aggregate principal amount of all Securities issued under the Indenture at the time Outstanding and affected thereby. The Indenture also contains provisions permitting the Holders of not less than a majority of the aggregate principal amount of the Outstanding Securities, on behalf of the Holders of all such Securities, to waive compliance by the Company with certain provisions of the Indenture. Furthermore, provisions in the Indenture permit the Holders of not less than a majority of the aggregate principal amount, in certain instances, of the Outstanding Securities of any series to waive, on behalf of all of the Holders of Securities of such series, certain past defaults under the Indenture and their consequences. Any such consent or waiver by the Holder of this Security shall be conclusive and binding upon such Holder and upon all future Holders of this Security and other Securities issued upon the registration of transfer hereof or conversion or in exchange herefor or in lieu hereof, whether or not notation of such consent or waiver is made upon this Security.

No reference herein to the Indenture and no provision of this Security or of the Indenture shall alter or impair the obligation of the Company, which is absolute and unconditional, to pay the principal of (and premium or Make-Whole Amount, if any) and interest on this Security at the times, places and rate, and in the coin or currency, herein prescribed.

As provided in the Indenture and subject to certain limitations therein [and herein] set forth, the transfer of this Security is registrable in the Security Register of the Company upon surrender of this Security for registration of transfer at the office or agency of the Company in any place where the principal of (and premium or Make-Whole Amount, if any) and interest on this Security are payable, duly endorsed by, or accompanied by a written instrument of transfer in form satisfactory to the Company and the Security Registrar duly executed by, the Holder hereof or by his attorney duly authorized in writing, and thereupon one or more new Securities, of authorized denominations and for the same aggregate principal amount, will be issued to the designated transferee or transferees.

As provided in the Indenture and subject to certain limitations therein [and herein] set forth, this Security is exchangeable for a like aggregate principal amount of Securities of different authorized denominations but otherwise having the same terms and conditions, as requested by the Holder hereof surrendering the same.

The Securities of this series are issuable only in registered form [without coupons] in denominations of \$ and any integral multiple thereof.

No service charge shall be made for any such registration of transfer or conversion or exchange, but the Company may require payment of a sum sufficient to cover any tax or other governmental charge payable in connection therewith,

Prior to due presentment of this Security for registration of transfer, the Company, the Trustee and any agent of the Company or the Trustee may treat the Person in whose name this Security is registered as the owner hereof for all purposes, whether or not this Security be overdue, and neither the Company, the Trustee nor any such agent shall be affected by notice to the contrary.

No recourse shall be had for the payment of the principal of or premium or Make-Whole Amount, if any, or the interest on this Security, or for any claim based hereon, or otherwise in respect hereof, or based on or in respect of the Indenture or any indenture supplemental thereto, against any past, present or future stockholder, employee, officer or director, as such, of the Company or of any successor, either directly or through the Company or any successor, whether by virtue of any constitution, statute or rule of law or by the enforcement of any assessment or penalty or otherwise, all such liability being, by the acceptance hereof and as part of the consideration for the issue hereof, expressly waived and released.

The Indenture and the Securities shall be governed by and construed in accordance with the laws of the State of New York applicable to agreements made and to be performed entirely in such State.

EXHIBIT B

FORMS OF CERTIFICATION

Exhibit B-1

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EXHIBIT B-1

FORM OF CERTIFICATE TO BE GIVEN BY PERSON ENTITLED TO RECEIVE BEARER SECURITY OR TO OBTAIN INTEREST PAYABLE  
PRIOR TO THE EXCHANGE DATE

CERTIFICATE

[Insert title or sufficient description of Securities to be delivered]

This is to certify that, as of the date hereof, and except as set forth below, the above-captioned Securities held by you for our account (i) are owned by person(s) that are not citizens or residents of the United States, domestic partnerships, domestic corporations or any estate or trust the income of which is subject to United States Federal income taxation regardless of its source ("United States person(s)"), (ii) are owned by United States person(s) that are (a) foreign branches of United States financial institutions (financial institutions, as defined in United States Treasury Regulations Section 2.165-12(c)(1) (v) are herein referred to as "financial institutions") purchasing for their own account or for resale, or (b) United States person(s) who acquired the Securities through foreign branches of United States financial institutions and who hold the Securities through such United States financial institutions on the date hereof (and in either case (a) or (b), each such United States financial institution hereby agrees, on its own behalf or through its agent, that you may advise AKOYA BIOSCIENCES, INC. or its agent that such financial institution will comply with the requirements of Section 165(j)(3)(A), (B) or (C) of the United States Internal Revenue Code of 1986, as amended, and the regulations thereunder), or (iii) are owned by United States or foreign financial institution(s) for purposes of resale during the restricted period (as defined in United States Treasury Regulations Section 1.163-5(c)(2)(i)(D)(7)), and, in addition, if the owner is a United States or foreign financial institution described in clause (iii) above (whether or not also described in clause (i) or (ii)), this is to further certify that such financial institution has not acquired the Securities for purposes of resale directly or indirectly to a United States person or to a person within the United States or its possessions.

As used herein, "United States" means the United States of America (including the States and the District of Columbia); and its "possessions" include Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, Wake Island and the Northern Mariana Islands.

We undertake to advise you promptly by tested telex or by telecopy on or prior to the date on which you intend to submit your certification relating to the above-captioned Securities held by you for our account in accordance with your operating procedures if any applicable statement herein is not correct on such date, and in the absence of any such notification it may be assumed that this certification applies as of such date.

This certificate excepts and does not relate to [U.S.\$] of such interest in the above-captioned Securities in respect of which we are not able to certify and as to which we understand an exchange for an interest in a permanent Global Security or an exchange for and delivery of definitive Securities (or, if relevant, collection of any interest) cannot be made until we do so certify.



We understand that this certificate may be required in connection with certain tax legislation in the United States. If administrative or legal proceedings are commenced or threatened in connection with which this certificate is or would be relevant, we irrevocably authorize you to produce this certificate or a copy thereof to any interested party in such proceedings.

Dated:

[To be dated no earlier than the 15th day prior to (i) the Exchange Date or (ii) the relevant Interest Payment Date occurring prior to the Exchange Date, as applicable]

[Name of Person Making Certification]

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(Authorized Signatory)

Name:

Title:

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Exhibit B-1-2

EXHIBIT B-2

FORM OF CERTIFICATE TO BE GIVEN BY EUROCLEAR AND CLEARSTREAM S.A. IN CONNECTION WITH THE EXCHANGE OF A PORTION OF A TEMPORARY GLOBAL SECURITY OR TO OBTAIN INTEREST PAYABLE PRIOR TO THE EXCHANGE DATE

CERTIFICATE

[Insert title or sufficient description of Securities to be delivered]

This is to certify that, based solely on written certifications that we have received in writing, by tested telex or by electronic transmission from each of the persons appearing in our records as persons entitled to a portion of the principal amount set forth below (our "Member Organizations") substantially in the form attached hereto, as of the date hereof, [U.S.\$] principal amount of the above-captioned Securities (i) is owned by person(s) that are not citizens or residents of the United States, domestic partnerships, domestic corporations or any estate or trust the income of which is subject to United States Federal income taxation regardless of its source ("United States person(s)"), (ii) is owned by United States person(s) that are (a) foreign branches of United States financial institutions (financial institutions, as defined in U.S. Treasury Regulations Section 1.165-12(c)(1)(v) are herein referred to as "financial institutions") purchasing for their own account or for resale, or (b) United States person(s) who acquired the Securities through foreign branches of United States financial institutions and who hold the Securities through such United States financial institutions on the date hereof (and in either case (a) or (b), each such financial institution has agreed, on its own behalf or through its agent, that we may advise AKOYA BIOSCIENCES, INC. or its agent that such financial institution will comply with the requirements of Section 165(j)(3)(A), (B) or (C) of the Internal Revenue Code of 1986, as amended, and the regulations thereunder), or (iii) is owned by United States or foreign financial institution(s) for purposes of resale during the restricted period (as defined in United States Treasury Regulations Section 1.163-5(c)(2)(i)(D)(7)), and, to the further effect, that financial institutions described in clause (iii) above (whether or not also described in clause (i) or (ii)) have certified that they have not acquired the Securities for purposes of resale directly or indirectly to a United States person or to a person within the United States or its possessions.

As used herein, "United States" means the United States of America (including the States and the District of Columbia); and its "Possessions" include Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, Wake Island and the Northern Mariana Islands.

We further certify that (i) we are not making available herewith for exchange (or, if relevant, collection of any interest) any portion of the temporary Global Security representing the above-captioned Securities excepted in the above-referenced certificates of Member Organizations and (ii) as of the date hereof we have not received any notification from any of our Member Organizations to the effect that the statements made by such Member Organizations with respect to any portion of the part submitted herewith for exchange (or, if relevant, collection of any interest) are no longer true and cannot be relied upon as of the date hereof.

We understand that this certification is required in connection with certain tax legislation in the United States. If administrative or legal proceedings are commenced or threatened in connection with which this certificate is or would be relevant, we irrevocably authorize you to produce this certificate or a copy thereof to any interested party in such proceedings.

Dated:

[To be dated no earlier than the Exchange Date or the relevant Interest Payment Date occurring prior to the Exchange Date, as applicable]

[ , as Operator of the Euroclear System] [Clearstream Banking Luxembourg]

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

AKOYA BIOSCIENCES, INC.

ISSUER

AND

[TRUSTEE],

TRUSTEE

INDENTURE

DATED AS OF           , 20

SUBORDINATED DEBT SECURITIES

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TABLE OF CONTENTS

	<u>Page</u>
ARTICLE ONE - DEFINITIONS AND OTHER PROVISIONS OF GENERAL APPLICATION	2
SECTION 101. Definitions	2
SECTION 102. Compliance Certificates and Opinions	12
SECTION 103. Form of Documents Delivered to Trustee	13
SECTION 104. Acts of Holders	13
SECTION 105. Notices, etc., to Trustee and Company	15
SECTION 106. Notice to Holders; Waiver	16
SECTION 107. Counterparts; Effect of Headings and Table of Contents	17
SECTION 108. Successors and Assigns	17
SECTION 109. Severability Clause	17
SECTION 110. Benefits of Indenture	17
SECTION 111. Governing Law	17
SECTION 112. Legal Holidays	17
SECTION 113. Limited Liability; Immunity of Stockholders, Directors, Officers and Agents of the Company	17
SECTION 114. Conflict with Trust Indenture Act	18
ARTICLE TWO - SECURITIES FORMS	18
SECTION 201. Forms of Securities	18
SECTION 202. Form of Trustee's Certificate of Authentication	18
SECTION 203. Securities Issuable in Global Form	19
ARTICLE THREE - THE SECURITIES	20
SECTION 301. Amount Unlimited; Issuable in Series	20
SECTION 302. Denominations	23
SECTION 303. Execution, Authentication, Delivery and Dating	24
SECTION 304. Temporary Securities	26
SECTION 305. Registration, Registration of Transfer, Conversion and Exchange	28
SECTION 306. Mutilated, Destroyed, Lost and Stolen Securities	32
SECTION 307. Payment of Interest; Interest Rights Preserved	33
SECTION 308. Persons Deemed Owners	35
SECTION 309. Cancellation	36
SECTION 310. Computation of Interest	36
SECTION 311. CUSIP Numbers	36
ARTICLE FOUR - SATISFACTION AND DISCHARGE	36
SECTION 401. Satisfaction and Discharge of Indenture	36
SECTION 402. Application of Trust Funds	38
ARTICLE FIVE - REMEDIES	38
SECTION 501. Events of Default	38
SECTION 502. Acceleration of Maturity; Rescission and Annulment	40
SECTION 503. Collection of Indebtedness and Suits for Enforcement by Trustee	41

SECTION 504.	Trustee May File Proofs of Claim	41
SECTION 505.	Trustee May Enforce Claims Without Possession of Securities or Coupons	42
SECTION 506.	Application of Money Collected	42
SECTION 507.	Limitation on Suits	43
SECTION 508.	Unconditional Right of Holders to Receive Principal, Premium or Make-Whole Amount, if any, and Interest	43
SECTION 509.	Restoration of Rights and Remedies	44
SECTION 510.	Rights and Remedies Cumulative	44
SECTION 511.	Delay or Omission Not Waiver	44
SECTION 512.	Control by Holders of Securities	44
SECTION 513.	Waiver of Past Defaults	45
SECTION 514.	Waiver of Usury, Stay or Extension Laws	45
SECTION 515.	Undertaking for Costs	45
ARTICLE SIX - THE TRUSTEE		46
SECTION 601.	Notice of Defaults	46
SECTION 602.	Certain Rights of Trustee	46
SECTION 603.	Not Responsible for Recitals or Issuance of Securities	48
SECTION 604.	May Hold Securities	48
SECTION 605.	Money Held in Trust	48
SECTION 606.	Compensation and Reimbursement	48
SECTION 607.	Corporate Trustee Required; Eligibility; Conflicting Interests	49
SECTION 608.	Resignation and Removal; Appointment of Successor	50
SECTION 609.	Acceptance of Appointment by Successor	51
SECTION 610.	Merger, Conversion, Consolidation or Succession to Business	52
SECTION 611.	Appointment of Authenticating Agent	52
SECTION 612.	Certain Duties and Responsibilities of the Trustee	54
ARTICLE SEVEN - HOLDERS' LISTS AND REPORTS BY TRUSTEE AND COMPANY		55
SECTION 701.	Disclosure of Names and Addresses of Holders	55
SECTION 702.	Reports by Trustee	55
SECTION 703.	Reports by Company	56
SECTION 704.	Company to Furnish Trustee Names and Addresses of Holders	56
ARTICLE EIGHT - CONSOLIDATION, MERGER, SALE, LEASE OR CONVEYANCE		57
SECTION 801.	Consolidations and Mergers of Company and Sales, Leases and Conveyances Permitted Subject to Certain Conditions	57
SECTION 802.	Rights and Duties of Successor Corporation	57
SECTION 803.	Officers' Certificate and Opinion of Counsel	58
ARTICLE NINE - SUPPLEMENTAL INDENTURES		58
SECTION 901.	Supplemental Indentures Without Consent of Holders	58
SECTION 902.	Supplemental Indentures with Consent of Holders	59
SECTION 903.	Execution of Supplemental Indentures	60

SECTION 904. Effect of Supplemental Indentures	61
SECTION 905. Conformity with Trust Indenture Act	61
SECTION 906. Reference in Securities to Supplemental Indentures	61
 ARTICLE TEN - COVENANTS	 61
SECTION 1001. Payment of Principal, Premium or Make-Whole Amount, if any; and Interest	61
SECTION 1002. Maintenance of Office or Agency	62
SECTION 1003. Money for Securities Payments to Be Held in Trust	63
SECTION 1004. Existence	64
SECTION 1005. Maintenance of Properties	64
SECTION 1006. Insurance	65
SECTION 1007. Payment of Taxes and Other Claims	65
SECTION 1008. Statement as to Compliance	65
SECTION 1009. Waiver of Certain Covenants	65
 ARTICLE ELEVEN - REDEMPTION OF SECURITIES	 65
SECTION 1101. Applicability of Article	65
SECTION 1102. Election to Redeem; Notice to Trustee	65
SECTION 1103. Selection by Trustee of Securities to Be Redeemed	66
SECTION 1104. Notice of Redemption	66
SECTION 1105. Deposit of Redemption Price	67
SECTION 1106. Securities Payable on Redemption Date	68
SECTION 1107. Securities Redeemed in Part	69
 ARTICLE TWELVE - SINKING FUNDS	 69
SECTION 1201. Applicability of Article	69
SECTION 1202. Satisfaction of Sinking Fund Payments with Securities	69
SECTION 1203. Redemption of Securities for Sinking Fund	70
 ARTICLE THIRTEEN - REPAYMENT AT THE OPTION OF HOLDERS	 70
SECTION 1301. Applicability of Article	70
SECTION 1302. Repayment of Securities	70
SECTION 1303. Exercise of Option	71
SECTION 1304. When Securities Presented for Repayment Become Due and Payable	71
SECTION 1305. Securities Repaid in Part	72
 ARTICLE FOURTEEN - DEFEASANCE AND COVENANT DEFEASANCE	 72
SECTION 1401. Applicability of Article; Company's Option to Effect Defeasance or Covenant Defeasance	72
SECTION 1402. Defeasance and Discharge	72
SECTION 1403. Covenant Defeasance	73
SECTION 1404. Conditions to Defeasance or Covenant Defeasance	73
SECTION 1405. Deposited Money and Government Obligations to Be Held in Trust; Other Miscellaneous Provisions	75

ARTICLE FIFTEEN - MEETINGS OF HOLDERS OF SECURITIES	76
SECTION 1501. Purposes for Which Meetings May Be Called	76
SECTION 1502. Call, Notice and Place of Meetings	76
SECTION 1503. Persons Entitled to Vote at Meetings	76
SECTION 1504. Quorum; Action	77
SECTION 1505. Determination of Voting Rights; Conduct and Adjournment of Meetings	78
SECTION 1506. Counting Votes and Recording Action of Meetings	79
ARTICLE SIXTEEN - SUBORDINATION OF SECURITIES	79
SECTION 1601. Agreement to Subordinate	79
SECTION 1602. Payment Over of Proceeds upon Dissolution, Etc.	79
SECTION 1603. No Payment When Senior Indebtedness in Default	81
SECTION 1604. Reliance by Senior Indebtedness on Subordination Provisions	81
SECTION 1605. Subrogation to Rights of Holders of Senior Indebtedness	82
SECTION 1606. Provisions Solely to Define Relative Rights	82
SECTION 1607. Trustee to Effectuate Subordination	82
SECTION 1608. No Waiver of Subordination Provisions	83
SECTION 1609. Notice to Trustee	83
SECTION 1610. Reliance on Judicial Order or Certificate of Liquidating Agent	84
SECTION 1611. Trustee Not Fiduciary for Holders of Senior Indebtedness	84
SECTION 1612. Rights of Trustee as Holder of Senior Indebtedness; Preservation of Trustee's Rights	85
SECTION 1613. Article Applicable to Paying Agents	85
ARTICLE SEVENTEEN - CONVERSION OF SECURITIES	85
SECTION 1701. Applicability of Article; Conversion Privilege and Conversion Price	85
SECTION 1702. Exercise of Conversion Privilege	86
SECTION 1703. Fractions of Shares	87
SECTION 1704. Adjustment of Conversion Price	87
SECTION 1705. Notice of Adjustments of Conversion Price	91
SECTION 1706. Notice of Certain Corporate Action	91
SECTION 1707. Company to Reserve Common Stock	92
SECTION 1708. Taxes on Conversion	92
SECTION 1709. Covenants as to Common Stock	92
SECTION 1710. Cancellation of Converted Securities	92
SECTION 1711. Provisions in Case of Consolidation, Merger or Sale of Assets; Special Distributions	92
SECTION 1712. Trustee Adjustment Disclaimer; Company Determination Final	94
SECTION 1713. When No Adjustment Required	94
SECTION 1714. Equivalent Adjustments	94



AKOYA BIOSCIENCES, INC.

Reconciliation and tie between the Trust Indenture Act of 1939, as amended (the “Trust Indenture Act” or “TIA”) and the Indenture, dated as of  
, 20 .

<b>Trust Indenture Act Section</b>	<b>Indenture Section</b>
§ 310(a)(1)	607
(a)(2)	607
(b)	607, 608
§ 312(c)	701
§ 313(a)	702
(c)	702
§ 314(a)	703
(a)(4)	1008
(c)(1)	102
(c)(2)	102
(e)	102
§ 315(b)	601
§ 316(a) (last sentence)	101 (“Outstanding”)
(a)(1)(A)	502, 513
(a)(1)(B)	512
(b)	508
§ 317(a)(1)	503
(a)(2)	504
§ 318(a)	111
(c)	111

NOTE: This reconciliation and tie shall not, for any purpose, be deemed to be a part of the Indenture.

Attention should also be directed to Section 318(c) of the Trust Indenture Act, which provides that the provisions of Sections 310 to and including 317 of the Trust Indenture Act are a part of and govern every qualified indenture, whether or not physically contained therein.

INDENTURE, dated as of , 20 , between AKOYA BIOSCIENCES, INC., a corporation organized under the laws of the State of Delaware (hereinafter called the “Company”), having its principal office at 100 Campus Drive, 6th Floor, Marlborough, Massachusetts, and, as Trustee hereunder (hereinafter called the “Trustee”), having a Corporate Trust Office at [ ].

#### RECITALS OF THE COMPANY

The Company deems it necessary to issue from time to time for its lawful purposes subordinated debt securities (hereinafter called the “Securities”) evidencing its unsecured and subordinated indebtedness, and has duly authorized the execution and delivery of this Indenture to provide for the issuance from time to time of the Securities, to be issued in one or more Series as provided in this Indenture.

This Indenture is subject to the provisions of the Trust Indenture Act of 1939, as amended (the “Trust Indenture Act” or “TIA”), that are deemed to be incorporated into this Indenture and shall, to the extent applicable, be governed by such provisions.

All things necessary to make this Indenture a valid and legally binding agreement of the Company, in accordance with its terms, have been done.

NOW, THEREFORE, THIS INDENTURE WITNESSETH:

For and in consideration of the premises and the purchase of the Securities by the Holders thereof, it is mutually covenanted and agreed, for the equal and proportionate benefit of all Holders of the Securities or of a Series thereof, as follows:

#### ARTICLE ONE - DEFINITIONS AND OTHER PROVISIONS OF GENERAL APPLICATION

SECTION 101. Definitions. For all purposes of this Indenture, except as otherwise expressly provided or unless the context otherwise requires:

- (1) the terms defined in this Article have the meanings assigned to them in this Article, and include the plural as well as the singular;
- (2) all other terms used herein which are defined in the TIA, either directly or by reference therein, have the meanings assigned to them therein, and the terms “cash transactions” and “self-liquidating paper,” as used in TIA Section 311, shall have the meanings assigned to them in the rules of the Commission adopted under the TIA;
- (3) all accounting terms not otherwise defined herein have the meanings assigned to them in accordance with GAAP;
- (4) any reference to an “Article” or a “Section” refers to an Article or Section, as the case may be, of this Indenture; and
- (5) the words “herein,” “hereof” and “hereunder” and other words of similar import refer to this Indenture as a whole and not to any particular Article, Section or other subdivision.

“Act,” when used with respect to any Holder, has the meaning specified in Section 104.

“Affiliate” of any specified Person means any other Person directly or indirectly controlling or controlled by or under direct or indirect common control with such specified Person. For the purposes of this definition, “control” when used with respect to any specified Person means the power to direct the management and policies of such Person, directly or indirectly, whether through the ownership of voting securities, by contract or otherwise; and the terms “controlling” and “controlled” have meanings correlative to the foregoing.

“Authenticating Agent” means any Person authorized by the Trustee pursuant to Section 611 hereof to act on behalf of the Trustee to authenticate Securities of one or more Series.

“Authorized Newspaper” means a newspaper, printed in the English language or in an official language of the country of publication, customarily published on each Business Day, whether or not published on Saturdays, Sundays or holidays, and of general circulation in each place in connection with which the term is used or in the financial community of each such place. Whenever successive publications are required to be made in Authorized Newspapers, the successive publications may be made in the same or in different Authorized Newspapers in the same city meeting the foregoing requirements and in each case on any Business Day.

“Bankruptcy Law” has the meaning specified in Section 501.

“Bearer Security” means any Security established pursuant to Section 201 which is payable to the bearer.

“Board of Directors” when used with reference to the Company, means the board of directors of the Company, or any committee of that board duly authorized to act hereunder, or any director or directors and/or officer or officers of the Company, to whom the board or committee shall have duly delegated its authority.

“Board Resolution” means a copy of (1) a resolution certified by the Secretary or an Assistant Secretary of the Company to have been duly adopted by the Board of Directors or a duly authorized committee of the Board of Directors and to be in full force and effect on the date of such certification, or (2) a certificate signed by the director or directors and/or officer or officers to whom the Board of Directors shall have duly delegated its authority, together with a resolution certified by the Secretary or an Assistant Secretary of the Company to have been duly adopted by the Board of Directors and to be in full force and effect on the date of such certification authorizing such delegation, and, in each case, delivered to the Trustee.

“Business Day,” when used with respect to any Place of Payment or any other particular location referred to in this Indenture or in the Securities, means, unless otherwise specified with respect to any Securities issued pursuant to Section 301, any day, other than a Saturday or Sunday, that is neither a legal holiday nor a day on which banking institutions in that Place of Payment or particular location are authorized or required by law, regulation or executive order to close.

“Capital Stock” means, with respect to any Person, any capital stock (including preferred stock), shares, interests, participations or other ownership interests (however designated) of such Person and any rights (other than debt securities convertible into or exchangeable for corporate stock), warrants or options to purchase any thereof.

“Clearstream” means Clearstream Banking Luxembourg, société anonyme, or its successor.

“Closing Price” means the closing price of a share of Common Stock of the Company as reported on The NASDAQ Global Select Market.

“Code” means the Internal Revenue Code of 1986, as amended, and the regulations thereunder.

“Commission” means the Securities and Exchange Commission, as from time to time constituted, created under the Exchange Act, or, if at any time after execution of this instrument such Commission is not existing and performing the duties now assigned to it under the Trust Indenture Act, then the body performing such duties on such date.

“Common Depository” has the meaning specified in Section 304.

“Common Stock” means, with respect to any Person, all shares of capital stock issued by such Person other than Preferred Stock.

“Company” means the Person named as the “Company” in the first paragraph of this Indenture until a successor corporation shall have become such pursuant to the applicable provisions of this Indenture, and thereafter “Company” shall mean such successor corporation.

“Company Request” and “Company Order” mean, respectively, a written request or order signed in the name of the Company by its Chief Executive Officer, the President, or a Vice President, and by its Treasurer, an Assistant Treasurer, the Secretary or an Assistant Secretary, of the Company, and delivered to the Trustee.

“Constituent Person” has the meaning specified in Section 1711.

“Conversion Event” means the cessation of use of (i) a Foreign Currency both by the government of the country which issued such currency and for the settlement of transactions by a central bank or other public institutions of or within the international banking community, (ii) the ECU both within the European Monetary System and for the settlement of transactions by public institutions of or within the European Communities or (iii) any currency unit (or composite currency) other than the ECU for the purposes for which it was established.

“Conversion Price” has the meaning specified in Section 1701.

“Corporate Trust Office” means the office of the Trustee at which, at any particular time, its corporate trust business shall be principally administered, which office at the date hereof is located at [ ].

“corporation” includes corporations, associations, companies and business trusts.

“coupon” means any interest coupon appertaining to a Bearer Security.

“Covenant Defeasance” has the meaning specified in Section 1403.

“Custodian” has the meaning specified in Section 501.

“Defaulted Interest” has the meaning specified in Section 307.

“Defeasance” has the meaning specified in Section 1402.

“Distribution Record Date” has the meaning specified in Section 1711.

“Dividend Record Date” has the meaning specified in Section 1704.

“Dollar” or the sign “\$” means a dollar or other equivalent unit in such coin or currency of the United States of America as at the time of payment is legal tender for the payment of public and private debts.

“DTC” means The Depository Trust Company and any successor to DTC in its capacity as depository for any Securities.

“ECU” means the European Currency Unit as defined and revised from time to time by the Council of the European Communities. “Euroclear” means the operator of the Euroclear System.

“European Communities” means the European Economic Community, the European Coal and Steel Community and the European Atomic Energy Community.

“European Monetary System” means the European Monetary System established by the Resolution of December 5, 1978 of the Council of the European Communities.

“Event of Default” has the meaning specified in Article Five.

“Exchange Act” means the Securities Exchange Act of 1934, as amended, as in force at the date as of which this Indenture was executed; provided, however, that in the event the Exchange Act is amended after such date, “Exchange Act” means to the extent required by any such amendment, the Exchange Act as so amended.

“Exchange Date” has the meaning specified in Section 304.

“FINRA” means the Financial Industry Regulatory Authority, Inc.

“Foreign Currency” means any currency, currency unit or composite currency, including, without limitation, the ECU issued by the government of one or more countries other than the United States of America or by any recognized confederation or association of such governments.

“GAAP” means, except as otherwise provided herein, generally accepted accounting principles, as in effect from time to time, as used in the United States applied on a consistent basis.

“Global Security” means a Security evidencing all or a part of a series of Securities issued to and registered in the name of the depository for such series, or its nominee, in accordance with Section 305, and bearing the legend prescribed in Section 203.

“Government Obligations” means (i) securities which are (A) direct obligations of the United States of America or the government which issued the Foreign Currency in which the Securities of a particular series are payable, for the payment of which its full faith and credit is pledged or (B) obligations of a Person controlled or supervised by and acting as an agency or instrumentality of the United States of America or such government which issued the Foreign Currency in which the Securities of such series are payable, the payment of which is unconditionally guaranteed as a full faith and credit obligation by the United States of America or such other government, which, in either case, are not callable or redeemable at the option of the issuer thereof, and (iii) a depository receipt issued by a bank or trust company as custodian with respect to any such Government Obligation or a specific payment of interest on or principal of any such Government Obligation held by such custodian for the account of the holder of a depository receipt, provided that (except as required by law) such custodian is not authorized to make any deduction from the amount payable to the holder of such depository receipt from any amount received by the custodian in respect of the Government Obligation or the specific payment of interest on or principal of the Government Obligation evidenced by such depository receipt.

“Guaranty” by any Person means any Obligation, contingent or otherwise, of such Person guaranteeing any Indebtedness of any other Person (the “primary obligor”) in any manner, whether directly or indirectly, and including, without limitation, every Obligation of such Person (i) to purchase or pay (or advance or supply funds for the purchase or payment of) such Indebtedness or to purchase (or to advance or supply funds for the purchase of) any security for the payment of such Indebtedness, (ii) to purchase property, securities or services for the purpose of assuring the holder of such Indebtedness of the payment of such Indebtedness or (iii) to maintain working capital, equity capital or other financial statement condition or liquidity of the primary obligor so as to enable the primary obligor to pay such Indebtedness; provided, however, that a Guaranty by any Person shall not include endorsements by such Person for collection or deposit, in either case in the ordinary course of business. The terms “Guaranteed,” “Guaranteeing” and “Guarantor” shall have meanings correlative to the foregoing.

“Holder” means, in the case of a Registered Security, the Person in whose name a Security is registered in the Security Register and, in the case of a Bearer Security, the bearer thereof and, when used with respect to any coupon, shall mean the bearer thereof.

“Indebtedness” means, with respect to any Person, without duplication, (i) any Obligation of such Person relating to any indebtedness of such Person (A) for borrowed money (whether or not the recourse of the lender is to the whole of the assets, of such person or only to a portion thereof), (B) evidenced by notes, debentures or similar instruments (including purchase money obligations) given in connection with the acquisition of any property or assets (other than trade accounts payable for inventory or similar property acquired in the ordinary course of business), including securities, for the payment of which such Person is liable, directly or indirectly, or the payment of which is secured by a lien, charge or encumbrance on property or assets of such Person, (C) for goods, materials or services purchased in the ordinary course of business (other than trade accounts payable arising in the ordinary course of business), (D) with respect to letters of credit or bankers acceptances issued for the account of such Person or performance, surety or similar bonds, (E) for the payment of money relating to a capitalized lease Obligation or (F) under interest rate swaps, caps or similar agreements and foreign exchange contracts, currency swaps or similar agreements; (ii) any liability of others of the kind described in the preceding clause (i), which such Person has Guaranteed or which is otherwise its legal liability; and (iii) any and all deferrals, renewals, extensions and refunding of, or amendments, modifications or supplements to, any liability of the kind described in any of the preceding clauses (i) or (ii).

“Indenture” means this instrument as originally executed or as it may be supplemented or amended from time to time by one or more indentures supplemental hereto entered into pursuant to the applicable provisions hereof, and shall include the terms of particular series of Securities established as contemplated by Section 301; provided, however, that, if at any time more than one Person is acting as Trustee under this instrument, “Indenture” shall mean, with respect to any one or more series of Securities for which such Person is Trustee, this instrument as originally executed or as it may be supplemented or amended from time to time by one or more indentures supplemental hereto entered into pursuant to the applicable provisions hereof and shall include the terms of the or those particular series of Securities for which such Person is Trustee established as contemplated by Section 301, exclusive, however, of any provisions or terms which relate solely to other series of Securities for which such Person is Trustee, regardless of when such terms or provisions were adopted, and exclusive of any provisions or terms adopted by means of one or more indentures supplemental hereto executed and delivered after such Person had become such Trustee but to which such Person, as such Trustee, was not a party.

“Indexed Security” means a Security the terms of which provide that the principal amount thereof payable at Stated Maturity may be more or less than the principal face amount thereof at original issuance.

“Interest,” when used with respect to an Original Issue Discount Security which by its terms bears interest only after Maturity, shall mean interest payable after Maturity.

“Interest Payment Date,” when used with respect to any Security, means the Stated Maturity of an installment of interest on such Security.

“Make-Whole Amount,” when used with respect to any Security, means the amount, if any, in addition to principal (and accrued interest thereon, if any) which is required by a Security, under the terms and conditions specified therein or as otherwise specified as contemplated by Section 301, to be paid by the Company to the Holder thereof in connection with any optional redemption or accelerated payment of such Security.

“mandatory sinking fund payment” has the meaning specified in Section 1201.

“Market Value of the Distribution” has the meaning specified in Section 1704.

“Maturity,” when used with respect to any Security, means the date on which the principal (or, if the context so requires, in the case of an Original Issue Discount Security, or lesser amount or, in the case of an Indexed Security, an amount determined in accordance with the specified terms of that Security) of such Security or an installment of principal becomes due and payable as therein or herein provided, whether at the Stated Maturity or by declaration of acceleration, notice of redemption, notice of option to elect repayment or otherwise.

“Obligation” of any Person with respect to any specified Indebtedness means any obligation of such Person to pay principal, premium, interest (including interest accruing on or after the filing of any petition in bankruptcy or for reorganization relating to such Person, whether or not a claim for such post-petition interest is allowed in such proceeding), penalties, reimbursement or indemnification amounts, fees, expenses or other amounts relating to such Indebtedness.

“Officers’ Certificate” means a certificate signed by the Chairman of the Board of Directors, the Chief Executive Officer, the President, or a Vice President (whether or not designated by a number or word or words added before or after the title “Vice President”), and by the Treasurer, an Assistant Treasurer, the Secretary or an Assistant Secretary of the Company, and delivered to the Trustee.

“Opinion of Counsel” means a written opinion of counsel, who may be counsel for the Company or who may be an employee of or other counsel for the Company.

“optional sinking fund payment” has the meaning specified in Section 1201.

“Original Issue Discount Security” means any Security, which provides for an amount (excluding any amounts attributable to accrued but unpaid interest thereon) less than the principal amount thereof to be due and payable upon a declaration of acceleration of the Maturity thereof pursuant to Section 502.

“Outstanding,” when used with respect to Securities, means, as of the date of determination, all Securities theretofore authenticated and delivered under this Indenture, except:

(i) Securities theretofore canceled by the Trustee or delivered to the Trustee for cancellation;

(ii) Securities, or portions thereof, for whose payment or redemption (including repayment at the option of the Holder) money in the necessary amount has been theretofore deposited with the Trustee or any Paying Agent (other than the Company) in trust or set aside and segregated in trust by the Company (if the Company shall act as its own Paying Agent) for the Holders of such Securities and any coupons appertaining thereto; provided, however, that, if such Securities are to be redeemed, notice of such redemption has been duly given pursuant to this Indenture or provision therefor satisfactory to the Trustee has been made;



(iii) Securities, except to the extent provided in Sections 1402 and 1403, with respect to which the Company has effected Defeasance and/or Covenant Defeasance as provided in Article Fourteen; and

(iv) Securities which have been paid pursuant to Section 306 or in exchange for or in lieu of which other Securities have been authenticated and delivered pursuant to this Indenture, other than any such Securities in respect of which there shall have been presented to the Trustee proof satisfactory to it that such Securities are held by a bona fide purchaser in whose hands such Securities are valid obligations of the Company.

provided, however, that in determining whether the Holders of the requisite principal amount of the Outstanding Securities have given any request, demand, authorization, direction, notice, consent or waiver hereunder or are present at a meeting of Holders for quorum purposes, and for the purpose of making the calculations required by TIA Section 313, (i) the principal amount of an Original Issue Discount Security that may be counted in making such determination or calculation and that shall be deemed to be Outstanding for such purpose shall be equal to the amount of principal thereof that would be (or shall have been declared to be) due and payable, at the time of such determination, upon a declaration of acceleration of the maturity thereof pursuant to Section 502, (ii) the principal amount of any Security denominated in a Foreign Currency that may be counted in making such determination or calculation and that shall be deemed Outstanding for such purpose shall be equal to the Dollar equivalent, determined pursuant to Section 301 as of the date such Security is originally issued by the Company, of the principal amount (or, in the case of an Original Issue Discount Security, the Dollar equivalent as of such date of original issuance of the amount determined as provided in clause (i) above) of such Security, (iii) the principal amount of any Indexed Security that may be counted in making such determination or calculation and that shall be deemed outstanding for such purpose shall be equal to the principal face amount of such Indexed Security at original issuance, unless otherwise provided with respect to such Security pursuant to Section 301, and (iv) Securities owned by the Company or any other obligor upon the Securities or any Affiliate of the Company or of such other obligor shall be disregarded and deemed not to be Outstanding, except that, in determining whether the Trustee shall be protected in making such calculation or in relying upon any such request, demand, authorization, direction, notice, consent or waiver, only Securities which a Responsible Officer of the Trustee actually knows to be so owned shall be so disregarded. Securities owned as provided in clause (iv) above which have been pledged in good faith may be regarded as Outstanding if the pledgee establishes to the satisfaction of the Trustee the pledgee's right so to act with respect to such Securities and that the pledgee is not the Company or any other obligor upon the Securities or any Affiliate of the Company or of such other obligor. In case of a dispute as to such right, the advice of counsel shall be full protection in respect of any decision made by the Trustee in accordance with such advice.

“Paying Agent” means any Person authorized by the Company to pay the principal of (and premium or Make-Whole Amount, if any) or interest on any Securities or coupons on behalf of the Company.

“Payment Blockage Notice” and “Payment Blockage Period” have the respective meanings specified in Section 1603.

“Person” means any individual, corporation, limited liability company, partnership, joint venture, association, joint-stock company, trust, unincorporated organization or government or any agency or political subdivision thereof, or any other entity or organization.

“Place of Payment,” when used with respect to the Securities of or within any series, means the place or places where the principal of (and premium or Make-Whole Amount, if any) and interest on such Securities are payable as specified as contemplated by Sections 301 and 1002.

“Predecessor Security” of any particular Security means every previous Security evidencing all or a portion of the same debt as that evidenced by such particular Security; and, for the purposes of this definition, any Security authenticated and delivered under Section 306 in exchange for or in lieu of a mutilated, destroyed, lost or stolen Security or a Security to which a mutilated, destroyed, lost or stolen coupon appertains shall be deemed to evidence the same debt as the mutilated, destroyed, lost or stolen Security or the Security to which the mutilated, destroyed, lost or stolen coupon appertains.

“Preferred Stock” means, with respect to any Person, all capital stock issued by such Person that is entitled to a preference or priority over any other capital stock issued by such Person with respect to any distribution of such Person’s assets, whether by dividend or upon any voluntary or involuntary liquidation, dissolution or winding up.

“Proceeding” has the meaning specified in Section 1602.

“Redemption Date,” when used with respect to any Security to be redeemed, in whole or in part, means the date fixed for such redemption by or pursuant to this Indenture.

“Redemption Price,” when used with respect to any Security to be redeemed, means the price specified in the related Officers’ Certificate or supplemental indenture contemplated by and pursuant to Section 301, at which it is to be redeemed pursuant to this Indenture.

“Reference Date” has the meaning specified in Section 1704.

“Registered Security” shall mean any Security, which is registered in the Security Register.

“Regular Record Date” for the interest payable on any Interest Payment Date on the Registered Securities of or within any series means the date specified for that purpose as contemplated by Section 301, whether or not a Business Day.

“Repayment Date” means, when used with respect to any Security to be repaid at the option of the Holder, the date fixed for such repayment by or pursuant to this Indenture.

“Repayment Price” means, when used with respect to any Security to be repaid at the option of the Holder, the price at which it is to be repaid by or pursuant to this Indenture.

“Responsible Officer,” when used with respect to the Trustee, means any Vice President (whether or not designated by a number or a word or words added before or after the title “Vice President”), Assistant Vice President, Trust Officer or Assistant Trust Officer working in its Corporate Trust Department, or any other officer of the Trustee customarily performing functions similar to those performed by any of the above designated officers and working in its Corporate Trust Department, and also means, with respect to a particular corporate trust matter, any other officer to whom such matter is referred because of such officer’s knowledge and familiarity with the particular subject and who shall have direct responsibility for the administration of this Indenture.

“Rights” has the meaning specified in Section 1704.

“Rights Record Date” has the meaning specified in Section 1704.

“Securities Payment” has the meaning specified in Section 1602.

“Security” and “Securities” has the meaning stated in the first recital of this Indenture and, more particularly, means any Security or Securities authenticated and delivered under this Indenture; provided, however, that, if at any time there is more than one Person acting as Trustee under this Indenture, “Securities” with respect to the Indenture as to which such Person is Trustee shall have the meaning stated in the first recital of this Indenture and shall more particularly mean Securities authenticated and delivered under this Indenture, exclusive, however, of Securities of any series as to which such Person is not Trustee.

“Security Register” and “Security Registrar” have the respective meanings specified in Section 305.

“Senior Indebtedness” means Indebtedness of the Company, whether outstanding on the date of this Indenture or thereafter created, incurred, assumed or guaranteed by the Company, other than the following: (1) any Indebtedness as to which, in the instrument evidencing such Indebtedness or pursuant to which such Indebtedness was issued, it is expressly provided that such Indebtedness is subordinate in right of payment to all Indebtedness of the Company not expressly subordinated to such Indebtedness; (2) any Indebtedness which by its terms refers explicitly to the Securities and states that such Indebtedness shall not be senior, shall be pari passu or shall be subordinated in right of payment to the Securities; and (3) with respect to any series of Securities, any Indebtedness of the Company evidenced by Securities of the same or of another series. Notwithstanding anything to the contrary in the foregoing, Senior Indebtedness shall not include Indebtedness of or amounts owed by the Company for compensation to employees, or for goods, materials or services purchased in the ordinary course of business.

A “Series” of Securities means all securities denoted as part of the same series authorized by or pursuant to a particular Board Resolution. “Short Term Rights” has the meaning specified in Section 1704.

“Special Record Date” for the payment of any Defaulted Interest on the Registered Securities of or within any series means a date fixed by the Company pursuant to Section 307.

“Stated Maturity,” when used with respect to any Security or any installment of principal thereof or interest thereon, means the date specified in such Security or a coupon representing such installment of interest as the fixed date on which the principal of such Security or such installment of principal or interest is due and payable.

“Trading Day” means any day on which The Nasdaq Global Select Market is open for business.

“Trigger Events” has the meaning specified in Section 1704.

“Trust Indenture Act” or “TIA” means the Trust Indenture Act of 1939, as amended and as in force at the date as of which this Indenture was executed, except as provided in Section 905.

“Trustee” means the Person named as the “Trustee” in the first paragraph of this Indenture until a successor Trustee shall have become such pursuant to the applicable provisions of this Indenture, and thereafter “Trustee” shall mean or include each Person who is then a Trustee hereunder; provided, however, that if at any time there is more than one such Person, “Trustee” as used with respect to the Securities of any series shall mean only the Trustee with respect to Securities of that series.

“Unadjusted Distribution” has the meaning specified in Section 1704.

“United States” means, unless otherwise specified with respect to any Securities pursuant to Section 301, the United States of America (including the states and the District of Columbia), its territories, its possessions and other areas subject to its jurisdiction.

“United States Person” means, unless otherwise specified with respect to any Securities pursuant to Section 301, an individual who is a citizen or resident of the United States, a corporation, partnership or other entity created or organized in or under the laws of the United States or an estate or trust the income of which is subject to United States Federal income taxation regardless of its source.

“Yield to Maturity” means the yield to maturity, computed at the time of issuance of a Security (or, if applicable, at the most recent redetermination of interest on such Security) and as set forth in such Security in accordance with generally accepted United States bond yield computation principles.

SECTION 102. Compliance Certificates and Opinions. Upon any application or request by the Company to the Trustee to take any action under any provision of this Indenture, the Company shall furnish to the Trustee an Officers’ Certificate stating that all conditions precedent, if any, provided for in this Indenture relating to the proposed action have been complied with and an Opinion of Counsel stating that in the opinion of such counsel all such conditions precedent, if any, have been complied with, except that in the case of any such application or request as to which the furnishing of such documents is specifically required by any provision of this Indenture relating to such particular application or request, no additional certificate or opinion need be furnished.

Every certificate or opinion with respect to compliance with a condition or covenant provided for in this Indenture (including certificates delivered pursuant to Section 1008) shall include:

- (1) a statement that each individual signing such certificate or opinion has read such condition or covenant and the definitions herein relating thereto;
- (2) a brief statement as to the nature and scope of the examination or investigation upon which the statements or opinions contained in such certificate or opinion are based;
- (3) a statement that, in the opinion of each such individual, he has made such examination or investigation as is necessary to enable him to express an informed opinion as to whether or not such condition or covenant has been complied with; and
- (4) a statement as to whether, in the opinion of each such individual, such condition or covenant has been complied with.

SECTION 103. Form of Documents Delivered to Trustee. In any case where several matters are required to be certified by, or covered by an opinion of, any specified Person, it is not necessary that all such matters be certified by, or covered by the opinion of, only one such Person, or that they be so certified or covered by only one document, but one such Person may certify or give an opinion with respect to some matters and one or more other such Persons as to other matters, and any such Person may certify or give an opinion as to such matters in one or several documents.

Any certificate or opinion of an officer of the Company may be based, insofar as it relates to legal matters, upon an Opinion of Counsel, or a certificate or representations by counsel, unless such officer knows, or in the exercise of reasonable care should know, that the opinion, certificate or representations with respect to the matters upon which his certificate or opinion is based are erroneous. Any such Opinion of Counsel or certificate or representations may be based, insofar as it relates to factual matters, upon a certificate or opinion of, or representations by, an officer or officers of the Company stating that the information as to such factual matters is in the possession of the Company, unless such counsel knows, or in the exercise of reasonable care should know, that the certificate or opinion or representations with respect to such matters are erroneous.

Where any Person is required to make, give or execute two or more applications, requests, consents, certificates, statements, opinions or other instruments under this Indenture, they may, but need not, be consolidated and form one instrument.

SECTION 104. Acts of Holders.

(a) Any request, demand, authorization, direction, notice, consent, waiver or other action provided by this Indenture to be given or taken by Holders of the Outstanding Securities of all series or one or more series, as the case may be, may be embodied in and evidenced by one or more instruments of substantially similar tenor signed by such Holders in person or by agents duly appointed in writing. If Securities of a series are issuable as Bearer Securities, any request, demand, authorization, direction, notice, consent, waiver or other action provided by this Indenture to be given or taken by Holders of Securities of such series may, alternatively, be embodied in and evidenced by the record of Holders of Securities of such series voting in favor thereof, either in person or by proxies duly appointed in writing, at any meeting of Holders of Securities of such series duly called and held in accordance with the provisions of Article Fifteen, or a combination of such instruments and any such record. Except as herein otherwise expressly provided, such action shall become effective when such instrument or instruments or record or both are delivered to the Trustee and, where it is hereby expressly required, to the Company. Such instrument or instruments and any such record (and the action embodied therein and evidenced thereby) are herein sometimes referred to as the "Act" of the Holders signing such instrument or instruments or so voting at any such meeting. Proof of execution of any such instrument or of a writing appointing any such agent, or of the holding by any Person of a Security, shall be sufficient for any purpose of this Indenture and conclusive in favor of the Trustee and the Company and any agent of the Trustee or the Company, if made in the manner provided in this Section. The record of any meeting of Holders of Securities shall be proved in the manner provided in Section 1506.

(b) The fact and date of the execution by any Person of any such instrument or writing may be proved by the affidavit of a witness of such execution or by a certificate of a notary public or other officer authorized by law to take acknowledgments of deeds, certifying that the individual signing such instrument or writing acknowledged to him the execution thereof. Where such execution is by a signer acting in a capacity other than his individual capacity, such certificate or affidavit shall also constitute sufficient proof of his authority. The fact and date of the execution of any such instrument or writing, or the authority of the Person executing the same, may also be proved in any other reasonable manner, which the Trustee deems sufficient.

(c) The ownership of Registered Securities shall be proved by the Security Register. As to any matter relating to beneficial ownership interests in any Global Security, the appropriate depository's records shall be dispositive for purposes of this Indenture.

(d) The ownership of Bearer Securities may be proved by the production of such Bearer Securities or by a certificate executed, as depository, by any trust company, bank, banker or other depository, wherever situated, if such certificate shall be deemed by the Trustee to be satisfactory, showing that at the date therein mentioned such Person had on deposit with such depository, or exhibited to it, the Bearer Securities therein described; or such facts may be proved by the certificate or affidavit of the Person holding such Bearer Securities, if such certificate or affidavit is deemed by the Trustee to be satisfactory. The Trustee and the Company may assume that such ownership of any Bearer Security continues until (1) another certificate or affidavit bearing a later date issued in respect of the same Bearer Security is produced, or (2) such Bearer Security is produced to the Trustee by some other Person, or (3) such Bearer Security is surrendered in exchange for a Registered Security, or (4) such Bearer Security is no longer Outstanding. The ownership of Bearer Securities may also be proved in any other manner, which the Trustee deems sufficient.

(e) If the Company shall solicit from the Holders of Registered Securities any request, demand, authorization, direction, notice, consent, waiver or other Act, the Company may, at its option, in or pursuant to a Board Resolution, fix in advance a record date for the determination of Holders entitled to give such request, demand, authorization, direction, notice, consent, waiver or other Act, but the Company shall have no obligation to do so. Notwithstanding TIA Section 316(c), such record date shall be the record date specified in or pursuant to such Board Resolution, which shall be a date not earlier than the date 30 days prior to the first solicitation of Holders generally in connection therewith and not later than the date such solicitation is completed. If such a record date is fixed, such request, demand, authorization, direction, notice, consent, waiver or other Act may be given before or after such record date, but only the Holders of record at the close of business on such record date shall be deemed to be Holders for the purposes of determining whether Holders of the requisite proportion of Outstanding Securities have authorized or agreed or consented to such request, demand, authorization, direction, notice, consent, waiver or other Act, and for that purpose the Outstanding Securities shall be computed as of such record date; provided that no such authorization, agreement or consent by the Holders on such record date shall be deemed effective unless it shall become effective pursuant to the provisions of this Indenture not later than eleven months after the record date.

(f) Any request, demand, authorization, direction, notice, consent, waiver or other Act of the Holder of any Security shall bind every future Holder of the same Security and the Holder of every Security issued upon the registration of transfer thereof or upon the conversion thereof or in exchange therefor or in lieu thereof in respect of anything done, omitted or suffered to be done by the Trustee, any Security Registrar, any Paying Agent, any Authenticating Agent or the Company in reliance thereon, whether or not notation of such action is made upon such Security.

SECTION 105. Notices, etc., to Trustee and Company. Any request, demand, authorization, direction, notice, consent, waiver or Act of Holders or other document provided or permitted by this Indenture to be made upon, given or furnished to, or filed with,

(1) the Trustee by any Holder or by the Company shall be sufficient for every purpose hereunder if made, given, furnished or filed in writing to or with the Trustee at [ ] or at any other address previously furnished in writing to the Company by the Trustee, Attention: [ ]; or

(2) the Company by the Trustee or by any Holder shall be sufficient for every purpose hereunder (unless otherwise herein expressly provided) if in writing and mailed, first-class postage prepaid, to the Company addressed to it at the address of its principal office specified in the first paragraph of this Indenture or at any other address previously furnished in writing to the Trustee by the Company, Attention: [ ]; or

(3) either the Trustee or the Company, by the other party or by any Holder, shall be sufficient for every purpose hereunder if given by facsimile transmission, receipt confirmed by telephone followed by an original copy delivered by guaranteed overnight courier; if to the Trustee at facsimile number [ ]; and if to the Company at facsimile number [ ].

SECTION 106. Notice to Holders; Waiver. Where this Indenture provides for notice of any event to Holders of Registered Securities by the Company or the Trustee, such notice shall be sufficiently given (unless otherwise herein expressly provided) if in writing and mailed, first-class postage prepaid, to each such Holder affected by such event, at his address as it appears in the Security Register, not later than the latest date, if any, and not earlier than the earliest date, if any, prescribed for the giving of such notice. In any case where notice to Holders of Registered Securities is given by mail, neither the failure to mail such notice, nor any defect in any notice so mailed, to any particular Holder shall affect the sufficiency of such notice with respect to other Holders of Registered Securities or the sufficiency of any notice to Holders of Bearer Securities given as provided herein. Any notice mailed to a Holder in the manner herein prescribed shall be conclusively deemed to have been received by such Holder, whether or not such Holder actually receives such notice.

If by reason of the suspension of or irregularities in regular mail service or by reason of any other cause it shall be impracticable to give such notice by mail, then such notification to Holders of Registered Securities as shall be made with the approval of the Trustee shall constitute a sufficient notification to such Holders for every purpose hereunder.

Except as otherwise expressly provided herein or otherwise specified with respect to any Securities pursuant to Section 301, where this Indenture provides for notice to Holders of Bearer Securities of any event, such notice shall be sufficiently given if published in an Authorized Newspaper in The City of New York and in such other city or cities as may be specified in such Securities on a Business Day, such publication to be not later than the latest date, if any, and not earlier than the earliest date, if any, prescribed for the giving of such notice. Any such notice shall be deemed to have been given on the date of such publication or, if published more than once, on the date of the first such publication.

If by reason of the suspension of publication of any Authorized Newspaper or Authorized Newspapers or by reason of any other cause it shall be impracticable to publish any notice to Holders of Bearer Securities as provided above, then such notification to Holders of Bearer Securities as shall be given with the approval of the Trustee shall constitute sufficient notice to such Holders for every purpose hereunder. Neither the failure to give notice by publication to any particular Holder of Bearer Securities as provided above, nor any defect in any notice so published, shall affect the sufficiency of such notice with respect to other Holders of Bearer Securities or the sufficiency of any notice to Holders of Registered Securities given as provided herein.

Any request, demand, authorization, direction, notice, consent or waiver required or permitted under this Indenture shall be in the English language, except that any published notice may be in an official language of the country of publication.

Where this Indenture provides for notice in any manner, such notice may be waived in writing by the Person entitled to receive such notice, either before or after the event, and such waiver shall be the equivalent of such notice. Waivers of notice by Holders shall be filed with the Trustee, but such filing shall not be a condition precedent to the validity of any action taken in reliance upon such waiver.



SECTION 107. Counterparts; Effect of Headings and Table of Contents. This Indenture may be executed in any number of counterparts, each of which so executed shall be deemed to be an original, but all such counterparts shall together constitute but one and the same Indenture. The Article and Section headings herein and the Table of Contents are for convenience only and shall not affect the construction hereof.

SECTION 108. Successors and Assigns. All covenants and agreements in this Indenture by the Company shall bind its successors and assigns, whether so expressed or not.

SECTION 109. Severability Clause. In case any provision in this Indenture or in any Security or coupon shall be held invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired thereby.

SECTION 110. Benefits of Indenture. Nothing in this Indenture or in the Securities or coupons, if any, express or implied, shall give to any Person, other than the parties hereto, any Security Registrar, any Paying Agent, any Authenticating Agent and their successors hereunder and the Holders any benefit or any legal or equitable right, remedy or claim under this Indenture.

SECTION 111. Governing Law. This Indenture and the Securities and coupons shall be governed by and construed in accordance with the laws of the State of New York. This Indenture is subject to the provisions of the TIA that are required to be part of this Indenture and shall, to the extent applicable, be governed by such provisions.

SECTION 112. Legal Holidays. In any case where any Interest Payment Date, Redemption Date, Repayment Date, sinking fund payment date, Stated Maturity or Maturity of any Security or the last date on which a Holder has the right to convert or exchange a Security shall not be a Business Day at any Place of Payment, then (notwithstanding any other provision of this Indenture or any Security or coupon other than a provision in the Securities of any series which specifically states that such provision shall apply in lieu hereof), payment of interest or principal (and premium or Make-Whole Amount, if any) or conversion or exchange of such Security need not be made at such Place of Payment on such date, but (except as otherwise provided in the supplemental indenture with respect to such Security) may be made on the next succeeding Business Day at such Place of Payment with the same force and effect as if made on the Interest Payment Date, Redemption Date, Repayment Date or sinking fund payment date, or at the Stated Maturity or Maturity, or on such last day for conversion or exchange, provided that no interest shall accrue on the amount so payable for the period from and after such Interest Payment Date, Redemption Date, Repayment Date, sinking fund payment date, Stated Maturity or Maturity, as the case may be.

SECTION 113. Limited Liability; Immunity of Stockholders, Directors, Officers and Agents of the Company. Notwithstanding any other provision of this Indenture or of the Securities of any series to the contrary, no recourse under or upon any obligation, covenant or agreement contained in this Indenture or in any Security, or for the payment of any sums due on account of any indebtedness evidenced thereby, including without limitation principal, premium or interest, if any, or for any claim based on this Indenture or any Security or otherwise in respect of this Indenture or any Security, shall be had, whether by levy or execution or otherwise, against (i) the Company, the Company's assets or against any past, present or future stockholder, employee, officer, director or agent, as such, of the Company or any successor, either directly or through the Company or any successor, under any rule of law, statute, constitutional provision or by the enforcement of any assessment or penalty, or by any legal or equitable proceeding or otherwise, nor shall any such parties be personally liable for any such amounts, obligations or claims, or liable for any deficiency judgment based thereon or with respect thereto, it being expressly understood that the sole remedies hereunder or under any other document with respect to the Securities against such parties with respect to such amounts, obligations or claims shall be against the Company and that all such liability of and recourse against such parties is expressly waived and released by the acceptance of the Securities by the Holders and as part of the consideration for the issue of the Securities.

SECTION 114. Conflict with Trust Indenture Act. If any provision hereof limits, qualifies or conflicts with another provision hereof which is required or deemed to be included in this Indenture by any of the provisions of the Trust Indenture Act, such required provision shall control. If any provision of this Indenture modifies or excludes any provision of the Trust Indenture Act that may be so modified or excluded, the latter provision shall be deemed to apply to this Indenture as so modified or to be excluded, as the case may be.

## ARTICLE TWO - SECURITIES FORMS

SECTION 201. Forms of Securities. The Registered Securities, if any, of each series and the Bearer Securities, if any, of each series and related coupons shall be substantially in the form of Exhibit A hereto or in such other form as shall be established in one or more indentures supplemental hereto or approved from time to time by or pursuant to a Board Resolution in accordance with Section 301, shall have such appropriate insertions, omissions, substitutions and other variations as are required or permitted by this Indenture or any indenture supplemental hereto, and may have such letters, numbers or other marks of identification or designation and such legends or endorsements placed thereon as the Company may deem appropriate and as are not inconsistent with the provisions of this Indenture, or as may be required to comply with any law or with any rule or regulation made pursuant thereto or with any rule or regulation of any over-the-counter market or securities exchange, on which the Securities may be quoted or listed, or to conform to usage.

Unless otherwise specified as contemplated by Section 301, Bearer Securities shall have interest coupons attached.

The definitive Securities and coupons shall be printed, lithographed or engraved or produced by any combination of these methods on a steel engraved border or steel engraved borders or mechanically reproduced on safety paper or may be produced in any other manner, all as determined by the officers executing such Securities or coupons, as evidenced by their execution of such Securities or coupons.

SECTION 202. Form of Trustee's Certificate of Authentication. Subject to Section 611, the Trustee's certificate of authentication shall be in substantially the following form:

This is one of the Securities of the series designated therein referred to in the within- mentioned Indenture.

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as Trustee,

Dated:

By: \_\_\_\_\_  
Authorized Signatory

SECTION 203. Securities Issuable in Global Form. If Securities of or within a series are issuable in the form of one or more Global Securities, then, notwithstanding clause (8) of Section 301 and the provisions of Section 302, any such Global Security or Securities may provide that it or they shall represent the aggregate amount of all Outstanding Securities of such series (or such lesser amount as is permitted by the terms thereof) from time to time endorsed thereon and may also provide that the aggregate amount of Outstanding Securities of such series represented thereby may from time to time be increased or decreased to reflect exchanges. Any endorsement of any Global Security to reflect the amount, or any increase or decrease in the amount, or changes in the rights of Holders thereof, of Outstanding Securities represented thereby shall be made (or caused to be made) by the Trustee in such manner or by such Person or Persons as shall be specified therein or in the Company Order to be delivered to the Trustee pursuant to Section 303 or 304. Subject to the provisions of Section 303 and, if applicable, Section 304, the Trustee shall deliver and redeliver any Global Security in permanent global form in the manner and upon instructions given by the Person or Persons specified therein or in the applicable Company Order. If a Company Order pursuant to Section 303 or 304 has been, or simultaneously is, delivered, any instructions by the Company with respect to endorsement or delivery or redelivery of a Global Security shall be in writing but need not comply with Section 102 and need not be accompanied by an Opinion of Counsel.

The provisions of the last sentence of Section 303 shall apply to any Security represented by a Global Security if such Security was never issued and sold by the Company and the Company delivers to the Trustee the Global Security together with written instructions (which need not comply with Section 102 and need not be accompanied by an Opinion of Counsel) with regard to the reduction in the principal amount of Securities represented thereby, together with the written statement contemplated by the last sentence of Section 303.

Notwithstanding the provisions of Section 307, unless otherwise specified as contemplated by Section 301, payment of principal of and any premium or Make-Whole Amount, if any, and interest on any Global Security in permanent global form shall be made to the registered Holder thereof.

Notwithstanding the provisions of Section 308 and except as provided in the preceding paragraph, the Company, the Trustee and any agent of the Company and the Trustee shall treat as the Holder of such principal amount of Outstanding Securities represented by a permanent Global Security (i) in the case of a permanent Global Security in registered form, the Holder of such permanent Global Security in registered form, or (ii) in the case of a permanent Global Security in bearer form, Euroclear or Clearstream.

Any Global Security authenticated and delivered hereunder shall bear a legend in substantially the following form:

“This Security is a Global Security within the meaning set forth in the Indenture hereinafter referred to and is registered in the name of a Depository or a nominee of a Depository. This Security is exchangeable for Securities registered in the name of a person other than the Depository or its nominee only in the limited circumstances described in the Indenture, and may not be transferred except as a whole by the Depository to a nominee of the Depository or by a nominee of the Depository to the Depository or another nominee of the Depository or by the Depository or its nominee to a successor Depository or its nominee.”

### ARTICLE THREE - THE SECURITIES

SECTION 301. Amount Unlimited; Issuable in Series. The aggregate principal amount of Securities, which may be authenticated and delivered under this Indenture, is unlimited.

The Securities may be issued in one or more series, each of which shall be authorized pursuant to Board Resolutions of the Company. There shall be established in one or more Board Resolutions or pursuant to authority granted by one or more Board Resolutions and, subject to Section 303, set forth in an Officers' Certificate, or established in one or more indentures supplemental hereto, prior to the issuance of Securities of any series:

- (1) The title of the Securities of the series, including “CUSIP” numbers (which shall distinguish the Securities of such series from all other series of Securities);
- (2) Any limit upon the aggregate principal amount of the Securities of the series that may be authenticated and delivered under this Indenture (except for Securities authenticated and delivered upon registration of transfer of, or upon conversion of, or in exchange for, or in lieu of, other Securities of the series pursuant to Section 304, 305, 306, 906, 1107 or 1305) and the minimum authorized denominations with respect to the Securities of such series;
- (3) The price (expressed as a percentage of the principal amount thereof) at which such Securities will be issued and, if other than the principal amount thereof, the portion of the principal amount thereof payable upon declaration of acceleration of the maturity thereof or (if applicable) the portion of the principal amount of such Securities that is convertible into Common Stock or Preferred Stock or the method by which any such portion shall be determined;
- (4) If convertible, the terms on which such Securities are convertible, including the initial conversion price or rate and the conversion period and any applicable limitations on the ownership or transferability of Common Stock or Preferred Stock receivable on conversion;
- (5) The date or dates, or the method for determining such date or dates, on which the principal of such Securities will be payable;

- (6) The rate or rates (which may be fixed or variable), or the method by which such rate or rates shall be determined, at which such Securities will bear interest, if any;
- (7) The date or dates, or the method for determining such date or dates, from which any such interest will accrue, the Interest Payment Dates on which any such interest will be payable, the Regular Record Dates for such Interest Payment Dates, or the method by which such dates shall be determined, the Persons to whom such interest shall be payable, and the basis upon which interest shall be calculated if other than that of a 360-day year of twelve 30-day months;
- (8) The Make-Whole Amount, if any, or method for determining the Make-Whole Amount, if any, payable with respect to such Securities, and the terms upon which such amount, if any, will be payable;
- (9) The place or places where the principal of (and premium or Make-Whole Amount, if any) and interest, if any, on such Securities will be payable, where such Securities may be surrendered for registration of transfer or conversion or exchange and where notices or demands to or upon the Company in respect of such Securities and this Indenture may be served;
- (10) The period or periods, if any, within which, the price or prices at which and the other terms and conditions upon which such Securities may, pursuant to any optional or mandatory redemption provisions, be redeemed, as a whole or in part, at the option of the Company;
- (11) The obligation, if any, of the Company to redeem, repay or purchase such Securities pursuant to any sinking fund or analogous provision or at the option of a Holder thereof, and the period or periods within which, the price or prices at which and the other terms and conditions upon which such Securities will be redeemed, repaid or purchased, as a whole or in part, pursuant to such obligation;
- (12) If other than Dollars, the currency or currencies in which such Securities are denominated and payable, which may be a foreign currency or units of two or more foreign currencies or a composite currency or currencies, the manner of determining the equivalent thereof in Dollars for purposes of the definition of "Outstanding" in Section 101, and the terms and conditions relating thereto;
- (13) Whether the amount of payments of principal of (and premium or Make-Whole Amount, if any, including any amount due upon redemption, if any) or interest on such Securities may be determined with reference to an index, formula or other method (which index, formula or method may, but need not be, based on the yield on or trading price of other securities, including United States Treasury securities or on a currency, currencies, currency unit or units, or composite currency or currencies) and the manner in which such amounts shall be determined;
- (14) Whether the principal of (and premium or Make-Whole Amount, if any) or interest on the Securities of the series are to be payable, at the election of the Company or a Holder thereof, in a currency or currencies, currency unit or units or composite currency or currencies other than that in which such Securities are denominated or stated to be payable, the period or periods within which, and the terms and conditions upon which, such election may be made, and the time and manner of, and identity of the exchange rate agent with responsibility for, determining the exchange rate between the currency or currencies, currency unit or units or composite currency or currencies in which such Securities are denominated or stated to be payable and the currency or currencies, currency unit or units or composite currency or currencies in which such Securities are to be so payable;

(15) Provisions, if any, granting special rights to the Holders of Securities of the series upon the occurrence of such events as may be specified;

(16) Any deletions from, modifications of or additions to the Events of Default or covenants of the Company with respect to Securities of the series, whether or not such Events of Default or covenants are consistent with the Events of Default or covenants set forth herein;

(17) Whether and under what circumstances the Company will pay any additional amounts on such Securities in respect of any tax, assessment or governmental charge and, if so, whether the Company will have the option to redeem such Securities in lieu of making such payment;

(18) Whether Securities of the series are to be issuable as Registered Securities, Bearer Securities (with or without coupons) or both, any restrictions applicable to the offer, sale or delivery of Bearer Securities and the terms upon which Bearer Securities of the series may be exchanged for Registered Securities of the series and vice versa (if permitted by applicable laws and regulations), whether any Securities of the series are to be issuable initially in temporary global form and whether any Securities of the series are to be issuable in permanent global form with or without coupons and, if so, whether beneficial owners of interests in any such permanent global Security may, or shall be required to, exchange such interests for Securities of such series and of like tenor of any authorized form and denomination and the circumstances under which any such exchanges may, or shall be required to, occur, if other than in the manner provided in the Indenture, and, if Registered Securities of the series are to be issuable as a Global Security, the identity of the depository for such series;

(19) The date as of which any Bearer Securities of the series and any temporary Global Security representing outstanding Securities of the series shall be dated if other than the date of original issuance of the first Security of the series to be issued;

(20) The Person to whom any interest on any Registered Security of the series shall be payable, if other than the Person in whose name that Security (or one or more Predecessor Securities) is registered at the close of business on the Regular Record Date for such interest the manner in which, or the Person to whom, any interest on any Bearer Security of the series shall be payable, if otherwise than upon presentation and surrender of the coupons appertaining thereto as they severally mature, and the extent to which, or the manner in which, any interest payable on a temporary Global Security on an Interest Payment Date will be paid if other than in the manner provided herein; provided, however, in each case, that the manner of determining such Person or making such payment shall be acceptable to the Trustee (as not imposing on it any undue administrative burden or risk of liability);

(21) The applicability, if any, of the Defeasance and Covenant Defeasance provisions of Article Fourteen hereof to the Securities of the series;

(22) The obligation, if any, of the Company to permit the conversion of the Securities of such series into Common Stock or Preferred Stock, as the case may be, and the terms and conditions upon which such conversion shall be effected (including, without limitation, the initial conversion price or rate, the conversion period, any adjustment of the applicable conversion price and any requirements relative to the reservation of such shares for purposes of conversion);

(23) If the Securities of such series are to be issuable in definitive form (whether upon original issue or upon exchange of a temporary Security of such series) only upon receipt of certain certificates or other documents or satisfaction of other conditions, then the form and/or terms of such certificates, documents or conditions;

(24) Designation of the Trustee, if different from the Trustee under the Indenture, with respect to such series and the terms applicable to such Trustee (which shall be accepted by such Trustee by its execution and delivery of a supplemental indenture as provided therein); and

(25) Any other terms of the series (which terms shall not be inconsistent with the provisions of this Indenture).

All Securities of any one series and the coupons appertaining to any Bearer Securities of such series shall be substantially identical except, in the case of Registered Securities, as to denomination and except as may otherwise be provided in or pursuant to such Board Resolution (subject to Section 303) and set forth in such Officers' Certificate or in any such indenture supplemental hereto. All Securities of any one series need not be issued at the same time and, unless otherwise provided, a series may be reopened, without the consent of the Holders, for issuances of additional Securities of such series.

If any of the terms of the Securities of any series are established by action taken pursuant to one or more Board Resolutions, a copy of an appropriate record of such action(s) shall be certified by the Secretary or an Assistant Secretary of the Company and delivered to the Trustee at or prior to the delivery of the Officers' Certificate setting forth the terms of the Securities of such series.

SECTION 302. Denominations. The Securities of each series shall be issuable in such denominations as shall be specified as contemplated by Section 301. With respect to Securities of any series denominated in Dollars, in the absence of any such provisions with respect to the Securities of any series, the Securities of such series, other than Global Securities (which may be of any denomination), shall be issuable in denominations of \$1,000 and any integral multiple thereof or the equivalent amounts thereof in the case of Securities denominated in the Foreign Currency or currency unit.

SECTION 303. Execution, Authentication, Delivery and Dating. The Securities and any coupons appertaining thereto shall be executed on behalf of the Company by its Chief Executive Officer, its President, or one of its Vice Presidents, under its corporate seal reproduced thereon, and attested by its Secretary or one of its Assistant Secretaries. The signature of any of these officers on the Securities and coupons may be manual or facsimile signatures of the present or any future such authorized officer and may be imprinted or otherwise reproduced on the Securities.

Securities and coupons bearing the manual or facsimile signatures of individuals who were at any time the proper officers of the Company shall bind the Company, notwithstanding that such individuals or any of them have ceased to hold such offices prior to the authentication and delivery of such Securities or did not hold such offices at the date of such Securities or coupons.

At any time and from time to time after the execution and delivery of this Indenture, the Company may deliver Securities of any series, together with any coupon appertaining thereto, executed by the Company to the Trustee for authentication, together with a Company Order for the authentication and delivery of such Securities (accompanied by a copy of the Board Resolution and the Officers' Certificate or supplemental indenture contemplated by Section 301), and the Trustee in accordance with the Company Order shall authenticate and deliver such Securities; provided, however, that, in connection with its original issuance, no Bearer Security shall be mailed or otherwise delivered to any location in the United States; and provided further that, unless otherwise specified with respect to any series of Securities pursuant to Section 301, a Bearer Security may be delivered in connection with its original issuance only if the Person entitled to receive such Bearer Security shall have furnished a certificate to Euroclear or Clearstream, as the case may be, in the form set forth in Exhibit B-1 to this Indenture or such other certificate as may be specified by the Company with respect to any series of Securities pursuant to Section 301, dated no earlier than 15 days prior to the earlier of the date on which such Bearer Security is delivered and the date on which any temporary Security first becomes exchangeable for such Bearer Security in accordance with the terms of such temporary Security and this Indenture. If any Security shall be represented by a permanent Global Security, then, for purposes of this Section and Section 304, the notation of a beneficial owner's interest therein upon original issuance of such Security or upon exchange of a portion of a temporary Global Security shall be deemed to be delivery in connection with its original issuance of such beneficial owner's interest in such permanent Global Security. Except as permitted by Section 306, the Trustee shall not authenticate and deliver any Bearer Security unless all appurtenant coupons for interest then matured have been detached and canceled.

If all the Securities of any series are not to be issued at one time and if the Board Resolution or supplemental indenture establishing such series shall so permit, such Company Order may set forth procedures acceptable to the Trustee for the issuance of such Securities and determining the terms of particular Securities of such series, such as interest rate or formula, maturity date, date of issuance and date from which interest shall accrue. In authenticating such Securities, and accepting the additional responsibilities under this Indenture in relation to such Securities, the Trustee shall be entitled to receive, and (subject to TIA Section 315(a) through 315(d)) shall be fully protected in relying upon,



(i) an Opinion of Counsel stating that

(a) the form or forms of such Securities and any coupons have been established in conformity with the provisions of this Indenture;

(b) the terms of such Securities and any coupons have been established in conformity with the provisions of this Indenture; and

(c) such Securities, together with any coupons appertaining thereto, when completed by appropriate insertions and executed and delivered by the Company to the Trustee for authentication in accordance with this Indenture, authenticated and delivered by the Trustee in accordance with this Indenture and issued by the Company in the manner and subject to any conditions specified in such Opinion of Counsel, will constitute legal, valid and legally binding obligations of the Company, enforceable in accordance with their terms, subject to applicable bankruptcy, insolvency, fraudulent transfer, reorganization and other similar laws of general applicability relating to or affecting the enforcement of creditors' rights generally and to general equitable principles; and

(ii) an Officers' Certificate stating that all conditions precedent provided for in this Indenture relating to the issuance of the Securities have been complied with and that, to the best of the knowledge of the signers of such certificate, that no Event of Default with respect to any of the Securities shall have occurred and be continuing.

If such form or terms have been so established, the Trustee shall not be required to authenticate such Securities (or to enter into the related supplemental indenture, if applicable) if the issue of such Securities pursuant to this Indenture will affect the Trustee's own rights, duties, obligations or immunities under the Securities and this Indenture or otherwise in a manner which is not reasonably acceptable to the Trustee.

Notwithstanding the provisions of Section 301 and of the preceding paragraph, if all the Securities of any series are not to be issued at one time, it shall not be necessary to deliver an Officers' Certificate otherwise required pursuant to Section 301 or a Company Order, or an Opinion of Counsel or an Officers' Certificate otherwise required pursuant to the preceding paragraph at the time of issuance of each Security of such series, but such order, opinion and certificates, with appropriate modifications to cover such future issuances, shall be delivered at or before the time of issuance of the first Security of such series.

Each Registered Security shall be dated the date of its authentication and each Bearer Security shall be dated as of the date specified as contemplated by Section 301.

No Security or coupon shall be entitled to any benefit under this Indenture or be valid or obligatory for any purpose unless there appears on such Security or Security to which such coupon appertains a certificate of authentication substantially in the form provided for herein duly executed by the Trustee (subject to Section 611) by manual signature of an authorized signatory, and such certificate upon any Security shall be conclusive evidence, and the only evidence, that such Security has been duly authenticated and delivered hereunder and is entitled to the benefits of this Indenture. Notwithstanding the foregoing, if any Security (including a Global Security) shall have been authenticated and delivered hereunder but never issued and sold by the Company, and the Company shall deliver such Security to the Trustee for cancellation as provided in Section 309 together with a written statement (which need not comply with Section 102 and need not be accompanied by an Opinion of Counsel) stating that such Security has never been issued and sold by the Company, for all purposes of this Indenture such Security shall be deemed never to have been authenticated and delivered hereunder and shall never be entitled to the benefits of this Indenture.

SECTION 304. Temporary Securities Pending the preparation of definitive Securities of any series, the Company may execute, and upon Company Order the Trustee shall authenticate and deliver, temporary Securities which are printed, lithographed, typewritten, mimeographed or otherwise produced, in any authorized denomination, substantially of the tenor of the definitive Securities in lieu of which they are issued, in registered form, or, if authorized, in bearer form with one or more coupons or without coupons, and with such appropriate insertions, omissions, substitutions and other variations as the officers executing such Securities may determine, as conclusively evidenced by their execution of such Securities. In the case of Securities of any series, such temporary Securities may be in global form.

Except in the case of temporary Global Securities (which shall be exchanged as otherwise provided herein or as otherwise provided in or pursuant to a Board Resolution or supplemental indenture pursuant to Section 301), if temporary Securities of any series are issued, the Company will cause definitive Securities of that series to be prepared without unreasonable delay. After the preparation of definitive Securities of such series, the temporary Securities of such series shall be exchangeable for definitive Securities of such series upon surrender of the temporary Securities of such series at the office or agency of the Company in a Place of Payment for that series, without charge to the Holder. Upon surrender for cancellation of any one or more temporary Securities of any series (accompanied by any non-matured coupons appertaining thereto), the Company shall execute (in accordance with a Company Order delivered at or prior to the authentication of the first definitive security to such series) and the Trustee shall authenticate and deliver in exchange therefor a like principal amount of definitive Securities of the same series of authorized denominations; provided, however, that no definitive Bearer Security shall be delivered in exchange for a temporary Registered Security; and provided further that a definitive Bearer Security shall be delivered in exchange for a temporary Bearer Security only in compliance with the conditions set forth in Section 303. Until so exchanged, the temporary Securities of any series shall in all respects be entitled to the same benefits under this Indenture as definitive Securities of such series.

(a) Unless otherwise provided in or pursuant to a Board Resolution or supplemental indenture pursuant to Section 301, the following provisions of this Section 304(b) shall govern the exchange of temporary Securities other than through the facilities of the DTC. If any such temporary Security is issued in global form, then such temporary Global Security shall, unless otherwise provided therein, be delivered to the London office of a depository or common depository upon and pursuant to written direction of the Company (the "Common Depository"), for the benefit of Euroclear and Clearstream, for credit to the respective accounts of the beneficial owners of such Securities (or to such other accounts as they may direct).

Without unnecessary delay but in any event not later than the date specified in, or determined pursuant to the terms of, any such temporary Global Security (the “Exchange Date”), the Company shall deliver to the Trustee definitive Securities, in aggregate principal amount equal to the principal amount of such temporary Global Security, executed by the Company. On or after the Exchange Date, such temporary Global Security shall be surrendered by the Common Depository to the Trustee, as the Company’s agent for such purpose, to be exchanged, in whole or from time to time in part, for definitive Securities without charge, and the Trustee shall authenticate and deliver, in exchange for each portion of such temporary Global Security, an equal aggregate principal amount of definitive Securities of the same series of authorized denominations and of like tenor as the portion of such temporary Global Security to be exchanged. The definitive Securities to be delivered in exchange for any such temporary Global Security shall be in bearer form, registered form, permanent global bearer form or permanent global registered form, or any combination thereof, as specified as contemplated by Section 301, and, if any combination thereof is so specified, as requested by the beneficial owner thereof (as directed by or pursuant to information provided by the Common Depository); provided, however, that, unless otherwise specified in such temporary Global Security, upon such presentation by the Common Depository, such temporary Global Security shall be accompanied by a certificate dated the Exchange Date or a subsequent date and signed by Euroclear as to the portion of such temporary Global Security held for its account then to be exchanged and a certificate dated the Exchange Date or a subsequent date and signed by Clearstream as to the portion of such temporary Global Security held for its account then to be exchanged, each in the form set forth in Exhibit B-2 to this Indenture or in such other form as may be established pursuant to Section 301; and provided further that definitive Bearer Securities shall be delivered in exchange for a portion of a temporary Global Security only in compliance with the requirements of Section 303.

Unless otherwise specified in such temporary Global Security, the interest of a beneficial owner of Securities of a series in a temporary Global Security shall be exchanged for definitive Securities of the same series and of like tenor following the Exchange Date when the account holder instructs Euroclear or Clearstream, as the case may be, to request such exchange on his behalf and delivers to Euroclear or Clearstream, as the case may be, a certificate in the form set forth in Exhibit B-1 to this Indenture (or in such other form as may be established pursuant to Section 301), dated no earlier than 15 days prior to the Exchange Date, copies of which certificate shall be available from the offices of Euroclear and Clearstream, the Trustee, any Authenticating Agent appointed for such series of Securities and each Paying Agent. Unless otherwise specified in such temporary Global Security, any such exchange shall be made free of charge to the beneficial owners of such temporary Global Security, except that a Person receiving definitive Securities must bear the cost of insurance, postage, transportation and the like unless such Person takes delivery of such definitive Securities in person at the offices of Euroclear or Clearstream. Definitive Securities in bearer form to be delivered in exchange for any portion of a temporary Global Security shall be delivered only to an address located outside the United States.

Until exchanged in full as hereinabove provided, the temporary Securities of any series shall in all respects be entitled to the same benefits under this Indenture as definitive Securities of the same series and of like tenor authenticated and delivered hereunder, except that, unless otherwise specified as contemplated by Section 301, interest payable on a temporary Global Security on an Interest Payment Date for Securities of such series occurring prior to the applicable Exchange Date shall be payable to Euroclear and Clearstream on such Interest Payment Date upon delivery by Euroclear and Clearstream to the Trustee of a certificate or certificates in the form set forth in Exhibit B-2 to this Indenture (or in such other forms as may be established pursuant to Section 301), for credit without further interest on or after such Interest Payment Date to the respective accounts of Persons who are the beneficial owners of such temporary Global Security on such Interest Payment Date and who have each delivered to Euroclear or Clearstream, as the case may be, a certificate dated no earlier than 15 days prior to the Interest Payment Date occurring prior to such Exchange Date in the form set forth as Exhibit B-1 to this Indenture (or in such other forms as may be established pursuant to Section 301). Notwithstanding anything to the contrary herein contained, the certifications made pursuant to this paragraph shall satisfy the certification requirements of the preceding two paragraphs of this Section 304(b) and of the third paragraph of Section 303 of this Indenture and the interests of the Persons who are the beneficial owners of the temporary Global Security with respect to which such certification was made will be exchanged for definitive Securities of the same series and of like tenor on the Exchange Date or the date of certification if such date occurs after the Exchange Date, without further act or deed by such beneficial owners. Except as otherwise provided in this paragraph, no payments of principal or interest owing with respect to a beneficial interest in a temporary Global Security will be made unless and until such interest in such temporary Global Security shall have been exchanged for an interest in a definitive Security. Any interest so received by Euroclear and Clearstream and not paid as herein provided shall be returned to the Trustee prior to the expiration of two years after such Interest Payment Date in order to be repaid to the Company.

With respect to Exhibit B-1 or B-2 to this Indenture, the Company may, in its discretion and if required or desirable under applicable law, substitute one or more other forms of such exhibits for such exhibits, eliminate the requirement that any or all certificate be provided, or change the time that any certificate may be required, provided that such substitute form or forms or notice of elimination or change of such certification requirement have theretofore been delivered to the Trustee with a Company Request and such form or forms, elimination or change is reasonably acceptable to the Trustee.

SECTION 305. Registration, Registration of Transfer, Conversion and Exchange. The Company shall cause to be kept at the Corporate Trust Office of the Trustee or in any office or agency of the Company in a Place of Payment a register for each series of Securities (the registers maintained in such office or in any such office or agency of the Company in a Place of Payment being herein sometimes referred to collectively as the "Security Register") in which, subject to such reasonable regulations as it may prescribe, the Company shall provide for the registration of Registered Securities and of transfers of Registered Securities. The Security Register shall be in written form or any other form capable of being converted into written form within a reasonable time. The Trustee, at its Corporate Trust Office, is hereby initially appointed "Security Registrar" for the purpose of registering Registered Securities and transfers of Registered Securities on such Security Register as herein provided. In the event that the Trustee shall cease to be Security Registrar, it shall have the right to examine, and be provided a copy of, the Security Register at all reasonable times.

Subject to the provisions of this Section 305, upon surrender for registration of transfer of any Registered Security of any series at any office or agency of the Company in a Place of Payment for that series, the Company shall execute, and the Trustee shall authenticate and deliver, in the name of the designated transferee or transferees, one or more new Registered Securities of the same series, of any authorized denominations and of a like aggregate principal amount, bearing a number not contemporaneously outstanding, and containing identical terms and provisions.

Subject to the provisions of this Section 305, at the option of the Holder, Registered Securities of any series may be exchanged for other Registered Securities of the same series, of any authorized denomination or denominations and of a like aggregate principal amount, containing identical terms and provisions, upon surrender of the Registered Securities to be exchanged at any such office or agency. Whenever any such Registered Securities are so surrendered for exchange, the Company shall execute, and the Trustee shall authenticate and deliver, the Registered Securities, which the Holder making the exchange is entitled to receive. Unless otherwise specified with respect to any series of Securities as contemplated by Section 301, Bearer Securities may not be issued in exchange for Registered Securities.

If (but only if) permitted by the applicable Board Resolution and (subject to Section 303) set forth in the applicable Officers' Certificate, or in any indenture supplemental hereto, delivered as contemplated by Section 301, at the option of the Holder, Bearer Securities of any series may be exchanged for Registered Securities of the same series of any authorized denominations and of a like aggregate principal amount and tenor, upon surrender of the Bearer Securities to be exchanged at any such office or agency, with all unmatured coupons and all matured coupons in default thereto appertaining. If the Holder of a Bearer Security is unable to produce any such unmatured coupon or coupons or matured coupon or coupons in default, any such permitted exchange may be effected if the Bearer Securities are accompanied by payment in funds acceptable to the Company (or to the Trustee for the Security in case of matured coupons in default) in an amount equal to the face amount of such missing coupon or coupons, or the surrender of such missing coupon or coupons may be waived by the Company and the Trustee if there is furnished to them such security or indemnity as they may require to save each of them and any Paying Agent harmless. If thereafter the Holder of such Security shall surrender to any Paying Agent any such missing coupon in respect of which such a payment shall have been made, such Holder shall be entitled to receive the amount of such payment; provided, however, that, except as otherwise provided in Section 1002, interest represented by coupons shall be payable only upon presentation and surrender of those coupons at an office or agency located outside the United States. Notwithstanding the foregoing, in case a Bearer Security of any series is surrendered at any such office or agency in a permitted exchange for a Registered Security of the same series and like tenor after the close of business at such office or agency on (i) any Regular Record Date and before the opening of business at such office or agency on the relevant Interest Payment Date, or (ii) any Special Record Date and before the opening of business at such office or agency on the related proposed date for payment of Defaulted Interest, such Bearer Security shall be surrendered without the coupon relating to such Interest Payment Date or proposed date for payment, as the case may be, and interest or Defaulted Interest, as the case may be, will not be payable on such Interest Payment Date or proposed date for payment, as the case may be, in respect of the Registered Security issued in exchange for such Bearer Security, but will be payable only to the Holder of such coupon when due in accordance with the provisions of this Indenture. Whenever any Securities are so surrendered for exchange, the Company shall execute, and the Trustee shall authenticate and deliver, the Securities, which the Holder making the exchange is entitled to receive.

Notwithstanding the foregoing, except as otherwise specified as contemplated by Section 301, any permanent Global Security shall be exchangeable only as provided in this paragraph. If the depository for any permanent Global Security is DTC, then, unless the terms of such Global Security expressly permit such Global Security to be exchanged in whole or in part for definitive Securities, a Global Security may be transferred, in whole but not in part, only to a nominee of DTC, or by a nominee of DTC to DTC, or to a successor to DTC for such Global Security selected or approved by the Company or to a nominee of such successor to DTC. If at any time DTC notifies the Company that it is unwilling or unable to continue as depository for the applicable Global Security or Securities or if at any time DTC ceases to be a clearing agency registered under the Exchange Act if so required by applicable law or regulation, the Company shall appoint a successor depository with respect to such Global Security or Securities. If (w) a successor depository for such Global Security or Securities is not appointed by the Company within 90 days after the Company receives such notice or becomes aware of such unwillingness, inability or ineligibility, (x) the Company delivers to the Trustee for Securities of such series in registered form a Company Order stating that the Securities of such series shall be exchangeable, (y) an Event of Default has occurred and is continuing and the beneficial owners representing a majority in principal amount of the applicable series of Securities represented by such Global Security or Securities advise DTC to cease acting as depository for such Global Security or Securities or (z) the Company, in its sole discretion, determines at any time that all Outstanding Securities (but not less than all) of any series issued or issuable in the form of one or more Global Securities shall no longer be represented by such Global Security or Securities, then the Company shall execute, and the Trustee shall authenticate and deliver definitive Securities of like series, rank, tenor and terms in definitive form in an aggregate principal amount equal to the principal amount of such Global Security or Securities. If any beneficial owner of an interest in a permanent global Security is otherwise entitled to exchange such interest for Securities of such series and of like tenor and principal amount of another authorized form and denomination, as specified as contemplated by Section 301 and provided that any applicable notice provided in the permanent Global Security shall have been given, then without unnecessary delay but in any event not later than the earliest date on which such interest may be so exchanged, the Company shall execute, and the Trustee shall authenticate and deliver definitive Securities in aggregate principal amount equal to the principal amount of such beneficial owner's interest in such permanent Global Security. On or after the earliest date on which such interests may be so exchanged, such permanent Global Security shall be surrendered for exchange by DTC or such other depository as shall be specified in the Company Order with respect thereto to the Trustee, as the Company's agent for such purpose; provided, however, that no such exchanges may occur during a period beginning at the opening of business 15 days before any selection of Securities to be redeemed and ending on the relevant Redemption Date if the Security for which exchange is requested may be among those selected for redemption; and provided further that no Bearer Security delivered in exchange for a portion of a permanent Global Security shall be mailed or otherwise delivered to any location in the United States. If a Registered Security is issued in exchange for any portion of a permanent Global Security after the close of business at the office or agency where such exchange occurs on (i) any Regular Record Date and before the opening of business at such office or agency on the relevant Interest Payment Date, or (ii) any Special Record Date and the opening of business at such office or agency on the related proposed date for payment of Defaulted Interest, interest or Defaulted Interest, as the case may be, will not be payable on such Interest Payment Date or proposed date for payment, as the case may be, in respect of such Registered Security, but will be payable on such Interest Payment Date or proposed date for payment, as the case may be, only to the Person to whom interest in respect of such portion of such permanent Global Security is payable in accordance with the provisions of this Indenture.

All Securities issued upon any registration of transfer or conversion or exchange of Securities shall be the valid obligations of the Company, evidencing the same debt, and entitled to the same benefits under this Indenture, as the Securities surrendered upon such registration of transfer or conversion or exchange.

Every Registered Security presented or surrendered for registration of transfer or for conversion, exchange or redemption shall (if so required by the Company or the Security Registrar) be duly endorsed, or be accompanied by a written instrument of transfer in form satisfactory to the Company and the Security Registrar, duly executed by the Holder thereof or his attorney duly authorized in writing.

No service charge shall be made to the Holder for any registration of transfer or conversion or exchange of Securities, but the Company may require payment of a sum sufficient to cover any tax or other governmental charge that may be imposed in connection with any registration of transfer or conversion or exchange of Securities, other than exchanges pursuant to Section 304, 906, 1107 or 1305 not involving any transfer.

The Company or the Trustee, as applicable, shall not be required (i) to issue, register the transfer of or exchange any Security if such Security may be among those selected for redemption during a period beginning at the opening of business 15 days before selection of the Securities to be redeemed under Section 1103 and ending at the close of business on (A) if such Securities are issuable only as Registered Securities, the day of the mailing of the relevant notice of redemption and (B) if such Securities are issuable as Bearer Securities, the day of the first publication of the relevant notice of redemption or, if such Securities are also issuable as Registered Securities and there is no publication, the mailing of the relevant notice of redemption, or (ii) to register the transfer of or exchange any Registered Security so selected for redemption in whole or in part, except, in the case of any Registered Security to be redeemed in part, the portion thereof not to be redeemed, or (iii) to exchange any Bearer Security so selected for redemption except that such a Bearer Security may be exchanged for a Registered Security of that series and like tenor, provided that such Registered Security shall be simultaneously surrendered for redemption, or (iv) to issue, register the transfer of or exchange any Security which has been surrendered for repayment at the option of the Holder, except the portion, if any, of such Security not to be so repaid.

Furthermore, notwithstanding any other provision of this Section 305, the Company will not be required to exchange any Securities if, as a result of the exchange, the Company would suffer adverse consequences under any United States law or regulation.

SECTION 306. Mutilated, Destroyed, Lost and Stolen Securities. If any mutilated Security or a Security with a mutilated coupon appertaining to it is surrendered to the Trustee or the Company, together with, in proper cases, such security or indemnity as may be required by the Company or the Trustee to save each of them or any agent of either of them harmless, the Company shall execute and the Trustee shall authenticate and deliver in exchange therefor a new Security of the same series and principal amount, containing identical terms and provisions and bearing a number not contemporaneously outstanding, with coupons corresponding to the coupons, if any, appertaining to the surrendered Security.

If there shall be delivered to the Company and to the Trustee (i) evidence to their satisfaction of the destruction, loss or theft of any Security or coupon, and (ii) such security or indemnity as may be required by them to save each of them and any agent of either of them harmless, then, in the absence of notice to the Company or the Trustee that such Security or coupon has been acquired by a bona fide purchaser, the Company shall execute and upon its request the Trustee shall authenticate and deliver, in lieu of any such destroyed, lost or stolen Security or in exchange for the Security to which a destroyed, lost or stolen coupon appertains (with all appurtenant coupons not destroyed, lost or stolen), a new Security of the same series and principal amount, containing identical terms and provisions and bearing a number not contemporaneously outstanding, with coupons corresponding to the coupons, if any, appertaining to such destroyed, lost or stolen Security or to the Security to which such destroyed, lost or stolen coupon appertains.

Notwithstanding the provisions of the previous two paragraphs, in case any such mutilated, destroyed, lost or stolen Security or coupon has become or is about to become due and payable, the Company in its discretion may, instead of issuing a new Security, with coupons corresponding to the coupons, if any, appertaining to such destroyed, lost or stolen Security or to the Security to which such destroyed, lost or stolen coupon appertains, pay such Security or coupon if the applicant for such payment shall furnish to the Company and the Trustee for such Security such security or indemnity as may be required by them to save each of them harmless, and in the case of destruction, loss or theft, evidence satisfactory to the Company and Trustee and any agent of any of them of the destruction, loss or theft of such Security and the ownership thereof; provided, however, that payment of principal of (and premium or Make-Whole Amount, if any), and interest, if any, on, Bearer Securities shall, except as otherwise provided in Section 1002, be payable only at an office or agency located outside the United States and, unless otherwise specified as contemplated by Section 301, any interest on Bearer Securities shall be payable only upon presentation and surrender of the coupons appertaining thereto.

Upon the issuance of any new Security under this Section, the Company may require the payment of a sum sufficient to cover any tax or other governmental charge that may be imposed in relation thereto and any other expenses (including the fees and expenses of the Trustee) connected therewith.



Every new Security of any series with its coupons, if any, issued pursuant to this Section in lieu of any destroyed, lost or stolen Security, or in exchange for a Security to which a destroyed, lost or stolen coupon appertains, shall constitute an original additional contractual obligation of the Company, whether or not the destroyed, lost or stolen Security and its coupons, if any, or the destroyed, lost or stolen coupon shall be at any time enforceable by anyone, and shall be entitled to all the benefits of this Indenture equally and proportionately with any and all other Securities of that series and their coupons, if any, duly issued hereunder.

The provisions of this Section are exclusive and shall preclude (to the extent lawful) all other rights and remedies with respect to the replacement or payment of mutilated, destroyed, lost or stolen Securities or coupons.

SECTION 307. Payment of Interest; Interest Rights Preserved. Except as otherwise specified with respect to a series of Securities in accordance with the provisions of Section 301, interest on any Registered Security that is payable, and is punctually paid or duly provided for, on any Interest Payment Date shall be paid to the Person in whose name that Security (or one or more Predecessor Securities) is registered at the close of business on the Regular Record Date for such interest payment at the office or agency of the Company maintained for such purpose pursuant to Section 1002; provided, however, that each installment of interest on any Registered Security may at the Company's option be paid by (i) mailing a check for such interest, payable to or upon the written order of the Person entitled thereto pursuant to Section 308, to the address of such Person as it appears on the Security Register or (ii) transfer to an account maintained by the payee located inside the United States.

Unless otherwise provided as contemplated by Section 301 with respect to the Securities of any series, payment of interest may be made, in the case of a Bearer Security, by transfer to an account maintained by the payee with a bank located outside the United States.

Unless otherwise provided as contemplated by Section 301, every permanent Global Security will provide that interest, if any, payable on any Interest Payment Date will be paid to DTC, Euroclear and/or Clearstream, as the case may be, with respect to that portion of such permanent Global Security held for its account by Cede & Co. or the Common Depository, as the case may be, for the purpose of permitting such party to credit the interest received by it in respect of such permanent Global Security to the accounts of the beneficial owners thereof.

In case a Bearer Security of any series is surrendered in exchange for a Registered Security of such series after the close of business (at an office or agency in a Place of Payment for such series) on any Regular Record Date and before the opening of business (at such office or agency) on the next succeeding Interest Payment Date, such Bearer Security shall be surrendered without the coupon relating to such Interest Payment Date and interest will not be payable on such Interest Payment Date in respect of the Registered Security issued in exchange for such Bearer Security, but will be payable only to the Holder of such coupon when due in accordance with the provisions of this Indenture.

Except as otherwise specified with respect to a series of Securities in accordance with the provisions of Section 301, any interest on any Registered Security of any series that is payable, but is not punctually paid or duly provided for, on any Interest Payment Date (herein called "Defaulted Interest") shall forthwith cease to be payable to the registered Holder thereof on the relevant Regular Record Date by virtue of having been such Holder, and such Defaulted Interest may be paid by the Company, at its election in each case, as provided in clause (1) or (2) below:

(1) The Company may elect to make payment of any Defaulted Interest to the Persons in whose names the Registered Securities of such series (or their respective Predecessor Securities) are registered at the close of business on a Special Record Date for the payment of such Defaulted Interest, which shall be fixed in the following manner. The Company shall notify the Trustee in writing of the amount of Defaulted Interest proposed to be paid on each Registered Security of such series and the date of the proposed payment (which shall not be less than 20 days after such notice is received by the Trustee), and at the same time the Company shall deposit with the Trustee an amount of money in the currency or currencies, currency unit or units or composite currency or currencies in which the Securities of such series are payable (except as otherwise specified pursuant to Section 301 for the Securities of such series) equal to the aggregate amount proposed to be paid in respect of such Defaulted Interest or shall make arrangements satisfactory to the Trustee for such deposit on or prior to the date of the proposed payment, such money when deposited to be held in trust for the benefit of the Persons entitled to such Defaulted Interest as in this clause provided. Thereupon the Trustee shall fix a Special Record Date for the payment of such Defaulted Interest, which shall be not more than 15 days and not less than 10 days prior to the date of the proposed payment and not less than 10 days after the receipt by the Trustee of the notice of the proposed payment. The Trustee shall promptly notify the Company of such Special Record Date and, in the name and at the expense of the Company, shall cause notice of the proposed payment of such Defaulted Interest and the Special Record Date therefor to be mailed, first-class postage prepaid, to each Holder of Registered Securities of such series at his address as it appears in the Security Register not less than 10 days prior to such Special Record Date. The Trustee may, in its discretion, in the name and at the expense of the Company, cause a similar notice to be published at least once in an Authorized Newspaper in each Place of Payment, but such publications shall not be a condition precedent to the establishment of such Special Record Date. Notice of the proposed payment of such Defaulted Interest and the Special Record Date therefor having been mailed as aforesaid, such Defaulted Interest shall be paid to the Persons in whose names the Registered Securities of such series (or their respective Predecessor Securities) are registered at the close of business on such Special Record Date and shall no longer be payable pursuant to the following clause (2). In case a Bearer Security of any series is surrendered at the office or agency in a Place of Payment for such series in exchange for a Registered Security of such series after the close of business at such office or agency on any Special Record Date and before the opening of business at such office or agency on the related proposed date for payment of Defaulted Interest, such Bearer Security shall be surrendered without the coupon relating to such proposed date of payment and Defaulted Interest will not be payable on such proposed date of payment in respect of the Registered Security issued in exchange for such Bearer Security, but will be payable only to the Holder of such coupon when due in accordance with the provisions of this Indenture.

(2) The Company may make payment of any Defaulted Interest on the Registered Securities of any series in any other lawful manner not inconsistent with the requirements of any over-the-counter market or securities exchange on which such Securities may be quoted or listed, and upon such notice as may be required by such market or exchange, if, after notice given by the Company to the Trustee of the proposed payment pursuant to this clause, such manner of payment shall be deemed practicable by the Trustee.

Subject to the foregoing provisions of this Section and Section 305, each Security delivered under this Indenture upon registration of transfer of or upon conversion of or in exchange for or in lieu of any other Security shall carry the rights to interest accrued and unpaid, and to accrue, which were carried by such other Security.

SECTION 308. Persons Deemed Owners. Prior to due presentment of a Registered Security for registration of transfer, the Company, the Trustee and any agent of the Company or the Trustee may treat the Person in whose name such Registered Security is registered as the owner of such Security for the purpose of receiving payment of principal of (and premium or Make-Whole Amount, if any), and (subject to Sections 305 and 307) interest on, such Registered Security and for all other purposes whatsoever, whether or not such Registered Security be overdue, and neither the Company, the Trustee nor any agent of the Company or the Trustee shall be affected by notice to the contrary. All such payments so made to any such Person, or upon such Person's order, shall be valid, and, to the extent of the sum or sums so paid, effectual to satisfy and discharge the liability for money payable upon any such Security.

Title to any Bearer Security and any coupons appertaining thereto shall pass by delivery. The Company, the Trustee and any agent of the Company or the Trustee may treat the Holder of any Bearer Security and the Holder of any coupon as the absolute owner of such Security or coupon for the purpose of receiving payment thereof or on account thereof and for all other purposes whatsoever, whether or not such Security or coupon be overdue, and neither the Company, the Trustee nor any agent of the Company or the Trustee shall be affected by notice to the contrary.

No holder of any beneficial interest in any Global Security held on its behalf by a depository shall have any rights under this Indenture with respect to such Global Security and such depository (which is the Holder of such security) shall be treated by the Company, the Trustee, and any agent of the Company or the Trustee as the owner of such Global Security for all purposes whatsoever. None of the Company, the Trustee, any Paying Agent or the Security Registrar will have any responsibility or liability for any aspect of the records relating to or payments made on account of beneficial ownership interests of a Global Security or for maintaining, supervising or reviewing any records relating to such beneficial ownership interests.

Notwithstanding the foregoing, with respect to any Global Security, nothing herein shall prevent the Company, the Trustee, or any agent of the Company or the Trustee, from giving effect to any written certification, proxy or other authorization furnished by any depository, as a Holder, with respect to such Global Security or impair, as between such depository and owners of beneficial interests in such Global Security, the operation of customary practices governing the exercise of the rights of such depository (or its nominee) as Holder of such Global Security.

SECTION 309. Cancellation. All Securities and coupons surrendered for payment, redemption, repayment at the option of the Holder, registration of transfer or conversion or exchange or for credit against any sinking fund payment shall, if surrendered to any Person other than the Trustee, be delivered to the Trustee, and any such Securities and coupons and Securities and coupons surrendered directly to the Trustee for any such purpose, upon direction by the Company, shall be promptly cancelled by it. The Company may at any time deliver to the Trustee for cancellation any Securities previously authenticated and delivered hereunder which the Company may have acquired in any manner whatsoever, and may deliver to the Trustee (or to any other Person for delivery to the Trustee) for cancellation any Securities previously authenticated hereunder which the Company has not issued and sold, and all Securities so delivered shall be promptly cancelled by the Trustee. If the Company shall so acquire any of the Securities, however, such acquisition shall not operate as a redemption or satisfaction of the indebtedness represented by such Securities unless and until the same are surrendered to the Trustee for cancellation. No Securities shall be authenticated in lieu of or in exchange for any Securities cancelled as provided in this Section, except as expressly permitted by this Indenture. Cancelled Securities and coupons held by the Trustee shall be disposed of by the Trustee in accordance with its customary practices (subject to the record retention requirements of the Exchange Act).

SECTION 310. Computation of Interest. Except as otherwise specified as contemplated by Section 301 with respect to Securities of any series, interest on the Securities of each series shall be computed on the basis of a 360-day year consisting of twelve 30-day months.

SECTION 311. CUSIP Numbers. The Company in issuing the Securities may use "CUSIP" numbers (if then generally in use), and, if so, the Trustee shall use "CUSIP" numbers in notices of redemption as a convenience to Holders; provided, however, that any such notice may state that no representation is made as to the correctness of such numbers either as printed on the Securities or as contained in any notice of a redemption and that reliance may be placed only on the other identification numbers printed on the Securities, and any such redemption shall not be affected by any defect in or omission of such numbers. The Company will promptly notify the Trustee of any change in the "CUSIP" numbers.

#### ARTICLE FOUR - SATISFACTION AND DISCHARGE

SECTION 401. Satisfaction and Discharge of Indenture. This Indenture shall upon Company Request cease to be of further effect with respect to any series of Securities specified in such Company Request (except as to any surviving rights of registration of transfer or conversion or exchange of Securities of such series herein expressly provided for), and the Trustee, upon receipt of a Company Order, and at the expense of the Company, shall execute instruments in form and substance satisfactory to the Trustee and the Company acknowledging satisfaction and discharge of this Indenture as to such series when

(1) either

(A) all Securities of such series theretofore authenticated and delivered and all coupons, if any, appertaining thereto (other than (i) coupons appertaining to Bearer Securities surrendered for exchange for Registered Securities and maturing after such exchange, whose surrender is not required or has been waived as provided in Section 305, (ii) Securities and coupons of such series which have been destroyed, lost or stolen and which have been replaced or paid as provided in Section 306, (iii) coupons appertaining to Securities called for redemption and maturing after the relevant Redemption Date, whose surrender has been waived as provided in Section 1106, and (iv) Securities and coupons of such series for whose payment money has theretofore been deposited in trust or segregated and held in trust by the Company and thereafter repaid to the Company or discharged from such trust, as provided in Section 1003) have been delivered to the Trustee for cancellation; or

(B) all Securities of such series and, in the case of (i) or (ii) below, any coupons appertaining thereto not theretofore delivered to the Trustee for cancellation

(i) have become due and payable, or

(ii) will become due and payable at their Stated Maturity within one year, or

(iii) if redeemable at the option of the Company, are to be called for redemption within one year under arrangements satisfactory to the Trustee for the giving of notice of redemption by the Trustee in the name, and at the expense, of the Company,

and the Company, in the case of (i), (ii) or (iii) above, has irrevocably deposited or caused to be deposited with the Trustee as trust funds in trust for the purpose an amount in the currency or currencies, currency unit or units or composite currency or currencies in which the Securities of such series are payable, sufficient to pay and discharge the entire indebtedness on such Securities and such coupons not theretofore delivered to the Trustee for cancellation, for principal (and premium or Make-Whole Amount, if any) and interest to the date of such deposit (in the case of Securities which have become due and payable) or to the Stated Maturity or Redemption Date, as the case may be;

(2) the Company has paid or caused to be paid all other sums payable hereunder by the Company; and

(3) the Company has delivered to the Trustee an Officers' Certificate and an Opinion of Counsel, each stating that all conditions precedent herein provided for relating to the satisfaction and discharge of this Indenture as to such series have been complied with.

Notwithstanding the satisfaction and discharge of this Indenture, the obligations of the Company to the Trustee and any predecessor Trustee under Section 606, the obligations of the Company to any Authenticating Agent under Section 611 and, if money shall have been deposited with and held by the Trustee pursuant to subclause (B) of clause (1) of this Section, the obligations of the Trustee under Section 402 and the last paragraph of Section 1003 shall survive such satisfaction and discharge.

SECTION 402. Application of Trust Funds. Subject to the provisions of the last paragraph of Section 1003, all money deposited with the Trustee pursuant to Section 401 shall be held in trust and applied by it, in accordance with the provisions of the Securities, the coupons and this Indenture, to the payment, either directly or through any Paying Agent (including the Company acting as its own Paying Agent) as the Trustee may determine, to the Persons entitled thereto, of the principal (and premium or Make-Whole Amount, if any), and any interest for whose payment such money has been deposited with or received by the Trustee, but such money need not be segregated from other funds except to the extent required by law.

#### ARTICLE FIVE - REMEDIES

SECTION 501. Events of Default. “Event of Default,” wherever used herein with respect to any particular series of Securities, means any one of the following events (whatever the reason for such Event of Default and whether or not it shall be voluntary or involuntary or be effected by operation of law or pursuant to any judgment, decree or order of any court or any order, rule or regulation of any administrative or governmental body):

- (1) default in the payment of any interest on any Security of that series or of any coupon appertaining thereto, when such interest or coupon becomes due and payable, and continuance of such default for a period of 30 days; or
- (2) default in the payment of the principal of (or premium or Make-Whole Amount, if any, on) any Security of that series when it becomes due and payable at its Maturity; or
- (3) default in the deposit of any sinking fund payment, to the extent applicable to such series of Securities, when and as due by the terms of any Security of that series; or
- (4) default in the performance, or breach, of any covenant or warranty of the Company in this Indenture with respect to any Security of that series (other than a covenant or warranty a default in whose performance or whose breach is elsewhere in this Section specifically dealt with or which has expressly been included in this Indenture solely for the benefit of a series of Securities other than that series), and continuance of such default or breach for a period of 60 days after there has been given, by registered or certified mail, to the Company by the Trustee or to the Company and the Trustee by the Holders of at least 25% in principal amount of the Outstanding Securities of that series a written notice specifying such default or breach and requiring it to be remedied and stating that such notice is a “Notice of Default” hereunder; or

(5) default under any bond, debenture, note, mortgage, indenture or instrument under which there may be issued or by which there may be secured or evidenced any indebtedness for money borrowed by the Company, having an aggregate principal amount outstanding of at least \$75,000,000, whether such indebtedness now exists or shall hereafter be created, which default shall have resulted in such indebtedness becoming or being declared due and payable prior to the date on which it would otherwise have become due and payable, without such indebtedness having been discharged, or such acceleration having been rescinded or annulled, within a period of 30 days after there shall have been given, by registered or certified mail, to the Company by the Trustee or to the Company and the Trustee by the Holders of at least 10% in principal amount of the Outstanding Securities of that series a written notice specifying such default and requiring the Company to cause such indebtedness to be discharged or cause such acceleration to be rescinded or annulled and stating that such notice is a “Notice of Default” hereunder; provided, however, that, subject to the provisions of Sections 601 and 602, the Trustee shall not be deemed to have knowledge of such default unless either (A) a Responsible Officer of the Trustee shall have knowledge of such default or (B) the Trustee shall have received written notice thereof from the Company, from any Holder, from the holder of any such indebtedness or from the trustee under any such mortgage, indenture or other instrument; or

(6) the Company pursuant to or within the meaning of any Bankruptcy Law:

- (A) commences a voluntary case,
- (B) consents to the entry of an order for relief against it in an involuntary case,
- (C) consents to the appointment of a Custodian of it or for all or substantially all of its property, or
- (D) makes a general assignment for the benefit of its creditors; or

(7) a court of competent jurisdiction enters an order or decree under any Bankruptcy Law that:

- (A) is for relief against the Company in an involuntary case,
- (B) appoints a Custodian of the Company or for all or substantially all of its property, or
- (C) orders the liquidation of the Company, and the order or decree remains unstayed and in effect for 90 days; or

(8) any other Event of Default provided with respect to Securities of that series.

As used in this Section 501, the term “Bankruptcy Law” means title 11, U.S. Code or any similar Federal or state law for the relief of debtors and the term “Custodian” means any receiver, trustee, assignee, liquidator or other similar official under any Bankruptcy Law.

SECTION 502. Acceleration of Maturity; Rescission and Annulment. If an Event of Default with respect to Securities of any series at the time Outstanding occurs and is continuing, then and in every such case the Trustee or the Holders of not less than 25% in principal amount of the Outstanding Securities of that series may declare the principal amount (or, if Securities of that Series are Original Issue Discount Securities or Indexed Securities, such portion of the principal as may be specified in the terms thereof) of all the Securities of that series to be due and payable immediately, by a notice in writing to the Company (and to the Trustee if given by the Holders), and upon any such declaration such principal or specified portion thereof shall become immediately due and payable.

At any time after such a declaration of acceleration with respect to Securities of any series has been made and before a judgment or decree for payment of the money due has been obtained by the Trustee as hereinafter in this Article provided, the Holders of a majority in principal amount of the Outstanding Securities of that series, by written notice to the Company and the Trustee, may rescind and annul such declaration of acceleration and its consequences if:

- (1) the Company has paid or deposited with the Trustee a sum sufficient to pay in the currency, currency unit or composite currency in which the Securities of such series are payable (except as otherwise specified pursuant to Section 301 for the Securities of such series):
  - (A) all overdue installments of interest on all Outstanding Securities of that series and any related coupons,
  - (B) the principal of (and premium or Make-Whole Amount, if any, on) any Outstanding Securities of that series which have become due otherwise than by such declaration of acceleration and interest thereon at the rate or rates borne by or provided for in such Securities,
  - (C) to the extent that payment of such interest is lawful, interest upon overdue installments of interest at the rate or rates borne by or provided for in such Securities, and
  - (D) all sums paid or advanced by the Trustee hereunder and the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel; and
- (2) all Events of Default with respect to Securities of that series, other than the nonpayment of the principal of (or premium or Make-Whole Amount, if any) or interest on Securities of that series which have become due solely by such declaration of acceleration, have been cured or waived as provided in Section 513.

No such rescission shall affect any subsequent default or impair any right consequent thereon.



SECTION 503. Collection of Indebtedness and Suits for Enforcement by Trustee. The Company covenants that if:

- (1) default is made in the payment of any installment of interest on any Security of any series and any related coupon when such interest becomes due and payable and such default continues for a period of 30 days, or
- (2) default is made in the payment of the principal of (or premium or Make-Whole Amount, if any, on) any Security of any series at its Maturity,

then the Company will, upon demand of the Trustee, pay to the Trustee, for the benefit of the Holders of such Securities of such series and coupons, the whole amount then due and payable on such Securities and coupons for principal (and premium or Make-Whole Amount, if any) and interest, with interest upon any overdue principal (and premium or Make-Whole Amount, if any) and, to the extent that payment of such interest shall be legally enforceable, upon any overdue installments of interest at the rate or rates borne by or provided for in such Securities, and, in addition thereto, such further amount as shall be sufficient to cover the costs and expenses of collection, including the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel.

If the Company fails to pay such amounts forthwith upon such demand, the Trustee, in its own name and as trustee of an express trust, may institute a judicial proceeding for the collection of the sums so due and unpaid, and may prosecute such proceeding to judgment or final decree, and may enforce the same against the Company or any other obligor upon such Securities of such series and collect the moneys adjudged or decreed to be payable in the manner provided by law out of the property of the Company or any other obligor upon such Securities of such series, wherever situated.

If an Event of Default with respect to Securities of any series occurs and is continuing, the Trustee may in its discretion proceed to protect and enforce its rights and the rights of the Holders of Securities of such series and any related coupons by such appropriate judicial proceedings as the Trustee shall deem necessary to protect and enforce any such rights, whether for the specific enforcement of any covenant or agreement in this Indenture or in aid of the exercise of any power granted herein, or to enforce any other proper remedy.

SECTION 504. Trustee May File Proofs of Claim. In case of the pendency of any receivership, insolvency, liquidation, bankruptcy, reorganization, arrangement, adjustment, composition or other judicial proceeding relative to the Company or any other obligor upon the Securities or the property of the Company or of such other obligor or their creditors, the Trustee (irrespective of whether the principal of the Securities of any series shall then be due and payable as therein expressed or by declaration or otherwise and irrespective of whether the Trustee shall have made any demand on the Company for the payment of overdue principal, premium or Make-Whole Amount, if any, or interest) shall be entitled and empowered, by intervention in such proceeding or otherwise:

- (i) to file and prove a claim for the whole amount, or such lesser amount as may be provided for in the Securities of such series, of principal (and premium or Make-Whole Amount, if any) and interest owing and unpaid in respect of the Securities and to file such other papers or documents as may be necessary or advisable in order to have the claims of the Trustee (including any claim for the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel) and of the Holders allowed in such judicial proceeding, and

(ii) to collect and receive any moneys or other property payable or deliverable on any such claims and to distribute the same;

and any custodian, receiver, assignee, trustee, liquidator, sequestrator (or other similar official) in any such judicial proceeding is hereby authorized by each Holder of Securities of such series and coupons to make such payments to the Trustee, and in the event that the Trustee shall consent to the making of such payments directly to the Holders, to pay to the Trustee any amount due to it for the reasonable compensation, expenses, disbursements and advances of the Trustee and any predecessor Trustee, their agents and counsel, and any other amounts due the Trustee or any predecessor Trustee under Section 606.

Nothing herein contained shall be deemed to authorize the Trustee to authorize or consent to or accept or adopt on behalf of any Holder of a Security or coupon any plan of reorganization, arrangement, adjustment or composition affecting the Securities or coupons or the rights of any Holder thereof, or to authorize the Trustee to vote in respect of the claim of any Holder of a Security or coupon in any such proceeding.

In any proceedings brought by the Trustee (and also any proceedings involving the interpretation of any provision of this Indenture to which the Trustee shall be a party), the Trustee shall be held to represent all the Holders of the Securities, and it shall not be necessary to make any Holders of the Securities parties to any such proceedings.

SECTION 505. Trustee May Enforce Claims Without Possession of Securities or Coupons. All rights of action and claims under this Indenture or any of the Securities or coupons may be prosecuted and enforced by the Trustee without the possession of any of the Securities or coupons or the production thereof in any proceeding relating thereto, and any such proceeding instituted by the Trustee shall be brought in its own name as trustee of an express trust, and any recovery of judgment shall, after provision for the payment of the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel, be for the ratable benefit of the Holders of the Securities and coupons in respect of which such judgment has been recovered.

SECTION 506. Application of Money Collected. Any money collected by the Trustee pursuant to this Article shall be applied in the following order, at the date or dates fixed by the Trustee and, in case of the distribution of such money on account of principal (or premium or Make-Whole Amount, if any) or interest, upon presentation of the Securities or coupons, or both, as the case may be, and the notation thereon of the payment if only partially paid and upon surrender thereof if fully paid:

FIRST: To the payment of all amounts due the Trustee and any predecessor Trustee under Section 606;

SECOND: To the payment of the amounts then due and unpaid upon the Securities and coupons for principal (and premium or Make-Whole Amount, if any) and interest, in respect of which or for the benefit of which such money has been collected, ratably, without preference or priority of any kind, according to the aggregate amounts due and payable on such Securities and coupons for principal (and premium or Make-Whole Amount, if any) and interest, respectively; and

THIRD: To the payment of the remainder, if any, to the Company.

SECTION 507. Limitation on Suits. No Holder of any Security of any series or any related coupon shall have any right to institute any proceeding, judicial or otherwise, with respect to this Indenture or the Securities or any related coupon, or for the appointment of a receiver or trustee, or for any other remedy hereunder, unless:

- (1) such Holder has previously given written notice to the Trustee of a continuing Event of Default with respect to the Securities of that series;
- (2) the Holders of not less than 25% in principal amount of the Outstanding Securities of that series shall have made written request to the Trustee to institute proceedings in respect of such Event of Default in its own name as Trustee hereunder;
- (3) such Holder or Holders have offered to the Trustee indemnity reasonably satisfactory to the Trustee against the costs, expenses and liabilities to be incurred in compliance with such request;
- (4) the Trustee for 60 days after its receipt of such notice, request and offer of indemnity has failed to institute any such proceeding; and
- (5) no direction inconsistent with such written request has been given to the Trustee during such 60-day period by the Holders of a majority in principal amount of the Outstanding Securities of that series;

it being understood and intended that no one or more of such Holders shall have any right in any manner whatever by virtue of, or by availing of, any provision of this Indenture to affect, disturb or prejudice the rights of any other of such Holders, or to obtain or to seek to obtain priority or preference over any other of such Holders or to enforce any right under this Indenture or the Securities or any related coupon, except in the manner herein provided and for the equal and ratable benefit of all such Holders.

SECTION 508. Unconditional Right of Holders to Receive Principal, Premium or Make-Whole Amount, if any, and Interest. Notwithstanding any other provision in this Indenture, the Holder of any Security or coupon shall have the right which is absolute and unconditional to receive payment of the principal of (and premium or Make-Whole Amount, if any) and (subject to Sections 305 and 307) interest on such Security or payment of such coupon on the respective due dates expressed in such Security or coupon (or, in the case of redemption, on the Redemption Date) and to institute suit for the enforcement of any such payment, and such rights shall not be impaired without the consent of such Holder.

SECTION 509. Restoration of Rights and Remedies. If the Trustee or any Holder of a Security or coupon has instituted any proceeding to enforce any right or remedy under this Indenture and such proceeding has been discontinued or abandoned for any reason, or has been determined adversely to the Trustee or to such Holder, then and in every such case, the Company, the Trustee and the Holders of Securities and coupons shall, subject to any determination in such proceeding, be restored severally and respectively to their former positions hereunder and thereafter all rights and remedies of the Trustee and the Holders shall continue as though no such proceeding had been instituted.

SECTION 510. Rights and Remedies Cumulative. Except as otherwise provided with respect to the replacement or payment of mutilated, destroyed, lost or stolen Securities or coupons in the last paragraph of Section 306, no right or remedy herein conferred upon or reserved to the Trustee or to the Holders of Securities or coupons is intended to be exclusive of any other right or remedy, and every right and remedy shall, to the extent permitted by law, be cumulative and in addition to every other right and remedy given hereunder or now or hereafter existing at law or in equity or otherwise. The assertion or employment of any right or remedy hereunder, or otherwise, shall not prevent the concurrent assertion or employment of any other appropriate right or remedy.

SECTION 511. Delay or Omission Not Waiver. No delay or omission of the Trustee or of any Holder of any Security or coupon to exercise any right or remedy accruing upon any Event of Default shall impair any such right or remedy or constitute a waiver of any such Event of Default or an acquiescence therein. Every right and remedy given by this Article or by law to the Trustee or to the Holders may be exercised from time to time, and as often as may be deemed expedient, by the Trustee or by the Holders of Securities or coupons, as the case may be.

SECTION 512. Control by Holders of Securities. The Holders of not less than a majority in principal amount of the Outstanding Securities of any series shall have the right to direct the time, method and place of conducting any proceeding for any remedy available to the Trustee or exercising any trust or power conferred on the Trustee with respect to the Securities of such series, provided that:

- (1) such direction shall not be in conflict with any rule of law or with this Indenture,
- (2) the Trustee may take any other action deemed proper by the Trustee which is not inconsistent with such direction, and
- (3) the Trustee need not take any action, which might involve it in personal liability or be unduly prejudicial to the Holders of Securities of such series not joining therein.

Nothing in this Indenture shall impair the right of the Trustee in its discretion to take any action deemed proper by the Trustee and which is not inconsistent with such direction by Holders.

SECTION 513. Waiver of Past Defaults. The Holders of not less than a majority in principal amount of the Outstanding Securities of any series may on behalf of the Holders of all the Securities of such series and any related coupons waive any past default hereunder with respect to such series and its consequences, except a default

- (1) in the payment of the principal of (or premium or Make-Whole Amount, if any) or interest on any Security of such series or any related coupons, or
- (2) in respect of a covenant or provision hereof which under Article Nine cannot be modified or amended without the consent of the Holder of each Outstanding Security of such series affected; or
- (3) in respect of a covenant or provision hereof for the benefit or protection of the Trustee, without its express written consent.

Upon any such waiver, such default shall cease to exist, and any Event of Default arising therefrom shall be deemed to have been cured, for every purpose of this Indenture; but no such waiver shall extend to any subsequent or other default or Event of Default or impair any right consequent thereon.

SECTION 514. Waiver of Usury, Stay or Extension Laws. The Company covenants (to the extent that it may lawfully do so) that it will not at any time insist upon, or plead, or in any manner whatsoever claim or take the benefit or advantage of, any usury, stay or extension law wherever enacted, now or at any time hereafter in force, which may affect the covenants or the performance of this Indenture; and the Company (to the extent that it may lawfully do so) hereby expressly waives all benefit or advantage of any such law, and covenants that it will not hinder, delay or impede the execution of any power herein granted to the Trustee, but will suffer and permit the execution of every such power as though no such law had been enacted.

SECTION 515. Undertaking for Costs. All parties to this Indenture agree, and each Holder of any Security by his acceptance thereof shall be deemed to have agreed, that any court may in its discretion require, in any suit for the enforcement of any right or remedy under this Indenture, or in any suit against the Trustee for any action taken or omitted by it as Trustee, the filing by any party litigant in such suit of an undertaking to pay the costs of such suit, and that such court may in its discretion assess reasonable costs, including reasonable attorneys' fees and expenses, against any party litigant in such suit having due regard to the merits and good faith of the claims or defenses made by such party litigant; but the provisions of this Section shall not apply to any suit instituted by the Trustee, to any suit instituted by any Holder, or group of Holders, holding in the aggregate more than 10% in principal amount of the Outstanding Securities of any series, or to any suit instituted by any Holder for the enforcement of the payment of the principal of (or premium or Make-Whole Amount, if any) or interest on any Security on or after the respective Stated Maturities expressed in such Security (or, in the case of redemption, on or after the Redemption Date).

ARTICLE SIX - THE TRUSTEE

SECTION 601. Notice of Defaults. Within 90 days after the occurrence of any default hereunder with respect to the Securities of any series, the Trustee shall transmit in the manner and to the extent provided in TIA Section 313(c), notice of such default hereunder known to the Trustee, unless such default shall have been cured or waived; provided, however, that, except in the case of a default in the payment of the principal of (or premium or Make-Whole Amount, if any) or interest on any Security of such series, or in the payment of any sinking or purchase fund installment with respect to the Securities of such series, the Trustee shall be protected in withholding such notice if and so long as the board of directors, the executive committee, or a trust committee of directors and/or Responsible Officers of the Trustee in good faith determine that the withholding of such notice is in the interests of the Holders of the Securities and coupons of such series; and provided further that in the case of any default or breach of the character specified in Section 501(4) with respect to the Securities and coupons of such series, no such notice to Holders shall be given until at least 60 days after the occurrence thereof. For the purpose of this Section, the term "default" means any event, which is, or after notice or lapse of time or both would become, an Event of Default with respect to the Securities of such series.

SECTION 602. Certain Rights of Trustee. Subject to the provisions of TIA Section 315(a) through 315(d):

- (1) the Trustee may conclusively rely and shall be fully protected in acting or refraining from acting upon any resolution, certificate, statement, instrument, opinion, report, notice, request, direction, consent, order, bond, debenture, note, coupon or other paper or document (whether in its original or facsimile form) reasonably believed by it to be genuine and to have been signed or presented by the proper party or parties;
- (2) any request or direction of the Company mentioned herein shall be sufficiently evidenced by a Company Request or Company Order (other than delivery of any Security, together with any coupons appertaining thereto, to the Trustee for authentication and delivery pursuant to Section 303 which shall be sufficiently evidenced as provided therein) and any resolution of the Board of Directors may be sufficiently evidenced by a Board Resolution;
- (3) whenever in the administration of this Indenture the Trustee shall deem it desirable that a matter be proved or established prior to taking, suffering or omitting any action hereunder, the Trustee (unless other evidence be herein specifically prescribed) may, in the absence of bad faith on its part, rely upon an Officers' Certificate;
- (4) the Trustee may consult with counsel of its own selection and the written advice of such counsel or any Opinion of Counsel shall be full and complete authorization and protection in respect of any action taken, suffered or omitted by it hereunder in good faith and in reliance thereon;
- (5) the Trustee shall be under no obligation to exercise any of the rights or powers vested in it by this Indenture at the request or direction of any of the Holders of Securities of any series or any related coupons pursuant to this Indenture, unless such Holders shall have offered to the Trustee security or indemnity reasonably satisfactory to the Trustee against the costs, expenses and liabilities which might be incurred by it in compliance with such request or direction;

(6) the Trustee shall not be bound to make any investigation into the facts or matters stated in any resolution, certificate, statement, instrument, opinion, report, notice, request, direction, consent, order, bond, debenture, note, coupon or other paper or document, unless requested in writing so to do by the Holders of not less than a majority in aggregate principal amount of the Outstanding Securities of any series; provided that, if the payment within a reasonable time to the Trustee of the costs, expenses or liabilities likely to be incurred by it in the making of such investigation is, in the opinion of the Trustee, not reasonably assured to the Trustee by the security afforded to it by the terms of this Indenture, the Trustee may require reasonable indemnity against such expenses or liabilities as a condition to proceeding; the reasonable expenses of every such examination shall be paid by the Holders or, if paid by the Trustee, shall be repaid by the Holders upon demand. The Trustee, in its discretion, may make such further inquiry or investigation into such facts or matters as it may see fit, and, if the Trustee shall determine to make such further inquiry or investigation, it shall be entitled to examine the books, records and premises of the Company, relevant to the facts or matters that are the subject of its inquiry, personally or by agent or attorney at the expense of the Company and shall incur no liability or additional liability of any kind by reason of such inquiry or investigation;

(7) the Trustee may execute any of the trusts or powers hereunder or perform any duties hereunder either directly or by or through agents or attorneys and the Trustee shall not be responsible for any misconduct or negligence on the part of any agent or attorney appointed with due care by it hereunder;

(8) the Trustee shall not be liable for any action taken, suffered or omitted by it in good faith and reasonably believed by it to be authorized or within the discretion or rights or powers conferred upon it by this Indenture;

(9) any permissive right or power available to the Trustee under this Indenture or any supplement hereto shall not be construed to be a mandatory duty or obligation;

(10) the Trustee shall not be charged with knowledge of any matter (including any default, other than as described in Section 501(1), (2) or (3)) unless and except to the extent actually known to a Responsible Officer of the Trustee or to the extent written notice thereof is received by the Trustee at the Corporate Trust Office;

(11) the Trustee shall have no liability for any inaccuracy in the books and records of, or for any actions or omissions of, DTC, Euroclear or Clearstream or any depository acting on behalf of any of them;

(12) the rights, privileges, protections, immunities and benefits given to the Trustee, including, without limitation, its right to be indemnified, are extended to, and shall be enforceable by, the Trustee in each of its capacities hereunder, and each agent, custodian and other Person employed by the Trustee to act hereunder; and

(13) the Trustee may request that the Company deliver an Officers' Certificate setting forth the names of individuals and/or titles of officers authorized at such time to take specified actions pursuant to this Indenture, which Officers' Certificate may be signed by any person authorized to sign an Officers' Certificate, including any person specified as so authorized in any such certificate previously delivered and not superseded.

The Trustee shall not be required to expend or risk its own funds or otherwise incur any financial liability in the performance of any of its duties hereunder, or in the exercise of any of its rights or powers, if it shall have reasonable grounds for believing that repayment of such funds or adequate indemnity against such risk or liability is not reasonably assured to it.

Except during the continuance of an Event of Default, the Trustee undertakes to perform only such duties as are specifically set forth in this Indenture, and no implied covenants or obligations shall be read into this Indenture against the Trustee.

SECTION 603. Not Responsible for Recitals or Issuance of Securities. The recitals contained herein and in the Securities, except the Trustee's certificate of authentication, and in any coupons shall be taken as the statements of the Company, and neither the Trustee nor any Authenticating Agent assumes any responsibility for their correctness. The Trustee makes no representations as to the validity or sufficiency of this Indenture or of the Securities or coupons, except that the Trustee represents that it is duly authorized to execute and deliver this Indenture, authenticate the Securities and perform its obligations hereunder. Neither the Trustee nor any Authenticating Agent shall be accountable for the use or application by the Company of Securities or the proceeds thereof. The Trustee shall have no responsibility with respect to any information, statement or recital in any offering prospectus or other disclosure materials prepared or distributed with respect to the Securities.

SECTION 604. May Hold Securities. The Trustee, any Paying Agent, Security Registrar, Authenticating Agent or any other agent of the Company, in its individual or any other capacity, may become the owner or pledgee of Securities and coupons and, subject to TIA Sections 310(b) and 311, may otherwise deal with the Company with the same rights it would have if it were not Trustee, Paying Agent, Security Registrar, Authenticating Agent or such other agent.

SECTION 605. Money Held in Trust. Money held by the Trustee in trust hereunder need not be segregated from other funds except to the extent required by law. The Trustee shall be under no liability for interest on any money received by it hereunder except as otherwise agreed in writing with the Company.

SECTION 606. Compensation and Reimbursement. The Company agrees:

(1) to pay to the Trustee as agreed upon in writing from time to time reasonable compensation for all services rendered by it hereunder (which compensation shall not be limited by any provision of law in regard to the compensation of a trustee of an express trust);



(2) except as otherwise expressly provided herein, to reimburse each of the Trustee and any predecessor Trustee upon its request for all reasonable expenses, and disbursements incurred by the Trustee in accordance with any provision of this Indenture (including the reasonable compensation and the reasonable expenses and disbursements of its agents and counsel), except any such expense or disbursement as shall be determined to have been caused by its own negligence, willful misconduct or bad faith; and

(3) to indemnify each of the Trustee and any predecessor Trustee for, and to hold it harmless against, any loss, liability, claim, damage or expense incurred without negligence, willful misconduct or bad faith on its part, arising out of or in connection with the acceptance or administration of the trust or trusts hereunder, including the costs and expenses of defending itself against any claim or liability in connection with the exercise or performance of any of its powers or duties hereunder.

When the Trustee incurs expenses or renders services in connection with an Event of Default specified in Section 501(7) or Section 501(8), the expenses (including the reasonable charges and expenses of its counsel) and the compensation for the services are intended to constitute expenses of administration under any applicable Federal or state bankruptcy, insolvency or other similar law.

As security for the performance of the obligations of the Company under this Section, the Trustee shall have a lien for payment of the Trustee's fees and expenses prior to the Securities upon all property and funds held or collected by the Trustee as such, except funds held in trust for the payment of principal of (or premium or Make-Whole Amount, if any) or interest on particular Securities or any coupons.

The provisions of this Section shall survive the termination of this Indenture and the resignation or removal of the Trustee.

SECTION 607. Corporate Trustee Required; Eligibility; Conflicting Interests. There shall at all times be a Trustee hereunder which shall be eligible to act as Trustee under TIA Section 310(a)(1) and shall have at all times a combined capital and surplus of at least \$50,000,000 (or which shall have a combined capital and surplus of at least \$10,000,000 and whose ultimate parent holding company shall have a combined capital and surplus of at least \$50,000,000. If the Trustee publishes reports of condition at least annually, pursuant to law or the requirements of Federal, state, territorial or District of Columbia supervising or examining authority, then for the purposes of this Section, the combined capital and surplus of the Trustee shall be deemed to be its combined capital and surplus as set forth in its most recent report of condition so published. If at any time the Trustee shall cease to be eligible in accordance with the provisions of this Section, it shall resign immediately in the manner and with the effect hereinafter specified in this Article. Neither the Company nor any Person directly or indirectly controlling, controlled by, or under common control with the Company shall serve as Trustee.

SECTION 608. Resignation and Removal; Appointment of Successor.

(a) No resignation or removal of the Trustee and no appointment of a successor Trustee pursuant to this Article shall become effective until the acceptance of appointment by the successor Trustee in accordance with the applicable requirements of Section 609.

(b) The Trustee may resign at any time with respect to the Securities of one or more series by giving written notice thereof to the Company. If an instrument of acceptance by a successor Trustee shall not have been delivered to the Trustee within 60 days after the giving of such notice of resignation, the resigning Trustee may petition, at the expense of the Company, any court of competent jurisdiction for the appointment of a successor Trustee.

(c) The Trustee may be removed at any time with respect to the Securities of any series by Act of the Holders of a majority in principal amount of the Outstanding Securities of such series delivered to the Trustee and to the Company. If an instrument of acceptance by a successor Trustee shall not have been delivered to the Trustee within 60 days after the giving of such notice of resignation, the resigning Trustee may petition, at the expense of the Company, any court of competent jurisdiction for the appointment of a successor Trustee.

(d) If at any time:

(1) the Trustee shall fail to comply with the provisions of TIA Section 310(b) after written request therefor by the Company or by any Holder of a Security who has been a bona fide Holder of a Security for at least six months, or

(2) the Trustee shall cease to be eligible under Section 607 and shall fail to resign after written request therefor by the Company or by any Holder of a Security who has been a bona fide Holder of a Security for at least six months, or

(3) the Trustee shall become incapable of acting or shall be adjudged a bankrupt or insolvent or a receiver of the Trustee or of its property shall be appointed or any public officer shall take charge or control of the Trustee or of its property or affairs for the purpose of rehabilitation, conservation or liquidation,

then, in any such case, (i) the Company by or pursuant to a Board Resolution may remove the Trustee and appoint a successor Trustee with respect to all Securities, or (ii) subject to TIA Section 315(e), any Holder of a Security who has been a bona fide Holder of a Security for at least six months may, on behalf of himself and all others similarly situated, petition any court of competent jurisdiction for the removal of the Trustee with respect to all Securities and the appointment of a successor Trustee or Trustees.

(e) If the Trustee shall resign, be removed or become incapable of acting, or if a vacancy shall occur in the office of Trustee for any cause with respect to the Securities of one or more series, the Company, by or pursuant to a Board Resolution, shall promptly appoint a successor Trustee or Trustees with respect to the Securities of that or those series (it being understood that any such successor Trustee may be appointed with respect to the Securities of one or more or all of such series and that at any time there shall be only one Trustee with respect to the Securities of any particular series). If, within one year after such resignation, removal or incapability, or the occurrence of such vacancy, a successor Trustee with respect to the Securities of any series shall be appointed by Act of the Holders of a majority in principal amount of the Outstanding Securities of such series delivered to the Company and the retiring Trustee, the successor Trustee so appointed shall, forthwith upon its acceptance of such appointment, become the successor Trustee with respect to the Securities of such series and to that extent supersede the successor Trustee appointed by the Company. If no successor Trustee with respect to the Securities of any series shall have been so appointed by the Company or the Holders of Securities and accepted appointment in the manner hereinafter provided, any Holder of a Security who has been a bona fide Holder of a Security of such series for at least six months may, on behalf of himself and all others similarly situated, petition any court of competent jurisdiction for the appointment of a successor Trustee with respect to Securities of such series.

(f) The Company shall give notice of each resignation and each removal of the Trustee with respect to the Securities of any series and each appointment of a successor Trustee with respect to the Securities of any series in the manner provided for notices to the Holders of Securities in Section 106. Each notice shall include the name of the successor Trustee with respect to the Securities of such series and the address of its Corporate Trust Office.

SECTION 609. Acceptance of Appointment by Successor.

(a) In case of the appointment hereunder of a successor Trustee with respect to all Securities, every such successor Trustee so appointed shall execute, acknowledge and deliver to the Company and to the retiring Trustee an instrument accepting such appointment, and thereupon the resignation or removal of the retiring Trustee shall become effective and such successor Trustee, without any further act, deed or conveyance, shall become vested with all the rights, powers, trusts and duties of the retiring Trustee; but, on request of the Company or the successor Trustee, such retiring Trustee shall, upon payment of its charges, execute and deliver an instrument transferring to such successor Trustee all the rights, powers and trusts of the retiring Trustee, and shall duly assign, transfer and deliver to such successor Trustee all property and money held by such retiring Trustee hereunder, subject nevertheless to its claim, if any, provided for in Section 606.

(b) In case of the appointment hereunder of a successor Trustee with respect to the Securities of one or more (but not all) series, the Company, the retiring Trustee and each successor Trustee with respect to the Securities of one or more series shall execute and deliver an indenture supplemental hereto, pursuant to Article Nine hereof, wherein each successor Trustee shall accept such appointment and which (1) shall contain such provisions as shall be necessary or desirable to transfer and confirm to, and to vest in, each successor Trustee all the rights, powers, trusts and duties of the retiring Trustee with respect to the Securities of that or those series to which the appointment of such successor Trustee relates, (2) if the retiring Trustee is not retiring with respect to all Securities, shall contain such provisions as shall be deemed necessary or desirable to confirm that all the rights, powers, trusts and duties of the retiring Trustee with respect to the Securities of that or those series as to which the retiring Trustee is not retiring shall continue to be vested in the retiring Trustee, and (3) shall add to or change any of the provisions of this Indenture as shall be necessary to provide for or facilitate the administration of the trusts hereunder by more than one Trustee, it being understood that nothing herein or in such supplemental indenture shall constitute such Trustees co-trustees of the same trust and that each such Trustee shall be trustee of a trust or trusts hereunder separate and apart from any trust or trusts hereunder administered by any other such Trustee; and upon the execution and delivery of such supplemental indenture the resignation or removal of the retiring Trustee shall become effective to the extent provided therein and each such successor Trustee, without any further act, deed or conveyance, shall become vested with all the rights, powers, trusts and duties of the retiring Trustee with respect to the Securities of that or those series to which the appointment of such successor Trustee relates; but, on request of the Company or any successor Trustee, such retiring Trustee shall duly assign, transfer and deliver to such successor Trustee all property and money held by such retiring Trustee hereunder with respect to the Securities of that or those series to which the appointment of such successor Trustee relates.

(c) Upon request of any such successor Trustee, the Company shall execute any and all instruments for more fully and certainly vesting in and confirming to such successor Trustee all such rights, powers and trusts referred to in paragraph (a) or (b) of this Section 609, as the case may be.

(d) No successor Trustee shall accept its appointment unless at the time of such acceptance such successor Trustee shall be qualified and eligible under this Article.

SECTION 610. Merger, Conversion, Consolidation or Succession to Business. Any corporation into which the Trustee may be merged or converted or with which it may be consolidated, or any corporation resulting from any merger, conversion or consolidation to which the Trustee shall be a party, or any corporation succeeding to all or substantially all of the corporate trust business of the Trustee, shall be the successor of the Trustee hereunder, provided such corporation shall be otherwise qualified and eligible under this Article, without the execution or filing of any paper or any further act on the part of any of the parties hereto. In case any Securities or coupons shall have been authenticated, but not delivered, by the Trustee then in office, any successor by merger, conversion or consolidation to such authenticating Trustee may adopt such authentication and deliver the Securities or coupons so authenticated with the same effect as if such successor Trustee had itself authenticated such Securities or coupons. In case any Securities or coupons shall not have been authenticated by such predecessor Trustee, any such successor Trustee may authenticate and deliver such Securities or coupons, in either its own name or that of its predecessor Trustee, with the full force and effect, which this Indenture provides for the certificate of authentication of the Trustee.

SECTION 611. Appointment of Authenticating Agent. At any time when any of the Securities remain Outstanding, the Trustee may appoint an Authenticating Agent or Agents with respect to one or more series of Securities which shall be authorized to act on behalf of the Trustee to authenticate Securities of such series issued upon conversion or exchange, registration of transfer or partial redemption or repayment thereof, and Securities so authenticated shall be entitled to the benefits of this Indenture and shall be valid and obligatory for all purposes as if authenticated by the Trustee hereunder. Any such appointment shall be evidenced by an instrument in writing signed by a Responsible Officer of the Trustee, a copy of which instrument shall be promptly furnished to the Company. Wherever reference is made in this Indenture to the authentication, delivery of Securities by the Trustee or the Trustee's certificate of authentication, such reference shall be deemed to include authentication and delivery on behalf of the Trustee by an Authenticating Agent, and a certificate of authentication executed on behalf of the Trustee by an Authenticating Agent. Each Authenticating Agent shall be acceptable to the Company and shall at all times be a bank or trust company or corporation organized and doing business and in good standing under the laws of the United States of America or of any state or the District of Columbia, authorized under such laws to act as Authenticating Agent, having a combined capital and surplus of not less than \$50,000,000 and subject to supervision or examination by Federal or state authorities. If such Authenticating Agent publishes reports of condition at least annually, pursuant to law or the requirements of the aforesaid supervising or examining authority, then for the purposes of this Section, the combined capital and surplus of such Authenticating Agent shall be deemed to be its combined capital and surplus as set forth in its most recent report of condition so published. In case at any time an Authenticating Agent shall cease to be eligible in accordance with the provisions of this Section, such Authenticating Agent shall resign immediately in the manner and with the effect specified in this Section.

Any corporation into which an Authenticating Agent may be merged or converted or with which it may be consolidated, or any corporation resulting from any merger, conversion or consolidation to which such Authenticating Agent shall be a party, or any corporation succeeding to the corporate agency or corporate trust business of an Authenticating Agent, shall continue to be an Authenticating Agent, provided such corporation shall be otherwise eligible under this Section, without the execution or filing of any paper or further act on the part of the Trustee or the Authenticating Agent.

An Authenticating Agent for any series of Securities may at any time resign by giving written notice of resignation to the Trustee for such series and to the Company. The Trustee for any series of Securities may at any time terminate the agency of an Authenticating Agent by giving written notice of termination to such Authenticating Agent and to the Company. Upon receiving such a notice of resignation or upon such a termination, or in case at any time such Authenticating Agent shall cease to be eligible in accordance with the provisions of this Section, the Trustee for such series may appoint a successor Authenticating Agent which shall be acceptable to the Company and shall give notice of such appointment to all Holders of Securities of the series with respect to which such Authenticating Agent will serve in the manner set forth in Section 106. Any successor Authenticating Agent upon acceptance of its appointment hereunder shall become vested with all the rights, powers and duties of its predecessor hereunder, with like effect as if originally named as an Authenticating Agent herein. No successor Authenticating Agent shall be appointed unless eligible under the provisions of this Section.

The Company agrees to pay to each Authenticating Agent from time to time reasonable compensation including reimbursement of its reasonable expenses for its services under this Section, subject to Section 606.

If an appointment with respect to one or more series is made pursuant to this Section, the Securities of such series may have endorsed thereon, in addition to or in lieu of the Trustee's certificate of authentication, an alternate certificate of authentication substantially in the following form:

This is one of the Securities of the series designated therein referred to in the within- mentioned Indenture.

\_\_\_\_\_  
as Trustee

Dated:

By: \_\_\_\_\_  
as Authenticating Agent

Dated:

By: \_\_\_\_\_  
as Authenticating Agent

SECTION 612. Certain Duties and Responsibilities of the Trustee.

(a) With respect to the Securities of any series, except during the continuance of an Event of Default with respect to the Securities of such series:

(1) the Trustee undertakes to perform such duties and only such duties as are specifically set forth in this Indenture, and no implied covenants or obligations shall be read into this Indenture against the Trustee; and

(2) in the absence of bad faith on its part, the Trustee may conclusively rely, as to the truth of the statements and the correctness of the opinions expressed therein, upon certificates or opinions furnished to the Trustee and conforming to the requirements of this Indenture; but in the case of any such certificates or opinions which by any provision hereof are specifically required to be furnished to the Trustee, the Trustee shall be under a duty to examine the same to determine whether or not they conform to the requirements of this Indenture, but shall not be under any duty to verify the contents or accuracy thereof.

(b) In case an Event of Default with respect to the Securities of any series has occurred and is continuing, the Trustee shall, with respect to Securities of such series, exercise such of the rights and powers vested in it by this Indenture, and use the same degree of care and skill in their exercise, as a prudent man would exercise or use under the circumstances in the conduct of his own affairs.

(c) No provision of this Indenture shall be construed to relieve the Trustee from liability for its own negligent action, its own negligent failure to act, or its own willful misconduct, except that:

(1) this Subsection shall not be construed to limit the effect of Subsection (a) of this Section;

(2) the Trustee shall not be liable for any error of judgment made in good faith by a Responsible Officer, unless it shall be proved that the Trustee was negligent in ascertaining the pertinent facts;

(3) the Trustee shall not be liable with respect to any action taken or omitted to be taken by it in good faith in accordance with the direction of the Holders of a majority in principal amount of the Outstanding Securities of any series relating to the time, method and place of conducting any proceeding for any remedy available to the Trustee, or exercising any trust or power conferred upon the Trustee, under this Indenture with respect to the Securities of such series; and

(4) no provision of this Indenture shall require the Trustee to expend or risk its own funds or otherwise incur any financial liability in the performance of any of its duties hereunder, or in the exercise of any of its rights or powers, if it shall have reasonable grounds for believing that repayment of such funds or adequate indemnity against such risk or liability is not reasonably assured to it; and, the Trustee shall be under no obligation to exercise any of its rights and powers under this Indenture at the request of any Holder, unless such Holder shall have offered to the Trustee security and indemnity satisfactory to it against any loss, liability or expense.

(d) Whether or not therein expressly so provided, every provision of this Indenture relating to the conduct or affecting the liability of or affording protection to the Trustee shall be subject to the provisions of this Section 612.

(e) The Trustee shall not be liable for interest on any money or assets held by it except to the extent the Trustee may agree in writing with the Company. Assets held in trust by the Trustee need not be segregated from other assets except to the extent required by law.

#### ARTICLE SEVEN - HOLDERS' LISTS AND REPORTS BY TRUSTEE AND COMPANY

SECTION 701. Disclosure of Names and Addresses of Holders. Every Holder of Securities or coupons, by receiving and holding the same, agrees with the Company and the Trustee that neither the Company nor the Trustee nor any Authenticating Agent nor any Paying Agent nor any Security Registrar shall be held accountable by reason of the disclosure of any information as to the names and addresses of the Holders of Securities in accordance with TIA Section 312, regardless of the source from which such information was derived, and that the Trustee shall not be held accountable by reason of mailing any material pursuant to a request made under TIA Section 312(b).

SECTION 702. Reports by Trustee. The Trustee shall transmit to Holders such reports concerning the Trustee and its actions under this Indenture as may be required by TIA Section 313 at the times and in the manner provided by the TIA, which shall initially be not less than every twelve months commencing on, 20. A copy of each such report shall, at the time of such transmission to Holders, be filed by the Trustee with each over-the-counter market or securities exchange, if any, upon which any Securities are quoted or listed, with the Commission and with the Company. The Company will notify the Trustee when any Securities are quoted or listed on any over-the-counter market or securities exchange or delisted therefrom.

SECTION 703. Reports by Company. The Company will:

(1) file with the Trustee, within 15 days after the Company is required to file the same with the Commission, copies of the annual reports and of the information, documents and other reports (or copies of such portions of any of the foregoing as the Commission may from time to time by rules and regulations prescribe) which the Company may be required to file with the Commission pursuant to Section 13 or Section 15(d) of the Exchange Act; or, if the Company is not required to file information, documents or reports pursuant to either of such Sections, then it will file with the Trustee and the Commission, in accordance with rules and regulations prescribed from time to time by the Commission, such of the supplementary and periodic information, documents and reports which may be required pursuant to Section 13 of the Exchange Act in respect of a security quoted or listed and registered on an over-the-counter market or national securities exchange as may be prescribed from time to time in such rules and regulations;

(2) file with the Trustee and the Commission, in accordance with rules and regulations prescribed from time to time by the Commission, such additional information, documents and reports with respect to compliance by the Company with the conditions and covenants of this Indenture as may be required from time to time by such rules and regulations;

(3) transmit by mail to the Holders of Securities, within 30 days after the filing thereof with the Trustee, in the manner and to the extent provided in TIA Section 313(c), such summaries of any information, documents and reports required to be filed by the Company pursuant to paragraphs (1) and (2) of this Section as may be required by rules and regulations prescribed from time to time by the Commission; and

(4) delivery of such reports, information and documents to the Trustee is for informational purposes only and the Trustee's receipt of such shall not constitute constructive notice of any information contained therein or determinable from information contained therein, including the Company's compliance with any of its covenants hereunder (as to which the Trustee is entitled to rely exclusively on Officers' Certificates).

SECTION 704. Company to Furnish Trustee Names and Addresses of Holders. The Company will furnish or cause to be furnished to the Trustee:

(a) semiannually, not later than 15 days after the Regular Record Date for interest for each series of Securities, a list, in such form as the Trustee may reasonably require, of the names and addresses of the Holders of Registered Securities of such series as of such Regular Record Date, or if there is no Regular Record Date for interest for such series of Securities, semiannually, upon such dates as are set forth in the Board Resolution or indenture supplemental hereto authorizing such series, and



(b) at such other times as the Trustee may request in writing, within 30 days after the receipt by the Company of any such request, a list of similar form and content as of a date not more than 15 days prior to the time such list is furnished, provided, however, that, so long as the Trustee is the Security Registrar, no such list shall be required to be furnished.

#### ARTICLE EIGHT - CONSOLIDATION, MERGER, SALE, LEASE OR CONVEYANCE

SECTION 801. Consolidations and Mergers of Company and Sales, Leases and Conveyances Permitted Subject to Certain Conditions. The Company may consolidate with, or sell, lease or convey all or substantially all of its assets to, or merge with or into any other corporation, provided that in any such case, (1) either the Company shall be the continuing corporation, or the successor corporation shall be a corporation organized and existing under the laws of the United States or a State thereof and such successor corporation shall expressly assume the due and punctual payment of the principal of (and premium or Make-Whole Amount, if any) and any interest on all of the Securities, according to their tenor, and the due and punctual performance and observance of all of the covenants and conditions of this Indenture to be performed by the Company by supplemental indenture, complying with Article Nine hereof, satisfactory to the Trustee, executed and delivered to the Trustee by such corporation, (2) immediately after giving effect to such transaction and treating any indebtedness which becomes an obligation of the Company as a result thereof as having been incurred by the Company at the time of such transaction, no Event of Default, and no event which, after notice or the lapse of time, or both, would become an Event of Default, shall have occurred and be continuing and (3) the Company shall have delivered to the Trustee the Officer's Certificate and Opinion of Counsel required pursuant to Section 803 below.

SECTION 802. Rights and Duties of Successor Corporation. In case of any such consolidation, merger, sale, lease or conveyance and upon any such assumption by the successor corporation, such successor corporation shall succeed to and be substituted for the Company, with the same effect as if it had been named herein as the party of the first part, and the predecessor corporation, except in the event of a lease, shall be relieved of any further obligation under this Indenture and the Securities. Such successor corporation thereupon may cause to be signed, and may issue either in its own name or in the name of the Company, any or all of the Securities issuable hereunder which theretofore shall not have been signed by the Company and delivered to the Trustee; and, upon the order of such successor corporation, instead of the Company, and subject to all the terms, conditions and limitations in this Indenture prescribed, the Trustee shall authenticate and shall deliver any Securities which previously shall have been signed and delivered by the officers of the Company to the Trustee for authentication, and any Securities which such successor corporation thereafter shall cause to be signed and delivered to the Trustee for that purpose. All the Securities so issued shall in all respects have the same legal rank and benefit under this Indenture as the Securities theretofore or thereafter issued in accordance with the terms of this Indenture as though all of such Securities had been issued at the date of the execution hereof.

In case of any such consolidation, merger, sale, lease or conveyance, such changes in phraseology and form (but not in substance) may be made in the Securities thereafter to be issued as may be appropriate.

SECTION 803. Officers' Certificate and Opinion of Counsel. Any consolidation, merger, sale, lease or conveyance permitted under Section 801 is also subject to the condition that the Trustee receive an Officers' Certificate and an Opinion of Counsel to the effect that any such consolidation, merger, sale, lease or conveyance, and the assumption by any successor corporation, complies with the provisions of this Article and that all conditions precedent herein provided for relating to such transaction have been complied with.

#### ARTICLE NINE - SUPPLEMENTAL INDENTURES

SECTION 901. Supplemental Indentures Without Consent of Holders. Without the consent of any Holders of Securities or coupons, the Company, when authorized by or pursuant to a Board Resolution, and the Trustee, at any time and from time to time, may enter into one or more indentures supplemental hereto, in form satisfactory to the Trustee, for any of the following purposes:

- (1) to evidence the succession of another Person to the Company and the assumption by any such successor of the covenants of the Company contained herein and in the Securities; or
- (2) to add to the covenants of the Company for the benefit of the Holders of all or any series of Securities (and if such covenants are to be for the benefit of less than all series of Securities, stating that such covenants are expressly being included solely for the benefit of such series) or to surrender any right or power herein conferred upon the Company; or
- (3) to add any additional Events of Default for the benefit of the Holders of all or any series of Securities (and if such Events of Default are to be for the benefit of less than all series of Securities, stating that such Events of Default are expressly being included solely for the benefit of such series); provided, however, that in respect of any such additional Events of Default such supplemental indenture may provide for a particular period of grace after default (which period may be shorter or longer than that allowed in the case of other defaults) or may provide for an immediate enforcement upon such default or may limit the remedies available to the Trustee upon such default or may limit the right of the Holders of a majority in aggregate principal amount of that or those series of Securities to which such additional Events of Default apply to waive such default; or
- (4) to add to or change any of the provisions of this Indenture to provide that Bearer Securities may be registrable as to principal, to change or eliminate any restrictions on the payment of principal of or premium or Make-Whole Amount, if any, or interest on Bearer Securities, to permit Bearer Securities to be issued in exchange for Registered Securities, to permit Bearer Securities to be issued in exchange for Bearer Securities of other authorized denominations or to permit or facilitate the issuance of Securities in uncertificated form, provided that any such action shall not adversely affect the interests of the Holders of Securities of any series or any related coupons in any material respect; or

- (5) to change or eliminate any of the provisions of this Indenture, provided that any such change or elimination shall become effective only when there is no Security Outstanding of any series created prior to the execution of such supplemental indenture which is entitled to the benefit of such provision; or
- (6) to secure the Securities; or
- (7) to establish the form or terms of Securities of any series and any related coupons as permitted or contemplated by Sections 201 and 301; or
- (8) to evidence and provide for the acceptance of appointment hereunder by a successor Trustee with respect to the Securities of one or more series and to add to or change any of the provisions of this Indenture as shall be necessary to provide for or facilitate the administration of the trusts hereunder by more than one Trustee; or
- (9) to cure any ambiguity, to correct or supplement any provision herein which may be defective or inconsistent with any other provision herein, or to make any other provisions with respect to matters or questions arising under this Indenture which shall not be inconsistent with the provisions of this Indenture, provided such provisions shall not adversely affect the interests of the Holders of Securities of any series or any related coupons in any material respect; or
- (10) to supplement any of the provisions of this Indenture to such extent as shall be necessary to permit or facilitate the Defeasance and discharge of any series of Securities pursuant to Sections 401, 1402 and 1403; provided that any such action shall not adversely affect the interests of the Holders of Securities of such series and any related coupons or any other series of Securities in any material respect; or
- (11) to make provisions with respect to Holders' rights of conversion with respect to any series of Securities pursuant to Article Seventeen.

SECTION 902. Supplemental Indentures with Consent of Holders. With the consent of the Holders of not less than a majority in principal amount of all Outstanding Securities affected by such supplemental indenture, by Act of said Holders delivered to the Company and the Trustee, the Company, when authorized by or pursuant to a Board Resolution, and the Trustee may enter into an indenture or indentures supplemental hereto for the purpose of adding any provisions to or changing in any manner or eliminating any of the provisions of this Indenture or of modifying in any manner the rights of the Holders of Securities and any related coupons under this Indenture; provided, however, that no such supplemental indenture shall, without the consent of the Holder of each Outstanding Security affected thereby:

- (1) change the Stated Maturity of the principal of (or premium or Make-Whole Amount, if any, on) or any installment of principal of or interest on, any Security; or reduce the principal amount thereof or the rate or amount of interest thereon, or any premium or Make-Whole Amount payable upon the redemption thereof, or reduce the amount of the principal of an Original Issue Discount Security that would be due and payable upon a declaration of acceleration of the Maturity thereof pursuant to Section 502 or the amount thereof provable in bankruptcy pursuant to Section 504, or adversely affect any right of repayment at the option of the Holder of any Security, or change any Place of Payment where, or the currency or currencies, currency unit or units or composite currency or currencies in which, any Security or any premium or Make-Whole Amount or the interest thereon is payable, or impair the right to institute suit for the enforcement of any such payment on or after the Stated Maturity thereof (or, in the case of redemption or repayment at the option of the Holder, on or after the Redemption Date or the Repayment Date, as the case may be), or (if Securities of such series are convertible) adversely affect the right of the Holder to convert any Security as provided in Article Seventeen, or modify the provisions of this Indenture with respect to the subordination of the Securities in a manner materially adverse to the Holders; or

(2) reduce the percentage in principal amount of the Outstanding Securities of any series, the consent of whose Holders is required for any such supplemental indenture, or the consent of whose Holders is required for any waiver with respect to such series (or compliance with certain provisions of this Indenture or certain defaults hereunder and their consequences) provided for in this Indenture, or reduce the requirements of Section 1504 for quorum or voting, or

(3) modify any of the provisions of this Section, Section 513 or Section 1009, except to increase the required percentage to effect such action or to provide that certain other provisions of this Indenture cannot be modified or waived without the consent of the Holder of each Outstanding Security affected thereby, provided, however, that this clause shall not be deemed to require the consent of any Holder with respect to changes in the references to “the Trustee” and concomitant changes in this Section 902 and Section 1009, or the deletion of this proviso, in accordance with the requirements of Sections 609(b) and 901(11).

It shall not be necessary for any Act of Holders under this Section 902 to approve the particular form of any proposed supplemental indenture, but it shall be sufficient if such Act shall approve the substance thereof.

A supplemental indenture which changes or eliminates any covenant or other provision of this Indenture which has expressly been included solely for the benefit of one or more particular series of Securities, or which modifies the rights of the Holders of Securities of such series with respect to such covenant or other provision, shall be deemed not to affect the rights under this Indenture of the Holders of Securities of any other series.

SECTION 903. Execution of Supplemental Indentures. In executing, or accepting the additional trusts created by, any supplemental indenture permitted by this Article or the modification thereby of the trusts created by this Indenture, the Trustee shall be entitled to receive, and (subject to Section 612) shall be fully protected in relying upon, an Opinion of Counsel stating that the execution of such supplemental indenture is authorized or permitted by this Indenture. The Trustee may, but shall not be obligated to, enter into any such supplemental indenture which affects the Trustee’s own rights, duties or immunities under this Indenture or otherwise.

SECTION 904. Effect of Supplemental Indentures. Upon the execution of any supplemental indenture under this Article, this Indenture shall be modified in accordance therewith, and such supplemental indenture shall form a part of this Indenture for all purposes; and every Holder of Securities theretofore or thereafter authenticated and delivered hereunder and of any coupon, appertaining thereto shall be bound thereby.

SECTION 905. Conformity with Trust Indenture Act. Every supplemental indenture executed pursuant to this Article shall conform to the requirements of the Trust Indenture Act as then in effect.

SECTION 906. Reference in Securities to Supplemental Indentures. Securities of any series authenticated and delivered after the execution of any supplemental indenture pursuant to this Article may, and shall, if required by the Trustee, bear a notation in form approved by the Trustee as to any matter provided for in such supplemental indenture. If the Company shall so determine, new Securities of any series so modified as to conform, in the opinion of the Trustee and the Company, to any such supplemental indenture may be prepared and executed by the Company and authenticated and delivered by the Trustee in exchange for Outstanding Securities of such series.

#### ARTICLE TEN - COVENANTS

SECTION 1001. Payment of Principal, Premium or Make-Whole Amount, if any; and Interest. The Company covenants and agrees for the benefit of the Holders of each series of Securities that it will duly and punctually pay the principal of (and premium or Make-Whole Amount, if any) and interest on the Securities of that series in accordance with the terms of such series of Securities, any coupons appertaining thereto and this Indenture. Unless otherwise specified as contemplated by Section 301 with respect to any series of Securities, any interest due on Bearer Securities on or before Maturity shall be payable only upon presentation and surrender of the several coupons for such interest installments as are evidenced thereby as they severally mature. Unless otherwise specified with respect to Securities of any series pursuant to Section 301, at the option of the Company (upon written notice to the Trustee), all payments of principal may be paid by check to the registered Holder of the Registered Security or other Person entitled thereto against surrender of such Security.

SECTION 1002. Maintenance of Office or Agency. If Securities of a series are issuable only as Registered Securities, the Company shall maintain in each Place of Payment for any series of Securities an office or agency where Securities of that series may be presented or surrendered for payment or conversion, where Securities of that series may be surrendered for registration of transfer or conversion or exchange and where notices and demands to or upon the Company in respect of the Securities of that series and this Indenture may be served. If Securities of a series are issuable as Bearer Securities, the Company will maintain: (A) in the Borough of Manhattan, The City of New York, an office or agency where any Registered Securities of that series may be presented or surrendered for payment or conversion, where any Registered Securities of that series may be surrendered for registration of transfer, where Securities of that series may be surrendered for conversion or exchange, where notices and demands to or upon the Company in respect of the Securities of that series and this Indenture may be served and where Bearer Securities of that series and related coupons may be presented or surrendered for payment or conversion in the circumstances described in the following paragraph (and not otherwise); (B) subject to any laws or regulations applicable thereto, in a Place of Payment for that series which is located outside the United States, an office or agency where Securities of that series and related coupons may be presented and surrendered for payment; provided, however, that if the Securities of that series are listed on any stock exchange located outside the United States and such stock exchange shall so require, the Company will maintain a Paying Agent for the Securities of that series in any required city located outside the United States, as the case may be, so long as the Securities of that series are listed on such exchange; and (C) subject to any laws or regulations applicable thereto, in a Place of Payment for that series located outside the United States an office or agency where any Registered Securities of that series may be surrendered for registration of transfer, where Securities of that series may be surrendered for conversion or exchange and where notices and demands to or upon the Company in respect of the Securities of that series and this Indenture may be served. The Company will give prompt written notice to the Trustee of the location, and any change in the location, of each such office or agency. If at any time the Company shall fail to maintain any such required office or agency or shall fail to furnish the Trustee with the address thereof, such presentations, surrenders, notices and demands may be made or served at the Corporate Trust Office of the Trustee, except that Bearer Securities of that series and the related coupons may be presented and surrendered for payment or conversion at the offices specified in the Security, in London, England, and the Company hereby appoints the same as its agent to receive such respective presentations, surrenders, notices and demands, and the Company hereby appoints the Trustee its agent to receive all such presentations, surrenders, notices and demands.

Unless otherwise specified with respect to any Securities pursuant to Section 301, no payment of principal, premium or Make-Whole Amount or interest on Bearer Securities shall be made at any office or agency of the Company in the United States or by check mailed to any address in the United States or by transfer to an account maintained with a bank located in the United States; provided, however, that, if the Securities of a series are payable in Dollars, payment of principal of and any premium or Make-Whole Amount and interest on any Bearer Security shall be made at the office of the Company's Paying Agent in the Borough of Manhattan, The City of New York, if (but only if) payment in Dollars of the full amount of such principal, premium or Make-Whole Amount, or interest, as the case may be, at all offices or agencies outside the United States maintained for the purpose by the Company in accordance with this Indenture, is illegal or effectively precluded by exchange controls or other similar restrictions.

The Company may from time to time designate one or more other offices or agencies (in or outside the Place of Payment) where the Securities of one or more series may be presented or surrendered for any or all of such purposes, and may from time to time rescind such designations; provided, however, that no such designation or rescission shall in any manner relieve the Company of its obligation to maintain an office or agency in accordance with the requirements set forth above for Securities of any series for such purposes. The Company will give prompt written notice to the Trustee of any such designation or rescission and of any change in the location of any such other office or agency. Unless otherwise specified with respect to any Securities pursuant to Section 301 with respect to a series of Securities, the Company hereby designates as a Place of Payment for each series of Securities, each of (i) the office or agency of the Company in the Borough of Manhattan, The City of New York, and (ii) the Corporate Trust Office of the Trustee (as Paying Agent); and the Company hereby initially appoints the Trustee at its Corporate Trust Office as Paying Agent in such city; and the Company hereby initially appoints as its agent to receive all such presentations, surrenders, notices and demands each of the Trustee, at its Corporate Trust Office.

Unless otherwise specified with respect to any Securities pursuant to Section 301, if and so long as the Securities of any series (i) are denominated in a Foreign Currency or (ii) may be payable in a Foreign Currency, or so long as it is required under any other provision of the Indenture, then the Company will maintain with respect to each such series of Securities, or as so required, at least one exchange rate agent (of which it shall give written notice to the Trustee).

SECTION 1003. Money for Securities Payments to Be Held in Trust. If the Company shall at any time act as its own Paying Agent with respect to any series of any Securities and any related coupons, it will, on or before each due date of the principal of (and premium or Make-Whole Amount, if any), or interest on any of the Securities of that series, segregate and hold in trust for the benefit of the Persons entitled thereto a sum in the currency or currencies, currency unit or units or composite currency or currencies in which the Securities of such series are payable (except as otherwise specified pursuant to Section 301 for the Securities of such series) sufficient to pay the principal (and premium or Make-Whole Amount, if any) or interest so becoming due until such sums shall be paid to such Persons or otherwise disposed of as herein provided, and will promptly notify the Trustee of its action or failure so to act.

Whenever the Company shall have one or more Paying Agents for any series of Securities and any related coupons, it will, on or before each due date of the principal of (and premium or Make-Whole Amount, if any), or interest on any Securities of that series, deposit with a Paying Agent a sum (in the currency or currencies, currency unit or units or composite currency or currencies described in the preceding paragraph) sufficient to pay the principal (and premium or Make-Whole Amount, if any) or interest so becoming due, such sum to be held in trust for the benefit of the Persons entitled to such principal, premium or Make-Whole Amount, if any, or interest and (unless such Paying Agent is the Trustee) the Company will promptly notify the Trustee of its action or failure so to act.

The Company will cause each Paying Agent for any series of Securities other than the Trustee to execute and deliver to the Trustee an instrument in which such Paying Agent shall agree with the Trustee, subject to the provisions of this Section that such Paying Agent will

- (1) hold all sums held by it for the payment of principal of (and premium or Make-Whole Amount, if any) or interest on Securities in trust for the benefit of the Persons entitled thereto until such sums shall be paid to such Persons or otherwise disposed of as herein provided;
- (2) give the Trustee notice of any default by the Company (or any other obligor upon the Securities) in the making of any such payment of principal (and premium or Make-Whole Amount, if any) or interest on the Securities of that series; and

(3) at any time during the continuance of any such default upon the written request of the Trustee, forthwith pay to the Trustee all sums so held in trust by such Paying Agent.

The Company may at any time, for the purpose of obtaining the satisfaction and discharge of this Indenture or for any other purpose, pay, or by Company Order direct any Paying Agent to pay, to the Trustee all sums held in trust by the Company or such Paying Agent, such sums to be held by the Trustee upon the same trusts as those upon which such sums were held by the Company or such Paying Agent; and, upon such payment by any Paying Agent to the Trustee, such Paying Agent shall be released from all further liability with respect to such sums.

Except as otherwise provided in the Securities of any series, and subject to applicable laws, any money deposited with the Trustee or any Paying Agent, or then held by the Company, in trust for the payment of the principal of (and premium or Make-Whole Amount, if any) or interest on any Security of any series and remaining unclaimed for two years after such principal (and premium or Make-Whole Amount, if any) or interest has become due and payable shall be paid to the Company upon Company Request or (if then held by the Company) shall be discharged from such trust; and the Holder of such Security shall thereafter, as an unsecured general creditor, look only to the Company for payment of such principal of (and premium or Make-Whole Amount, if any) or interest on any Security, without interest thereon, and all liability of the Trustee or such Paying Agent with respect to such trust money, and all liability of the Company as trustee thereof, shall thereupon cease; provided, however, that the Trustee or such Paying Agent, before being required to make any such repayment, may at the expense of the Company cause to be published once, in an Authorized Newspaper, notice that such money remains unclaimed and that, after a date specified therein, which shall not be less than 30 days from the date of such publication, any unclaimed balance of such money then remaining will be repaid to the Company.

SECTION 1004. Existence. Subject to Article Eight, the Company will do or cause to be done all things necessary to preserve and keep in full force and effect its corporate existence, all material rights (by certificate of incorporation, bylaws and statute) and material franchises; provided, however, that the Company shall not be required to preserve any such right or franchise if the Board of Directors shall determine that the preservation thereof is no longer desirable in the conduct of the business of the Company.

SECTION 1005. Maintenance of Properties. The Company will cause all of its material properties used or useful in the conduct of its business to be maintained and kept in good condition, repair and working order, normal wear and tear, casualty and condemnation excepted, and supplied with all necessary equipment and will cause to be made all necessary repairs, renewals, replacements, betterments and improvements thereof (and the Company may take out of service for a period of time, any of its properties that have been condemned or suffered any loss due to casualty in order to make such repairs, betterments and improvements), all as in the judgment of the Company may be necessary so that the business carried on in connection therewith may be properly and advantageously conducted at all times; provided, however, that the Company shall not be prevented from (i) removing permanently any property that has been condemned or suffered a loss due to casualty based on the Company's reasonable judgment that such removal is in the best interest of the Company, or (ii) selling or otherwise disposing of its properties for value in the ordinary course of business.



SECTION 1006. Insurance. The Company will cause its insurable properties to be insured against loss or damage in an amount deemed reasonable by the Board of Directors with insurers of recognized responsibility.

SECTION 1007. Payment of Taxes and Other Claims. The Company will pay or discharge or cause to be paid or discharged, before the same shall become delinquent, (1) all taxes, assessments and governmental charges levied or imposed upon it or upon the income, profits or property of the Company, and (2) all lawful claims for labor, materials and supplies which, if unpaid, might by law become a lien upon the property of the Company; provided, however, that the Company shall not be required to pay or discharge or cause to be paid or discharged any such tax, assessment, charge or claim whose amount, applicability or validity is being contested in good faith by appropriate proceedings.

SECTION 1008. Statement as to Compliance. The Company will deliver to the Trustee, within 120 days after the end of each fiscal year, a brief certificate from the principal executive officer, principal financial officer or principal accounting officer as to his or her knowledge of the Company's compliance with all conditions and covenants under this Indenture and, in the event of any noncompliance, specifying such noncompliance and the nature and status thereof. For purposes of this Section 1008, such compliance shall be determined without regard to any period of grace or requirement of notice under this Indenture.

SECTION 1009. Waiver of Certain Covenants. The Company may omit in any particular instance to comply with any term, provision or condition set forth in Sections 1004 to 1008, inclusive, if before or after the time for such compliance the Holders of at least a majority in principal amount of all outstanding Securities of such series, by Act of such Holders, either waive such compliance in such instance or generally waive compliance with such covenant or condition, but no such waiver shall extend to or affect such covenant or condition except to the extent so expressly waived, and, until such waiver shall become effective, the obligations of the Company and the duties of the Trustee in respect of any such term, provision or condition shall remain in full force and effect.

#### ARTICLE ELEVEN - REDEMPTION OF SECURITIES

SECTION 1101. Applicability of Article. Securities of any series which are redeemable before their Stated Maturity shall be redeemable in accordance with their terms and (except as otherwise specified as contemplated by Section 301 for Securities of any series) in accordance with this Article.

SECTION 1102. Election to Redeem; Notice to Trustee. The election of the Company to redeem any Securities shall be evidenced by or pursuant to a Board Resolution. In case of any redemption at the election of the Company of less than all of the Securities of any series, the Company shall, at least 45 days prior to the giving of the notice of redemption in Section 1104 (unless a shorter notice shall be satisfactory to the Trustee), notify the Trustee of such Redemption Date and of the principal amount of Securities of such series to be redeemed. In the case of any redemption of Securities prior to the expiration of any restriction on such redemption provided in the terms of such Securities or elsewhere in this Indenture, the Company shall furnish the Trustee with an Officers' Certificate evidencing compliance with such restriction.

SECTION 1103. Selection by Trustee of Securities to Be Redeemed. If less than all the Securities of any series issued on the same day with the same terms are to be redeemed, the particular Securities to be redeemed shall be selected not more than 60 days prior to the Redemption Date by the Trustee, from the Outstanding Securities of such series issued on such date with the same terms not previously called for redemption, by such method as the Trustee shall deem fair and appropriate and which may provide for the selection for redemption of portions (equal to the minimum authorized denomination for Securities of that series or any integral multiple thereof) of the principal amount of Securities of such series of a denomination larger than the minimum authorized denomination for Securities of that series.

The Trustee shall promptly notify the Company and the Security Registrar (if other than itself) in writing of the Securities selected for redemption and, in the case of any Securities selected for partial redemption, the principal amount thereof to be redeemed.

For all purposes of this Indenture, unless the context otherwise requires, all provisions relating to the redemption of Securities shall relate, in the case of any Security redeemed or to be redeemed only in part, to the portion of the principal amount of such Security which has been or is to be redeemed.

SECTION 1104. Notice of Redemption. Notice of redemption shall be given in the manner provided in Section 106, not less than 30 days nor more than 60 days prior to the Redemption Date, unless a shorter period is specified by the terms of such series established pursuant to Section 301, to each Holder of Securities to be redeemed, but failure to give such notice in the manner herein provided to the Holder of any Security designated for redemption as a whole or in part, or any defect in the notice to any such Holder, shall not affect the validity of the proceedings for the redemption of any other such Security or portion thereof.

Any notice that is mailed to the Holders of Registered Securities in the manner herein provided shall be conclusively presumed to have been duly given, whether or not the Holder receives the notice.

All notices of redemption shall state:

- (1) the Redemption Date,
- (2) the Redemption Price, accrued interest to the Redemption Date payable as provided in Section 1106, if any,
- (3) if less than all Outstanding Securities of any series are to be redeemed, the identification (and, in the case of partial redemption, the principal amount) of the particular Security or Securities to be redeemed,
- (4) in case any Security is to be redeemed in part only, the notice which relates to such Security shall state that on and after the Redemption Date, upon surrender of such Security, the holder will receive, without a charge, a new Security or Securities of authorized denominations for the principal amount thereof remaining unredeemed,

(5) that on the Redemption Date the Redemption Price and accrued interest to the Redemption Date payable as provided in Section 1106, if any, will become due and payable upon each such Security, or the portion thereof, to be redeemed and, if applicable, that interest thereon shall cease to accrue on and after said date,

(6) the Place or Places of Payment where such Securities, together in the case of Bearer Securities with all coupons appertaining thereto, if any, maturing after the Redemption Date, are to be surrendered for payment of the Redemption Price and accrued interest, if any, or for conversion,

(7) that the redemption is for a sinking fund, if such is the case,

(8) that, unless otherwise specified in such notice, Bearer Securities of any series, if any, surrendered for redemption must be accompanied by all coupons maturing subsequent to the date fixed for redemption or the amount of any such missing coupon or coupons will be deducted from the Redemption Price, unless security or indemnity satisfactory to the Company, the Trustee for such series and any Paying Agent is furnished,

(9) if Bearer Securities of any series are to be redeemed and any Registered Securities of such series are not to be redeemed, and if such Bearer Securities may be exchanged for Registered Securities not subject to redemption on this Redemption Date pursuant to Section 305 or otherwise, the last date, as determined by the Company, on which such exchanges may be made,

(10) the CUSIP number of such Security, if any, and

(11) if applicable, that a Holder of Securities who desires to convert Securities for redemption must satisfy the requirements for conversion contained in such Securities, the then existing conversion price or rate, the place or places where such Securities may be surrendered for conversion, and the date and time when the option to convert shall expire.

Notice of redemption of Securities to be redeemed at the election of the Company shall be given by the Company or, at the Company's request, by the Trustee in the name and at the expense of the Company.

SECTION 1105. Deposit of Redemption Price. On or prior to any Redemption Date, the Company shall deposit with the Trustee or with a Paying Agent (or, if the Company is acting as its own Paying Agent, which it may not do in the case of a sinking fund payment under Article Twelve, segregate and hold in trust as provided in Section 1003) an amount of money in the currency or currencies, currency unit or units or composite currency or currencies in which the Securities of such series are payable (except as otherwise specified pursuant to Section 301 for the Securities of such series) sufficient to pay on the Redemption Date the Redemption Price of, and (except if the Redemption Date shall be an Interest Payment Date) accrued interest on, all the Securities or portions thereof which are to be redeemed on that date.

If any Securities called for redemption are converted, any money deposited with the Trustee or with any Paying Agent or so segregated and held in trust for the redemption of such Security shall be paid to the Company upon Company Request or, if then held by the Company, shall be discharged from such trust.

SECTION 1106. Securities Payable on Redemption Date. Notice of redemption having been given as aforesaid, the Securities so to be redeemed shall, on the Redemption Date, become due and payable at the Redemption Price therein specified in the currency or currencies, currency unit or units or composite currency or currencies in which the Securities of such series are payable (except as otherwise specified pursuant to Section 301 for the Securities of such series) (together with accrued interest, if any, to the Redemption Date), and from and after such date (unless the Company shall default in the payment of the Redemption Price and accrued interest) such Securities shall, if the same were interest-bearing, cease to bear interest and the coupons for such interest appertaining to any Bearer Securities so to be redeemed, except to the extent provided below, shall be void. Upon surrender of any such Security for redemption in accordance with said notice, together with all coupons, if any, appertaining thereto maturing after the Redemption Date, such Security shall be paid by the Company at the Redemption Price, together with accrued interest, if any, to the Redemption Date; provided, however, that installments of interest on Bearer Securities whose Stated Maturity is on or prior to the Redemption Date shall be payable only at an office or agency located outside the United States (except as otherwise provided in Section 1002) and, unless otherwise specified as contemplated by Section 301, only upon presentation and surrender of coupons for such interest; and provided further that except as otherwise provided with respect to Securities convertible into the Company's Common Stock or Preferred Stock, installments of interest on Registered Securities whose Stated Maturity is on or prior to the Redemption Date shall be payable to the Holders of such Securities, or one or more Predecessor Securities, registered as such at the close of business on the relevant Record Dates according to their terms and the provisions of Section 307.

If any Bearer Security surrendered for redemption shall not be accompanied by all appurtenant coupons maturing after the Redemption Date, such Security may be paid after deducting from the Redemption Price an amount equal to the face amount of all such missing coupons, or the surrender of such missing coupon or coupons may be waived by the Company and the Trustee if there be furnished to them such security or indemnity as they may require to save each of them and any Paying Agent harmless. If thereafter the Holder of such Security shall surrender to the Trustee or any Paying Agent any such missing coupon in respect of which a deduction shall have been made from the Redemption Price, such Holder shall be entitled to receive the amount so deducted; provided, however, that interest represented by coupons shall be payable only at an office or agency located outside the United States (except as otherwise provided in Section 1002) and, unless otherwise specified as contemplated by Section 301, only upon presentation and surrender of those coupons.

If any Security called for redemption shall not be so paid upon surrender thereof for redemption, the principal (and premium or Make-Whole Amount, if any) shall, until paid, bear interest from the Redemption Date at the rate borne by the Security.

SECTION 1107. Securities Redeemed in Part. Any Registered Security which is to be redeemed only in part (pursuant to the provisions of this Article or of Article Twelve) shall be surrendered at a Place of Payment therefor (with, if the Company or the Trustee so requires, due endorsement by, or a written instrument of transfer in form satisfactory to the Company and the Trustee duly executed by, the Holder thereof or his attorney duly authorized in writing) and the Company shall execute and the Trustee shall authenticate and deliver to the Holder of such Security without service charge a new Security or Securities of the same series, of any authorized denomination as requested by such Holder in aggregate principal amount equal to and in exchange for the unredeemed portion of the principal of the Security so surrendered. If a Global Security is so surrendered, the Company shall execute and the Trustee shall authenticate and deliver to the depository, without service charge, a new Global Security in a denomination equal to and in exchange for the unredeemed portion of the principal of the Global Security so surrendered.

#### ARTICLE TWELVE - SINKING FUNDS

SECTION 1201. Applicability of Article. The provisions of this Article shall be applicable to any sinking fund for the retirement of Securities of a series except as otherwise specified as contemplated by Section 301 for Securities of such series.

The minimum amount of any sinking fund payment provided for by the terms of Securities of any series is herein referred to as a "mandatory sinking fund payment," and any payment in excess of such minimum amount provided for by the terms of such Securities of any series is herein referred to as an "optional sinking fund payment." If provided for by the terms of any Securities of any series, the cash amount of any mandatory sinking fund payment may be subject to reduction as provided in Section 1202. Each sinking fund payment shall be applied to the redemption of Securities of any series as provided for by the terms of Securities of such series.

SECTION 1202. Satisfaction of Sinking Fund Payments with Securities. The Company may, in satisfaction of all or any part of any mandatory sinking fund payment with respect to the Securities of a series, (1) deliver Outstanding Securities of such series (other than any previously called for redemption) together in the case of any Bearer Securities of such series with all unmatured coupons appertaining thereto and (2) apply as a credit Securities of such series which have been redeemed either at the election of the Company pursuant to the terms of such Securities or through the application of permitted optional sinking fund payments pursuant to the terms of such Securities, as provided for by the terms of such Securities, or which have otherwise been acquired by the Company; provided that such Securities so delivered or applied as a credit have not been previously so credited. Such Securities shall be received and credited for such purpose by the Trustee at the applicable Redemption Price specified in such Securities for redemption through operation of the sinking fund and the amount of such mandatory sinking fund payment shall be reduced accordingly.

SECTION 1203. Redemption of Securities for Sinking Fund. Not less than 60 days prior to each sinking fund payment date for Securities of any series, the Company will deliver to the Trustee an Officers' Certificate specifying the amount of the next ensuing mandatory sinking fund payment for that series pursuant to the terms of that series, the portion thereof, if any, which is to be satisfied by payment of cash in the currency or currencies, currency unit or units or composite currency or currencies in which the Securities of such series are payable (except as otherwise specified pursuant to Section 301 for the Securities of such series) and the portion thereof, if any, which is to be satisfied by delivering and crediting Securities of that series pursuant to Section 1202, and the optional amount, if any, to be added in cash to the next ensuing mandatory sinking fund payment, and will also deliver to the Trustee any Securities to be so delivered and credited. If such Officers' Certificate shall specify an optional amount to be added in cash to the next ensuing mandatory sinking fund payment, the Company shall thereupon be obligated to pay the amount therein specified. Not less than 30 days before each such sinking fund payment date the Trustee shall select the Securities to be redeemed upon such sinking fund payment date in the manner specified in Section 1103 and cause notice of the redemption thereof to be given in the name of and at the expense of the Company in the manner provided in Section 1104. Such notice having been duly given, the redemption of such Securities shall be made upon the terms and in the manner stated in Sections 1106 and 1107.

#### ARTICLE THIRTEEN - REPAYMENT AT THE OPTION OF HOLDERS

SECTION 1301. Applicability of Article. Repayment of Securities of any series before their Stated Maturity at the option of Holders thereof shall be made in accordance with the terms of such Securities, if any, and (except as otherwise specified by the terms of such series established pursuant to Section 301) in accordance with this Article.

SECTION 1302. Repayment of Securities. Securities of any series subject to repayment in whole or in part at the option of the Holders thereof will, unless otherwise provided in the terms of such Securities, be repaid at a price equal to the principal amount thereof, together with interest, if any, thereon accrued to the Repayment Date specified in or pursuant to the terms of such Securities. The Company covenants that on or prior to the Repayment Date it will deposit with the Trustee or with a Paying Agent (or, if the Company is acting as its own Paying Agent, segregate and hold in trust as provided in Section 1003) an amount of money in the currency or currencies, currency unit or units or composite currency or currencies in which the Securities of such series are payable (except as otherwise specified pursuant to Section 301 for the Securities of such series) sufficient to pay the principal (or, if so provided by the terms of the Securities of any series, a percentage of the principal) of, and (except if the Repayment Date shall be an Interest Payment Date) accrued interest on, all the Securities or portions thereof, as the case may be, to be repaid on such date.

SECTION 1303. Exercise of Option. Securities of any series subject to repayment at the option of the Holders thereof will contain an "Option to Elect Repayment" form on the reverse of such Securities. In order for any Security to be repaid at the option of the Holder, the Trustee must receive at the Place of Payment therefor specified in the terms of such Security (or at such other place or places of which the Company shall from time to time notify the Holders of such Securities) not earlier than 60 days nor later than 30 days prior to the Repayment Date (1) the Security so providing for such repayment together with the "Option to Elect Repayment" form on the reverse thereof duly completed by the Holder (or by the Holder's attorney duly authorized in writing) or (2) a telegram, telex, facsimile transmission or a letter from a member of a national securities exchange, or the FINRA, or a commercial bank or trust company in the United States setting forth the name of the Holder of the Security, the principal amount of the Security, the principal amount of the Security to be repaid, the CUSIP number, if any, or a description of the tenor and terms of the Security, a statement that the option to elect repayment is being exercised thereby and a guarantee that the Security to be repaid, together with the duly completed form entitled "Option to Elect Repayment" on the reverse of the Security, will be received by the Trustee not later than the fifth Business Day after the date of such telegram, telex, facsimile transmission or letter; provided, however, that such telegram, telex, facsimile transmission or letter shall only be effective if such Security and form duly completed are received by the Trustee by such fifth Business Day. If less than the entire principal amount of such Security is to be repaid in accordance with the terms of such Security, the principal amount of such Security to be repaid, in increments of the minimum denomination for Securities of such series, and the denomination or denominations of the Security or Securities to be issued to the Holder for the portion of the principal amount of such Security surrendered that is not to be repaid, must be specified. The principal amount of any Security providing for repayment at the option of the Holder thereof may not be repaid in part if, following such repayment, the unpaid principal amount of such Security would be less than the minimum authorized denomination of Securities of the series of which such Security to be repaid is a part. Except as otherwise may be provided by the terms of any Security providing for repayment at the option of the Holder thereof, exercise of the repayment option by the Holder shall be irrevocable unless waived by the Company.

SECTION 1304. When Securities Presented for Repayment Become Due and Payable. If Securities of any series providing for repayment at the option of the Holders thereof shall have been surrendered as provided in this Article and as provided by or pursuant to the terms of such Securities, such Securities or the portions thereof, as the case may be, to be repaid shall become due and payable and shall be paid by the Company on the Repayment Date therein specified, and on and after such Repayment Date (unless the Company shall default in the payment of such Securities on such Repayment Date) such Securities shall, if the same were interest-bearing, cease to bear interest and the coupons for such interest appertaining to any Bearer Securities so to be repaid, except to the extent provided below, shall be void. Upon surrender of any such Security for repayment in accordance with such provisions, together with all coupons, if any, appertaining thereto maturing after the Repayment Date, the principal amount of such Security so to be repaid shall be paid by the Company, together with accrued interest, if any, to the Repayment Date; provided, however, that coupons whose Stated Maturity is on or prior to the Repayment Date shall be payable only at an office or agency located outside the United States (except as otherwise provided in Section 1002) and, unless otherwise specified pursuant to Section 301, only upon presentation and surrender of such coupons; and provided further that, in the case of Registered Securities, installments of interest, if any, whose Stated Maturity is on or prior to the Repayment Date shall be payable (but without interest thereon, unless the Company shall default in the payment thereof) to the Holders of such Securities, or one or more Predecessor Securities, registered as such at the close of business on the relevant Record Dates according to their terms and the provisions of Section 307.

If any Bearer Security surrendered for repayment shall not be accompanied by all appurtenant coupons maturing after the Repayment Date, such Security may be paid after deducting from the amount payable therefor as provided in Section 1302 an amount equal to the face amount of all such missing coupons, or the surrender of such missing coupon or coupons may be waived by the Company and the Trustee if there be furnished to them such security or indemnity as they may require to save each of them and any Paying Agent harmless. If thereafter the Holder of such Security shall surrender to the Trustee or any Paying Agent any such missing coupon in respect of which a deduction shall have been made as provided in the preceding sentence, such Holder shall be entitled to receive the amount so deducted; provided, however, that interest represented by coupons shall be payable only at an office or agency located outside the United States (except as otherwise provided in Section 1002) and, unless otherwise specified as contemplated by Section 301, only upon presentation and surrender of those coupons.

If the principal amount of any Security surrendered for repayment shall not be so repaid upon surrender thereof, such principal amount (together with interest, if any, thereon accrued to such Repayment Date) shall, until paid, bear interest from the Repayment Date at the rate of interest or Yield to Maturity (in the case of Original Issue Discount Securities) set forth in such Security.

SECTION 1305. Securities Repaid in Part. Upon surrender of any Registered Security which is to be repaid in part only, the Company shall execute and the Trustee shall authenticate and deliver to the Holder of such Security, without service charge and at the expense of the Company, a new Registered Security or Securities of the same series, of any authorized denomination specified by the Holder, in an aggregate principal amount equal to and in exchange for the portion of the principal of such Security so surrendered which is not to be repaid.

#### ARTICLE FOURTEEN - DEFEASANCE AND COVENANT DEFEASANCE

SECTION 1401. Applicability of Article; Company's Option to Effect Defeasance or Covenant Defeasance. If, pursuant to Section 301, provision is made for either or both of (a) Defeasance of the Securities of or within a series under Section 1402 or (b) Covenant Defeasance of the Securities of or within a series under Section 1403, then the provisions of such Section or Sections, as the case may be, together with the other provisions of this Article (with such modifications thereto as may be specified pursuant to Section 301 with respect to any Securities), shall be applicable to such Securities and any coupons appertaining thereto, and the Company may at its option by Board Resolution, at any time, with respect to such Securities and any coupons appertaining thereto, elect to have Section 1402 (if applicable) or Section 1403 (if applicable) be applied to such Outstanding Securities and any coupons appertaining thereto upon compliance with the conditions set forth below in this Article.

SECTION 1402. Defeasance and Discharge. Upon the Company's exercise of the above option applicable to this Section with respect to any Securities of or within a series, the Company shall be deemed to have been discharged from its obligations with respect to such Outstanding Securities and any coupons appertaining thereto on the date the conditions set forth in Section 1404 are satisfied (hereinafter, "Defeasance"). For this purpose, such Defeasance means that the Company shall be deemed to have paid and discharged the entire indebtedness represented by such Outstanding Securities and any coupons appertaining thereto, which shall thereafter be deemed to be "Outstanding" only for the purposes of Section 1405 and the other Sections of this Indenture referred to in clauses (A) and (B) below, and to have satisfied all of its other obligations under such Securities and any coupons appertaining thereto and this Indenture insofar as such Securities and any coupons appertaining thereto are concerned (and the Trustee, at the expense of the Company, shall execute proper instruments acknowledging the same), except for the following which shall survive until otherwise terminated or discharged hereunder: (A) the rights of Holders of such Outstanding Securities and any coupons appertaining thereto to receive, solely from the trust fund described in Section 1404 and as more fully set forth in such Section, payments in respect of the principal of (and premium or Make-Whole Amount, if any) and interest, if any, on such Securities and any coupons appertaining thereto when such payments are due, (B) the Company's obligations with respect to such Securities under Sections 305, 306, 1002 and 1003, and the Company's obligations under Section 606 hereof (C) the rights, powers, trusts, duties and immunities of the Trustee hereunder and (D) this Article. Subject to compliance with this Article Fourteen, the Company may exercise its option under this Section notwithstanding the prior exercise of its option under Section 1403 with respect to such Securities and any coupons appertaining thereto.



SECTION 1403. Covenant Defeasance. Upon the Company's exercise of the above option applicable to this Section with respect to any Securities of or within a series, the Company shall be released from its obligations under Sections 1004 to 1009, inclusive, and, if specified pursuant to Section 301, its obligations under any other covenant contained herein or in any indenture supplemental hereto, with respect to such Outstanding Securities and any coupons appertaining thereto on and after the date the conditions set forth in Section 1404 are satisfied (hereinafter, "Covenant Defeasance"), and such Securities and any coupons appertaining thereto shall thereafter be deemed to be not "Outstanding" for the purposes of any direction, waiver, consent or declaration or Act of Holders (and the consequences of any thereof) in connection with Sections 1004 to 1009, inclusive, or such other covenant, but shall continue to be deemed "Outstanding" for all other purposes hereunder. For this purpose, such Covenant Defeasance means that, with respect to such Outstanding Securities and any coupons appertaining thereto, the Company may omit to comply with and shall have no liability in respect of any term, condition or limitation set forth in any such Section or such other covenant, whether directly or indirectly, by reason of any reference elsewhere herein to any such Section or such other covenant or by reason of reference in any such Section or such other covenant to any other provision herein or in any other document and such omission to comply shall not constitute a default or an Event of Default under Section 501(4) or 501(8) or otherwise, as the case may be, but, except as specified above, the remainder of this Indenture and such Securities and any coupons appertaining thereto shall be unaffected thereby.

SECTION 1404. Conditions to Defeasance or Covenant Defeasance. The following shall be the conditions to application of Section 1402 or Section 1403 to any Outstanding Securities of or within a series and any coupons appertaining thereto:

(a) The Company shall irrevocably have deposited or caused to be deposited with the Trustee (or another trustee satisfying the requirements of Section 607 who shall agree to comply with the provisions of this Article Fourteen applicable to it) as trust funds in trust for the purpose of making the following payments, specifically pledged as security for, and dedicated solely to, the benefit of the Holders of such Securities and any coupons appertaining thereto, (1) an amount in such currency, currencies or currency unit in which such Securities and any coupons appertaining thereto are then specified as payable at Stated Maturity, or (2) Government Obligations applicable to such Securities and coupons appertaining thereto (determined on the basis of the currency, currencies or currency unit in which such Securities and coupons appertaining thereto are then specified as payable at Stated Maturity) which through the scheduled payment of principal and interest in respect thereof in accordance with their terms will provide, not later than the due date of any payment of principal of (and premium or Make-Whole Amount, if any) and interest, if any, on such Securities and any coupons appertaining thereto, money in an amount, or (3) a combination thereof, in any case, in an amount, sufficient, without consideration of any reinvestment of such principal and interest, in the opinion of a nationally recognized firm of independent public accountants expressed in a written certification thereof delivered to the Trustee, to pay and discharge, and which shall be applied by the Trustee (or other qualifying trustee) to pay and discharge, (i) the principal of (and premium or Make-Whole Amount, if any) and interest, if any, on such Outstanding Securities and any coupons appertaining thereto on the Stated Maturity of such principal or installment of principal or interest and (ii) any mandatory sinking fund payments or analogous payments applicable to such Outstanding Securities and any coupons appertaining thereto on the day on which such payments are due and payable in accordance with the terms of this Indenture and of such Securities and any coupons appertaining thereto.

(b) Such Defeasance or Covenant Defeasance shall not result in a breach or violation of, or constitute a default under, this Indenture or any other material agreement or instrument to which the Company is a party or by which it is bound.

(c) No Event of Default or event which with notice or lapse of time or both would become an Event of Default with respect to such Securities and any coupons appertaining thereto shall have occurred and be continuing on the date of such deposit or, insofar as Sections 501(6) and 501(7) are concerned, at any time during the period ending on the 91st day after the date of such deposit (it being understood that this condition shall not be deemed satisfied until the expiration of such period).

(d) In the case of an election under Section 1402, the Company shall have delivered to the Trustee an Opinion of Counsel stating that (i) the Company has received from, or there has been published by, the Internal Revenue Service a ruling, or (ii) since the date of execution of this Indenture, there has been a change in the applicable Federal income tax law, in either case to the effect that, and based thereon such opinion shall confirm that, the Holders of such Outstanding Securities and any coupons appertaining thereto will not recognize income, gain or loss for Federal income tax purposes as a result of such Defeasance and will be subject to Federal income tax on the same amounts, in the same manner and at the same times as would have been the case if such Defeasance had not occurred.

(e) In the case of an election under Section 1403, the Company shall have delivered to the Trustee an Opinion of Counsel to the effect that the Holders of such Outstanding Securities and any coupons appertaining thereto will not recognize income, gain or loss for Federal income tax purposes as a result of such Covenant Defeasance and will be subject to Federal income tax on the same amounts, in the same manner and at the same times as would have been the case if such Covenant Defeasance had not occurred.

(f) The Company shall have delivered to the Trustee an Officers' Certificate and an Opinion of Counsel, each stating that all conditions precedent to the Defeasance under Section 1402 or the Covenant Defeasance under Section 1403 (as the case may be) have been complied with and an Opinion of Counsel to the effect that either (i) as a result of a deposit pursuant to subsection (a) above and the related exercise of the Company's option under Section 1402 or Section 1403 (as the case may be), registration is not required under the Investment Company Act of 1940, as amended, by the Company, with respect to the trust funds representing such deposit or by the Trustee for such trust funds or (ii) all necessary registrations under said Act have been effected.

(g) Notwithstanding any other provisions of this Section, such Defeasance or Covenant Defeasance shall be effected in compliance with any additional or substitute terms, conditions or limitations which may be imposed on the Company in connection therewith pursuant to Section 301.

(h) The payment of amounts payable to the Trustee pursuant to this Indenture shall be paid or provided for to the reasonable satisfaction of the Trustee.

SECTION 1405. Deposited Money and Government Obligations to Be Held in Trust; Other Miscellaneous Provisions. Subject to the provisions of the last paragraph of Section 1003, all money and Government Obligations (or other property as may be provided pursuant to Section 301) (including the proceeds thereof) deposited with the Trustee (or other qualifying trustee, collectively for purposes of this Section 1405, the "Trustee") pursuant to Section 1404 in respect of any Outstanding Securities of any series and any coupons appertaining thereto shall be held in trust and applied by the Trustee, in accordance with the provisions of such Securities and any coupons appertaining thereto and this Indenture, to the payment, either directly or through any Paying Agent (including the Company acting as its own Paying Agent) as the Trustee may determine, to the Holders of such Securities and any coupons appertaining thereto of all sums due and to become due thereon in respect of principal (and premium or Make-Whole Amount, if any) and interest, but such money need not be segregated from other funds except to the extent required by law.

Unless otherwise specified with respect to any Security pursuant to Section 301, if, after a deposit referred to in Section 1404(a) has been made, (a) the Holder of a Security in respect of which such deposit was made is entitled to, and does, elect pursuant to Section 301 or the terms of such Security to receive payment in a currency or currency unit other than that in which the deposit pursuant to Section 1404(a) has been made in respect of such Security, or (b) a Conversion Event occurs in respect of the currency or currency unit in which the deposit pursuant to Section 1404(a) has been made, the indebtedness represented by such Security and any coupons appertaining thereto shall be deemed to have been, and will be, fully discharged and satisfied through the payment of the principal of (and premium or Make-Whole Amount, if any), and interest, if any, on such Security as the same becomes due out of the proceeds yielded by converting (from time to time as specified below in the case of any such election) the amount or other property deposited in respect of such Security into the currency or currency unit in which such Security becomes payable as a result of such election or Conversion Event based on the applicable market exchange rate for such currency or currency unit in effect on the second Business Day prior to each payment date, except, with respect to a Conversion Event, for such currency or currency unit in effect (as nearly as feasible) at the time of the Conversion Event.

The Company shall pay and indemnify the Trustee against any tax, fee or other charge imposed on or assessed against the Government Obligations deposited pursuant to Section 1404 or the principal and interest received in respect thereof other than any such tax, fee or other charge which by law is for the account of the Holders of such Outstanding Securities and any coupons appertaining thereto.

Anything in this Article to the contrary notwithstanding, subject to Section 606, the Trustee shall deliver or pay to the Company from time to time upon Company Request any money or Government Obligations (or other property and any proceeds therefrom) held by it as provided in Section 1404 which, in the opinion of a nationally recognized firm of independent public accountants expressed in a written certification thereof delivered to the Trustee, are in excess of the amount thereof which would then be required to be deposited to effect a Defeasance or Covenant Defeasance, as applicable, in accordance with this Article.

#### ARTICLE FIFTEEN - MEETINGS OF HOLDERS OF SECURITIES

SECTION 1501. Purposes for Which Meetings May Be Called. A meeting of Holders of Securities of any series may be called at any time and from time to time pursuant to this Article to make, give or take any request, demand, authorization, direction, notice, consent, waiver or other action provided by this Indenture to be made, given or taken by Holders of Securities of such series.

SECTION 1502. Call, Notice and Place of Meetings.

(a) The Trustee may at any time call a meeting of Holders of Securities of any series for any purpose specified in Section 1501, to be held at such time and at such place as the Trustee shall determine. Notice of every meeting of Holders of Securities of any series, setting forth the time and the place of such meeting and in general terms the action proposed to be taken at such meeting, shall be given, in the manner provided in Section 106, not less than 20 nor more than 180 days prior to the date fixed for the meeting.

(b) In case at any time the Company, pursuant to a Board Resolution, or the Holders of at least 25% in principal amount of the Outstanding Securities of any series shall have requested the Trustee to call a meeting of the Holders of Securities of such series for any purpose specified in Section 1501, by written request setting forth in reasonable detail the action proposed to be taken at the meeting, and the Trustee shall not have made the first publication of the notice of such meeting within 20 days after receipt of such request or shall not thereafter proceed to cause the meeting to be held as provided herein, then the Company or the Holders of Securities of such series in the amount above specified, as the case may be, may determine the time and the place for such meeting and may call such meeting for such purposes by giving notice thereof as provided in subsection (a) of this Section.

SECTION 1503. Persons Entitled to Vote at Meetings. To be entitled to vote at any meeting of Holders of Securities of any series, a Person shall be (1) a Holder of one or more Outstanding Securities of such series, or (2) a Person appointed by an instrument in writing as proxy for a Holder or Holders of one or more Outstanding Securities of such series by such Holder or Holders. The only Persons who shall be entitled to be present or to speak at any meeting of Holders of Securities of any series shall be the Persons entitled to vote at such meeting and their counsel, any representatives of the Trustee and its counsel and any representatives of the Company and its counsel.

SECTION 1504. Quorum; Action. The Persons entitled to vote a majority in principal amount of the Outstanding Securities of a series shall constitute a quorum for a meeting of Holders of Securities of such series; provided, however, that if any action is to be taken at such meeting with respect to a consent or waiver which this Indenture expressly provides may be given by the Holders of not less than a specified percentage in principal amount of the Outstanding Securities of a series, the Persons entitled to vote such specified percentage in principal amount of the Outstanding Securities of such series shall constitute a quorum. In the absence of a quorum within 30 minutes after the time appointed for any such meeting, the meeting shall, if convened at the request of Holders of Securities of such series, be dissolved. In any other case, the meeting may be adjourned for a period of not less than 10 days as determined by the chairman of the meeting prior to the adjournment of such meeting. In the absence of a quorum at the reconvening of any such adjourned meeting, such adjourned meeting may be further adjourned for a period of not less than 10 days; at the reconvening of any meeting adjourned or further adjourned for lack of a quorum, the Persons entitled to vote 25% in aggregate principal amount of the then Outstanding Securities shall constitute a quorum for the taking of any action set forth in the notice of the original meeting. Notice of the reconvening of any adjourned meeting shall be given as provided in Section 1502(a), except that such notice need be given only once not less than five days prior to the date on which the meeting is scheduled to be reconvened.

Except as limited by the proviso to Section 902, any resolution presented to a meeting or adjourned meeting duly reconvened at which a quorum is present as aforesaid may be adopted by the affirmative vote of the Persons entitled to vote a majority in aggregate principal amount of the Outstanding Securities represented at such meeting; provided, however, that, except as limited by the proviso to Section 902, any resolution with respect to any request, demand, authorization, direction, notice, consent, waiver or other action which this Indenture expressly provides may be made, given or taken by the Holders of a specified percentage, which is less than a majority, in principal amount of the Outstanding Securities of a series may be adopted at a meeting or an adjourned meeting duly reconvened and at which a quorum is present as aforesaid by the affirmative vote of the Holders of such specified percentage in principal amount of the Outstanding Securities of that series.

Any resolution passed or decision taken at any meeting of Holders of Securities of any series duly held in accordance with this Section shall be binding on all the Holders of Securities of such series and the related coupons, whether or not present or represented at the meeting.

Notwithstanding the foregoing provisions of this Section 1504, if any action is to be taken at a meeting of Holders of Securities of any series with respect to any request, demand, authorization, direction, notice, consent, waiver or other action that this Indenture expressly provides may be made, given or taken by the Holders of a specified percentage in principal amount of all Outstanding Securities affected thereby, or of the Holders of such series and one or more additional series:

(i) there shall be no minimum quorum requirement for such meeting; and

(ii) the principal amount of the Outstanding Securities of such series that vote in favor of such request, demand, authorization, direction, notice, consent, waiver or other action shall be taken into account in determining whether such request, demand, authorization, direction, notice, consent, waiver or other action has been made, given or taken under this Indenture.

**SECTION 1505. Determination of Voting Rights; Conduct and Adjournment of Meetings.**

(a) Notwithstanding any provisions of this Indenture, the Trustee may make such reasonable regulations as it may deem advisable for any meeting of Holders of Securities of a series in regard to proof of the holding of Securities of such series and of the appointment of proxies and in regard to the appointment and duties of inspectors of votes, the submission and examination of proxies, certificates and other evidence of the right to vote, and such other matters concerning the conduct of the meeting as it shall deem appropriate. Except as otherwise permitted or required by any such regulations, the holding of Securities shall be proved in the manner specified in Section 104 and the appointment of any proxy shall be proved in the manner specified in Section 104 or by having the signature of the Person executing the proxy witnessed or guaranteed by any trust company, bank or banker authorized by Section 104 to certify to the holding of Bearer Securities. Such regulations may provide that written instruments appointing proxies, regular on their face, may be presumed valid and genuine without the proof specified in Section 104 or other proof.

(b) The Trustee shall, by an instrument in writing appoint a temporary chairman of the meeting, unless the meeting shall have been called by the Company or by Holders of Securities as provided in Section 1502(b), in which case the Company or the Holders of Securities of the series calling the meeting, as the case may be, shall in like manner appoint a temporary chairman. A permanent chairman and a permanent secretary of the meeting shall be elected by vote of the Persons entitled to vote a majority in principal amount of the Outstanding Securities of such series represented at the meeting.

(c) At any meeting each Holder of a Security of such series or proxy shall be entitled to one vote for each \$1,000 principal amount of the Outstanding Securities of such series held or represented by him; provided, however, that no vote shall be cast or counted at any meeting in respect of any Security challenged as not Outstanding and ruled by the chairman of the meeting to be not Outstanding. The chairman of the meeting shall have no right to vote, except as a Holder of a Security of such series or proxy.

(d) Any meeting of Holders of Securities of any series duly called pursuant to Section 1502 at which a quorum is present may be adjourned from time to time by Persons entitled to vote a majority in principal amount of the Outstanding Securities of such series represented at the meeting, and the meeting may be held as so adjourned without further notice.

SECTION 1506. Counting Votes and Recording Action of Meetings. The vote upon any resolution submitted to any meeting of Holders of Securities of any series shall be by written ballots on which shall be subscribed the signatures of the Holders of Securities of such series or of their representatives by proxy and the principal amounts and serial numbers of the Outstanding Securities of such series held or represented by them. The permanent chairman of the meeting shall appoint two inspectors of votes who shall count all votes cast at the meeting for or against any resolution and who shall make and file with the secretary of the meeting, their verified written reports in duplicate of all votes cast at the meeting. A record, at least in duplicate, of the proceedings of each meeting of Holders of Securities of any Series shall be prepared by the secretary of the meeting and there shall be attached to said record the original reports of the inspectors of votes on any vote by ballot taken thereat and affidavits by one or more persons having knowledge of the fact, setting forth a copy of the notice of the meeting and showing that said notice was given as provided in Section 1502 and, if applicable, Section 1504. Each copy shall be signed and verified by the affidavits of the permanent chairman and secretary of the meeting and one such copy shall be delivered to the Company and another to the Trustee to be preserved by the Trustee, the latter to have attached thereto the ballots voted at the meeting. Any record so signed and verified shall be conclusive evidence of the matters therein stated.

#### ARTICLE SIXTEEN - SUBORDINATION OF SECURITIES

SECTION 1601. Agreement to Subordinate. Notwithstanding anything in this Indenture to the contrary (other than Article Four of this Indenture), the Company covenants and agrees, and each Holder of a Security, by his acceptance thereof, likewise covenants and agrees, that, to the extent and in the manner hereinafter set forth in this Article, the Indebtedness represented by the Securities and the payment of any Obligations with respect to each and all of the Securities are hereby expressly made subordinate and subject in right of payment to the prior payment in full of all Senior Indebtedness.

SECTION 1602. Payment Over of Proceeds upon Dissolution, Etc.. In the event of (a) any insolvency or bankruptcy case or Proceeding, or any receivership, liquidation, reorganization or other similar case or Proceeding in connection therewith, relative to the Company or to its creditors, as such, or to its assets, or (b) any liquidation, dissolution or other winding up of the Company, whether voluntary or involuntary and whether or not involving insolvency or bankruptcy, or (c) any assignment for the benefit of creditors or any other marshaling of assets and liabilities of the Company, then and in any such event specified in (a), (b) or (c) above (each such event, if any, herein sometimes referred to as a "Proceeding")

(1) the holders of Senior Indebtedness shall first be entitled to receive payment in full of all Obligations due or to become due on or in respect of all Senior Indebtedness, or provision shall be made for such payment in cash or cash equivalents or otherwise in a manner satisfactory to the holders of Senior Indebtedness, before the Holders of the Securities are entitled to receive any payment or distribution on account of principal of or premium, if any, or interest on or other Obligations in respect of the Securities or on account of any purchase, redemption or other acquisition of Securities by the Company (individually and collectively, a "Securities Payment"), and

(2) any payment or distribution of assets of the Company of any kind or character, whether in cash, property or securities (other than Capital Stock or securities of the Company as reorganized or readjusted, or securities of the Company or any other corporation provided for by a plan of reorganization or readjustment, the payment of which is subordinate, at least to the extent provided in this Article Sixteen with respect to the Securities, to the payment in full, without diminution or modification by such plan, of all Senior Indebtedness), to which the Holders would be entitled except for the provisions of this Article Sixteen, shall be paid by the liquidating trustee or agent or other person making such a payment or distribution, directly to the holders of Senior Indebtedness) (or their representative(s) or trustee(s) acting on their behalf), ratably according to the aggregate amounts remaining unpaid on account of the principal of or interest on and other amounts due on the Senior Indebtedness held or represented by each, to the extent necessary to make payment in full of all Senior Indebtedness remaining unpaid, after giving effect to any concurrent payment or distribution to the holders of such Senior Indebtedness.

In the event that, notwithstanding the foregoing provisions of this Section 1602, the Trustee or the Holder of any Security shall have received any payment or distribution of assets of the Company of any kind or character, whether in cash, property or securities (other than Capital Stock or securities of the Company as reorganized or readjusted, or securities of the Company or any other corporation provided for by a plan of reorganization or readjustment, the payment of which is subordinate, at least to the extent provided in this Article with respect to the Securities, to the payment in full, without diminution or modification by such plan, of Senior Indebtedness), before all Senior Indebtedness is paid in full or payment thereof provided for in cash or cash equivalents or otherwise in a manner satisfactory to the holders of Senior Indebtedness, such payment or distribution shall be held in trust for the benefit of, and be paid over to, the holders of the Senior Indebtedness remaining unpaid (or their representative(s) or trustee(s) acting on their behalf), ratably as aforesaid, for application to the payment of such Senior Indebtedness until such Senior Indebtedness shall have been paid in full, after giving effect to any concurrent payment or distribution to the holders of such Senior Indebtedness.

The consolidation of the Company with, or the merger of the Company into, another Person or the liquidation or dissolution of the Company following the conveyance or transfer of all or substantially all of its properties and assets as an entirety to another Person upon the terms and conditions set forth in Article Eight shall not be deemed a Proceeding for the purposes of this Section 1602 if the Person formed by such consolidation or into which the Company is merged or the Person which acquires by conveyance or transfer such properties and assets as an entirety, as the case may be, shall, as a part of such consolidation, merger, conveyance or transfer, comply with the conditions set forth in Article Eight.



SECTION 1603. No Payment When Senior Indebtedness in Default. Anything in this Indenture to the contrary notwithstanding, no payment on account of principal of or redemption of, interest on or other amounts due on the Securities, and no redemption, purchase, or other acquisition of the Securities, shall be made by or on behalf of the Company (i) unless full payment of amounts then due for principal and interest and of all other obligations then due on all Senior Indebtedness has been made or duly provided for pursuant to the terms of the instrument governing such Senior Indebtedness, (ii) if, at the time of such payment, redemption, purchase or other acquisition, or immediately after giving effect thereto, there shall exist under any Senior Indebtedness, or any agreement pursuant to which any Senior Indebtedness is issued, any default, which default shall not have been cured or waived and which default shall have resulted in the full amount of such Senior Indebtedness being declared due and payable or (iii) if, at the time of such payment, redemption, purchase or other acquisition, the Trustee shall have received written notice from the holder or holders of any Senior Indebtedness or their representative or representatives (a "Payment Blockage Notice") that there exists under such Senior Indebtedness, or any agreement pursuant to which such Senior Indebtedness is issued, any default, which default shall not have been cured or waived, permitting the holders thereof to declare the full amount of such Senior Indebtedness due and payable, but only for the period (the "Payment Blockage Period") commencing on the date of receipt of the Payment Blockage Notice and ending (unless earlier terminated by notice given to the Trustee by the Holders of such Senior Indebtedness) on the earlier of (A) the date on which such event of default shall have been cured or waived or (B) 180 days from the receipt of the Payment Blockage Notice. Upon termination of a Payment Blockage Period, payments on account of principal of or interest on the Securities and redemptions, purchases or other acquisitions may be made by or on behalf of the Company. Notwithstanding anything herein to the contrary, (A) only one Payment Blockage Notice may be given during any period of 360 consecutive days with respect to the same event of default and any other events of default on the same issue of Senior Indebtedness existing and known to the person giving such notice at the time of such notice and (B) no new Payment Blockage Period may be commenced by the holder or holders of the same issue of Senior Indebtedness or their representative or representatives during any period of 360 consecutive days unless all events of default which were the object of the immediately preceding Payment Blockage Notice, and any other event of default on the same issue of Senior Indebtedness existing and known to the person giving such notice at the time of such notice, have been cured or waived.

In the event that, notwithstanding the provisions of this Section 1603, payments are made by or on behalf of the Company in contravention of the provisions of this Section 1603, such payments shall be held by the Trustee, any Paying Agent or the Holders, as applicable, in trust for the benefit of, and shall be paid over to and delivered to, the holders of Senior Indebtedness or their representative or the trustee under the indenture or other agreement (if any), pursuant to which any instruments evidencing any Senior Indebtedness may have been issued, as their respective interests may appear, for application to the payment of all Senior Indebtedness remaining unpaid to the extent necessary to pay all Senior Indebtedness in full in accordance with the terms of such Senior Indebtedness, after giving effect to any concurrent payment or distribution to or for the holders of Senior Indebtedness.

The provisions of this Section shall not apply to any payment with respect to which Section 1602 would be applicable.

SECTION 1604. Reliance by Senior Indebtedness on Subordination Provisions. Each Holder of any Security by his acceptance thereof acknowledges and agrees that the foregoing subordination provisions are, and are intended to be, an inducement and a consideration for each holder of any Senior Indebtedness, whether such Senior Indebtedness was created or acquired before or after the issuance of the Securities, to acquire and continue to hold, or to continue to hold, such Senior Indebtedness, and such holder of Senior Indebtedness shall be deemed conclusively to have relied on such subordination provisions in acquiring and continuing to hold or in continuing to hold such Senior Indebtedness.

SECTION 1605. Subrogation to Rights of Holders of Senior Indebtedness. Subject to the payment in full of all Obligations due or to become due on or in respect of Senior Indebtedness, or the provision for such payment in cash or cash equivalents or otherwise in a manner satisfactory to the holders of Senior Indebtedness, the Holders of the Securities shall be subrogated to the extent of the payments or distributions made to the holders of such Senior Indebtedness pursuant to the provisions of this Article Sixteen to the rights of the holders of such Senior Indebtedness to receive payments and distributions of cash, property and securities applicable to the Senior Indebtedness until the principal of and premium, if any, and interest on the Securities shall be paid in full. For purposes of such subrogation, no payments or distributions to the holders of the Senior Indebtedness of any cash, property or securities to which the Holders of the Securities or the Trustee would be entitled except for the provisions of this Article Sixteen, and no payments over pursuant to the provisions of this Article Sixteen to the holders of Senior Indebtedness by Holders of the Securities or the Trustee, shall, as among the Company, its creditors other than holders of Senior Indebtedness and the Holders of the Securities, be deemed to be a payment or distribution by the Company to or on account of the Senior Indebtedness.

SECTION 1606. Provisions Solely to Define Relative Rights. The provisions of this Article Sixteen are and are intended solely for the purpose of defining the relative rights of the Holders of the Securities on the one hand and the holders of Senior Indebtedness on the other hand. Nothing contained in this Article or elsewhere in this Indenture or in the Securities is intended to or shall (a) impair, as among the Company, its creditors other than holders of Senior Indebtedness and the Holders of the Securities, the obligation of the Company, which is absolute and unconditional (and which, subject to the rights under this Article Sixteen of the holders of Senior Indebtedness, is intended to rank equally with all other general obligations of the Company), to pay to the Holders of the Securities the principal of and premium, if any, and interest on the Securities as and when the same shall become due and payable in accordance with their terms; or (b) affect the relative rights against the Company of the Holders of the Securities and creditors of the Company other than the holders of Senior Indebtedness; or (c) prevent the Trustee or the Holder of any Security from exercising all remedies otherwise permitted by applicable law upon default under this Indenture, subject to the rights, if any, under this Article of the holders of Senior Indebtedness to receive cash, property and securities otherwise payable or deliverable to the Trustee or such Holder.

SECTION 1607. Trustee to Effectuate Subordination. Each Holder of a Security by his acceptance thereof authorizes and directs the Trustee on his behalf to take such action as may be necessary or appropriate to effectuate, as between the Holders of the Securities and the holders of Senior Indebtedness, the subordination provided in this Article Sixteen and appoints the Trustee his attorney-in-fact for any and all such purposes, including, in the event of any dissolution, winding up or liquidation or reorganization under any applicable bankruptcy law of the Company (whether in bankruptcy, insolvency or receivership Proceedings or otherwise), the timely filing of a claim for the unpaid balance of such Holder's Securities in the form required in such Proceedings and the causing of such claim to be approved. If the Trustee does not file a claim or proof of debt in the form required in such Proceedings prior to 30 days before the expiration of the time to file such claims or proofs, then the holders of Senior Indebtedness, jointly, or their representatives shall have the right to file an appropriate claim for and on behalf of the Holders and to demand, sue for, collect, receive and receipt for the payments and distributions in respect of the Securities which are required to be paid or delivered to the holders of Senior Indebtedness as provided in this Article Sixteen and to take all such other action in the name of the Holders or otherwise, as such holder of Senior Indebtedness or representative thereof may determine to be necessary or appropriate for the enforcement of the provisions of this Article Sixteen.

SECTION 1608. No Waiver of Subordination Provisions. No right of any present or future holder of any Senior Indebtedness to enforce subordination as herein provided shall at any time in any way be prejudiced or impaired by any act or failure to act on the part of the Company or by any act or failure to act, in good faith, by any such holder or any representative or trustee therefor, or by any non-compliance by the Company with the terms, provisions and covenants of this Indenture, regardless of any knowledge thereof any such holder may have or be otherwise charged with.

Without in any way limiting the generality of the foregoing paragraph, the holders of Senior Indebtedness may, at any time from time to time, without the consent of or notice to the Trustee or the Holders of the Securities, without incurring responsibility to the Holders of the Securities and without impairing or releasing the subordination provided in this Article Sixteen or the obligations hereunder of the Holders of the Securities to the holders of Senior Indebtedness, do any one or more of the following: (i) change the manner, place or terms of payment or extend the time of payment of, or renew or alter, Senior Indebtedness, or otherwise amend or supplement in any manner Senior Indebtedness or any instrument evidencing the same or any agreement under which Senior Indebtedness is outstanding; (ii) sell, exchange, release or otherwise deal with any property pledged, mortgaged or otherwise securing Senior Indebtedness; (iii) release any Person liable in any manner for the collection of Senior Indebtedness and settle or compromise Senior Indebtedness (which, to the extent so settled and compromised, shall be deemed to have been paid in full for all purposes hereof); (iv) apply any amounts received to any liability of the Company owing to holders of Senior Indebtedness; and (v) exercise or refrain from exercising any rights against the Company and any other Person.

SECTION 1609. Notice to Trustee. The Company shall give prompt written notice to the Trustee of any default or event of default with respect to any Senior Indebtedness or of any fact known to the Company, which would prohibit the making of any payment to or by the Trustee in respect of the Securities pursuant to the provisions of this Article Sixteen. Notwithstanding the provisions of this Article Sixteen or any other provision of this Indenture, the Trustee shall not be charged with knowledge of the existence of any facts which would prohibit the making of any payment to or by the Trustee in respect of the Securities, unless and until the Trustee shall have received written notice thereof from the Company or a holder of Senior Indebtedness or from any representative or trustee acting on their behalf; and, prior to the receipt of any such written notice, the Trustee, subject to the provisions of Section 612, shall be entitled in all respects to assume that no such facts exist; provided, however, that if the Trustee shall not have received the notice provided for in this Section at least three Business Days prior to the date upon which by the terms hereof any money may become payable for any purpose (including, without limitation, the payment of the principal of and premium, if any, or interest on any Security), then, anything herein contained to the contrary notwithstanding, the Trustee shall have full power and authority to receive such money and to apply the same to the purpose for which such money was received and shall not be affected by any notice to the contrary which may be received by it within three Business Days prior to such date. Nothing contained in this Article Sixteen or any other Article of this Indenture or in any of the Securities shall prevent (a) the Company, at any time except during the pendency of any Proceeding, or under the conditions described in Section 1603, from making payments at any time in respect of the Securities, or (b) the application by the Trustee of any money deposited with it hereunder to the payment of or on account of the Securities, or the retention thereof by any Holder, if the Trustee did not have notice, as provided in this Section 1609, that such payment would have been prohibited by the provisions of this Article Sixteen.

Subject to the provisions of Section 612, the Trustee shall be entitled to rely on the delivery to it of a written notice by a Person representing himself to be a holder of Senior Indebtedness (or a representative or trustee therefor) to establish that such notice has been given by a holder of Senior Indebtedness (or a trustee therefor). In the event that the Trustee determines in good faith that further evidence is required with respect to the right of any Person as a holder of Senior Indebtedness to participate in any payment or distribution pursuant to this Article Sixteen, the Trustee may request such Person to furnish evidence to the reasonable satisfaction of the Trustee as to the amount of Senior Indebtedness held by such Person, the extent to which such Person is entitled to participate in such payment or distribution and any other facts pertinent to the rights of such Person under this Article Sixteen, and if such evidence is not furnished, the Trustee may defer any payment to such Person pending judicial determination as to the right of such Person to receive such payment.

SECTION 1610. Reliance on Judicial Order or Certificate of Liquidating Agent. Upon any payment or distribution of assets of the Company referred to in this Article Sixteen, the Trustee, subject to the provisions of Section 612, and the Holders of the Securities shall be entitled to rely upon any order or decree entered by any court of competent jurisdiction in which any Proceeding is pending, or a certificate of the trustee in bankruptcy, receiver, liquidating trustee, custodian, assignee for the benefit of creditors, agent or other Person making such payment or distribution, delivered to the Trustee or to the Holders of Securities, for the purpose of ascertaining the Persons entitled to participate in such payment or distribution, the holders of the Senior Indebtedness and other indebtedness of the Company, the amount thereof or payable thereon, the amount or amounts paid or distributed thereon and all other facts pertinent thereto or to this Article.

SECTION 1611. Trustee Not Fiduciary for Holders of Senior Indebtedness. The Trustee shall not be deemed to owe any fiduciary duty to the holders of Senior Indebtedness. Nothing contained in this Article Sixteen or elsewhere in this Indenture, or in any of the Securities, shall prevent the application by the Trustee of any moneys which were deposited with it hereunder, prior to its receipt of written notice of facts which would prohibit such application, for the purpose of the payment of or on account of the principal of or interest on, the Securities unless, prior to the date on which such application is made by the Trustee, the Trustee shall be charged with notice under Section 1609 hereof of the facts which would prohibit the making of such application.

SECTION 1612. Rights of Trustee as Holder of Senior Indebtedness; Preservation of Trustee's Rights. The Trustee in its individual capacity shall be entitled to all the rights set forth in this Article Sixteen with respect to any Senior Indebtedness which may at any time be held by it, to the same extent as any other holder of Senior Indebtedness, and nothing in this Indenture shall deprive the Trustee of any of its rights as such holder. Nothing in this Article shall apply to claims of, or payments to, the Trustee under or pursuant to Section 606.

SECTION 1613. Article Applicable to Paying Agents. In case at any time any Paying Agent other than the Trustee shall have been appointed by the Company and be then acting hereunder, the term "Trustee" as used in this Article Sixteen shall in such case (unless the context otherwise requires) be construed as extending to and including such Paying Agent within its meaning as fully for all intents and purposes as if such Paying Agent were named in this Article in addition to or in place of the Trustee; provided, however, that Section 1612 shall not apply to the Company or any Affiliate of the Company if it or such Affiliate acts as Paying Agent.

#### ARTICLE SEVENTEEN - CONVERSION OF SECURITIES

SECTION 1701. Applicability of Article; Conversion Privilege and Conversion Price. Securities of any series which are convertible shall be convertible in accordance with their terms and (except as otherwise specified as contemplated by Section 301 for Securities of any series) in accordance with this Article Seventeen. Subject to and upon compliance with the provisions of this Article Seventeen, at any time during the period specified in the Securities, at the option of the Holder thereof, any Security or any portion of the principal amount thereof which is \$1,000 or an integral multiple of \$1,000 may be converted at the principal amount thereof, or of such portion thereof, into fully paid and nonassessable shares (calculated as to each conversion to the nearest 1/100 of a share) of Common Stock of the Company, at the Conversion Price, determined as hereinafter provided, in effect at the time of conversion. In case a Security or portion thereof is called for redemption, such conversion right in respect of the Security or portion so called shall expire at the close of business on the Business Day immediately preceding the Redemption Date, unless the Company defaults in making the payment due upon redemption, in which case such conversion right shall terminate on the date such default is cured.

The price at which shares of Common Stock shall be delivered upon conversion (herein called the "Conversion Price") of Securities of any series shall be specified in such Securities. The Conversion Price shall be adjusted in certain instances as provided in Section 1704.

In case the Company shall, by dividend or otherwise, declare or make a distribution on its Common Stock referred to in paragraph (4) of Section 1704, the Holder of each Security, upon the conversion thereof pursuant to this Article Seventeen subsequent to the close of business on the date fixed for the determination of stockholders entitled to receive such distribution and prior to the effectiveness of the Conversion Price adjustment in respect of such distribution pursuant to paragraph (4) of Section 1704, shall be entitled to receive for each share of Common Stock into which such Security is converted, the portion of the evidence of indebtedness, shares of Capital Stock or assets so distributed applicable to one share of Common Stock; provided, however, that, at the election of the Company (whose election shall be evidenced by a Board Resolution filed with the Trustee) with respect to all Holders so converting, the Company may, in lieu of distributing to such Holder any portion of such distribution not consisting of cash or securities of the Company, pay such Holder an amount in cash equal to the fair market value thereof (as determined in good faith by the Board of Directors, whose determination shall be conclusive and described in a Board Resolution filed with the Trustee). If any conversion of a Security entitled to the benefits described in the immediately preceding sentence occurs prior to the payment date for a distribution to holders of Common Stock which the Holder of the Security so converted is entitled to receive in accordance with the immediately preceding sentence, the Company may elect (such election to be evidenced by a Board Resolution filed with the Trustee) to distribute to such Holder a due bill for the evidences of indebtedness, shares of Capital Stock or assets to which such Holder is so entitled, provided that such due bill (i) meets any applicable requirements of the principal over-the-counter market or national securities exchange or other market on which the Common Stock is then traded, and (ii) requires payment or delivery of such evidences of indebtedness or assets no later than the date of payment or delivery thereof to holders of Common Stock receiving such distribution.

**SECTION 1702. Exercise of Conversion Privilege.** In order to exercise the conversion privilege, the Holder of any Security to be converted shall surrender such Security, duly endorsed or assigned to the Company or in blank, at any office or agency maintained by the Company pursuant to Section 1002, accompanied by written notice to the Company at such office or agency that the Holder elects to convert such Security or, if less than the entire principal amount thereof is to be converted, the portion thereof to be converted and shall comply with any additional requirements set forth in such Security. Securities surrendered for conversion during the period from the close of business on any Regular Record Date next preceding any Interest Payment Date to the opening of business on such Interest Payment Date shall (except for Securities the Maturity of which is prior to such Interest Payment Date) be accompanied by payment in funds acceptable to the Company of an amount equal to the interest payable on such Interest Payment Date on the principal amount of Securities being surrendered for conversion and such interest shall be paid on such Interest Payment Date as provided in Section 307. Except as provided in the preceding sentence, no payment or adjustment shall be made upon any conversion on account of any interest accrued on the Securities surrendered for conversion or on account of any dividends on the Common Stock issued upon conversion.

The Company's delivery to the Holder of the fixed number of shares of the Common Stock of the Company (and any cash in lieu of any fractional share of Common Stock) into which the Security is convertible shall be deemed to satisfy the Company's obligation to pay the principal amount of the Security and all accrued interest and original issue discount that has not previously been paid. The shares of Common Stock of the Company so delivered shall be treated as issued first in payment of accrued interest and original issue discount and then in payment of principal. Thus, accrued interest and original issue discount shall be treated as paid, rather than canceled, extinguished or forfeited.

Securities shall be deemed to have been converted immediately prior to the close of business on the day of surrender of such Securities for conversion in accordance with the foregoing provisions, and at such time the rights of the Holders of such Securities as Holders shall cease, and the Person or Persons entitled to receive the Common Stock issuable upon conversion shall be treated for all purposes as the record holder or holders of such Common Stock at such time. As promptly as practicable on or after the conversion date, the Company shall issue and shall deliver at such office or agency a certificate or certificates for the number of full shares of Common Stock issuable upon conversion, together with payment in lieu of any fraction of a share, as provided in Section 1703.

In the case of any Security which is converted in part only, as promptly as practicable on or after the conversion date the Company shall execute and the Trustee shall authenticate and make available for delivery to the Holder thereof (or the Depositary in the case of a Global Security), at the expense of the Company, a new Security or Securities, of authorized denominations in aggregate principal amount equal to the unconverted portion of the principal amount of such Security.

SECTION 1703. Fractions of Shares. No fractional shares of Common Stock shall be issued upon conversion of Securities. If more than one Security shall be surrendered for conversion at one time by the same Holder, the number of full shares of Common Stock which shall be issuable upon conversion thereof shall be computed on the basis of the aggregate principal amount of the Securities (or specified portions thereof) so surrendered. Instead of any fractional share of Common Stock which would otherwise be issuable upon conversion of any Security or Securities (or specified portions thereof), the Company shall pay a cash adjustment (rounded to the nearest cent) in respect of such fraction in an amount equal to the same fraction of the Closing Price per share of the Common Stock on the day of conversion (or, if such day is not a Trading Day, on the Trading Day immediately preceding such day).

SECTION 1704. Adjustment of Conversion Price. The Conversion Price shall be subject to adjustment from time to time as follows:

(1) If the Company pays or makes a dividend or other distribution (a) on its Common Stock exclusively in Common Stock or (b) on any other class of Capital Stock of the Company, which dividend or distribution includes Common Stock of the Company, the Conversion Price in effect at the opening of business on the day following the date fixed for the determination of stockholders entitled to receive such dividend or other distribution (the "Dividend Record Date") shall be reduced by multiplying such Conversion Price by a fraction of which the numerator shall be the number of shares of Common Stock of the Company outstanding at the close of business on the Dividend Record Date and the denominator shall be the sum of such number of shares and the total number of shares constituting such dividend or other distribution. Such reduction shall become effective immediately after the opening of business on the day following the date fixed for such determination. For the purposes of this paragraph (1), the number of shares of Common Stock of the Company at any time outstanding shall not include shares held in the treasury of the Company, but shall include shares issuable in respect of scrip certificates issued in lieu of fractions of shares of Common Stock. The Company shall not pay any dividend or make any distribution on shares of Common Stock held in the treasury of the Company.

(2) Subject to paragraph (6) of this Section, if the Company pays or makes a dividend or other distribution on its Common Stock consisting exclusively of Short Term Rights (as defined below), or otherwise issues Short Term Rights to all holders of its Common Stock, the Conversion Price in effect at the opening of business on the day following the record date for the determination of holders of Common Stock entitled to receive such Short Term Rights (the "Rights Record Date") shall be reduced by multiplying such Conversion Price by a fraction of which the numerator shall be the number of shares of Common Stock of the Company outstanding at the close of business on the Rights Record Date plus the number of shares of Common Stock of the Company which the aggregate of the offering price of the total number of shares of Common Stock so offered for subscription or purchase would purchase at such current market price and the denominator shall be the number of shares of Common Stock of the Company outstanding at the close of business on the Rights Record Date plus the number of shares of Common Stock so offered for subscription or purchase. Such reduction shall become effective immediately after the opening of business on the day following the Rights Record Date. For the purposes of this paragraph (2), the number of shares of Common Stock of the Company at any time outstanding shall not include shares held in the treasury of the Company, but shall include shares issuable in respect of scrip certificates issued in lieu of fractions of shares of Common Stock of the Company. The Company shall not issue any rights, options or warrants in respect of shares of its Common Stock held in the treasury of the Company. When used in this Section 1704, the term "Short Term Rights" shall mean rights, warrants or options entitling the holders thereof (for a period commencing no earlier than the Rights Record Date and expiring not more than 45 days after the Rights Record Date) to subscribe for or purchase shares of Common Stock of the Company at a price per share less than the current market price per share (determined as provided in paragraph (7) of this Section 1704) of the Common Stock of the Company on the Rights Record Date.

(3) In case outstanding shares of Common Stock of the Company shall be subdivided into a greater number of shares of Common Stock, the Conversion Price in effect at the opening of business on the day following the day upon which such subdivision becomes effective shall be proportionately reduced, and, conversely, in case outstanding shares of Common Stock of the Company shall be combined into a smaller number of shares of Common Stock, the Conversion Price in effect at the opening of business on the day following the day upon which such combination becomes effective shall be proportionately increased, such reduction or increase, as the case may be, to become effective immediately after the opening of business on the day following the day upon which such subdivision or combination becomes effective.



(4) Subject to the last sentence of this paragraph (4) of this Section, if the Company, by dividend or otherwise, (a) distributes to all holders of its Common Stock evidences of its indebtedness, shares of any class of Capital Stock of the Company or other assets (other than cash dividends out of current or retained earnings), or (b) distributes to substantially all holders of Common Stock rights or warrants to subscribe for securities (other than Short Term Rights to which paragraph (2) of this Section 1704 applies), the Conversion Price shall be reduced by multiplying such Conversion Price by a fraction of which the numerator shall be the current market price per share (determined as provided in paragraph (7) of this Section 1704) of the Common Stock of the Company on the Reference Date (as defined below) less the fair market value (as determined in good faith by the Board of Directors, whose determination shall be conclusive and described in a Board Resolution filed with the Trustee), on the Reference Date, of the portion of the evidences of indebtedness and other assets so distributed or of such subscription rights or warrants applicable to one share of Common Stock (collectively, the “Market Value of the Distribution”) and the denominator shall be such current market price per share of the Common Stock of the Company. Such reduction shall become effective immediately prior to the opening of business on the day (the “Reference Date”) following the later of (a) the date fixed for the payment of such distribution and (b) the date 20 days after notice relating to such distribution is required to be given pursuant to Section 1706(a). If the Board of Directors determines the fair market value of any distribution for purposes of this paragraph (4) by reference to the actual or when issued trading market for any securities comprising such distribution, it must in doing so consider the prices in such market over the same period used in computing the current market price per share pursuant to paragraph (7) of this Section 1704. In the event that, with respect to any distribution to which this paragraph (4) of Section 1704 would otherwise apply, the Market Value of the Distribution is greater than the current market price per share of the Common Stock (such distribution being referred to herein as an “Unadjusted Distribution”), then the adjustment provided by this paragraph (4) shall not be made and in lieu thereof the provisions of Section 1711 shall apply with respect to such Unadjusted Distribution.

(5) The Company may, but shall not be required to, make such reductions in the Conversion Price, in addition to those required by paragraphs (1), (2), (3), and (4) of this Section 1704, as it considers to be advisable in order that any event treated for federal income tax purposes as a dividend of stock or stock rights shall not be taxable to the recipients. In addition, the Company, from time to time, may decrease the Conversion Price by any amount and for any reason, temporarily or otherwise, including situations where the Board of Directors determines such decrease to be fair and appropriate with respect to transactions in which holders of Common Stock have the right to participate.

(6) Rights or warrants issued or distributed by the Company to all holders of its Common Stock entitling the holders thereof to subscribe for or purchase shares of Common Stock or Preferred Stock, which rights or warrants (i) are deemed to be transferred with such shares of Common Stock, (ii) are not exercisable and (iii) are also issued or distributed in respect of future issuances of Common Stock, in each case in clauses (i) through (iii) until the occurrence of a specified event or events (“Trigger Events”), shall for purposes of this Section 1704 not be deemed issued or distributed until the occurrence of the earliest Trigger Event. Each share of Common Stock issued upon conversion of Securities pursuant to this Article Seventeen shall be entitled to receive the appropriate number of Common Stock purchase rights (the “Rights”), if any, and the certificates representing the Common Stock issued upon conversion shall bear such legends, if any. Notwithstanding anything to the contrary in this Article Seventeen, there shall not be any adjustment to the Conversion Price as a result of (i) the distribution of separate certificates representing the Rights; (ii) the occurrence of certain events entitling holders of Rights to receive, upon exercise thereof, Common Stock or other securities of the Company or other securities of another corporation; or (iii) the exercise of such Rights. No adjustment in the Conversion Price need be made for rights to purchase or the sale of Common Stock pursuant to a Company plan providing for reinvestment of dividends or interest.

(7) For the purpose of any computation under paragraph (2), (4) or (5) of this Section 1704, the “current market price” per share of Common Stock of the Company on any date shall be deemed to be the average of the daily Closing Prices for the 15 consecutive Trading Days selected by the Company commencing not more than 30 Trading Days before, and ending not later than, the date in question.

(8) No adjustment in the Conversion Price shall be required unless such adjustment would require an increase or decrease of at least 1% in the Conversion Price; provided, however, that any adjustments, which by reason of this paragraph (8) are not required to be made, shall be carried forward and taken into account in any subsequent adjustment. All calculations under this Article Seventeen shall be made to the nearest cent or to the nearest one-hundredth of a share of Common Stock, as the case may be.

(9) Anything herein to the contrary notwithstanding, in the event the Company shall declare any dividend or distribution requiring an adjustment in the Conversion Price hereunder and shall, thereafter and before the payment of such dividend or distribution to stockholders, legally abandon its plan to pay such dividend or distribution, the Conversion Price then in effect hereunder, if changed to reflect such dividend or distribution, shall upon the legal abandonment of such plan be changed to the Conversion Price which would have been in effect at the time of such abandonment (after giving effect to all other adjustments not so legally abandoned pursuant to the provisions of this Article Seventeen) had such dividend or distribution never been declared.

(10) Notwithstanding any other provision of this Section 1704, no adjustment to the Conversion Price shall reduce the Conversion Price below the then par value per share of the Common Stock of the Company, and any such purported adjustment shall instead reduce the Conversion Price to such par value. Notwithstanding the foregoing sentence, the Company hereby covenants that it will from time to time take all such action as may be required to assure that the par value per share of the Common Stock is at all times equal to or less than the Conversion Price.

(11) In the event that this Article Seventeen requires adjustments to the Conversion Price under more than one of paragraphs (1), (2), (3) or (4) of this Section 1704, and the record or effective dates for the transaction giving rise to such adjustments shall occur on the same date, then such adjustments shall be made by applying (to the extent they are applicable), first, the provisions of paragraph (3) of this Section 1704, second, the provisions of paragraph (1) of this Section 1704, third, the provisions of paragraph (4) of this Section 1704 and, fourth, the provisions of paragraph (2) of this Section 1704. Anything herein to the contrary notwithstanding, no single event shall require or result in duplicative adjustments in the Conversion Price pursuant to this Section 1704. After an adjustment to the Conversion Price under this Article Seventeen, any subsequent event requiring an adjustment under this Article Seventeen shall cause an adjustment to the Conversion Price as so adjusted. If, after an adjustment, a Holder of a Security upon conversion of such Security receives shares of two or more classes of Capital Stock of the Company, the Conversion Price shall thereafter be subject to adjustment upon the occurrence of an action taken with respect to any such class of Capital Stock as is contemplated by this Article Seventeen with respect to the Common Stock in this Article Seventeen.

SECTION 1705. Notice of Adjustments of Conversion Price. Whenever the Conversion Price is adjusted as herein provided:

(1) the Company shall compute the adjusted Conversion Price in accordance with Section 1704 or Section 1711 and shall prepare an Officer's Certificate setting forth the adjusted Conversion Price and showing in reasonable detail the facts upon which such adjustment is based, and such certificate shall forthwith be filed (with a copy to the Trustee) at each office or agency maintained for the purpose of conversion of any Securities pursuant to Section 1002; and

(2) a notice stating that the Conversion Price has been adjusted and setting forth the adjusted Conversion Price shall forthwith be required, and as soon as practicable after it is required, such notice shall be mailed by the Company to all Holders at their last addresses as they shall appear in the Security Register.

SECTION 1706. Notice of Certain Corporate Action. In case:

(1) the Company shall take any action that would require a Conversion Price adjustment pursuant to Section 1704 or Section 1711; or

(2) there shall occur any reclassification of the Common Stock of the Company (other than a subdivision or combination of its outstanding shares of Common Stock), or any consolidation or merger to which the Company is a party, or the sale, transfer or lease of all or substantially all of the assets of the Company and for which approval of any stockholders of the Company is required; or

(3) there shall occur the voluntary or involuntary dissolution, liquidation or winding up of the Company, then the Company shall cause to be filed at each office or agency maintained for the purpose of conversion of Securities pursuant to Section 1002, and shall cause to be mailed to all Holders at their last addresses as they shall appear in the Security Register, at least 10 days prior to the applicable record, effective or expiration date hereinafter specified, a notice stating (x) the date on which a record is to be taken for the purpose of any dividend, distribution or granting of rights, warrants or options, or, if a record is not to be taken, the date as of which the holders of Common Stock of record to be entitled to such dividend, distribution, rights, options or warrants are to be determined, or (y) the date on which such reclassification, consolidation, merger, sale, transfer, dissolution, liquidation or winding up is expected to become effective, and, if applicable, the date as of which it is expected that holders of Common Stock of record shall be entitled to exchange their shares of Common Stock for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer, dissolution, liquidation or winding up.

SECTION 1707. Company to Reserve Common Stock. The Company shall at all times reserve and keep available, free from preemptive rights, out of its authorized but unissued Common Stock, for the purpose of effecting the conversion of Securities, a number of shares of Common Stock for the conversion of all outstanding Securities of any series which is convertible into Common Stock.

SECTION 1708. Taxes on Conversion. The Company will pay any and all taxes that may be payable in respect of the issue or delivery of shares of Common Stock on conversion of Securities pursuant hereto. The Company shall not, however, be required to pay any tax which may be payable in respect of any transfer involved in the issue and delivery of shares of Common Stock in a name other than that of the Holder of the Security or Securities to be converted, and no such issue or delivery shall be made unless and until the Person requesting such issue has paid to the Company the amount of any such tax, or has established to the satisfaction of the Company that such tax has been paid.

SECTION 1709. Covenants as to Common Stock. The Company covenants that all shares of Common Stock, which may be issued upon conversion of Securities, will upon issue be duly and validly issued, fully paid and nonassessable, free of preemptive or any similar rights, and, except as provided in Section 1708, the Company will pay all taxes, liens and charges with respect to the issue thereof.

The Company will endeavor promptly to comply with all Federal and state securities laws regulating the offer and delivery of shares of Common Stock upon conversion of Securities, if any, and will list or cause to have quoted such shares of Common Stock on each national securities exchange or in the over-the-counter market or such other market on which the Common Stock is then listed or quoted.

SECTION 1710. Cancellation of Converted Securities. All Securities delivered for conversion shall be delivered to the Trustee to be cancelled by or at the direction of the Trustee, which shall dispose of the same as provided in Section 309.

SECTION 1711. Provisions in Case of Consolidation, Merger or Sale of Assets; Special Distributions. If any of the following shall occur, namely: (i) any reclassification or change of outstanding shares of Common Stock issuable upon conversion of Securities (other than a change in par value, or from par value to no par value, or from no par value to par value, or as a result of a subdivision or combination), (ii) any consolidation or merger to which the Company is a party other than a merger in which the Company is the continuing corporation and which does not result in any reclassification of, or change (other than a change in name, or par value, or from par value to no par value, or from no par value to par value or as a result of a subdivision or combination) in, outstanding shares of Common Stock or (iii) any sale or conveyance of all or substantially all of the property or business of the Company as an entirety, then the Person formed by such consolidation or resulting from such merger or which acquires such properties or assets, as the case may be, shall as a condition precedent to such transaction execute and deliver to the Trustee a supplemental indenture providing that the Holder of each Security then outstanding shall have the right thereafter, during the period such Security shall be convertible as specified in Section 1701, to convert such Security only into the kind and amount of securities, cash and other property receivable, if any, upon such consolidation, merger, sale, transfer or lease by a holder of the number of shares of Common Stock of the Company into which such Security might have been converted immediately prior to such consolidation, merger, sale, transfer or lease; provided that the kind and amount of securities, cash and other property so receivable shall be determined on the basis of the following assumptions. The holder of Common Stock referred to in the foregoing sentence:

(1) is not (a) a Person with which the Company consolidated, (b) a Person into which the Company merged or which merged into the Company, or (c) a Person to which such sale, transfer or lease was made (any Person described in the foregoing clauses (a), (b), or (c), hereinafter referred to as a "Constituent Person"), or (d) an Affiliate of a Constituent Person; and

(2) failed to exercise his rights of election, if any, as to the kind or amount of securities, cash and other property receivable upon such consolidation, merger, sale, transfer or lease (provided that if the kind or amount of securities, cash and other property receivable upon such consolidation, merger, sale transfer or lease is not the same for each share of Common Stock of the Company in respect of which such rights of election shall not have been exercised, then for the purpose of this Section 1711 the kind and amount of securities, cash and other property receivable upon such consolidation, merger, sale, transfer or lease shall be deemed to be the kind and amount so receivable per share by a plurality of such shares of Common Stock).

Such supplemental indenture shall provide for adjustments, which, for events subsequent to the effective date of such supplemental indenture, shall be as nearly equivalent as may be practicable to the adjustments provided for in this Article Seventeen. If, in the case of any such consolidation, merger, sale transfer or lease the stock or other securities and property (including cash) receivable thereupon by a holder of Common Stock includes shares of stock or other securities and property of a corporation other than the successor or purchasing corporation, as the case may be, in such consolidation, merger, sale, transfer or lease then such supplemental indenture shall also be executed by such other corporation and shall contain such additional provisions to protect the interests of the Holders of the Securities as the Board of Directors of the Company shall reasonably consider necessary by reason of the foregoing. The above provisions of this Section 1711 shall similarly apply to successive consolidations, mergers, sales, transfers or leases.

In the event the Company shall execute a supplemental indenture pursuant to this Section 1711, the Company shall promptly file with the Trustee an Officers' Certificate briefly stating the reasons therefor, the kind or amount of shares of stock or securities or property (including cash) receivable by Holders of the Securities upon the conversion of their Securities after any such reclassification, change, consolidation, merger, sale, transfer or lease and any adjustment to be made with respect thereto.

If the Company makes a distribution to all holders of its Common Stock that constitutes an Unadjusted Distribution pursuant to the last sentence of paragraph (4) of Section 1704, then, from and after the record date for determining the holders of Common Stock entitled to receive such distribution (the "Distribution Record Date"), a Holder of a Security who converts such Security in accordance with the provisions of this Indenture shall, upon conversion, be entitled to receive, in addition to the shares of Common Stock into which the Security is convertible, the kind and amount of evidences of indebtedness, shares of Capital Stock, or other assets or subscription rights or warrants, as the case may be, comprising the distribution that such Holder would have received if such Holder had converted the Security immediately prior to the Distribution Record Date.

SECTION 1712. Trustee Adjustment Disclaimer; Company Determination Final. The Trustee has no duty to determine when an adjustment under this Article Seventeen should be made, how it should be made or what it should be. The Trustee has no duty to determine whether a supplemental indenture under Section 1711 need be entered into or whether any provisions of any supplemental indenture are correct. The Trustee shall not be accountable for and makes no representation as to the validity or value of any securities or assets issued upon conversion of Securities. The Trustee shall not be responsible for the Company's failure to comply with this Article Seventeen. Any determination that the Company or the Board of Directors must make pursuant to this Article Seventeen is conclusive, absent manifest error.

SECTION 1713. When No Adjustment Required. Except as expressly set forth in Section 1704, no adjustment in the Conversion Price shall be made because the Company issues, in exchange for cash, property or services, shares of its Common Stock, or any securities convertible into or exchangeable for shares of its Common Stock, or securities (including warrants, rights and options) carrying the right to subscribe for or purchase shares of its Common Stock or such convertible or exchangeable securities.

(1) Notwithstanding anything herein to the contrary, no adjustment in the Conversion Price shall be made pursuant to Section 1704 in respect of any dividend or distribution if the Holders may participate therein (on a basis to be determined in good faith by the Board of Directors) and receive the same consideration they would have received if they had converted the Securities immediately prior to the record date with respect to such dividend or distribution.

SECTION 1714. Equivalent Adjustments. In the event that, as a result of an adjustment made pursuant to Section 1704 above, the holder of any Security thereafter surrendered for conversion shall become entitled to receive any shares of Capital Stock of the Company other than shares of its Common Stock, thereafter the Conversion Price of such other shares so receivable upon conversion of any Securities shall be subject to adjustment from time to time in a manner and on terms as nearly equivalent as practicable to the provisions with respect to Common Stock contained in this Article Seventeen.

SIGNATURES

IN WITNESS WHEREOF, the parties hereto have caused this Indenture to be duly executed all as of the day and year first above written.

AKOYA BIOSCIENCES, INC.

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

,  
as Trustee

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

EXHIBIT A

FORM OF REDEEMABLE OR NON-REDEEMABLE SUBORDINATED SECURITY

[Face of Security]

[If the Holder of this Security (as indicated below) is The Depository Trust Company (“DTC”) or a nominee of DTC, this Security is a Global Security and the following two legends apply:

**Unless this Security is presented by an authorized representative of The Depository Trust Company a New York corporation (“DTC”) to the Company or its agent for registration of transfer, conversion, exchange or payment, and such Security issued is registered in the name of Cede & Co., or in such other name as requested by an authorized representative of DTC (and any payment is made to Cede & Co. or to such other entity as is requested by an authorized representative of DTC), ANY TRANSFER, PLEDGE OR OTHER USE HEREOF FOR VALUE OR OTHERWISE BY OR TO ANY PERSON IS WRONGFUL, inasmuch as the registered owner hereof, Cede & Co., has an interest herein.**

**Unless and until this Security is exchanged in whole or in part for Securities in certificated form, this Security may not be transferred except as a whole by DTC to a nominee thereof or by a nominee thereof to DTC or another nominee of DTC or by DTC or any such nominee to a successor of DTC or a nominee of such successor.]**

[If this Security is an Original Issue Discount Security, insert — FOR PURPOSES OF SECTION 1273 and 1275 OF THE UNITED STATES INTERNAL REVENUE CODE, THE AMOUNT OF ORIGINAL ISSUE DISCOUNT ON THIS SECURITY IS % OF ITS PRINCIPAL AMOUNT, THE ISSUE DATE IS , 20 , AND THE YIELD TO MATURITY IS %. THE METHOD USED TO DETERMINE THE AMOUNT OF ORIGINAL ISSUE DISCOUNT APPLICABLE TO THE SHORT ACCRUAL PERIOD OF , 20 TO , 20 , IS % OF THE PRINCIPAL AMOUNT OF THIS SECURITY.]

AKOYA BIOSCIENCES, INC.

[Designation of Series]

No.

\$

CUSIP No.

AKOYA BIOSCIENCES, INC., a Delaware corporation (herein referred to as the “Company,” which term includes any successor corporation under the Indenture referred to on the reverse hereof), for value received, hereby promises to pay to or registered assigns the principal sum of Dollars on (the “Stated Maturity Date”) [or insert date fixed for earlier redemption (the “Redemption Date,” and together with the Stated Maturity Date with respect to principal repayable on such date, the “Maturity Date.”)]



[If the Security is to bear interest prior to Maturity, insert — and to pay interest thereon from or from the most recent Interest Payment Date to which interest has been paid or duly provided for, semi-annually on and in each year (each, an “Interest Payment Date”), commencing , at the rate of % per annum, until the principal hereof is paid or duly provided for. The interest so payable, and punctually paid or duly provided for, on any Interest Payment Date will, as provided in such Indenture, be paid to the Holder in whose name this Security (or one or more Predecessor Securities) is registered at the close of business on the Regular Record Date for such interest, which shall be the or (whether or not a Business Day), as the case may be, next preceding such Interest Payment Date [at the office or agency of the Company maintained for such purpose; provided, however, that such interest may be paid, at the Company’s option, by mailing a check to such Holder at its registered address or by transfer of funds to an account maintained by such Holder within the United States]. Any such interest not so punctually paid or duly provided for shall forthwith cease to be payable to the Holder on such Regular Record Date, and may be paid to the Holder in whose name this Security (or one or more Predecessor Securities) is registered at the close of business on a Special Record Date for the payment of such Defaulted Interest to be fixed by the Trustee, notice whereof shall be given to Holders of Securities of this series not less than 10 days prior to such Special Record Date, or may be paid at any time in any other lawful manner not inconsistent with the requirements of any over-the-counter market or securities exchange on which the Securities of this series may be quoted or listed, and upon such notice as may be required by such market or exchange, all as more fully provided in the Indenture. Interest will be computed on the basis of a 360-day year of twelve 30-day months.]

[If the Security is not to bear interest prior to Maturity, insert — The principal of this Security shall not bear interest except in the case of a default in payment of principal upon acceleration, upon redemption or at the [Stated] Maturity Date and in such case the overdue principal of this Security shall bear interest at the rate of % per annum (to the extent that the payment of such interest shall be legally enforceable), which shall accrue from the date of such default in payment to the date payment of such principal has been made or duly provided for. Interest on any overdue principal shall be payable on demand. Any such interest on any overdue principal that is not so paid on demand shall bear interest at the rate of % per annum (to the extent that the payment of such interest shall be legally enforceable), which shall accrue from the date of such demand for payment to the date payment of such interest has been made or duly provided for, and such interest shall also be payable on demand.]

The principal of this Security payable on the Stated Maturity Date [or the principal of, premium or Make-Whole Amount, if any, and, if the Redemption Date is not an Interest Payment Date, interest on this Security payable on the Redemption Date] will be paid against presentation of this Security at the office or agency of the Company maintained for that purpose in , in such coin or currency of the United States of America as at the time of payment is legal tender for the payment of public and private debts.

Interest payable on this Security on any Interest Payment Date and on the [Stated] Maturity Date [or Redemption Date, as the case may be,] will include interest accrued from and including the next preceding Interest Payment Date in respect of which interest has been paid or duly provided for (or from and including, if no interest has been paid on this Security) to but excluding such Interest Payment Date or the [Stated] Maturity Date [or Redemption Date, as the case may be.] If any Interest Payment Date or the [Stated] Maturity Date or [Redemption Date] falls on a day that is not a Business Day, as defined below, principal, premium or Make-Whole Amount, if any, and/or interest payable with respect to such Interest Payment Date or [Stated] Maturity Date [or Redemption Date, as the case may be,] will be paid on the next succeeding Business Day with the same force and effect as if it were paid on the date such payment was due, and no interest shall accrue on the amount so payable for the period from and after such Interest Payment Date or [Stated] Maturity Date [or Redemption Date, as the case may be.] “Business Day” means any day, other than a Saturday or Sunday, that is neither a legal holiday nor a day on which banking institutions in The City of New York are required or authorized by law, regulation or executive order to close.

[If this Security is a Global Security, insert — All payments of principal, premium or Make-Whole Amount, if any, and interest in respect of this Security will be made by the Company in immediately available funds.]

Reference is hereby made to the further provisions of this Security set forth on the reverse hereof, which further provisions shall for all purposes have the same effect as if set forth at this place.

Unless the Certificate of Authentication hereon has been executed by the Trustee by manual signature of one of its authorized signatories, this Security shall not be entitled to any benefit under the Indenture, or be valid or obligatory for any purpose.

IN WITNESS WHEREOF, the Company has caused this instrument to be duly executed under its facsimile corporate seal.

Dated:

AKOYA BIOSCIENCES, INC.

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

Attest: \_\_\_\_\_  
Secretary

[Reverse of Security]

AKOYA BIOSCIENCES, INC.

This Security is one of a duly authorized issue of securities of the Company (herein called the “Securities”), issued and to be issued in one or more series under an

Indenture, dated as of , 20 (herein called the “Indenture”) between the Company and , as Trustee (herein called the “Trustee,” which term includes any successor trustee under the Indenture with respect to the series of which this Security is a part), to which Indenture and all indentures supplemental thereto reference is hereby made for a statement of the respective rights, limitations of rights, duties and immunities thereunder of the Company, the Trustee and the Holders of the Securities, and of the terms upon which the Securities are, and are to be, authenticated and delivered. This Security is one of the duly authorized series of Securities designated on the face hereof (collectively, the “Securities”), [if applicable, insert — and the aggregate principal amount of the Securities to be issued under such series is limited to \$ (except for Securities authenticated and delivered upon transfer of, or in exchange for, or in lieu of other Securities).] All terms used in this Security, which are defined in the Indenture, shall have the meanings assigned to them in the Indenture.

If an Event of Default, as defined in the Indenture, shall occur and be continuing, the principal of the Securities of this series may be declared due and payable in the manner and with the effect provided in the Indenture.

[If applicable, insert — The Securities may not be redeemed prior to the Stated Maturity Date.]

[If applicable, insert — The Securities are subject to redemption [ (1) (If applicable, insert — on in any year commencing with the year and ending with the year through operation of the sinking fund for this series at a Redemption Price equal to 100% of the principal amount, and (2) ] [If applicable, insert — at any time [on or after ], as a whole or in part, at the election of the Company, at the following Redemption Prices (expressed as percentages of the principal amount):

If redeemed on or before , % and if redeemed during the 12-month period beginning of the years indicated at the Redemption Prices indicated below.

Year	Redemption Price	Year	Redemption Price

and thereafter at a Redemption Price equal to % of the principal amount, together in the case of any such redemption [If applicable, insert — (whether through operation of the sinking fund or otherwise)] with accrued interest to the Redemption Date; provided, however, that installments of interest on this Security whose Stated Maturity is on or prior to such Redemption Date will be payable to the Holder of this Security, or one or more Predecessor Securities, of record at the close of business on the relevant Record Dates referred to on the face hereof, all as provided in the Indenture.]

[If applicable, insert] — The Securities are subject to redemption (1) on in any year commencing with the year and ending with the year through operation of the sinking fund for this series at the Redemption Prices for redemption through operation of the sinking fund (expressed as percentages of the principal amount) set forth in the table below, and (2) at any time [on or after ], as a whole or in part, at the election of the Company, at the Redemption Prices for redemption otherwise than through operation of the sinking fund (expressed as percentages of the principal amount) set forth in the table below: If redeemed during the 12-month period beginning of the years indicated,

Year	Redemption Price for Redemption Through Operation of the Sinking Fund	Redemption Price for Redemption Otherwise Than Through Operation of the Sinking Fund

and thereafter at a Redemption Price equal to % of the principal amount, together in the case of any such redemption (whether through operation of the sinking fund or otherwise) with accrued interest to the Redemption Date; provided, however, that installments of interest on this Security whose Stated Maturity is on or prior to such Redemption Date will be payable to the Holder of this Security, or one or more Predecessor Securities, of record at the close of business on the relevant Record Dates referred to on the face hereof, all as provided in the Indenture.]

[If applicable, insert] — Notwithstanding the foregoing, the Company may not, prior to , redeem any Securities as contemplated by [Clause (2) of] the preceding paragraph as a part of, or in anticipation of, any refunding operation by the application, directly or indirectly, of moneys borrowed having an interest cost to the Company (calculated in accordance with generally accepted financial practice) of less than % per annum.]

[If applicable, insert] — The sinking fund for the Securities provides for the redemption on in each year, beginning with the year and ending with the year , of [not less than] \$ ] [(“mandatory sinking fund”) and not more than \$ ] aggregate principal amount of the Securities. [The Securities acquired or redeemed by the Company otherwise than through [mandatory] sinking fund payments may be credited against subsequent [mandatory] sinking fund payments otherwise required to be made in the [describe order] order in which they become due.]]

Notice of redemption will be given by mail to Holders of Securities, not less than 30 nor more than 60 days prior to the Redemption Date, all as provided in the Indenture.

In the event of redemption of this Security in part only, a new Security or Securities for the unredeemed portion hereof shall be issued in the name of the Holder hereof upon the cancellation hereof.

[If applicable, insert conversion provisions set forth in any Board Resolution or indenture supplemental to the Indenture.]

The Indenture permits, with certain exceptions as therein provided, the amendment thereof and the modification of the rights and obligations of the Company and the rights of the Holders of the Securities under the Indenture at any time by the Company and the Trustee with the consent of the Holders of not less than a majority of the aggregate principal amount of all Securities issued under the Indenture at the time Outstanding and affected thereby. The Indenture also contains provisions permitting the Holders of not less than a majority of the aggregate principal amount of the Outstanding Securities, on behalf of the Holders of all such Securities, to waive compliance by the Company with certain provisions of the Indenture. Furthermore, provisions in the Indenture permit the Holders of not less than a majority of the aggregate principal amount, in certain instances, of the Outstanding Securities of any series to waive, on behalf of all of the Holders of Securities of such series, certain past defaults under the Indenture and their consequences. Any such consent or waiver by the Holder of this Security shall be conclusive and binding upon such Holder and upon all future Holders of this Security and other Securities issued upon the registration of transfer hereof or conversion or in exchange hereof or in lieu hereof, whether or not notation of such consent or waiver is made upon this Security.

No reference herein to the Indenture and no provision of this Security or of the Indenture shall alter or impair the obligation of the Company, which is absolute and unconditional, to pay the principal of (and premium or Make-Whole Amount, if any) and interest on this Security at the times, places and rate, and in the coin or currency, herein prescribed.

As provided in the Indenture and subject to certain limitations therein [and herein] set forth, the transfer of this Security is registrable in the Security Register of the Company upon surrender of this Security for registration of transfer at the office or agency of the Company in any place where the principal of (and premium or Make-Whole Amount, if any) and interest on this Security are payable, duly endorsed by, or accompanied by a written instrument of transfer in form satisfactory to the Company and the Security Registrar duly executed by, the Holder hereof or by his attorney duly authorized in writing, and thereupon one or more new Securities, of authorized denominations and for the same aggregate principal amount, will be issued to the designated transferee or transferees.

As provided in the Indenture and subject to certain limitations therein [and herein] set forth, this Security is exchangeable for a like aggregate principal amount of Securities of different authorized denominations but otherwise having the same terms and conditions, as requested by the Holder hereof surrendering the same.

This Security is subordinated to the prior payment in full in cash of Senior Indebtedness to the extent set forth in Article Sixteen of the Indenture. The Securities of this series are issuable only in registered form [without coupons] in denominations of \$ and any integral multiple thereof.

No service charge shall be made for any such registration of transfer or conversion or exchange, but the Company may require payment of a sum sufficient to cover any tax or other governmental charge payable in connection therewith,

Prior to due presentment of this Security for registration of transfer, the Company, the Trustee and any agent of the Company or the Trustee may treat the Person in whose name this Security is registered as the owner hereof for all purposes, whether or not this Security be overdue, and neither the Company, the Trustee nor any such agent shall be affected by notice to the contrary.

No recourse shall be had for the payment of the principal of or premium or Make-Whole Amount, if any, or the interest on this Security, or for any claim based hereon, or otherwise in respect hereof, or based on or in respect of the Indenture or any indenture supplemental thereto, against any past, present or future stockholder, employee, officer or director, as such, of the Company or of any successor, either directly or through the Company or any successor, whether by virtue of any constitution, statute or rule of law or by the enforcement of any assessment or penalty or otherwise, all such liability being, by the acceptance hereof and as part of the consideration for the issue hereof, expressly waived and released.

The Indenture and the Securities shall be governed by and construed in accordance with the laws of the State of New York applicable to agreements made and to be performed entirely in such State.

EXHIBIT B

FORMS OF CERTIFICATION

EXHIBIT B-1

FORM OF CERTIFICATE TO BE GIVEN BY PERSON ENTITLED TO RECEIVE BEARER SECURITY OR TO OBTAIN INTEREST PAYABLE  
PRIOR TO THE EXCHANGE DATE

CERTIFICATE

[Insert title or sufficient description of Securities to be delivered]

This is to certify that, as of the date hereof, and except as set forth below, the above-captioned Securities held by you for our account (i) are owned by person(s) that are not citizens or residents of the United States, domestic partnerships, domestic corporations or any estate or trust the income of which is subject to United States Federal income taxation regardless of its source ("United States person(s)"), (ii) are owned by United States person(s) that are (a) foreign branches of United States financial institutions (financial institutions, as defined in United States Treasury Regulations Section 2.165-12(c)(1) (v) are herein referred to as "financial institutions") purchasing for their own account or for resale, or (b) United States person(s) who acquired the Securities through foreign branches of United States financial institutions and who hold the Securities through such United States financial institutions on the date hereof (and in either case (a) or (b), each such United States financial institution hereby agrees, on its own behalf or through its agent, that you may advise AKOYA BIOSCIENCES, INC. or its agent that such financial institution will comply with the requirements of Section 165(j)(3)(A), (B) or (C) of the United States Internal Revenue Code of 1986, as amended, and the regulations thereunder), or (iii) are owned by United States or foreign financial institution(s) for purposes of resale during the restricted period (as defined in United States Treasury Regulations Section 1.163-5(c)(2)(i)(D)(7)), and, in addition, if the owner is a United States or foreign financial institution described in clause (iii) above (whether or not also described in clause (i) or (ii)), this is to further certify that such financial institution has not acquired the Securities for purposes of resale directly or indirectly to a United States person or to a person within the United States or its possessions.

As used herein, "United States" means the United States of America (including the States and the District of Columbia); and its "possessions" include Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, Wake Island and the Northern Mariana Islands.

We undertake to advise you promptly by tested telex or by telecopy on or prior to the date on which you intend to submit your certification relating to the above-captioned Securities held by you for our account in accordance with your operating procedures if any applicable statement herein is not correct on such date, and in the absence of any such notification it may be assumed that this certification applies as of such date.

This certificate excepts and does not relate to [U.S.\$] of such interest in the above-captioned Securities in respect of which we are not able to certify and as to which we understand an exchange for an interest in a permanent Global Security or an exchange for and delivery of definitive Securities (or, if relevant, collection of any interest) cannot be made until we do so certify.

We understand that this certificate may be required in connection with certain tax legislation in the United States. If administrative or legal proceedings are commenced or threatened in connection with which this certificate is or would be relevant, we irrevocably authorize you to produce this certificate or a copy thereof to any interested party in such proceedings.

Dated:

[To be dated no earlier than the 15th day prior to (i) the Exchange Date or (ii) the relevant Interest Payment Date occurring prior to the Exchange Date, as applicable]

[Name of Person Making Certification]

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(Authorized Signature)

Name:

Title:



EXHIBIT B-2

FORM OF CERTIFICATE TO BE GIVEN BY EUROCLEAR AND CLEARSTREAM S.A. IN CONNECTION WITH THE EXCHANGE OF A PORTION OF A TEMPORARY GLOBAL SECURITY OR TO OBTAIN INTEREST PAYABLE PRIOR TO THE EXCHANGE DATE

CERTIFICATE

[Insert title or sufficient description of Securities to be delivered]

This is to certify that, based solely on written certifications that we have received in writing, by tested telex or by electronic transmission from each of the persons appearing in our records as persons entitled to a portion of the principal amount set forth below (our "Member Organizations") substantially in the form attached hereto, as of the date hereof, [U.S.\$] principal amount of the above-captioned Securities (i) is owned by person(s) that are not citizens or residents of the United States, domestic partnerships, domestic corporations or any estate or trust the income of which is subject to United States Federal income taxation regardless of its source ("United States person(s)"), (ii) is owned by United States person(s) that are (a) foreign branches of United States financial institutions (financial institutions, as defined in U.S. Treasury Regulations Section 1.165-12(c)(1)(v) are herein referred to as "financial institutions") purchasing for their own account or for resale, or (b) United States person(s) who acquired the Securities through foreign branches of United States financial institutions and who hold the Securities through such United States financial institutions on the date hereof (and in either case (a) or (b), each such financial institution has agreed, on its own behalf or through its agent, that we may advise AKOYA BIOSCIENCES, INC. or its agent that such financial institution will comply with the requirements of Section 165(j)(3)(A), (B) or (C) of the Internal Revenue Code of 1986, as amended, and the regulations thereunder), or (iii) is owned by United States or foreign financial institution(s) for purposes of resale during the restricted period (as defined in United States Treasury Regulations Section 1.163-5(c)(2)(i)(D)(7)), and, to the further effect, that financial institutions described in clause (iii) above (whether or not also described in clause (i) or (ii)) have certified that they have not acquired the Securities for purposes of resale directly or indirectly to a United States person or to a person within the United States or its possessions.

As used herein, "United States" means the United States of America (including the States and the District of Columbia); and its "Possessions" include Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, Wake Island and the Northern Mariana Islands.

We further certify that (i) we are not making available herewith for exchange (or, if relevant, collection of any interest) any portion of the temporary Global Security representing the above-captioned Securities excepted in the above-referenced certificates of Member Organizations and (ii) as of the date hereof we have not received any notification from any of our Member Organizations to the effect that the statements made by such Member Organizations with respect to any portion of the part submitted herewith for exchange (or, if relevant, collection of any interest) are no longer true and cannot be relied upon as of the date hereof.

We understand that this certification is required in connection with certain tax legislation in the United States. If administrative or legal proceedings are commenced or threatened in connection with which this certificate is or would be relevant, we irrevocably authorize you to produce this certificate or a copy thereof to any interested party in such proceedings.

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Dated:

[To be dated no earlier than the Exchange Date or the relevant Interest Payment Date occurring prior to the Exchange Date, as applicable]

[ , as Operator of the Euroclear System] [Clearstream Banking Luxembourg]

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

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**DLA Piper LLP (US)**  
4365 Executive Drive, Suite 1100  
San Diego, California 92121-2133  
**T** (858) 677-1400  
**F** (858) 677-1401  
**W** www.dlapiper.com



November 7, 2022

Akoya Biosciences, Inc.  
100 Campus Drive, 6<sup>th</sup> Floor  
Marlborough, MA 01752

**Re: Registration Statement on Form S-3**

Ladies and Gentlemen:

We have acted as counsel to Akoya Biosciences, Inc., a Delaware corporation (the “**Company**”), in connection with the filing of the Registration Statement on Form S-3 filed on November 7, 2022 (the “**Registration Statement**”), including a base prospectus (the “**Base Prospectus**”), which provides that it will be supplemented by one or more prospectus supplements (each such prospectus supplement, together with the Base Prospectus, a “**Prospectus**”), under the Securities Act of 1933, as amended (the “**Securities Act**”). The Registration Statement relates to the Company’s:

- (i) common stock, \$0.00001 par value per share (the “**Common Stock**”);
- (ii) preferred stock, \$0.00001 par value per share (the “**Preferred Stock**”);
- (iii) senior debt securities (the “**Senior Debt Securities**”);
- (iv) subordinated debt securities (the “**Subordinated Debt Securities**” and, together with the Senior Debt Securities, the “**Debt Securities**”);
- (v) warrants representing rights to purchase Common Stock, Preferred Stock, or Debt Securities in one or more series (the “**Warrants**”); and
- (vi) units comprised of one or more shares of Common Stock or Preferred Stock, Debt Securities or Warrants in any combination (the “**Units**,” and together with the Common Stock, the Preferred Stock, the Debt Securities, and the Warrants, the “**Securities**”).

All of the Securities may be issued from time to time on a delayed or continuous basis pursuant to Rule 415 under the Securities Act.

We also have acted as counsel to the Company in connection with the sale through Piper Sandler & Co. as the sales agent (the “**Sales Agent**”) from time to time by the Company of shares of Common Stock (the “**Distribution Agreement Shares**”) having an aggregate offering price of up to \$50,000,000 pursuant to the Registration Statement, the Base Prospectus and the related prospectus supplement for the sale of the Distribution Agreement Shares included in the Registration Statement (the Base Prospectus and such prospectus supplement, collectively, the “**Distribution Agreement Prospectus**”), and that certain Equity Distribution Agreement dated as of November 7, 2022 between the Sales Agent and the Company (the “**Distribution Agreement**”).

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We have been advised by the Company, and for purposes of this opinion we have assumed, that:

1. The rights, preferences, privileges and restrictions, including voting rights, dividend rights, conversion rights, redemption privileges and liquidation privileges of each series of Preferred Stock will be set forth in a certificate of designation to be approved by the Company's Board of Directors (the "**Board**"), or in an amendment to the Company's Amended and Restated Certificate of Incorporation (the "**Certificate of Incorporation**"), to be approved by the Board and stockholders, and that one or both of these documents will be filed either as an exhibit to an amendment to the Registration Statement to be filed after the date of this opinion or as an exhibit to a Current Report on Form 8-K to be filed after the Registration Statement has become effective;
2. The Senior Debt Securities will be issued pursuant to an indenture between the Company and a trustee to be named in such indenture, a form of which indenture has been filed as an exhibit to the Registration Statement;
3. The Subordinated Debt Securities will be issued pursuant to an indenture between the Company and a trustee to be named in such indenture, a form of which indenture has been filed as an exhibit to the Registration Statement;
4. The particular terms of any Debt Securities will be set forth in a supplement to the prospectus forming a part of the Registration Statement;
5. Any Warrants will be issued pursuant to a warrant agreement to be entered into between the Company and a bank or other financial institution, as warrant agent (the "**Warrant Agreement**"). The Warrant Agreement will be filed either as an exhibit to an amendment to the Registration Statement to be filed after the date of this opinion or as an exhibit to a Current Report on Form 8-K to be filed after the Registration Statement has become effective, and the particular terms of any series of Warrants will be set forth in a supplement to the prospectus forming a part of the Registration Statement; and
6. Any Units will be issued pursuant to a unit agreement to be entered into between the Company and a bank or other financial institution, as unit agent (the "**Unit Agreement**"). The Unit Agreement will be filed either as an exhibit to an amendment to the Registration Statement to be filed after the date of this opinion or as an exhibit to a Current Report on Form 8-K to be filed after the Registration Statement has become effective, and the particular terms of any series of Units will be set forth in a supplement to the prospectus forming a part of the Registration Statement.
7. The Distribution Agreement Shares will be duly registered on the books of the transfer agent and registrar therefor in the name or on behalf of the purchasers, and have been issued by the Company against payment therefor (not less than par value) in the circumstances contemplated by the Distribution Agreement. The Company will comply with all applicable notice requirements regarding uncertificated shares provided in the DGCL and upon the issuance of any of the Distribution Agreement Shares, the total number of shares of Common Stock issued and outstanding will not exceed the total number of shares of Common Stock that the Company is then authorized to issue under its Certificate of Incorporation.

In rendering the opinions set forth below, we have further assumed that (i) all information contained in all documents reviewed by us is true and correct; (ii) all signatures on all documents examined by us are genuine; (iii) all documents submitted to us as originals are authentic and all documents submitted to us as copies conform to the originals of those documents; (iv) each natural person signing any document reviewed by us had the legal capacity to do so; (v) the Registration Statement, and any further amendments thereto (including post-effective amendments) will have become effective and comply with all applicable laws; (vi) a prospectus supplement will have been prepared and filed with the Securities and Exchange Commission (the "**Commission**") describing the Securities offered thereby; (vii) all Securities will be issued and sold in compliance with applicable federal and state securities laws and in the manner stated in the Registration Statement and the applicable prospectus supplement; (viii) a definitive purchase, underwriting or similar agreement with respect to any Securities offered will have been duly authorized and validly executed and delivered by the Company and the other parties thereto; (ix) the Company will have reserved from its authorized but unissued and unreserved shares of stock a number sufficient to issue all Securities, when applicable; (x) the certificates representing the Securities will be duly executed and delivered; (xi) if the holders of the Debt Securities are granted rights to inspect corporate books and records and to vote in the election of directors or any matters on which stockholders of the Company may vote, such rights will be set forth in the Certificate of Incorporation or the Certificate of Incorporation will then grant to the Board the power to confer such voting or inspection rights and the Board will have conferred such rights; and (xii) any indenture governing the Debt Securities, Warrant Agreement or Unit Agreement will be governed by the laws of the State of New York. We do not express any opinion with respect to the laws of any jurisdiction other than the Delaware General Corporation Law and the laws of the State of New York.

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We have examined the Registration Statement, including the exhibits thereto, and such other documents, corporate records, and instruments and have examined such laws and regulations as we have deemed necessary for purposes of rendering the opinions set forth herein. Based upon such examination and subject to the further assumptions, qualifications and limitations contained herein, we are of the following opinion:

1. The Common Stock (other than the Distribution Agreement Shares) will be validly issued, fully paid and nonassessable, assuming that (i) the Board or an authorized committee thereof will have specifically authorized the issuance of such Common Stock in exchange for consideration that the Board or such committee determines as adequate and in excess of the par value of such Common Stock (“**Common Stock Authorizing Resolutions**”), and (ii) the Company has received the consideration provided for in the applicable Common Stock Authorizing Resolutions.
  2. The Preferred Stock will be validly issued, fully paid and nonassessable, assuming that (i) the Board or an authorized committee thereof will have specifically authorized the issuance of such Preferred Stock in exchange for consideration that the Board or such committee determines as adequate and in excess of the par value of such Preferred Stock (“**Preferred Stock Authorizing Resolutions**”), (ii) the rights, preferences, privileges and restrictions of the Preferred Stock have been duly established in conformity with applicable law, (iii) an appropriate certificate of designation approved by the Board, or an amendment to the Certificate of Incorporation approved by the Board and stockholders, has been filed with the State of Delaware, (iv) the terms of the offer, issuance and sale of shares of such class or series of Preferred Stock have been duly established in conformity with the Certificate of Incorporation and Amended and Restated Bylaws, and do not violate any applicable law or result in a default under or breach of any agreement or instrument binding upon the Company and comply with any requirement or restriction imposed by any court or governmental body having jurisdiction over the Company, and (v) the Company has received the consideration provided for in the applicable Preferred Stock Authorizing Resolutions.
  3. The Debt Securities will constitute valid and legally binding obligations of the Company, assuming that (i) the Board or an authorized committee thereof will have specifically authorized the issuance of such Debt Securities in exchange for consideration that the Board or such committee determines as adequate (“**Debt Securities Authorizing Resolutions**”), (ii) the applicable indenture conforms with applicable law and is enforceable in accordance with its terms, (iii) the terms of the Debt Securities and of their issue and sale have been duly established in conformity with the applicable indenture, the Certificate of Incorporation and Debt Securities Authorizing Resolutions and do not violate any applicable law or result in a default under or breach of any agreement or instrument binding upon the Company and comply with any requirement or restriction imposed by any court or governmental body having jurisdiction over the Company, (iv) such Debt Securities have been duly executed and authenticated in accordance with the applicable indenture and offered, issued and sold as contemplated in the Registration Statement, and (v) the Company has received the consideration provided for in the applicable Debt Securities Authorizing Resolutions.
  4. The Warrants will constitute valid and legally binding obligations of the Company, assuming that (i) the Board or an authorized committee thereof will have specifically authorized the issuance of such Warrants in exchange for consideration that the Board or such committee determines as adequate (“**Warrant Authorizing Resolutions**”), which include the terms upon which the Warrants are to be issued, their form and content and the consideration for which shares are to be issued upon exercise of the Warrants, (ii) the Warrant Agreement relating to the Warrants has been duly authorized, executed and delivered and is enforceable in accordance with its terms, (iii) the terms of the offer, issuance and sale of such Warrants have been duly established in conformity with the Warrant Agreement, (iv) the Warrant Agreement and the offer, issuance and sale of the Warrants do not violate any applicable law or result in a default under or breach of any agreement or instrument binding upon the Company and comply with any requirement or restriction imposed by any court or governmental body having jurisdiction over the Company, (v) such Warrants have been duly executed and countersigned in accordance with the Warrant Agreement and offered, issued and sold as contemplated in the Registration Statement, the applicable Warrant Authorizing Resolutions and the Warrant Agreement, and (vi) the Company has received the consideration provided for in the applicable Warrant Authorizing Resolutions.
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5. The Units will constitute valid and legally binding obligations of the Company, assuming that (i) the Board or an authorized committee thereof will have specifically authorized the issuance of such Units in exchange for consideration that the Board or such committee determines as adequate (“**Unit Authorizing Resolutions**”), which include the terms upon which the Units are to be issued, their form and content and the consideration for which the Units are to be issued, (ii) the Unit Agreement relating to the Units has been duly authorized, executed and delivered and is enforceable in accordance with its terms, (iii) the terms of the offer, issuance and sale of such Units have been duly established in conformity with the Unit Agreement, (iv) the Unit Agreement and the offer, issuance and sale of the Units do not violate any applicable law or result in a default under or breach of any agreement or instrument binding upon the Company and comply with any requirement or restriction imposed by any court or governmental body having jurisdiction over the Company, (v) such Units have been duly executed and countersigned in accordance with the Unit Agreement and offered, issued and sold as contemplated in the Registration Statement, the applicable Unit Authorizing Resolutions and the Unit Agreement, and (vi) the Company has received the consideration provided for in the applicable Unit Authorizing Resolutions.
6. The Distribution Agreement Shares, when issued and paid for in accordance with the Distribution Agreement and as contemplated in the Registration Statement and the Distribution Agreement Prospectus, will be validly issued, fully paid and nonassessable.

The foregoing opinions are qualified to the extent that the enforceability of any document, instrument or the Securities may be limited by or subject to bankruptcy, insolvency, fraudulent transfer or conveyance, reorganization, moratorium or other similar laws relating to or affecting creditors’ rights generally, and general equitable or public policy principles.

We express no opinions concerning (i) the validity or enforceability of any provisions contained in indentures that purport to waive or not give effect to rights to notices, defenses, subrogation or other rights or benefits that cannot be effectively waived under applicable law; or (ii) the validity or enforceability of any provisions contained in Warrant Agreements or Unit Agreements that purport to waive or not give effect to rights to notices, defenses, subrogation or other rights or benefits that cannot be effectively waived under applicable law.

With respect to our opinion as to the Distribution Agreement Shares to be issued after the date hereof, we express no opinion to the extent that, notwithstanding its current reservation of shares of Common Stock, future issuances of securities of the Company and/or anti-dilution adjustments to outstanding securities of the Company cause outstanding securities to be exercisable or convertible for more shares of Common Stock than the number that remain authorized but unissued.

In providing this opinion, we have relied as to certain matters on information obtained from public officials and officers of the Company.

We hereby consent to the filing of this opinion as an exhibit to the Registration Statement and the reference to us under the caption “Legal Matters” in each of the Prospectus and Distribution Agreement Prospectus. In giving this consent, we do not admit that we are within the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission promulgated thereunder.

Our opinion is expressly limited to the matters set forth above, and we render no opinion, whether by implication or otherwise, as to any other matters relating to the Company, the Distribution Agreement, the Distribution Agreement Prospectus, the Distribution Agreement Shares, the Securities or the Registration Statement.

Very truly yours,

/s/ DLA Piper LLP (US)

**DLA Piper LLP (US)**

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**Consent of Independent Registered Public Accounting Firm**

We consent to the incorporation by reference in this Registration Statement on Form S-3 and related Prospectuses of Akoya Biosciences, Inc. of our report dated March 14, 2022, relating to the consolidated financial statements of Akoya Biosciences, Inc. and its subsidiary, appearing in the Annual Report on Form 10-K of Akoya Biosciences, Inc. for the year ended December 31, 2021.

We also consent to the reference to our firm under the heading "Experts" in such Prospectuses.

/s/ RSM US LLP

Boston, Massachusetts

November 7, 2022

## Calculation of Filing Fee Tables

## Form S-3

(Form Type)

## Akoya Biosciences, Inc.

(Exact Name of Registrant as Specified in its Charter)

Table 1: Newly Registered and Carry Forward Securities

Security Type	Security Class Title	Fee Calculation or Carry Forward Rule	Amount Registered	Proposed Maximum Offering Price Per Unit	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee(1)(2)	Carry Forward Form Type	Carry Forward File Number	Carry Forward Initial Effective date	Filing Fee Previously Paid In Connection with Unsold Securities to be Carried Forward
<b>Newly Registered Securities</b>											
<b>Fees to Be Paid</b>	Equity	Common Stock, \$0.00001 par value	457(o)	(2)	(3)	(3)	—	—			
	Equity	Preferred Stock, \$0.00001 par value	457(o)	(2)	(3)	(3)	—	—			
	Debt	Debt Securities	457(o)	(2)	(3)	(3)	—	—			
	Other	Warrants	457(o)	(2)	(3)	(3)	—	—			
	Other	Units	457(o)	(2)	(3)	(3)	—	—			
	Unallocated (Universal) Shelf		457(o)	(2)	(3)	\$ 150,000,000	\$ 0.00011020	\$ 16,530			
<b>Fees Previously Paid</b>	—	—	—	—	—	—	—	—			
<b>Carry Forward Securities</b>											
<b>Carry Forward Securities</b>	—	—	—	—	—	—	—	—			
	<b>Total Offering Amounts</b>						\$ 150,000,000				
	<b>Total Fees Previously Paid</b>						—				
	<b>Total Fee Offsets</b>						—				
	<b>Net Fee Due</b>						\$ 16,530				

- Calculated pursuant to Rule 457(o) under the Securities Act of 1933, as amended, based on the proposed maximum aggregate offering price.
- There are being registered hereunder such indeterminate number of shares of common stock and preferred stock, such indeterminate principal amount of debt securities, such indeterminate number of warrants, and such indeterminate number of units, as shall have an aggregate initial offering price not to exceed \$150,000,000. If any debt securities are issued at an original issue discount, then the offering price of such debt securities shall be in such greater principal amount as shall result in an aggregate initial offering price not to exceed \$150,000,000, less the aggregate dollar amount of all securities previously issued hereunder. Any securities registered hereunder may be sold separately or as units with other securities registered hereunder. The proposed maximum initial offering price per unit will be determined, from time to time, by the registrant in connection with the issuance by the registrant of the securities registered hereunder. The securities registered also include such indeterminate number of shares of common stock and preferred stock and amount of debt securities as may be issued upon conversion of or exchange for preferred stock or debt securities that provide for conversion or exchange, upon exercise of warrants or pursuant to the anti-dilution provisions of any such securities. In addition, pursuant to Rule 416 under the Securities Act of 1933, as amended, the shares being registered hereunder include such indeterminate number of shares of common stock and preferred stock as may be issuable with respect to the shares being registered hereunder as a result of stock splits, stock dividends or similar transactions.
- The proposed maximum aggregate offering price per class of security will be determined from time to time by the registrant in connection with the issuance by the registrant of the securities registered hereunder and is not specified as to each class of security pursuant to General Instruction II.D. of Form S-3 under the Securities Act of 1933, as amended.