

AMENDED AND RESTATED BYLAWS
OF
LUNA INNOVATIONS INCORPORATED
(A DELAWARE CORPORATION)

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(A DELAWARE CORPORATION)**

ARTICLE I

OFFICES

1.1 Registered Office. The address of the Corporation's registered office in the State of Delaware is Corporation Trust Center, 1209 Orange Street, Wilmington, New Castle County, Delaware 19801. The name of the registered agent at such address is The Corporation Trust Company.

1.2 Other Offices. The Board of Directors of the corporation (the "**Board**") may at any time establish other offices at any place or places where the corporation is qualified to do business.

ARTICLE II

MEETINGS OF STOCKHOLDERS

2.1 Place Of Meetings. Meetings of stockholders shall be held at any place, within or outside the State of Delaware, designated by the Board. In the absence of any such designation, stockholders' meetings shall be held at the corporation's principal executive office.

2.2 Annual Meeting. The annual meeting of stockholders shall be held each year on a date and at a time designated by the Board. At the annual meeting, directors shall be elected and any other proper business may be transacted.

2.3 Special Meeting. Special meetings of stockholders of the corporation may be called only by the Chairman of the Board, the Chief Executive Officer of the corporation, the President of the corporation (if there is no Chief Executive Officer), or the Board acting pursuant to a resolution adopted by a majority of the Board and any power of stockholders to call a special meeting is specifically denied.

Only such business shall be considered at a special meeting of stockholders as shall have been stated in the notice for such meeting. Nothing contained in this paragraph of this Section 2.3 shall be construed as limiting, fixing, or affecting the time when a meeting of stockholders called by action of the Board may be held.

2.4 Notice Of Stockholders' Meetings; Exception to Requirements of Notice. All notices of meetings with stockholders shall be in writing and shall be sent or otherwise given in accordance with Section 2.5 of these Bylaws not less than ten (10) nor more than sixty (60) calendar days before the date of the meeting to each stockholder entitled to vote at such meeting. The notice shall specify the place, date and hour of the meeting, the means of remote communications, if any, by which stockholders and proxy holders may be deemed to be present in person and vote at such meeting (as authorized by the Board in its sole discretion pursuant to Section 211(a)(2) of the General Corporation Law of Delaware (the "**DGCL**"), and, in the case of a special meeting, the purpose or purposes for which the meeting is called. Any previously scheduled meeting of stockholders may be postponed, and, unless the Certificate

of Incorporation of the corporation, as the same may be amended and/or restated from time to time (as so amended and restated, the “**Certificate**”) provides otherwise, any special meeting of the stockholders may be cancelled by resolution duly adopted by a majority of the Board members then in office upon public notice given prior to the date previously scheduled for such meeting of stockholders.

Whenever notice is required to be given, under the DGCL, the Certificate or these Bylaws, to any person with whom communication is unlawful, the giving of such notice to such person shall not be required and there shall be no duty to apply to any governmental authority or agency for a license or permit to give such notice to such person. Any action or meeting which shall be taken or held without notice to any such person with whom communication is unlawful shall have the same force and effect as if such notice had been duly given. In the event that the action taken by the corporation is such as to require the filing of a certificate with the Secretary of State of Delaware, the certificate shall state, if such is the fact and if notice is required, that notice was given to all persons entitled to receive notice except such persons with whom communication is unlawful.

Whenever notice is required to be given, under any provision of the DGCL, the Certificate or these Bylaws, to any stockholder, and such stockholder has received (a) notice of two (2) consecutive annual meetings, or (b) at least two (2) payments (if sent by first-class mail) of dividends or interest on securities during a twelve (12) month period, having been mailed such notice addressed to such person at such person’s address as shown on the records of the corporation and have been returned undeliverable, the giving of such notice to such person shall not be required. Any actions or meeting which shall be taken or held without notice to such person shall have the same force and effect as if such notice had been duly given. If any such person shall deliver to the corporation a written notice setting forth such person’s then current address, the requirement that notice be given to such person shall be reinstated. In the event that the action taken by the corporation is such as to require the filing of a certificate with the Secretary of State of Delaware, the certificate need not state that notice was not given to persons to whom notice was not required to be given pursuant to Section 230(b) of the DGCL.

The exception in subsection (a) of the above paragraph to the requirement that notice be given shall not be applicable to any notice returned as undeliverable if the notice was given by electronic transmission.

2.5 Manner of Giving Notice; Affidavit of Notice. Written notice of any meeting of stockholders, if mailed, is given when deposited in the United States mail, postage prepaid, directed to the stockholder at his, her or its address as it appears on the records of the corporation and otherwise is given when delivered. An affidavit of the Secretary or an Assistant Secretary, the transfer agent or other agent of the corporation that the notice has been given shall, in the absence of fraud, be prima facie evidence of the facts stated therein.

2.6 Quorum. The holders of a majority of the stock issued and outstanding and entitled to vote thereat, present in person or represented by proxy, shall constitute a quorum at all meetings of the stockholders for the transaction of business, except as otherwise provided by statute or the Certificate. If, however, such quorum is not present or represented at any meeting of the stockholders, then a majority of the stockholders entitled to vote thereat, present in person or represented by proxy, shall have power to adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum is present or represented. At such adjourned meeting at which a quorum is present or represented, any business may be transacted that might have been transacted at the meeting as originally noticed. The stockholders present at a duly called meeting at which quorum is present may continue to transact business until adjournment, notwithstanding the withdrawal of enough stockholders to leave less than a quorum.

2.7 Adjourned Meeting; Notice. When a meeting is adjourned to another time or place, unless these Bylaws otherwise require, notice need not be given of the adjourned meeting if the time and place thereof, and the means of remote communications, if any, by which stockholders and proxy holders may be deemed to be present in person and vote at such adjourned meeting (as authorized by the Board in its sole discretion pursuant to Section 211(a)(2) of the DGCL), are announced at the meeting at which the adjournment is taken. At the adjourned meeting, the corporation may transact any business that might have been transacted at the original meeting. If the adjournment is for more than thirty (30) days, or if after the adjournment a new record date is fixed for the adjourned meeting, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the meeting. The Chairman of the meeting shall have the power to adjourn any meeting of stockholders for any reason, and the stockholders shall have the power to adjourn any meeting of stockholders in accordance with Section 2.6 of these Bylaws.

2.8 Voting. The stockholders entitled to vote at any meeting of stockholders shall be determined in accordance with the provisions of Section 2.11 of these Bylaws, subject to the provisions of Sections 217 and 218 of the DGCL (relating to voting rights of fiduciaries, pledgors and joint owners of stock and to voting trusts and other voting agreements).

Except as otherwise provided in the provisions of Section 213 of the DGCL (relating to the fixing of a date for determination of stockholders of record), or as may be otherwise provided in the Certificate, each stockholder shall be entitled to one (1) vote for each share of capital stock held by such stockholder.

In all matters, other than the election of directors and except as otherwise required by law, the affirmative vote of the majority of shares present or represented by proxy at the meeting and entitled to vote on the subject matter shall be the act of the stockholders. Directors shall be elected by a plurality of the votes of the shares present in person or represented by proxy at the meeting and entitled to vote on the election of directors.

2.9 Waiver of Notice. Whenever notice is required to be given under any provision of the DGCL, the Certificate or these Bylaws, a written waiver thereof, signed by the person entitled to notice, or a waiver by electronic transmission by the person entitled to notice, whether before or after the time stated therein, shall be deemed equivalent to notice. Attendance of a person at a meeting shall constitute a waiver of notice of such meeting, except when the person attends a meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the stockholders need be specified in any written waiver of notice, or any waiver by electronic transmission, unless so required by the Certificate or these Bylaws.

2.10 Stockholder Action by Written Consent. Unless otherwise provided in the Certificate, any action required by the DGCL to be taken at any annual or special meeting of stockholders of a corporation, or any action which may be taken at any annual or special meeting of such 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, shall be 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 entitled to vote thereon were present and voted.

Prompt notice of the taking of the corporate action without a meeting by less than unanimous written consent shall be given to those stockholders who have not consented in writing and who, if the action had been taken at a meeting, would have been entitled to notice of the meeting if the record date for such meeting had been the date that written consents signed by a sufficient number of holders to take the action

were delivered to the Company as provided in Section 228 of the DGCL. In the event that the action which is consented to is such as would have required the filing of a certificate under any provision of the DGCL, if such action had been voted on by stockholders at a meeting thereof, the certificate filed under such provision shall state, in lieu of any statement required by such provision concerning any vote of stockholders, that written consent has been given in accordance with Section 228 of the DGCL.

2.11 Record Date for Stockholder Notice. In order that the corporation may determine the stockholders entitled to notice of or to vote at any meeting of stockholders or any adjournment thereof, or entitled to receive payment of any dividend or other distribution or allotment of any rights, or entitled to exercise any rights in respect of any change, conversion or exchange of stock or for the purpose of any other lawful action, the Board may fix, in advance, a record date, which such date shall not precede the date upon which the resolution fixing the record date is adopted by the Board and which such date shall not be more than sixty (60) nor less than ten (10) calendar days before the date of such meeting, nor more than sixty (60) days prior to any other action.

If the Board does not so fix a record date:

(a) The record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be at the close of business on the day next preceding the day on which notice is given, or, if notice is waived, at the close of business on the day next preceding the day on which the meeting is held.

(b) The record date for determining stockholders for any other purpose shall be at the close of business on the day on which the Board adopts the resolution relating thereto.

A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; provided, however, that the Board may fix a new record date for the adjourned meeting.

2.12 Proxies. Each stockholder entitled to vote at a meeting of stockholders may authorize another person or persons to act for him, her or it by a written proxy, signed by the stockholder and filed with the Secretary of the corporation, but no such proxy shall be voted or acted upon after three (3) years from its date, unless the proxy provides for a longer period. A stockholder may authorize another person or persons to act for him, her or it as proxy in the manner(s) provided under Section 212(c) of the DGCL or as otherwise provided under Delaware law. The revocability of a proxy that states on its face that it is irrevocable shall be governed by the provisions of Section 212(e) of the DGCL.

2.13 List of Stockholders Entitled to Vote; Stock Ledger. The officer who has charge of the stock ledger of a corporation shall prepare and make, at least ten (10) calendar days before every meeting of stockholders, a complete list of the stockholders entitled to vote at the meeting, arranged in alphabetical order, and showing the address of each stockholder and the number of shares registered in the name of each stockholder. Nothing contained in this Section 2.13 shall require the corporation to include electronic mail addresses or other electronic contact information on such list. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting: (a) on a reasonably accessible electronic network, provided that the information required to gain access to such list is provided with the notice of the meeting, or (b) for a period of at least ten (10) calendar days prior to the meeting during ordinary business hours at the principal place of business of the corporation.

In the event that the corporation determines to make the list available on an electronic network, the corporation may take reasonable steps to ensure that such information is available only to the stockholders of the corporation.

2.14 Nominations and Proposals by Stockholders at Annual Meeting.

(a) Only such business shall be conducted as shall have been properly brought before the meeting. To be properly brought before an annual meeting, business must be: (A) specified in the notice of meeting (or any supplement thereto) given by or at the direction of the Board, (B) otherwise properly brought before the meeting by or at the direction of the Board, or (C) otherwise properly brought before the meeting by a stockholder (i) who is a stockholder of record on the date of the giving of notice provided for in this Section 2.14(a), on the record date for the determination of stockholders entitled to vote at such annual meeting and at the time of the annual meeting (ii) who complies with the notice procedures set forth in this Section 2.14(a). For business to be properly brought before an annual meeting by a stockholder, the stockholder must have given timely notice thereof in writing to the Secretary of the corporation. To be timely, a stockholder's notice must be delivered to or mailed and received at the principal executive offices of the corporation not later than the close of business on the 90th calendar day, nor earlier than the 120th calendar day, prior to the one year anniversary of the date of the previous year's annual meeting of stockholders; *provided, however*, that in the event that (A) the date of the annual meeting has been advanced by more than thirty (30) days prior to, or delayed by more than 70 days after the one year anniversary of the prior year's annual meeting, notice by the stockholder to be timely must be so received not earlier than the 120th day prior to such annual meeting and not later than the close of business on the later of the 90th day prior to such annual meeting or the tenth (10th) day following the day notice of the date on which public announcement of the date of such meeting is first made by the corporation, or (B) no annual meeting was held in the previous year, notice by the stockholder to be timely must be so received not later than the tenth (10th) day following the day notice of the date on which public announcement of the date of such meeting is first made by the corporation. A stockholder's notice to the Secretary shall set forth as to each matter the stockholder proposes to bring before the annual meeting: (i) a brief description of the business desired to be brought before the annual meeting and the reasons for conducting such business at the annual meeting, (ii) the name and address, as they appear on the corporation's books, of the stockholder proposing such business, (iii) the class and number of shares of the corporation which are beneficially owned by the stockholder, (iv) any material interest of the stockholder in such business and (v) any other information that is required to be provided by the stockholder pursuant to Regulation 14A under the Securities Exchange Act of 1934, as amended (the "**Exchange Act**"), in such stockholder's capacity as a proponent to a stockholder proposal, and all of the information required by paragraph (c) of this Section 2.14. Notwithstanding the foregoing, in order to include information with respect to a stockholder proposal in the proxy statement and form of proxy for a stockholder's meeting, stockholders must provide notice as required by the regulations promulgated under the Exchange Act. Notwithstanding anything in these Bylaws to the contrary, no business shall be conducted at any annual meeting except in accordance with the procedures set forth in this Section 2.14(a). The chairman of the annual meeting shall, if the facts warrant, determine and declare at the meeting that business was not properly brought before the meeting and in accordance with the provisions of this Section 2.14(a), and, if he should so determine, he shall so declare at the meeting that any such business not properly brought before the meeting shall not be transacted.

(b) Only persons who are nominated in accordance with the procedures set forth in this Section 2.14(b) shall be eligible for election as directors, except as otherwise provided in the Certificate with respect to the right of holders of preferred stock of the corporation. Nominations of persons for election to the Board of the corporation may be made at a meeting of stockholders by or at the direction of the Board or by any stockholder of the corporation entitled to vote in the election of directors

at the meeting who complies with the notice procedures set forth in this Section 2.14(b). Such nominations, other than those made by or at the direction of the Board, shall be made pursuant to timely notice in writing to the Secretary of the corporation in accordance with the provisions of paragraph (a) of this Section 2.14. Such stockholder's notice shall include, (i) as to each person, if any, whom the stockholder proposes to nominate for election or re-election as a director: (A) the name, age, business address and residence address of such nominee, (B) the principal occupation or employment of such nominee, (C) the class or series and number of shares of each class or series of capital stock of the corporation that are owned of record and beneficially by such nominee and list of any pledge of or encumbrances on such shares, (D) the date or dates on which such shares were acquired and the investment intent of such acquisition, (E) the questionnaire, representation and agreement required by paragraph (f), completed and signed by such nominee, and (F) all other information concerning such nominee as would be required to be disclosed or provided to the corporation in a proxy statement soliciting proxies for the election of such nominee as a director in an election contest (even if an election contest is not involved and whether or not proxies are being or will be solicited), or that is otherwise required to be disclosed pursuant to Section 14 of the Exchange Act and the rules and regulations promulgated thereunder (including such person's written consent to being named in a proxy statement and associated proxy card as a nominee and to serving as a director if elected); and (ii) all of the information required to be provided pursuant to paragraph (c) of this Section 2.14. The corporation may require any proposed nominee to furnish such other information as it may reasonably require to determine the eligibility of such proposed nominee to serve as a director of the corporation and to determine the independence of such proposed nominee (as such term is used in any applicable stock exchange listing requirements or applicable law) or to determine the eligibility of such proposed nominee to serve on any committee or sub-committee of the Board under any applicable stock exchange listing requirements or applicable law, or that the Board determines, in its sole discretion, could be material to a reasonable stockholder's understanding of the background, qualifications, experience, independence, or lack thereof, of such proposed nominee. The number of nominees a stockholder may nominate for election at the annual meeting on its own behalf (or in the case of a stockholder giving the notice on behalf of a beneficial owner, the number of nominees a stockholder may nominate for election at the annual meeting on behalf of such beneficial owner) shall not exceed the number of directors to be elected at such annual meeting. No person shall be eligible for election as a director of the corporation unless nominated in accordance with the procedures set forth in this Section 2.14(b). The chairman of the meeting shall, if the facts warrants, determine and declare at the meeting that a nomination was not made in accordance with the procedures prescribed by these Bylaws, and if he should so determine, he shall so declare at the meeting, and the defective nomination shall be disregarded.

(a) The written notice required by paragraph (a) or (b) of this Section 2.14 shall also include, as of the date of the notice and as to the stockholder giving the notice and the beneficial owner, if any, on whose behalf the nomination or proposal is made (each, a "**Proponent**" and collectively, the "**Proponents**"): (A) the name and address of each Proponent, including, if applicable, such name and address as they appear on the corporation's books and records; (B) the class, series and number of shares of each class or series of the capital stock of the corporation that are, directly or indirectly, owned of record or beneficially (within the meaning of Rule 13d-3 under the Exchange Act) by each Proponent (provided, that for purposes of this Section 2.14(c), such Proponent shall in all events be deemed to beneficially own all shares of any class or series of capital stock of the corporation as to which such Proponent has a right to acquire beneficial ownership at any time in the future); (C) a description of any agreement, arrangement or understanding (whether oral or in writing) with respect to such nomination or proposal (and/or the voting of shares of any class or series of capital stock of the corporation) between or among any Proponent and any of its affiliates or associates and/or any other persons (including their names), including, in the case of a nominee, the nominee, including any agreement, arrangement or understanding (whether oral or in writing) relating to any compensation or payments to be paid to any

such proposed nominee(s); (D) a representation that the stockholder is a holder of record of shares of the corporation at the time of giving notice, will be entitled to vote at the meeting, and intends to appear in person or by proxy at the meeting to nominate the person or persons specified in the notice (with respect to a notice under paragraph (b) of this Section 2.14 or to propose the business that is specified in the notice (with respect to a notice under paragraph (a) of this Section 2.14); (E) a representation as to whether the Proponents intend or are part of a group which intends (x) to deliver, or make available, a proxy statement and/or form of proxy to holders of at least the percentage of the corporation's voting shares required to approve or adopt the proposal or elect the nominee, (y) to otherwise solicit proxies or votes from stockholders in support of such proposal or nomination and/or (z) to solicit proxies in support of any proposed nominee in accordance with Rule 14a-19 promulgated under the Exchange Act; (F) to the extent known by any Proponent, the name and address of any other stockholder supporting the proposal on the date of such stockholder's notice; (G) a description of all Derivative Transactions (as defined below) by each Proponent during the previous 12-month period, including the date of the transactions and the class, series and number of securities involved in, and the material economic or voting terms of, such Derivative Transactions; (H) a certification that each Proponent has complied with all applicable federal, state and other legal requirements in connection with such Proponent's acquisition of shares of capital stock or other securities of the corporation and/or such Proponent's acts or omissions as a stockholder or beneficial owner of the corporation; and (I) any other information relating to the Proponents required to be disclosed in a proxy statement or other filings required to be made in connection with solicitations of proxies for, as applicable, the proposal and/or for the election of directors in an election contest pursuant to and in accordance with Section 14 of the Exchange Act and the rules and regulations promulgated thereunder.

(b) A stockholder providing the written notice required by paragraph (a) or (b) of this Section 2.14 shall update and supplement such notice in writing, if necessary, so that the information (other than the representations required by clause (E) of paragraph (c) of this Section 2.14) provided or required to be provided in such notice is true and correct in all material respects as of (i) the record date for the determination of stockholders entitled to notice of the meeting and (ii) the date that is five Business Days (as defined below) prior to the meeting and, in the event of any adjournment or postponement thereof, five Business Days prior to such adjourned or postponed meeting; provided, that no such update or supplement shall cure or affect the accuracy (or inaccuracy) of any representations made by any Proponent, any of its affiliates or associates, or a nominee or the validity (or invalidity) of any nomination or proposal that failed to comply with this Section 2.14 or is rendered invalid as a result of any inaccuracy therein. In the case of an update and supplement pursuant to clause (i) of this Section 2.14(d), such update and supplement must be received by the Secretary at the principal executive offices of the corporation not later than five Business Days after the later of the record date for the determination of stockholders entitled to notice of the meeting or the public announcement of such record date. In the case of an update and supplement pursuant to clause (ii) of this Section 2.14(d), such update and supplement shall be received by the Secretary at the principal executive offices of the corporation not later than two Business Days prior to the date for the meeting, and, in the event of any adjournment or postponement thereof, two Business Days prior to such adjourned or postponed meeting.

(c) Notwithstanding anything in paragraph (a) of this Section 2.14 to the contrary, in the event that the number of directors to be elected to the Board at the next annual meeting is increased effective after the time period for which nominations would otherwise be due under paragraph (a) of this Section 2.14 and there is no public announcement by the corporation naming all of the nominees for the new positions created by such increase at least 100 days before the first anniversary of the preceding year's annual meeting, a stockholder's notice required by this Section 2.14 and that complies with the requirements in paragraph (b) of this Section 2.14, other than the timing requirements in paragraph (a) of this Section 2.14, shall also be considered timely, but only with respect to nominees for the new positions

created by such increase, if it shall be received by the Secretary at the principal executive offices of the corporation not later than the close of business on the tenth day following the day on which such public announcement is first made by the corporation.

(d) To be eligible to be a nominee for election or re-election as a director of the corporation pursuant to a nomination under clause paragraph (b) of this Section 2.14, each Proponent must deliver (in accordance with the time periods prescribed for delivery of notice under paragraph (a) or (e) of this Section 2.14, as applicable) to the Secretary at the principal executive offices of the corporation a written questionnaire with respect to the background, qualifications, stock ownership and independence of such proposed nominee and a written representation and agreement (in the form provided by the Secretary upon written request) that such person (i) is not and will not become a party to (A) any agreement, arrangement or understanding with, and has not given any commitment or assurance to, any person or entity as to how such person, if elected as a director of the corporation, will act or vote on any issue or question (a “**Voting Commitment**”) that has not been disclosed to the corporation in the questionnaire or (B) any Voting Commitment that could limit or interfere with such person’s ability to comply, if elected as a director of the corporation, with such person’s fiduciary duties under applicable law; (ii) is not and will not become a party to any agreement, arrangement or understanding with any person or entity other than the corporation with respect to any direct or indirect compensation, reimbursement or indemnification in connection with service or action as a director of the corporation that has not been disclosed in such questionnaire; and (iii) would be in compliance, if elected as a director of the corporation, and will comply with, all applicable publicly disclosed corporate governance, conflict of interest, confidentiality and stock ownership and trading policies and guidelines of the corporation.

(e) A person shall not be eligible for election or re-election as a director at an annual meeting, unless the person is nominated in accordance with either clause (B) or (C) of paragraph (a) of this Section 2.14 and in accordance with the procedures set forth in paragraphs (a), (b), (c), (d), (e) and (f), as applicable, of this Section 2.14. Only such business shall be conducted at any annual meeting of the stockholders of the corporation as shall have been brought before the meeting in accordance with clauses (A), (B), or (C) of paragraph (a) of this Section 2.14 and in accordance with the procedures set forth in paragraphs (a), (b), (c) and (d), as applicable, of this Section 2.14. Notwithstanding anything to the contrary in the Bylaws, unless otherwise required by applicable law, in the event that any Proponent (i) provides notice pursuant to Rule 14a-19(b) promulgated under the Exchange Act with respect to one or more proposed nominees and (ii) subsequently (x) fails to comply with the requirements of Rule 14a-19 promulgated under the Exchange Act (or fails to timely provide reasonable evidence sufficient to satisfy the corporation that such Proponent has met the requirements of Rule 14a-19(a)(3) promulgated under the Exchange Act in accordance with the next sentence) or (y) fails to inform the corporation that they no longer plan to solicit proxies in accordance with the requirements of Rule 14a-19 under the Exchange Act by delivering a written notice to the Secretary at the principal executive offices of the corporation within two (2) business days after the occurrence of such change, then the nomination of each such proposed nominee shall be disregarded, notwithstanding that the nominee is included as a nominee in the corporation’s proxy statement, notice of meeting or other proxy materials for any annual meeting (or any supplement thereto) and notwithstanding that proxies or votes in respect of the election of such proposed nominees may have been received by the corporation (which proxies and votes shall be disregarded). If any Proponent provides notice pursuant to Rule 14a-19(b) promulgated under the Exchange Act, such Proponent shall deliver to the corporation, no later than five Business Days prior to the applicable meeting, reasonable evidence that it has met the requirements of Rule 14a-19(a)(3) promulgated under the Exchange Act. Notwithstanding anything to the contrary set forth herein, and for the avoidance of doubt, the nomination of any person whose name is included as a nominee in the corporation’s proxy statement, notice of meeting or other proxy materials for any annual meeting (or any supplement thereto) as a result of any notice provided by any Proponent and any of its affiliates or associates pursuant to Rule 14a-19(b)

promulgated under the Exchange Act with respect to such proposed nominee and whose nomination is not made by or at the direction of the Board or any authorized committee thereof shall not be deemed (for purposes of clause (A) of paragraph (a) of this Section 2.14 or otherwise) to have been made pursuant to the corporation's notice of meeting (or any supplement thereto) and any such nominee may only be nominated by a Proponent pursuant to clause (C) of paragraph (a) of this Section 2.14. Except as otherwise required by applicable law, the chairperson of the meeting shall have the power and duty to determine whether a nomination or any business proposed to be brought before the meeting was made, or proposed, as the case may be, in accordance with the procedures and requirements set forth in the Bylaws and, if any proposed nomination or business is not in compliance with the Bylaws (including, without limitation, compliance with Rule 14a-19), or the Proponent does not act in accordance with the representations required in this Section 2.14, to declare that such proposal or nomination shall not be presented for stockholder action at the meeting and shall be disregarded, or that such business shall not be transacted, notwithstanding that such proposal or nomination is set forth in the corporation's proxy statement, notice of meeting or other proxy materials and notwithstanding that proxies or votes in respect of such nomination or such business may have been solicited or received. Notwithstanding the foregoing provisions of this Section 2.14, unless otherwise required by applicable law, if the stockholder (or a qualified representative of the stockholder) does not appear at the annual meeting of stockholders of the corporation to present a nomination or proposed business, such nomination shall be disregarded and such proposed business shall not be transacted, notwithstanding that such nomination or proposed business is set forth in the corporation's proxy statement, notice of meeting or other proxy materials and notwithstanding that proxies or votes in respect of such vote may have been solicited or received by the corporation. For purposes of this Section 2.14, to be considered a qualified representative of the stockholder, a person must be a duly authorized officer, manager or partner of such stockholder or must be authorized by a writing executed by such stockholder or an electronic transmission delivered by such stockholder to act for such stockholder as proxy at the meeting of stockholders and such person must produce such writing or electronic transmission, or a reliable reproduction of the writing or electronic transmission, at the meeting of stockholders.

(f) Notwithstanding the foregoing provisions of this Section 2.14, in order to include information with respect to a stockholder proposal in the proxy statement and form of proxy for a stockholders' meeting, a stockholder must also comply with all applicable requirements of the Exchange Act and the rules and regulations thereunder. Nothing in the Bylaws shall be deemed to affect any rights of stockholders to request inclusion of proposals in the corporation's proxy statement pursuant to Rule 14a-8 under the Exchange Act; provided, however, that any references in the Bylaws to the Exchange Act or the rules and regulations thereunder are not intended to and shall not limit the requirements applicable to proposals and/or nominations to be considered pursuant to clause (C) of paragraph (a) of this Section 2.14. Nothing in the Bylaws shall be deemed to affect any rights of holders of any class or series of preferred stock to nominate and elect directors pursuant to and to the extent provided in any applicable provision of the Certificate.

(g) For purposes of this Section 2.14,

(i) "affiliates" and "associates" shall have the meanings set forth in Rule 405 under the Securities Act of 1933, as amended;

(ii) "Business Day" means any day other than Saturday, Sunday or a day on which banks are closed in New York City, New York;

(iii) "close of business" means 6:00 p.m. local time at the principal executive offices of the corporation on any calendar day, whether or not the day is a Business Day;

(iv) “**Derivative Transaction**” means any agreement, arrangement, interest or understanding entered into by, or on behalf or for the benefit of, any Proponent or any of its affiliates or associates, whether record or beneficial: (A) the value of which is derived in whole or in part from the value of any class or series of shares or other securities of the corporation; (B) that otherwise provides any direct or indirect opportunity to gain or share in any gain derived from a change in the value of securities of the corporation; (C) the effect or intent of which is to mitigate loss, manage risk or benefit from changes in value or price with respect to any securities of the corporation; or (D) that provides the right to vote or increase or decrease the voting power of, such Proponent, or any of its affiliates or associates, directly or indirectly, with respect to any securities of the corporation, which agreement, arrangement, interest or understanding may include, without limitation, any option, warrant, debt position, note, bond, convertible security, swap, stock appreciation or similar right, short position, profit interest, hedge, right to dividends, voting agreement, performance-related fee or arrangement to borrow or lend shares (whether or not subject to payment, settlement, exercise or conversion in any such class or series), and any proportionate interest of such Proponent in the securities of the corporation held by any general or limited partnership, or any limited liability company, of which such Proponent is, directly or indirectly, a general partner or managing member; and

(v) “**public announcement**” means disclosure in a press release reported by the Dow Jones News Service, Associated Press, Business Wire, GlobeNewswire or comparable national news service or in a document publicly filed by the corporation with the Securities and Exchange Commission pursuant to Section 13, 14 or 15(d) of the Exchange Act or by such other means reasonably designed to inform the public or security holders in general of such information, including, without limitation, posting on the corporation’s investor relations website.

2.15 Organization. Meetings of stockholders shall be presided over by (a) the Chairman of the Board or, in the absence thereof, (b) such person as the Chairman of the Board shall appoint or, in the absence thereof or in the event that the Chairman of the Board shall fail to make such appointment, (c) such person as the Chairman of the executive committee of the corporation shall appoint or, in the absence thereof or in the event that the Chairman of the executive committee of the corporation shall fail to make such appointment, any officer of the corporation elected by the Board. In the absence of the Secretary of the corporation, the secretary of the meeting shall be such person as the Chairman of the meeting appoints.

The Board shall, in advance of any meeting of stockholders, appoint one (1) or more inspector(s), who may include individual(s) who serve the corporation in other capacities, including without limitation as officers, employees or agents, to act at the meeting of stockholders and make a written report thereof. The Board may designate one (1) or more persons as alternate inspector(s) to replace any inspector, who fails to act. If no inspector or alternate has been appointed or is able to act at a meeting of stockholders, the Chairman of the meeting shall appoint one (1) or more inspector(s) to act at the meeting. Each inspector, before discharging his or her duties, shall take and sign an oath to faithfully execute the duties of inspector with strict impartiality and according to the best of his or her ability. The inspector(s) or alternate(s) shall have the duties prescribed pursuant to Section 231 of the DGCL or other applicable law.

The Board shall be entitled to make such rules or regulations for the conduct of meetings of stockholders as it shall deem necessary, appropriate or convenient. Subject to such rules and regulations, if any, the Chairman of the meeting shall have the right and authority to prescribe such rules, regulations and procedures and to do all acts as, in the judgment of such Chairman, are necessary, appropriate or convenient for the proper conduct of the meeting, including without limitation establishing an agenda of business of the meeting, rules or regulations to maintain order, restrictions on entry to the meeting after the time fixed for commencement thereof and the fixing of the date and time of the opening and closing

of the polls for each matter upon which the stockholders will vote at a meeting (and shall announce such at the meeting).

2.16 Notice By Electronic Transmission. Without limiting the manner by which notice otherwise may be given effectively to stockholders, any notice to stockholders given by the corporation under any provision of the DGCL, the Certificate or these Bylaws shall be effective if given by a form of electronic transmission consented to by the stockholder to whom the notice is given. Any such consent shall be revocable by the stockholder by written notice to the corporation. Any such consent shall be deemed revoked if (a) the corporation is unable to deliver by electronic transmission two (2) consecutive notices given by the corporation in accordance with such consent, and (b) such inability becomes known to the Secretary or an Assistant Secretary of the corporation, the transfer agent or other person responsible for the giving of notice; provided, however, the inadvertent failure to treat such inability as a revocation shall not invalidate any meeting or other action.

Notice given pursuant to the above paragraph shall be deemed given (a) if by facsimile telecommunication, when directed to a number at which the stockholder has consented to receive notice, (b) if by electronic mail, when directed to an electronic mail address at which the stockholder has consented to receive notice, (c) if by a posting on an electronic network together with a separate notice to the stockholder of such specific posting, upon the later of (i) such posting, and (ii) the giving of such separate notice, and (d) if by any other form of electronic transmission, when directed to the stockholder. An affidavit of the Secretary or Assistant Secretary, the transfer agent or other agent of the corporation that the notice has been given by a form of electronic transmission shall in the absence of fraud, be prima facie evidence of the facts stated therein.

For purposes of these Bylaws, “**electronic transmission**” means any form of communication, not directly involving the physical transmission of paper, which creates a record that may be retained, retrieved and reviewed by a recipient thereof, and that may be directly reproduced in paper form by such a recipient through an automated process. This Section 2.16 shall not apply to Section 164 (failure to pay for stock; remedies), Section 296 (adjudication of claims; appeal), Section 311 (revocation of voluntary dissolution), Section 312 (renewal, revival, extension and restoration of certificate of incorporation) or Section 324 (attachment of shares of stock) of the DGCL.

ARTICLE III

DIRECTORS

3.1 Powers. The business and affairs of the corporation shall be managed by or under the direction of the Board. In addition to the power and authorities these Bylaws expressly confer upon them, the Board may exercise all such powers of the corporation and do all such lawful acts and things as are not required by statute, the Certificate or these Bylaws to be exercised or done by the stockholders.

3.2 Number of Directors. Subject to the rights of the holders of any Preferred Stock of the corporation to elect additional directors under specified circumstances, the authorized number of directors of the corporation shall be fixed from time to time exclusively by the Board pursuant to a resolution duly adopted by a majority of the Board members then in office. No reduction of the authorized number of directors shall have the effect of removing any director before such director’s term of office expires.

3.3 Election, Qualification and Term of Office of Directors. Except as provided in the Certificate or Section 3.4 of these Bylaws, directors shall be classified, with respect to the time for which they severally hold office, into three (3) classes, as nearly equal in number as possible, one (1) class to be

originally elected for a term expiring at the annual meeting of stockholders to be held in 2006, another class to be originally elected for a term expiring at the annual meeting of stockholders to be held in 2007, and another class to be originally elected for a term expiring at the annual meeting of stockholders to be held in 2008, with each class to hold office until its successor is duly elected and qualified. At each succeeding annual meeting of stockholders, commencing with the first annual meeting (a) directors elected to succeed those directors whose terms then expire shall be elected for a term of office to expire at the third succeeding annual meeting of stockholders after their election, with each director to hold office until his or her successor shall have been duly elected and qualified, and (b) if authorized by a resolution of the Board, directors may be elected to fill any vacancy on the Board, regardless of how such vacancy shall have been created (as set forth in Section 3.4 below).

Directors need not be stockholders unless so required by the Certificate or these Bylaws, wherein other qualifications for directors may be prescribed.

Elections of directors at all meetings of the stockholders at which directors are to be elected shall be by ballot and, subject to the rights of the holders of any Preferred Stock of the corporation to elect additional directors under specified circumstances, a plurality of the votes cast thereat shall elect directors. The ballot shall state the name of the stockholder or proxy voting or such other information as may be required under the procedure established by the Chairman of the meeting. If authorized by the Board, such requirement of a ballot shall be satisfied by a ballot submitted by electronic transmission provided that any such electronic transmission must either set forth or be submitted with information from which it can be determined that the electronic submission was authorized.

3.4 Resignations and Vacancies. Any director may resign at any time upon written notice or by electronic transmission to the corporation. Subject to the rights of the holders of any series of Preferred Stock of the corporation then outstanding and unless the Board otherwise determines, newly created directorships resulting from any increase in the authorized number of directors, or any vacancies on the Board resulting from the death, resignation, retirement, disqualification, removal from office or other cause shall, unless otherwise provided by law or resolution of the Board, be filled only by a majority vote of the directors then in office, whether or not less than a quorum, and directors so chosen shall hold office for a term expiring at the annual meeting of stockholders at which the term of office of the class to which they have been elected expires.

3.5 Place of Meetings; Meetings by Telephone or Other Communications Equipment. The Board may hold meetings, both regular and special, either within or outside the State of Delaware. Unless otherwise restricted by the Certificate or these Bylaws, members of the Board, or any committee designated by the Board, may participate in a meeting of the Board, or any committee, by means of conference telephone or other communications equipment by means of which all persons participating in the meeting can hear each other, and such participation in a meeting shall constitute presence in person at the meeting.

3.6 First Meetings. The first meeting of each newly elected Board shall be held immediately after, and at the same location as, the annual meeting of stockholders, unless the Board shall fix another time and place and give notice thereof (or obtain waivers of notice thereof) in the manner required herein for special meetings of directors, and no notice of such meeting shall be necessary to the newly elected directors in order legally to constitute the meeting, except as provided in this Section 3.6 and provided that a quorum shall be present.

3.7 Regular Meetings. Regular meetings of the Board may be held without notice at such time and at such place as shall from time to time be determined by the Board.

3.8 Special Meetings; Notice. Special meetings of the Board for any purpose(s) may be called at any time by the Chairman of the Board, the Chief Executive Officer, the President or a majority of the members of the Board then in office. The person(s) authorized to call special meetings of the Board may fix the place and time of the meetings.

Notice of the time and place of all special meetings of the Board shall be given orally or in writing, by telephone, including a voice messaging system or other system or technology designed to record and communicate messages, facsimile, telegraph or telex, or by electronic mail or other electronic means, during normal business hours, at least twelve (12) hours before the date and time of the meeting. If notice is sent by U.S. mail, it shall be sent by first class mail, postage prepaid at least three days before the date of the meeting. Notice of any special meeting may be waived in writing or by electronic transmission at any time before or after the meeting and will be waived by any director by attendance thereat, except when the director attends the meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened.

3.9 Quorum. At all meetings of the Board, a majority of the directors currently serving on the Board shall constitute a quorum for all purposes, and the act of a majority of the directors present at any meeting at which there is a quorum shall be the act of the Board, except as may be otherwise specifically provided by statute or by the Certificate. The directors present at a duly organized meeting may continue to transact business until adjournment notwithstanding the withdrawal of enough directors to leave less than quorum.

3.10 Waiver of Notice. Whenever notice is required to be given under any provisions of the DGCL of the Certificate or these Bylaws, a written waiver thereof, signed by the person entitled to notice, or a waiver by electronic transmission by the person entitled to notice, whether before or after the time stated therein, shall be deemed equivalent to notice. Attendance of a person at a meeting shall constitute a waiver of notice of such meeting, except when the person attends a meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the directors, or members of a committee of directors, need be specified in any written waiver of notice or any waiver by electronic transmission unless so required by the Certificate or these Bylaws.

3.11 Adjourned Meeting; Notice. If a quorum is not present at any meeting of the Board, then a majority of the directors present thereat may adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum is present.

3.12 Board Action by Written Consent Without a Meeting. Unless otherwise restricted by the Certificate or these Bylaws, any action required or permitted to be taken at any meeting of the Board, or of any committee thereof, may be taken without a meeting if all members of the Board or committee, as the case may be, consent thereto in writing or by electronic transmission and the writing(s) or electronic transmission(s) are filed with the minutes of proceedings of the Board or committee. Such filing shall be in paper form if the minutes are maintained in paper form and shall be in electronic form if the minutes are maintained in electronic form.

3.13 Fees and Compensation of Directors. Unless otherwise restricted by the Certificate or these Bylaws, the Board shall have the authority to fix the compensation of directors, including fees and reimbursement of expenses related to Board or committee service.

3.14 Removal of Directors. Subject to the rights of the holders of any series of Preferred Stock of the corporation then outstanding, unless otherwise restricted by statute, the Certificate or these Bylaws, any director, or all of the directors, may be removed from the Board, but only for cause, by the affirmative vote of the holders of at least a majority of the voting power of all the then outstanding shares of capital stock of the corporation then entitled to vote at the election of directors, voting together as a single class.

For purposes of the foregoing paragraph, “**cause**” shall mean (i) continued willful failure to perform the obligations of a director, (ii) gross negligence by the director, (iii) engaging in transactions that defraud the corporation, (iv) fraud or intentional misrepresentation, including falsifying use of funds and intentional misstatements made in financial statements, books, records or reports to stockholders or governmental agencies, (v) material violation of any agreement between the director and the corporation, (vi) knowingly causing the corporation to commit violations of applicable law (including by failure to act), (vii) acts of moral turpitude or (viii) conviction of a felony. No reduction of the authorized number of directors shall have the effect of removing any director prior to the expiration of such director’s term of office.

ARTICLE IV

COMMITTEES

4.1 Committees of Directors. The Board may from time to time, by resolution passed by the Board, designate one (1) or more committees of the Board, with such lawfully delegable powers and duties as it thereby confers, with each committee to consist of one (1) or more of the directors of the corporation. The Board may designate one (1) or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee. In the absence or disqualification of a member of a committee, the member(s) thereof present at any meeting and not disqualified from voting, whether or not such member(s) constitute a quorum, may unanimously appoint another member of the Board to act at the meeting in the place of any such absent or disqualified member.

4.2 Committee Minutes. Each committee shall keep regular minutes of its meetings and report the same to the Board when required.

4.3 Meetings and Action of Committees. Meetings and actions of committees shall be governed by, and held and taken in accordance with, the provisions of Article III of these Bylaws, Section 3.5 (place of meetings and meetings by telephone), Section 3.7 (regular meetings), Section 3.8 (special meetings and notice), Section 3.9 (quorum), Section 3.10 (waiver of notice), Section 3.11 (adjournment and notice of adjournment), and Section 3.12 (action without a meeting), with such changes in the context of those Bylaws as are necessary to substitute the committee and its members for the Board and its members; provided, however, that the time of regular and special meetings of committees may also be called by resolution of the Board. The Board may adopt rules for the government of any committee not inconsistent with the provisions of these Bylaws.

ARTICLE V

OFFICERS

5.1 Officers. The officers of the corporation shall be a President and a Secretary. The corporation may also have, at the discretion of the Board, a Chairman of the Board, a Vice Chairman of the Board, a Chief Executive Officer, a Chief Operating Officer, a Chief Commercialization Officer, a

Chief Financial Officer, a Treasurer, one or more Vice Presidents, Assistant Vice Presidents, Assistant Secretaries, and Assistant Treasurers, and any such other officers as may be appointed by the Board or in accordance with the provisions of Section 5.3 of these Bylaws. Any number of offices may be held by the same person.

5.2 Election of Officers. The officers of the corporation, except such officers as may be appointed in accordance with the provisions of Section 5.3 of these Bylaws, shall be chosen by the Board. Each officer shall hold office until his or her successor is elected and qualified or until his or her earlier resignation or removal. A failure to elect officers shall not dissolve or otherwise affect the corporation.

5.3 Subordinate Officers. The Board may appoint, or empower the Chief Executive Officer or, in the absence of a Chief Executive Officer, the President, to appoint, such other officers as the business of the corporation may require, each of whom shall hold office for such period, have such authority, and perform such duties as are provided in these Bylaws or as the Board may from time to time determine.

5.4 Removal and Resignation of Officers. Any officer may be removed, either with or without cause, by an affirmative vote of the majority of the Board at any regular or special meeting of the Board.

Any officer may resign at any time by giving written notice to the corporation. Any resignation shall take effect at the date of the receipt of that notice or at any later time specified in that notice. Unless otherwise specified in such notice, the acceptance of the resignation shall not be necessary to make it effective. Any resignation is without prejudice to the rights, if any, of the corporation under any contract to which the officer is a party.

5.5 Vacancies in Offices. Any vacancy occurring in any office of the corporation shall be filled by the Board.

5.6 Chairman of the Board. The Chairman of the Board, if such an officer be elected, shall, if present, preside at meetings of the Board and exercise and perform such other powers and duties as may from time to time be assigned to him or her by the Board or as may be prescribed by these Bylaws.

5.7 Chief Executive Officer. The duties of the Chief Executive Officer shall be as determined from time to time by the Board.

5.8 President. The duties of the President and such other officers shall each be as determined from time to time by the Board.

5.9 Vice President. In the absence or disability of the President, the Vice President(s), if any, in order of their rank as fixed by the Board or, if not ranked, a Vice President designated by the Board, shall perform all the duties of the President and, when so acting, shall have all the powers of, and be subject to all the restrictions upon, the President. The Vice President(s) shall have such other powers and perform such other duties as from time to time may be prescribed for them respectively by the Board, these Bylaws, the Chairman of the Board, the Chief Executive Officer or, in the absence of a Chief Executive Officer, the President.

5.10 Secretary. The Secretary shall keep or cause to be kept, at the principal executive office of the corporation or such other place as the Board may direct, a book of minutes of all meetings and actions of directors, committees of directors, and stockholders. The minutes shall show the time and place

of each meeting, whether regular or special (and, if special, how authorized and the notice given), the names of those present at directors' meetings or committee meetings, the number of shares present or represented at stockholders' meetings, and the proceedings thereof.

The Secretary shall keep, or cause to be kept, at the principal executive office of the corporation or at the office of the corporation's transfer agent or registrar, as determined by resolution of the Board, a share register, or a duplicate share register, showing the names of all stockholders and their addresses, the number and classes of shares held by each, the number and date of certificates evidencing such shares, and the number and date of cancellation of every certificate surrendered for cancellation. Such share register shall be the "**stock ledger**" for purposes of Section 2.13 of these Bylaws.

The Secretary shall give, or cause to be given, notice of all meetings of the stockholders and of the Board, or committee of the Board, required to be given by law or by these Bylaws. He or she shall keep the seal of the corporation, if one be adopted, in safe custody and shall have such other powers and perform such other duties as may be prescribed by the Board or by these Bylaws.

5.11 Chief Financial Officer. The Chief Financial Officer shall keep and maintain, or cause to be kept and maintained, adequate and correct books and records of accounts of the properties and business transactions of the corporation, including accounts of its assets, liabilities, receipts, disbursements, gains, losses, capital and retained earnings.

The Chief Financial Officer shall deposit all money and other valuables in the name and to the credit of the corporation with such depositories as may be designated by the Board or Chief Executive Officer. The Chief Financial Officer shall disburse the funds of the corporation as may be ordered by the Board, shall render to the Board and Chief Executive Officer, or in the absence of a Chief Executive Officer the President, whenever they request, an account of all of his or her transactions as Chief Financial Officer and of the financial condition of the corporation, and shall have such other powers and perform such other duties as may be prescribed by the Board or these Bylaws. In lieu of any contrary resolution duly adopted by the Board, the Chief Financial Officer shall be the Treasurer of the corporation.

5.12 Assistant Secretary. The Assistant Secretary(ies), if any, in the order determined by the Board (or if there be no such determination, then in the order of their election) shall, in the absence of the Secretary or in the event of his or her inability or refusal to act, perform the duties and exercise the powers of the Secretary and shall perform such other duties and have such other powers as the Board may from time to time prescribe.

5.13 Assistant Treasurer. The Assistant Treasurer(s), if any, in the order determined by the Board (or if there be no such determination, then in the order of their election), shall, in the absence of the Chief Financial Officer or in the event of his or her inability or refusal to act, perform the duties and exercise the powers of the Chief Financial Officer and shall perform such other duties and have such other powers as the Board may from time to time prescribe.

5.14 Authority and Duties of Officers. In addition to the foregoing authority and duties, all officers of the corporation shall respectively have such authority and perform such duties in the management of the business of the corporation as may be designated from time to time by the Board.

ARTICLE VI

INDEMNIFICATION

6.1 Indemnification of Directors, Executive Officers, Employees and Other Agents.

(a) **Directors and Executive Officers.** The corporation shall indemnify its directors and executive officers (for the purposes of this Article XI, “**executive officers**” shall have the meaning defined in Rule 3b-7 promulgated under the Exchange Act) to the fullest extent permitted by the DGCL or any other applicable law as it presently exists or may hereafter be amended, who was or is made or is threatened to be made a party or is otherwise involved in proceeding, by reason of the fact that he or she, or a person for whom he or she is the legal representative, is or was a director or officer of the corporation, against all liability and loss suffered and expenses (including attorneys’ fees) reasonably incurred by person; *provided, however*, that the corporation may modify the extent of such indemnification by individual contracts with its directors and executive officers, in which case such contract shall supersede and replace the provisions hereof; and, *provided, further*, that the corporation shall not be required to indemnify any director or executive officer in connection with any proceeding (or part thereof) initiated by such person unless (i) such indemnification is expressly required to be made by law, (ii) the proceeding was authorized by the Board of the corporation, (iii) such indemnification is provided by the corporation, in its sole discretion, pursuant to the powers vested in the corporation under the DGCL or any other applicable law or (iv) such indemnification is required to be made under subsection (d) of this Section 6.1.

(b) **Other Officers, Employees and Other Agents.** The corporation shall have the power to indemnify (including the power to advance expenses in a manner consistent with subsection (c) of this Section 6.1) its other officers, employees and other agents as set forth in the DGCL or any other applicable law. The Board shall have the power to delegate the determination of whether indemnification shall be given to any such person except executive officers to such officers or other persons as the Board shall determine.

(c) **Expenses.** The corporation shall advance to any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that he is or was a director or executive officer of the corporation, or is or was serving at the request of the corporation as a director or executive officer of another corporation, partnership, joint venture, trust or other enterprise, prior to the final disposition of the proceeding, promptly following request therefor, all expenses incurred by any director or executive officer in connection with such proceeding provided, however, that if the DGCL requires, an advancement of expenses incurred by a director or executive officer in his or her capacity as a director or executive officer (and not in any other capacity in which service was or is rendered by such indemnitee, including, without limitation, service to an employee benefit plan) shall be made only upon delivery to the corporation of an undertaking (hereinafter an “**undertaking**”), by or on behalf of such indemnitee, to repay all amounts so advanced if it shall ultimately be determined by final judicial decision from which there is no further right to appeal (hereinafter a “**final adjudication**”) that such indemnitee is not entitled to be indemnified for such expenses under this section or otherwise.

Notwithstanding the foregoing, unless otherwise determined pursuant to paragraph (d) of this Section 6.1, no advance shall be made by the corporation to an executive officer of the corporation (except by reason of the fact that such executive officer is or was a director of the corporation in which event this paragraph shall not apply) in any action, suit or proceeding, whether civil, criminal, administrative or investigative, if a determination is reasonably and promptly made (i) by a majority vote of directors who were not parties to the proceeding, even if not a quorum, or (ii) by a committee of such directors designated by a majority vote of such directors, even though less than a quorum, or (iii) if there are no such directors, or such directors so direct, by independent legal counsel in a written opinion, that the facts known to the decision-making party at the time such determination is made demonstrate clearly

and convincingly that such person acted in bad faith or in a manner that such person did not believe to be in or not opposed to the best interests of the corporation.

(d) Enforcement. Without the necessity of entering into an express contract, all rights to indemnification and advances to directors and executive officers under this Bylaw shall be deemed to be contractual rights and be effective to the same extent and as if provided for in a contract between the corporation and the director or executive officer. Any right to indemnification or advances granted by this section to a director or executive officer shall be enforceable by or on behalf of the person holding such right in any court of competent jurisdiction if (i) the claim for indemnification or advances is denied, in whole or in part, or (ii) no disposition of such claim is made within 90 days of request therefor. To the extent permitted by law, the claimant in such enforcement action, if successful in whole or in part, shall be entitled to be paid also the expense of prosecuting the claim to the fullest extent permitted by law. In connection with any claim for indemnification, the corporation shall be entitled to raise as a defense to any such action that the claimant has not met the standards of conduct that make it permissible under the DGCL or any other applicable law for the corporation to indemnify the claimant for the amount claimed. In connection with any claim by an executive officer of the corporation (except in any action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that such executive officer is or was a director of the corporation) for advances, the corporation shall be entitled to raise a defense as to any such action clear and convincing evidence that such person acted in bad faith or in a manner that such person did not believe to be in or not opposed to the best interests of the corporation, or with respect to any criminal action or proceeding that such person acted without reasonable cause to believe that his or her conduct was lawful. Neither the failure of the corporation (including its Board, independent legal counsel or its stockholders) to have made a determination prior to the commencement of such action that indemnification of the claimant is proper in the circumstances because he has met the applicable standard of conduct set forth in the DGCL or any other applicable law, nor an actual determination by the corporation (including its Board, independent legal counsel or its stockholders) that the claimant has not met such applicable standard of conduct, shall be a defense to the action or create a presumption that claimant has not met the applicable standard of conduct. In any suit brought by a director or executive officer to enforce a right to indemnification or to an advancement of expenses hereunder, the burden of proving that the director or executive officer is not entitled to be indemnified, or to such advancement of expenses, under this section or otherwise shall be on the corporation.

(e) Non-Exclusivity of Rights. The rights conferred on any person by this Bylaw shall not be exclusive of any other right which such person may have or hereafter acquire under any applicable statute, provision of the Certificate, Bylaws, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in his or her official capacity and as to action in another capacity while holding office. The corporation is specifically authorized to enter into individual contracts with any or all of its directors, officers, employees or agents respecting indemnification and advances, to the fullest extent not prohibited by the DGCL, or by any other applicable law.

(f) Survival of Rights. The rights conferred on any person by this Bylaw shall continue as to a person who has ceased to be a director or executive officer or officer, employee or other agent and shall inure to the benefit of the heirs, executors and administrators of such a person.

(g) Insurance. To the fullest extent permitted by the DGCL or any other applicable law, the corporation, upon approval by the Board, may purchase insurance on behalf of any person required or permitted to be indemnified pursuant to this section.

(h) Amendments. Any repeal or modification of this section shall only be prospective

and shall not affect the rights under this Bylaw in effect at the time of the alleged occurrence of any action or omission to act that is the cause of any proceeding against any agent of the corporation.

(i) **Saving Clause.** If this Bylaw or any portion hereof shall be invalidated on any ground by any court of competent jurisdiction, then the corporation shall nevertheless indemnify each director and executive officer to the full extent not prohibited by any applicable portion of this section that shall not have been invalidated, or by any other applicable law. If this section shall be invalid due to the application of the indemnification provisions of another jurisdiction, then the corporation shall indemnify each director and executive officer to the full extent under any other applicable law.

(j) **Certain Definitions.** For the purposes of this Bylaw, the following definitions shall apply:

(i) The term “**proceeding**” shall be broadly construed and shall include, without limitation, the investigation, preparation, prosecution, defense, settlement, arbitration and appeal of, and the giving of testimony in, any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative.

(ii) The term “**expenses**” shall be broadly construed and shall include, without limitation, court costs, attorneys’ fees, witness fees, fines, amounts paid in settlement or judgment and any other costs and expenses of any nature or kind incurred in connection with any proceeding.

(iii) The term the “**corporation**” shall include, in addition to the resulting corporation, any constituent corporation (including any constituent of a constituent) absorbed in a consolidation or merger which, if its separate existence had continued, would have had power and authority to indemnify its directors, officers, and employees or agents, so that any person who is or was a director, officer, employee or agent of such constituent corporation, or is or was serving at the request of such constituent corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, shall stand in the same position under the provisions of this section with respect to the resulting or surviving corporation as he would have with respect to such constituent corporation if its separate existence had continued.

(iv) References to a “**director,**” “**executive officer,**” “**officer,**” “**employee,**” or “**agent**” of the corporation shall include, without limitation, situations where such person is serving at the request of the corporation as, respectively, a director, executive officer, officer, employee, trustee or agent of another corporation, partnership, joint venture, trust or other enterprise.

(v) References to “**other enterprises**” shall include employee benefit plans; references to “**fines**” shall include any excise taxes assessed on a person with respect to an employee benefit plan; and references to “**serving at the request of the corporation**” shall include any service as a director, officer, employee or agent of the corporation which imposes duties on, or involves services by, such director, officer, employee, or agent with respect to an employee benefit plan, its participants, or beneficiaries; and a person who acted in good faith and in a manner such person reasonably believed to be in the interest of the participants and beneficiaries of an employee benefit plan shall be deemed to have acted in a manner “**not opposed to the best interests of the corporation**” as referred to in this section.

ARTICLE VII

RECORDS AND REPORTS

7.1 Maintenance and Inspection of Records. The corporation shall, either at its principal executive office or at such place or places as designated by the Board, keep a record of its stockholders listing their names and addresses and the number and class of shares held by each stockholder, a copy of these Bylaws, as may be amended to date, minute books, accounting books and other records.

Any such records maintained by the corporation may be kept on, or by means of, or be in the form of, any information storage device or method, provided that the records so kept can be converted into clearly legible paper form within a reasonable time. The corporation shall so convert any records so kept upon the request of any person entitled to inspect such records pursuant to the provisions of the DGCL. When records are kept in such manner, a clearly legible paper form produced from or by means of the information storage device or method shall be admissible in evidence, and accepted for all other purposes, to the same extent as an original paper form accurately portrays the record.

7.2 Inspection by Directors. Any director shall have the right to examine the corporation's stock ledger, a list of its stockholders, and its other books and records for a purpose reasonably related to his or her position as a director. The Court of Chancery is hereby vested with the exclusive jurisdiction to determine whether a director is entitled to the inspection sought. The Court may summarily order the corporation to permit the director to inspect any and all books and records, the stock ledger, and the stock list and to make copies or extracts therefrom. The Court may, in its discretion, prescribe any limitations or conditions with reference to the inspection, or award such other and further relief as the Court may deem just and proper.

7.3 Representation of Shares of Other Corporations. Unless otherwise directed by the Board, the Chief Executive Officer, the President, or any other person authorized by the President, is authorized to vote, represent, and exercise on behalf of the corporation all rights incident to any and all shares of any other corporation(s) standing in the name of the corporation. The authority granted herein may be exercised either by such person directly or by any other person authorized to do so by proxy or power of attorney duly executed by such person having the authority.

ARTICLE VIII

GENERAL MATTERS

8.1 Checks. From time to time, the Board shall determine by resolution which person or persons may sign or endorse all checks, drafts, other orders for payment of money, notes or other evidences of indebtedness that are issued in the name of or payable to the corporation, and only the persons so authorized shall sign or endorse those instruments.

8.2 Execution of Corporate Contracts and Instruments. The Board, except as otherwise provided in these Bylaws, may authorize any officer or officers, or agent or agents, to enter into any contract or execute any instrument in the name of and on behalf of the corporation. Such authority may be general or confined to specific instances. Unless so authorized or ratified by the Board or within the agency power of an officer, no officer, agent or employee shall have any power or authority to bind the corporation by any contract or engagement or to pledge its credit or to render it liable for any purpose or for any amount.

8.3 Stock Certificates; Partly Paid Shares. The shares of a corporation shall be represented by certificates, provided that the Board may provide by resolution that some or all of any or all classes or series of its stock shall be uncertificated shares. Any such resolution shall not apply to shares represented by a certificate until such certificate is surrendered to the corporation. Notwithstanding

the adoption of such a resolution by the Board, every holder of stock represented by certificates and upon request every holder of uncertificated shares shall be entitled to have a certificate signed by, or in the name of the corporation by the Chairman of the Board or Chief Executive Officer, or the President or Vice-President, and by the Chief Financial Officer or an Assistant Treasurer, or the Secretary or an Assistant Secretary of the corporation representing the number of shares registered in certificate form. Any or all of the signatures on the certificate may be a facsimile. In case any officer, transfer agent or registrar who has signed or whose facsimile signature has been placed upon a certificate has ceased to be such officer, transfer agent or registrar before such certificate is issued, it may be issued by the corporation with the same effect as if he were such officer, transfer agent or registrar at the date of issue.

The corporation may issue the whole or any part of its shares as partly paid and subject to call for the remainder of the consideration to be paid therefor. Upon the face or back of each stock certificate issued to represent any such partly paid shares, upon the books and records of the corporation in the case of uncertificated partly paid shares, the total amount of the consideration to be paid therefor and the amount paid thereon shall be stated. Upon the declaration of any dividend on fully paid shares, the corporation shall declare a dividend upon partly paid shares of the same class, but only upon the basis of the percentage of the consideration actually paid thereon.

8.4 Special Designation on Certificates. If the corporation is authorized to issue more than one (1) class of stock or more than one (1) series of any class, then the powers, the designations, the preferences, and the relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights shall be set forth in full or summarized on the face or back of the certificate that the corporation shall issue to represent such class or series of stock; provided, however, that, except as otherwise provided in Section 202 of the DGCL, in lieu of the foregoing requirements, there may be set forth on the face or back of the certificate that the corporation shall issue to represent such class or series of stock a statement that the corporation will furnish without charge to each stockholder who so requests the powers, the designations, the preferences, and the relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights.

8.5 Lost Certificates. Except as provided in this Section 8.5, no new certificates for shares shall be issued to replace a previously issued certificate unless the latter is surrendered to the corporation and cancelled at the same time. The corporation may issue a new certificate of stock or uncertificated shares in the place of any certificate theretofore issued by it, alleged to have been lost, stolen or destroyed, and the corporation may require, or may require any transfer agent, if any, for the shares to require, the owner of the lost, stolen or destroyed certificate, or his, her or its legal representative, to give the corporation a bond sufficient to indemnify it against any claim that may be made against it on account of the alleged loss, theft or destruction of any such certificate or the issuance of such new certificate or uncertificated shares.

8.6 Construction; Definitions. Unless the context requires otherwise, the general provisions, rules of construction and definitions in the DGCL shall govern the construction of these Bylaws. Without limiting the generality of this provision, the singular number includes the plural, the plural number includes the singular, and the term “**person**” includes both a corporation and a natural person.

8.7 Dividends. The directors of the corporation, subject to any restrictions contained in the Certificate, may declare and pay dividends upon the shares of its capital stock pursuant to the DGCL. Dividends may be paid in cash, in property or in shares of the corporation’s capital stock. The directors of the corporation may set apart out of any of the funds of the corporation available for dividends a reserve

or reserves for any proper purpose and may abolish any such reserve. Such purposes shall include but not be limited to equalizing dividends, repairing or maintaining any property of the corporation, and meeting contingencies.

8.8 Fiscal Year. The fiscal year of the corporation shall be fixed by resolution of the Board and may be changed by resolution of the Board.

8.9 Seal. This corporation may have a corporate seal, which may be adopted or altered at the pleasure of the Board, and may use the same by causing it or a facsimile thereof, to be impressed or affixed or in any other manner reproduced.

8.10 Transfer of Stock. Upon surrender to the corporation or the transfer agent of the corporation, if any, of a certificate for shares duly endorsed or accompanied by proper evidence of succession, assignation or authority to transfer (as determined by legal counsel to the corporation), it shall be the duty of the corporation, as the corporation may so instruct its transfer agent, if any, to issue a new certificate to the person entitled thereto, cancel the old certificate, and record the transaction in its books.

8.11 Registered Stockholders. The corporation shall be entitled to recognize the exclusive right of a person registered on its books as the owner of shares to receive dividends and to vote as such owner, shall be entitled to hold liable for calls and assessments the person registered on its books as the owner of shares, and shall not be bound to recognize any equitable or other claim to or interest in such share or shares on the part of another person, whether or not it shall have express or other notice thereof, except as otherwise provided by the laws of Delaware.

8.12 Forum for Adjudication of Disputes. Unless the corporation consents in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware (the “**Court of Chancery**”) shall be the sole and exclusive forum for any stockholder (including a beneficial owner) to bring (i) any derivative action or proceeding brought on behalf of the corporation, (ii) any action asserting a claim of breach of a fiduciary duty owed by any current or former director, officer or other employee of the corporation to the corporation or the corporation’s stockholders, (iii) any action asserting a claim against the corporation, its current or former directors, officers or employees arising pursuant to any provision of the DGCL or the Certificate or these Bylaws, or (iv) any action asserting a claim against the corporation, its current or former directors, officers or employees governed by the internal affairs doctrine, except as to each of (i) through (iv) above, for any claim as to which the Court of Chancery determines that there is an indispensable party not subject to the jurisdiction of the Court of Chancery (and the indispensable party does not consent to the personal jurisdiction of the Court of Chancery within ten days following such determination), which is vested in the exclusive jurisdiction of a court or forum other than the Court of Chancery, or for which the Court of Chancery does not have subject matter jurisdiction. If any provision or provisions of this paragraph shall be held to be invalid, illegal or unenforceable as applied to any person or entity or circumstance for any reason whatsoever, then, to the fullest extent permitted by law, the validity, legality and enforceability of such provisions in any other circumstance and of the remaining provisions of this paragraph (including, without limitation, each portion of any sentence of this paragraph containing any such provision held to be invalid, illegal or unenforceable that is not itself held to be invalid, illegal or unenforceable) and the application of such provision to other persons or entities and circumstances shall not in any way be affected or impaired thereby.

8.13 Exclusive Forum for Adjudication of Certain Actions.

(a) Unless the corporation consents in writing to the selection of an alternative forum, to the fullest extent permitted by law, the federal district courts of the United States of America shall be the sole and exclusive forum for the resolution of any complaint asserting a cause of action arising under the Securities Act of 1933, as amended.

(b) Any person or entity holding, owning or otherwise acquiring any interest in any security of the corporation shall be deemed to have notice of and consented to the provisions of this Article VIII, Section 8.13.

ARTICLE IX

EMERGENCY BYLAWS

9.1 Emergency Bylaws. This Article IX shall be operative during any emergency resulting from an attack on the United States or on a locality in which the corporation conducts its business or customarily holds meetings of its Board or its Stockholders, or during any nuclear or atomic disaster or during the existence of any pandemic, catastrophe or other similar emergency condition, as a result of which a quorum of the Board thereof cannot be readily convened (an “**Emergency**”), notwithstanding any different or conflicting provision in the preceding Articles of these Bylaws or in the Certificate. To the extent not inconsistent with the provisions of this Article, the Bylaws provided in the preceding Articles and the provisions of the Certificate shall remain in effect during such Emergency, and upon termination of such Emergency, the provisions of this Article IX shall cease to be operative.

9.2 Meetings. During any Emergency, a meeting of the Board, or any committee thereof, may be called by the Chairman or any other member of the Board or the Chief Executive Officer or any other officer reporting directly to the Chief Executive Officer (each, a “**Designated Officer**” and collectively, the “**Designated Officers**”), or the Secretary. Notice of the time and place of any meeting of the Board or any committee thereof during an Emergency shall be given by any available means of communication by the individual calling the meeting to such of the directors and/or Designated Officers who shall be deemed to be directors of the corporation for purposes of obtaining a quorum during an Emergency if a quorum of directors cannot otherwise be obtained during such Emergency, in each case, as it may be feasible to reach. Such notice shall be given at such time in advance of the meeting as, in the judgment of the individual calling the meeting, circumstances permit.

9.3 Quorum. At any meeting of the Board, or any committee thereof, called in accordance with Section 9.2 of this Article IX, the presence of one director shall constitute a quorum for the transaction of business. Vacancies on the Board, or any committee thereof, may be filled by a majority vote of the directors in attendance at the meeting. In the event that no directors are able to attend a meeting of the Board, then the Designated Officers in attendance shall serve as directors for the meeting, without any additional quorum requirement and with full powers to act as directors of the corporation.

9.4 Amendments. At any meeting called in accordance with Section 9.2 of this Article IX, the Board or the committees thereof, as the case may be, may modify, amend or add to the provisions of this Article IX so as to make any provision that may be practical or necessary for the circumstances of the Emergency.

9.5 Contingency Plan. The corporation may develop a contingency plan for the management of the corporation in the event of an Emergency. The contingency plan may be reviewed or modified by the Board from time to time as provided in this Article IX.

9.6 Liability. No officer, director or employee of the corporation acting in accordance with the provisions of this Article IX shall be liable except for willful misconduct.

9.7 Repeal or Change. The provisions of this Article IX shall be subject to repeal or change by further action of the Board or by action of the stockholders, but no such repeal or change shall modify the provisions of Section 9.6 of this Article IX with regard to action taken prior to the time of such repeal or change.

ARTICLE X

AMENDMENTS

10.1 Amendments. Subject to any limitation set forth in the provisions of the Certificate, the Board is expressly empowered to adopt, amend or repeal the bylaws of the corporation. The stockholders also shall have power to adopt, amend or repeal the bylaws of the corporation; provided, however, that, in addition to any vote of the holders of any class or series of stock of the corporation required by law or by the Certificate, the amendment or repeal of all or any portion of Article II, Section 3.2 (number of directors), Section 3.3 (election, qualification and term of office of directors), Section 3.4 (resignation and vacancies), Section 3.14 (removal of directors), Article VI or this Article X by the stockholders of the corporation shall require the affirmative vote of the holders of at least sixty-six and two-thirds percent (66 2/3%) of the voting power of the then outstanding shares of voting stock entitled to vote generally in the election of directors, voting together as a single class.

