

**AMENDED AND RESTATED BYLAWS
of
INSMED INCORPORATED**

**ARTICLE I
MEETINGS OF SHAREHOLDERS**

SECTION 1. Place of Meetings. All meetings of the shareholders of Insmed Incorporated (hereinafter called the "Corporation") shall be held (i) at such place, either within or outside of the Commonwealth of Virginia, as may from time to time be fixed by the Board of Directors of the Corporation (hereinafter called the "Board"), or the Chair of the Board (hereinafter called the "Chair" or the "Chair of the Board") or the President of the Corporation (hereinafter called the "President") or (ii) in the case of virtual-only meetings, at no physical place but solely by means of remote communications, as may from time to time be fixed by the Board.

SECTION 2. Annual Meetings. The annual meeting of the shareholders of the Corporation for the election of directors and for the transaction of such other business as may properly come before the meeting shall be held in May in each year or on such other date as may be fixed by the Board, at such hour as may be specified in the notice thereof.

SECTION 3. Special Meetings. A special meeting of the shareholders for any purpose or purposes, unless otherwise provided by law or in the Articles of Incorporation of the Corporation as from time to time amended (hereinafter called the "Articles"), may be held at any time upon the call of the Board, the Chair, or the President. No other person shall be authorized or entitled to call a special meeting of the shareholders.

SECTION 4. Notice of Meetings. Except as otherwise provided by law, the Articles or these Bylaws, not less than ten nor more than sixty days' notice in writing of the place, if any, day and hour of the meeting and, in the case of a special meeting, purpose or purposes of each meeting of the shareholders, whether annual or special, shall be given to each shareholder of record of the Corporation entitled to notice of such meeting, by the delivery thereof to such shareholder personally, by the mailing thereof to such shareholder in a postage prepaid envelope addressed to such shareholder at their address as it appears on the stock transfer books of the Corporation, or by electronic transmission. The notice shall include the record date for determining the shareholders entitled to vote at the meeting, if such date is different than the record date for determining shareholders entitled to notice of the meeting. For purposes of these Bylaws, "electronic transmission" shall have the meaning set forth in the Virginia Stock Corporation Act, as amended from time to time (the "VSCA"). Any previously scheduled annual meeting of the shareholders may be postponed, and any special meeting of the shareholders may be canceled, by resolution of the Board upon public announcement given prior to the time previously scheduled for such annual or special meeting of the shareholders.

SECTION 5. Fixing Record Date; Quorum. The Board may fix, in advance, a date to make a determination of shareholders entitled to notice or to vote at any meeting of shareholders, to receive any dividend, or for any other purpose, such date to be not more than seventy days before the meeting or action requiring a determination of shareholders. If no such date is set with respect to any meeting of shareholders, the day before the effective date of the notice of the meeting shall be the record date for such determination of shareholders. When a determination of shareholders entitled to notice of or to vote at any meeting of shareholders (regardless of who may have called the meeting) has been made, such determination shall be effective for any adjournment of the meeting unless the Board fixes a new record date, which it shall do if the meeting is adjourned to a date more than one hundred and twenty days after the date fixed for the original meeting. Shares representing a majority of the votes entitled to be cast on a matter by all classes or series which are entitled to vote thereon and be counted together collectively, represented in person or by proxy at any meeting of the shareholders, shall constitute a quorum for the transaction of business thereat with respect to such matter, unless otherwise provided by law or the Articles. In the absence of a quorum at any such meeting or any adjournment or adjournments thereof, either the chair of the meeting or shares representing a majority of the votes cast on the matter of adjournment, either in person or by proxy, may adjourn such meeting from time to time until a quorum is obtained. At any such adjourned meeting at which a quorum has been obtained, any business may be transacted which might have been transacted at the meeting as originally called.

SECTION 6. Voting. Unless otherwise provided by law or the Articles, at each meeting of the shareholders each shareholder entitled to vote at such meeting shall be entitled to one vote for each share of stock standing in their name on the books of the Corporation upon any date fixed as hereinafter provided, and may vote either in person or by proxy in writing. Unless demanded by a shareholder present in person or represented by proxy at any meeting of the shareholders and entitled to vote thereon or so directed by the Chair of the Board, the vote on any matter need not be by ballot. On a vote by ballot, each ballot shall be signed by the shareholder voting or their proxy, and it shall show the number of shares voted. Any shareholder directly or indirectly soliciting proxies from other shareholders must use a proxy card color other than white, which shall be reserved for the exclusive use by the Board.

SECTION 7. Inspectors. One or more inspectors of election for any meeting of shareholders shall be appointed by the chair of the meeting. At each meeting of shareholders, the proxies shall be received and taken in charge, all ballots shall be received and counted and all questions concerning the qualifications of voters, the validity of proxies, and the acceptance or rejection of votes shall be decided, by two or more inspectors. Such inspectors shall be appointed by the Corporation or by the chair of the meeting. They shall be sworn faithfully to perform their duties and shall in writing certify to the returns. No candidate for election as director shall be appointed or act as inspector.

SECTION 8. Conduct of Meeting. At each meeting of shareholders, the Chair of the Board or such other person as may be appointed to act as Chair of the meeting shall have all the powers and authority vested in presiding officers by law or practice, without restriction, as well as the authority to conduct an orderly meeting and to impose reasonable limits on the amount of time taken up in remarks by any one shareholder.

At each meeting of the shareholders, the Chair of the Board shall act as chair and preside. In the absence of the Chair of the Board, the Chair of the Board or the Board may designate another officer of the Corporation (who need not be a director) to preside. The Secretary or an Assistant Secretary of the Corporation, or in their absence, a person whom the chair of such meeting shall appoint, shall act as secretary of such meeting.

SECTION 9. Business Proposed by a Shareholder. At any annual or special meeting of the shareholders, only such business shall be conducted as shall have been properly brought before such meeting. At each annual meeting of shareholders, only such business shall be conducted as is proper to consider and has been brought before the meeting (i) pursuant to the Corporation's notice of the meeting, (ii) by or at the direction of the Board or (iii) by a shareholder who is a shareholder (a) of record on the share transfer books of the Corporation of a class of shares standing in such shareholder's name and entitled to vote on the business such shareholder is proposing, (1) at the time of the giving of the shareholder's notice hereinafter described in this Section 9, (2) on the record date for such annual meeting and (3) at the time of the meeting, and (b) complies with the notice procedures set forth in this Section 9. Except for proposals properly made in accordance with Rule 14a-8 under the Securities Exchange Act of 1934 Act (the "1934 Act"), and included in the notice of meeting given by or at the direction of the Board, the forgoing clause (iii) shall be the exclusive means for a shareholder to propose business to be brought before an annual meeting of shareholders.

In order to bring before an annual meeting of shareholders any business which may properly be considered and which a shareholder has not sought to have included in the Corporation's proxy statement for the meeting, a shareholder who meets the requirements set forth in the preceding paragraph must give the Corporation timely written notice. To be timely, a shareholder's notice must be given, either by personal delivery to the Secretary or an Assistant Secretary at the principal office of the Corporation or by registered or certified United States mail, with postage thereon prepaid, addressed to the Secretary at the principal office of the Corporation. Any such notice must be received not less than 120 days nor more than 150 days before the date of the anniversary of the immediately preceding annual meeting of shareholders; provided, however, that if the date of the annual meeting is more than 30 days before or more than 60 days after such anniversary date, notice by the shareholder to be timely must be so delivered, or mailed and received, not later than the 120th day prior to such annual meeting or, if later, the 10th day following the day on which public disclosure of the date of such annual meeting was first made. In no event shall any adjournment of an annual meeting or the announcement thereof commence a new time period for the giving of timely notice as described above.

Each such shareholder's notice shall set forth as to each matter the shareholder proposes to bring before the annual meeting (i) the name and address, as they appear on the Corporation's stock transfer books, of the shareholder proposing business, and of any Shareholder Associated Person (as defined below); (ii)(a) the class and number of shares of the Corporation's stock which are held of record or are beneficially owned (within the meaning of Rule 13d-3 under the 1934 Act) by such shareholder and any Shareholder Associated Person; (b) a description of any agreement, arrangement or understanding (including any derivative or short positions, profit interests, hedging transactions, and borrowed or loaned shares) that has been entered into as of the date of such shareholder's notice by, or on behalf of, such shareholder or any Shareholder Associated Person, the effect or intent of which is to mitigate loss to, manage risk or benefit of share price changes for, or increase or decrease the voting power of, such shareholder or any Shareholder Associated Person with respect to shares of stock of the Corporation; and (c) a written agreement by such shareholder to update and supplement the information required to be provided under this clause (ii) by providing such information as of the record date for the annual meeting, with such information being provided to the Secretary of the Corporation at the principal executive office of the Corporation not later than 10 days after such record date; (iii) a representation that such shareholder is a shareholder of record at the time of the giving of the notice and intends to appear in person or by proxy at the meeting to present the business specified in the notice; (iv) a brief description of the business desired to be brought before the meeting, including the complete text of any resolutions to be presented and the reasons for wanting to conduct such business; (v) any interest which the shareholder or any Shareholder Associated Person may have in such business; and (vi) a representation whether the shareholder or any Shareholder Associated Person intends or is part of a group that intends (a) to deliver a proxy statement and/or form of proxy to holders of at least the percentage of the Corporation's outstanding capital stock required to approve or adopt the proposal and/or (b) to solicit proxies from shareholders in support of such proposal.

A "Shareholder Associated Person" of any shareholder means (i) any person controlling, directly or indirectly, or acting in concert with, such shareholder or providing any financial assistance or other consideration with respect to the investment by the shareholder or the matter the shareholder's notice relates to or otherwise having any agreement, arrangement or understanding with respect to the foregoing, (ii) any beneficial owner of shares of stock of the Corporation owned of record or beneficially by such shareholder, and (iii) any person controlling, controlled by or under common control with any person or entity included in clause (i) or (ii) of this definition.

The Secretary or Assistant Secretary shall deliver each shareholder's notice that has been timely received to the Chair for review.

The chair of the meeting may dismiss any business that a shareholder attempts to bring before an annual meeting without having complied with the foregoing procedure.

Notwithstanding the foregoing provisions of this Section 9, a shareholder seeking to have a proposal included in the Corporation's proxy statement for an annual meeting of shareholders shall comply with the requirements of Regulation 14A under the 1934 Act, as amended from time to time, or with any successor regulation. The Corporation shall not be required to include any such proposal in its proxy statement or form of proxy unless the proponent has complied with the requirements of the 1934 Act.

Except for the definitions of "Shareholder Associated Person" and "1934 Act", the foregoing provisions are not applicable to shareholder nominations of directors, the process for which is set forth in Article I, Section 10 below.

SECTION 10. Nominations by Shareholders. No person shall be eligible for election as a director at an annual meeting of shareholders unless nominated by (i) the Board or (ii) a shareholder who (a) is a shareholder of record on the share transfer books of the Corporation of a class of shares standing in such shareholder's name and entitled to vote for the election of directors, (1) at the time of the giving of the shareholder's notice hereinafter described in this Section 10, (2) on the record date for such annual meeting and (3) at the time of the

meeting, and (b) complies with the notice procedures set forth in this Section 10. The foregoing clause (ii) shall be the exclusive means for a shareholder to nominate a person for election as a director at an annual meeting of shareholders.

In order to nominate any persons who are not listed as nominees of the Board in the Corporation's proxy statement for a shareholders' meeting for election as directors at such meeting, a shareholder who meets the requirements set forth in the preceding paragraph must give the Corporation timely written notice. To be timely, a shareholder's notice must be given either by personal delivery to the Secretary or an Assistant Secretary at the principal office of the Corporation or by registered or certified United States mail, with postage thereon prepaid, addressed to the Secretary at the principal office of the Corporation. Any such notice must be received not less than 120 days nor more than 150 days before the anniversary of the immediately preceding annual meeting of shareholders; provided, however, that if the date of the annual meeting is more than 30 days before or more than 60 days after such anniversary date (or if there was no prior annual meeting), notice by the shareholder to be timely must be so delivered, or mailed and received, not later than the 120th day prior to such annual meeting or, if later, the 10th day following the day on which public disclosure of the date of such annual meeting was first made. In no event shall any adjournment of an annual meeting or the announcement thereof commence a new time period for the giving of timely notice as described above.

Each such shareholder's notice shall set forth the following: (i) as to the shareholder giving the notice, (a) the name and address, as they appear on the Corporation's stock transfer books, of such shareholder and of any Shareholder Associated Person, (b) (1) the class and number of shares of the Corporation's stock which are held of record or are beneficially owned (within the meaning of Rule 13d-3 under the 1934 Act) by such shareholder and any Shareholder Associated Person; (2) a description of any agreement, arrangement or understanding (including any derivative or short positions, profit interests, hedging transactions, and borrowed or loaned shares) that has been entered into as of the date of such shareholder's notice by, or on behalf of, such shareholder or any Shareholder Associated Person, the effect or intent of which is to mitigate loss to, manage risk or benefit of share price changes for, or increase or decrease the voting power of, such shareholder or any Shareholder Associated Person with respect to shares of stock of the Corporation; and (3) a written agreement by such shareholder to update and supplement the information required to be provided under this clause (b) by providing such information as of the record date for the annual meeting, with such information being provided to the Secretary of the Corporation at the principal executive office of the Corporation not later than 10 days after such record date; (c) a representation that such shareholder is a shareholder of record at the time of giving the notice and intends to appear in person or by proxy at the meeting to nominate the person or persons specified in the notice; (d) a description of all arrangements or understandings, if any, between such shareholder and each nominee and any Shareholder Associated Person or other person or persons (naming such person or persons) pursuant to which the nomination or nominations are to be made; (e) a representation whether the shareholder or any Shareholder Associated Person intends or is part of a group that intends to (x) solicit proxies from shareholders in support of such nomination in accordance with Rule 14a-19 under the 1934 Act and (y) deliver a proxy statement and/or form of proxy to holders of at least the percentage of the Corporation's outstanding capital stock required to approve or adopt the proposal or elect the nominee (and, in any event, not less than 67% of the Corporation's outstanding capital stock required to elect the nominee, in the case of any nomination); and (f) the names and addresses of other shareholders (including beneficial and shareholders of record) known by such proposing shareholders and beneficial owner, if any, to support the nomination or other business, and to the extent known, the number of shares of the Corporation's stock owned beneficially or of record by such other shareholders; and (ii) as to each person whom the shareholder wishes to nominate for election as a director: (a) the name, age, business address and residence address of such person; (b) the principal occupation or employment of such person; (c) the class and number of shares of the Corporation's stock which are held of record or are beneficially owned (within the meaning of Rule 13d-3 under the 1934 Act) by such person; and (d) all other information that is required to be disclosed about nominees for election as directors in solicitations of proxies for the election of directors under the rules and regulations of The Nasdaq Stock Market, LLC, or of any other stock exchange on which shares of the Company's stock are then traded, as then in effect ("Exchange Rules") and the Securities and Exchange Commission ("SEC") as then in effect. In addition, each such notice shall be accompanied by the written consent of each proposed nominee to serve as a director if elected and such consent shall contain a statement from the proposed nominee to the effect that the information about the proposed nominee contained in the notice is correct. The Corporation may also require such other information, including the completion of the Corporation's directors' questionnaire, regarding any proposed nominee as necessary or appropriate to determine the independence, eligibility and qualifications of such proposed nominee to serve as a director of the Corporation.

The Secretary or Assistant Secretary shall deliver each shareholder's notice that has been timely received to the Chair for review.

If any shareholder provides notice pursuant to Rule 14a-19(b) promulgated under the 1934 Act, upon request by the Corporation, such shareholder shall deliver to the Corporation, no later than five business days prior to the meeting, reasonable evidence that it has met the requirements of Rule 14a-19(a)(3) promulgated under the 1934 Act.

In the event that the Board or the Chair determines that (i) a shareholder attempts to nominate any person without complying with the procedures set forth in this Article I, Section 10 or (ii) a shareholder (a) (1) provides notice pursuant to Rule 14a-19(b) promulgated under the 1934 Act and (2) subsequently fails to comply with the requirements of Rule 14a-19(a)(2) and/or Rule 14a-19(a)(3) promulgated under the 1934 Act or (b) notifies the Corporation that such shareholder no longer intends to solicit proxies in accordance with Rule 14a-19 promulgated under the 1934 Act, then such nomination shall not be considered at the meeting in question and the Corporation shall disregard any proxies or votes solicited for such shareholder's nominees.

ARTICLE II BOARD OF DIRECTORS

SECTION 1. Number, Classification, Term, Election. The property, business and affairs of the Corporation shall be managed under the direction of the Board as from time to time constituted. The Board shall be divided into three classes having staggered terms of office as specified in the Articles. The number of directors constituting the Board shall be designated by a resolution of the Board, a majority of whom must be satisfy the independence requirements of the Exchange Rules; provided, however, that the Board may avail itself of any exceptions to such independence requirements that are permitted by the Exchange Rules. No director need be a shareholder. Directors shall be elected at each annual meeting to succeed those directors whose terms have expired and to fill any vacancies then existing. Each director who is re-elected or

elected to succeed a director whose term has expired shall hold office for the term of three years as specified in the Articles and until their successor is elected.

SECTION 2. Compensation. Each director, in consideration of their serving as such, shall be entitled to receive from the Corporation such amount per annum or such fees for attendance at Board and Committee meetings, or both, in cash or other property, including securities of the Corporation, as the Board shall from time to time determine, together with reimbursements for the reasonable expenses incurred by such director in connection with the performance of their duties. Nothing contained herein shall preclude any director from serving the Corporation, or any subsidiary or affiliated corporation, in any other capacity and receiving proper compensation therefor. If the Board adopts a resolution to that effect, any director may elect to defer all or any part of the annual and other fees hereinabove referred to for such period and on such terms and conditions as shall be permitted by such resolution.

SECTION 3. Place of Meetings. The Board may hold its meetings at such place or places within or without the Commonwealth of Virginia as it may from time to time by resolution determine or as shall be specified or fixed in the respective notices or waivers of notice thereof.

SECTION 4. Regular Meetings. Regular meetings of the Board may be held at such time and place as may from time to time be specified in a resolution adopted by the Board then in effect; and, unless otherwise required by such resolution, or by law, notice of any such regular meeting need not be given.

SECTION 5. Special Meetings. Special meetings of the Board may be called by the Chair, the President or the Board, and shall be called by the Secretary or the Chair at the request of any three directors, and shall be held at such times and at such places as the person or persons calling the meetings shall designate. Notice of a special meeting shall be mailed to each director, addressed to such director at the director's residence or usual place of business, not later than twenty-four hours before such meeting is to be held, or shall be sent addressed to such director at such place by electronic transmission, or be delivered personally or by telephone, not later than twenty-four hours before such meeting is to be held. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the Board need be specified in the notice of such meeting, unless required by the Articles.

SECTION 6. Quorum. At each meeting of the Board the presence of a majority of the number of directors fixed by these Bylaws shall be necessary to constitute a quorum. The act of a majority of the directors present at a meeting at which a quorum shall be present shall be the act of the Board, except as may be otherwise provided by law or by these Bylaws. Any meeting of the Board may be adjourned by a majority vote of the directors present at such meeting. Notice of any adjourned meeting need not be given.

SECTION 7. Waivers of Notice of Meetings. Notwithstanding anything in these Bylaws or in any resolution adopted by the Board to the contrary, notice of any meeting of the Board need not be given to any director if such notice shall be waived in writing signed by such director before, at or after the meeting, or if such director shall be present at the meeting. Any meeting of the Board shall be a legal meeting without any notice having been given or regardless of the giving of any notice or the adoption of any resolution in reference thereto, if every member of the Board shall be present thereat. Except as otherwise provided by law or these Bylaws, waivers of notice of any meeting of the Board need not contain any statement of the purpose of the meeting.

SECTION 8. Telephone or Videoconference Meeting. Members of the Board or any committee may participate in a meeting of the Board or such committee by means of a conference telephone, videoconference or other means of communications whereby all directors participating may simultaneously hear each other during the meeting, and participation by such means shall constitute presence in person at such meeting.

SECTION 9. Actions Without Meetings. Any action that may be taken at a meeting of the Board or of a committee may be taken without a meeting if a consent in writing, setting forth the action, shall be signed, either before or after such action, by all of the directors or all of the members of the committee, as the case may be. Such consent shall have the same force and effect as a unanimous vote. Any consent and the signing thereof may be accomplished by one or more electronic transmissions, as permitted by the VSCA.

ARTICLE III COMMITTEES

SECTION 1. Committees. The Board may create one or more committees and appoint members of the Board to serve on them. Each committee shall have two or more members who serve at the pleasure of the Board. The creation of a committee and the appointment of members to it shall be approved by the act of a majority of the members of the Board present at a meeting at which a quorum is present.

SECTION 2. Authority of Committees. To the extent specified by the Board, each committee may exercise the authority of the Board, except that a committee may not (i) approve or recommend to shareholders action that is required by law to be approved by shareholders; (ii) fill vacancies on the Board or on any of its committees; (iii) amend the Articles; (iv) adopt, amend, or repeal these Bylaws; (v) approve a plan of merger not requiring shareholder approval; (vi) authorize or approve a distribution, except according to a general formula or method prescribed by the Board; or (vii) authorize or approve the issuance or sale or contract for sale of shares, or determine the designation and relative rights, references, and limitations of a class or series of shares, except that the Board may authorize a committee, or a senior executive officer of the Corporation, to do so within limits specifically prescribed by the Board.

SECTION 3. Committee Meetings; Miscellaneous. The provisions of these Bylaws relating to meetings, notice and waiver of notice, quorum and voting, and consents by the Board and members of the Board shall also apply to committees of directors and their members.

ARTICLE IV OFFICERS

SECTION 1. Number, Term, Election. The officers of the Corporation shall be a Chief Executive Officer, a Chair of the Board, a President, one or more Vice Presidents, a Treasurer, a Controller and a Secretary. The Board may appoint such other officers and agents with such powers and duties as the Board may find necessary or convenient to carry on the business of the Corporation. Such officers shall serve until their successors shall be chosen, or as otherwise provided in these Bylaws. Any two or more offices may be held by the same person.

SECTION 2. Chief Executive Officer. The Chief Executive Officer shall, subject to the control of the Board and the Executive and Finance Committee, have full authority and responsibility for directing the conduct of the business, affairs and operations of the Corporation. In addition to acting as Chief Executive Officer of the Corporation, they shall perform such other duties and exercise such other powers as may from time to time be prescribed by the Board and shall see that all orders and resolutions of the Board are carried into effect. In the event of the inability of the Chief Executive Officer to act, the Board will designate an officer of the Corporation to perform the duties of that office.

SECTION 3. Chair of the Board. The Chair of the Board shall preside at all meetings of the Board and of the shareholders. The Chair shall perform such other duties and exercise such other powers as may from time to time be prescribed by the Board or, if they shall not be the Chief Executive Officer, by the Chief Executive Officer.

SECTION 4. President. The President shall have such powers and perform such duties as may from time to time be prescribed by the Board or, if they shall not be the Chief Executive Officer, by the Chief Executive Officer.

SECTION 5. Vice-Presidents. Each Vice President shall have such powers and perform such duties as may from time to time be prescribed by the Board, the Chief Executive Officer or any officer to whom the Chief Executive Officer may have delegated such authority.

SECTION 6. Treasurer. The Treasurer shall have the general care and custody of the funds and securities of the Corporation. The Treasurer shall perform such other duties and exercise such other powers as may from time to time be prescribed by the Board, the Chief Executive Officer or any officer to whom the Chief Executive Officer may have delegated such authority.

If the Board shall so determine, the Treasurer shall give a bond for the faithful performance of their duties, in such sum as the Board may determine to be proper, the expense of which shall be borne by the Corporation. To such extent as the Board shall deem proper, the duties of the Treasurer may be performed by one or more assistants, to be appointed by the Board.

SECTION 7. Controller. The Controller shall be the accounting officer of the Corporation. The Controller shall keep full and accurate accounts of all assets, liabilities, receipts and disbursements and other transactions of the Corporation and cause regular audits of the books and records of the Corporation to be made. They shall also perform such other duties and exercise such other powers as may from time to time be prescribed by the Board, the Chief Executive Officer or any officer to whom the Chief Executive Officer may have delegated such authority. If the Board shall so determine, they shall give a bond for the faithful performance of their duties, in such sum as the Board may determine to be proper, the expense of which shall be borne by the Corporation. To such extent as the Board shall deem proper, the duties of the Controller may be performed by one or more assistants, to be appointed by the Board.

SECTION 8. Secretary. The Secretary shall keep the minutes of meetings of shareholders, of the Board, and, when requested, of Committees of the Board; and they shall attend to the giving and sending of notices of all meetings thereof. The Secretary shall keep or cause to be kept such stock and other books, showing the names of the shareholders of the Corporation, and all other particulars regarding them, as may be required by law. They shall also perform such other duties and exercise such other powers as may from time to time be prescribed by the Board, the Chief Executive Officer or any officer to whom the Chief Executive Officer may have delegated such authority. To such extent as the Board shall deem proper, the duties of the Secretary may be performed by one or more assistants, to be appointed by the Board.

SECTION 9. Powers and Duties of Other Officers. The powers and duties of all other officers of the Corporation shall be those usually pertaining to their respective offices, subject to the direction and control of the Board and as otherwise provided in these Bylaws, or as prescribed by the Chair of the Board.

ARTICLE V REMOVALS AND RESIGNATIONS

SECTION 1. Removal of Officers. Any officer, assistant officer or agent of the Corporation may be removed at any time, either with or without cause, by the Board in its absolute discretion. Any such removal shall be without prejudice to the recovery of damages for breach of the contract rights, if any, of the officer, assistant officer or agent removed. Election or appointment of an officer, assistant officer or agent shall not of itself create contract rights.

SECTION 2. Resignation. Any director, officer or assistant officer of the Corporation may resign as such at any time by giving written notice of their resignation to the Board, the Chief Executive Officer or the Secretary of the Corporation. Such resignation shall take effect at the time specified therein or, if no time is specified therein, at the time of delivery thereof, and, unless otherwise specified therein, the acceptance of such resignation shall not be necessary to make it effective.

SECTION 3. Vacancies. Any vacancy in the office of any officer or assistant officer caused by death, resignation, removal or any other cause, may be filled by the Board for the unexpired portion of the term.

ARTICLE VI CONTRACTS, LOANS, CHECKS, DRAFTS, DEPOSITS, ETC.

SECTION 1. Execution of Contracts. Except as otherwise provided by law or by these Bylaws, the Board (i) may authorize any officer, employee or agent of the Corporation to execute and deliver any contract, agreement or other instrument in writing in the name and on behalf of the Corporation, and (ii) may authorize any officer, employee or agent of the Corporation so authorized by the Board to delegate such authority by written instrument to other officers, employees or agents of the Corporation. Any such authorization by the Board may be general or specific and shall be subject to such limitations and restrictions as may be imposed by the Board. Any such delegation of authority by an officer, employee or agent may be general or specific, may authorize re-delegation, and shall be subject to such limitations and restrictions as may be imposed in the written instrument of delegation by the person making such delegation.

SECTION 2. Loans. No loans shall be contracted on behalf of the Corporation and no negotiable paper shall be issued in its name unless authorized by the Board. When authorized by the Board, any officer, employee or agent of the Corporation may effect loans and advances at any time for the Corporation from any bank, trust company or other institution, or from any firm, corporation or individual, and for such loans and advances may make, execute and deliver promissory notes, bonds or other certificates or evidences of indebtedness of the Corporation and when so authorized may pledge, hypothecate or transfer any securities or other property of the Corporation as security for any such loans or advances. Such authority may be general or confined to specific instances.

SECTION 3. Checks, Drafts, etc. All checks, drafts and other orders for the payment of money out of the funds of the Corporation and all notes or other evidences of indebtedness of the Corporation shall be signed on behalf of the Corporation in such manner as shall from time to time be determined by the Board.

SECTION 4. Deposits. All funds of the Corporation not otherwise employed shall be deposited from time to time to the credit of the Corporation in such banks, trust companies or other depositories as the Board may select or as may be selected by the Treasurer or any other officer, employee or agent of the Corporation to whom such power may from time to time be delegated by the Board.

SECTION 5. Voting of Securities. Unless otherwise provided by the Board, the Chief Executive Officer may from time to time appoint an attorney or attorneys, or agent or agents of the Corporation, in the name and on behalf of the Corporation, to cast the votes which the Corporation may be entitled to cast as the holder of stock or other securities in any other corporation, any of whose stock or other securities may be held by the Corporation, at meetings of the holders of the stock or other securities of such other corporation, or to consent in writing, in the name of the Corporation as such holder, to any action by such other corporation, and may instruct the person or persons so appointed as to the manner of casting such votes or giving such consent, and may execute or cause to be executed in the name and on behalf of the Corporation and under its corporate seal, or otherwise, all such written proxies or other instruments as such officer may deem necessary or proper in the premises.

ARTICLE VII CAPITAL STOCK

SECTION 1. Shares. Shares of the Corporation may but need not be represented by certificates. When shares are represented by certificates, the Corporation shall issue such certificates in such form as shall be required by the VSAC and as determined by the Board, to every shareholder for the fully paid shares owned by such shareholder. Each certificate shall be signed by, or shall bear the facsimile signature of, the Chair of the Board, the President or a Vice President and the Secretary or an Assistant Secretary of the Corporation and may bear the corporate seal of the Corporation or its facsimile. All certificates for the Corporation's shares shall be consecutively numbered or otherwise identified.

The name and address of the person to whom shares (whether or not represented by a certificate) are issued, with the number of shares and date of issue, shall be entered on the share transfer books of the Corporation. Such information may be stored or retained on discs, tapes, cards or any other approved storage device relating to data processing equipment; provided that such device is capable of reproducing all information contained therein in legible and understandable form, for inspection by shareholders or for any other corporate purpose.

When shares are not represented by certificates, then within a reasonable time after the issuance or transfer of such shares, the Corporation shall send the shareholder to whom such shares have been issued or transferred a written statement of the information required by the VSAC to be included on certificates.

SECTION 2. Stock Transfer Books and Transfer of Shares. The Corporation, or its designated transfer agent or other agent, shall keep a book or set of books to be known as the stock transfer books of the Corporation, containing the name of each shareholder of record, together with such shareholder's address and the number and class or series of shares held by such shareholder. Shares of stock of the Corporation shall be transferable on the stock books of the Corporation by the holder in person or by their attorney thereunto authorized by power of attorney duly executed and filed with the Secretary or the transfer agent, but, except as hereinafter provided in the case of loss, destruction or mutilation of certificates, no transfer of stock shall be entered until the previous certificate, if any, given for the same shall have been surrendered and canceled. Transfer of shares of the Corporation represented by certificates shall be made on the stock transfer books of the Corporation only upon surrender of the certificates for the shares sought to be transferred by the holder of record thereof or by such holder's duly authorized agent, transferor or legal representative, who shall furnish proper evidence of authority to transfer with the Secretary of the Corporation or its designated transfer agent or other agent. All certificates surrendered for transfer shall be canceled before new certificates for the transferred shares shall be issued. Except as otherwise provided by law, no transfer of shares shall be valid as against the Corporation, its shareholders or creditors, for any purpose, until it shall have been entered in the stock records of the Corporation by an entry showing from and to whom transferred.

SECTION 3. Holder of Record. Except as otherwise required by the VSAC, the Corporation may treat the person in whose name shares of stock of the Corporation (whether or not represented by a certificate) stand of record on its books or the books of any transfer agent or

other agent designated by the Board as the absolute owner of the shares and the person exclusively entitled to receive notification and distributions, to vote, and to otherwise exercise the rights, powers and privileges of ownership of such shares.

SECTION 4. Lost, Destroyed or Mutilated Certificates. In case of loss, destruction or mutilation of any certificate of stock, another may be issued in its place upon proof of such loss, destruction or mutilation and upon the giving of a bond of indemnity to the Corporation in such form and in such sum as the Board may direct; provided that a new certificate may be issued without requiring any bond when, in the judgment of the Board, it is proper so to do.

SECTION 5. Transfer Agent and Registrar; Regulations. The Corporation may, if and whenever the Board so determines, maintain in the Commonwealth of Virginia or any other state of the United States, one or more transfer offices or agencies and also one or more registry offices which offices and agencies may establish rules and regulations for the issue, transfer and registration of certificates. No certificates for shares of stock of the Corporation in respect of which a transfer agent and registrar shall have been designated shall be valid unless countersigned by such transfer agent and registered by such registrar. The Board may also make such additional rules and regulations as it may deem expedient concerning the issue, transfer and registration of shares represented by certificates and shares without certificates.

ARTICLE VIII INSPECTION OF RECORDS

The Board from time to time shall determine whether, to what extent, at what times and places, and under what conditions and regulations the accounts and books and papers of the Corporation, or any of them, shall be open for the inspection of the shareholders, and no shareholder shall have any right to inspect any account or book or paper of the Corporation except as expressly conferred by statute or by these Bylaws or authorized by the Board.

ARTICLE IX SEAL

The seal of the Corporation shall be circular in form and shall bear the name of the Corporation and the year "1999."

ARTICLE X FISCAL YEAR

The fiscal year of the Corporation shall end on the 31st day of December in each year.

ARTICLE XI EMERGENCY BYLAWS

SECTION 1. Definitions. As used in these Emergency Bylaws,

(a) the "term period of emergency" shall mean any period during which a quorum of the Board cannot readily be assembled because of some catastrophic event.

(b) the term "incapacitated" shall mean that the individual to whom such term is applied shall not have been determined to be dead but shall be missing or unable to discharge the responsibilities of their office; and

(c) the term "senior officer" shall mean the Chair of the Board, the Chief Executive Officer, the President, any corporate Vice President, the Treasurer, the Controller and the Secretary, and any other person who may have been so designated by the Board before the emergency.

SECTION 2. Applicability. These Emergency Bylaws, as from time to time amended, shall be operative only during any period of emergency. To the extent not inconsistent with these Emergency Bylaws, all provisions of the regular Bylaws of the Corporation shall remain in effect during any period of emergency. No officer, director or employee shall be liable for actions taken in good faith in accordance with these Emergency Bylaws.

SECTION 3. Board of Directors. (a) A meeting of the Board may be called by any director or senior officer of the Corporation. Notice of any meeting of the Board need be given only to such of the directors as it may be feasible to reach at the time and by such means as may be feasible at the time, including publication or radio, and at a time less than twenty-four hours before the meeting if deemed necessary by the person giving notice.

(b) At any meeting of the Board, three directors (or such lesser number as may be fixed by these Bylaws as the number of members of the Board) in attendance shall constitute a quorum. Any act of a majority of the directors present at a meeting at which a quorum shall be present shall be the act of the Board. If less than three directors (or such lesser number as specified above) should be present at a meeting of the Board, any senior officer of the Corporation in attendance at such meeting shall serve as a director for such meeting, selected in order of rank and within the same rank in order of seniority.

(c) In addition to the Board's powers under the regular Bylaws of the Corporation to fill vacancies on the Board, the Board may elect any individual as a director to replace any director who may be incapacitated and to serve until the latter ceases to be incapacitated or until the termination of the period of emergency, whichever first occurs. In considering officers of the Corporation for election to the Board, the rank and seniority of individual officers shall not be pertinent.

(d) The Board, during as well as before any such emergency, may change the principal office or designate several alternative offices or authorize the officers to do so.

SECTION 4. Appointment of Officers. In addition to the Board's powers under the regular Bylaws of the Corporation with respect to the election of officers, the Board may elect any individual as an officer to replace any officer who may be incapacitated and to serve until the latter ceases to be incapacitated.

SECTION 5. Amendments. These Emergency Bylaws shall be subject to repeal or change by further action of the Board or by action of the shareholders, except that no such repeal or change shall modify the provisions of the last sentence of Section 2 with regard to action or inaction prior to the time of such repeal or change. Any such amendment of these Emergency Bylaws may make any further or different provision that may be practical and necessary for the circumstances of the emergency.

ARTICLE XII EXCLUSIVE FORUM

Unless the Corporation consents in writing to the selection of an alternative forum, the sole and exclusive forum for (i) any derivative action brought on behalf of the Corporation, (ii) any action for breach of duty to the Corporation or the Corporation's shareholders by any current or former officer or director of the Corporation, (iii) any action against the Corporation or any current or former director or officer of the Corporation arising pursuant to the VSCA or the Articles or these Bylaws (in each case, as they may be amended from time to time) or (iv) any action asserting a claim against the Corporation or any current or former director or officer of the Corporation governed by the internal affairs doctrine, shall be the Circuit Court of the County of Henrico in the Commonwealth of Virginia or the United States District Court for the Eastern District of Virginia, Richmond Division.

Any person or entity purchasing or otherwise acquiring any interest in shares of capital stock of the Corporation shall be deemed to have notice of and consented to the provisions of this Article XIII. If any action the subject matter of which is within the scope of this Article XIII is filed in a court other than a court located within the Commonwealth of Virginia (a "Foreign Action") by or in the name of any shareholder, such shareholder shall be deemed to have consented to (i) the personal jurisdiction of the state and federal courts located within the Commonwealth of Virginia in connection with any action brought in any such court to enforce the provisions of this Article XIII and (ii) having service of process made upon such shareholder in any such action by service upon such shareholder's counsel in the Foreign Action as agent for such shareholder. Failure to enforce the foregoing provisions would cause the Corporation irreparable harm and the Corporation shall be entitled to equitable relief, including injunctive relief and specific performance, to enforce the foregoing provisions.