

SECOND AMENDED AND RESTATED

BY-LAWS

OF

KNOWLES CORPORATION

A Delaware Corporation

Effective July 30, 2019

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(hereinafter called the “Corporation”)

ARTICLE I

OFFICES

Section 1.1 Registered Office. The registered office of the Corporation shall be in the City of Wilmington, County of New Castle, State of Delaware.

Section 1.2 Other Offices. The Corporation may also have offices at such other places, both within and without the State of Delaware, as the Board of Directors may from time to time determine.

ARTICLE II

MEETINGS OF STOCKHOLDERS

Section 2.1 Place of Meetings. Meetings of the stockholders for the election of directors or for any other purpose shall be held at such time and place, either within or without the State of Delaware, as shall be designated from time to time by the Board of Directors.

Section 2.2 Annual Meetings. The Annual Meeting of Stockholders for the election of directors shall be held on such date and at such time as shall be designated from time to time by the Board of Directors. Any other proper business may be transacted at the Annual Meeting of Stockholders. The Board of Directors may postpone, reschedule or cancel any Annual Meeting of Stockholders previously scheduled by the Board.

Section 2.3 Special Meetings. Unless otherwise required by law or by the certificate of incorporation of the Corporation, as amended and restated from time to time (the “Certificate of Incorporation”), a Special Meeting of Stockholders, for any purpose or purposes, may be called by either (a) the Chairman of the Board of Directors or (b) the Chief Executive Officer of the Corporation, and shall be called by the Chief Executive Officer at the request in writing or electronic transmission made pursuant to a resolution of a majority of the members of the Board of Directors. Such request shall state the purpose or purposes of the proposed meeting. The ability of the stockholders to call a Special Meeting of Stockholders is hereby specifically denied. At a Special Meeting of Stockholders, only such business shall be conducted as shall be specified in the notice of meeting (or any supplement thereto). The Board of Directors may postpone, reschedule or cancel any Special Meeting of Stockholders previously scheduled by the Board.

Section 2.4 Consent of Stockholders in Lieu of Meeting. Except as otherwise expressly provided by the terms of any series of preferred stock permitting the holders of such series of preferred stock to act by written consent, any action required or permitted to be taken by the stockholders of the Corporation must be effected at a duly called Annual Meeting of Stockholders or Special Meeting of Stockholders, and the ability of the stockholders to consent in writing to the taking of any action is hereby specifically denied.

Section 2.5 Notice. Whenever stockholders are required or permitted to take any action at a meeting, a written notice of the meeting shall be given which shall state the place, date and hour of the meeting, the record date for determining the stockholders entitled to vote at the meeting, if such date is different from the record date for determining stockholders entitled to notice of meeting, and, in the case of a Special Meeting, the purpose or purposes for which the meeting is called, and the means of remote communications, if any, by which stockholders and proxy holders may be deemed present in person and vote at such meeting. Unless otherwise required by law, written notice of any meeting shall be given either personally, by mail or electronic transmission, (if permitted under the General Corporation Law of the State of Delaware (“DGCL”)) not less than ten (10) nor more than sixty (60) days before the date of the meeting to each stockholder entitled to notice of and to vote at such meeting. Any stockholder may waive notice of any meeting before or after the meeting. The attendance of a stockholder at any meeting shall constitute a waiver of notice at such meeting, except where the stockholder 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. Meetings of the stockholders may be held at any time without notice when all of the stockholders entitled to vote thereat are represented in person or by proxy.

Section 2.6 Adjournments. Any meeting of the stockholders may be adjourned from time to time to reconvene at the same or some other place by holders of a majority of the voting power of the Corporation’s capital stock issued and outstanding and entitled to vote thereat, present in person or represented by proxy, though less than a quorum, or by any officer entitled to preside at or to act as secretary of such meeting, and notice need not be given of any such adjourned meeting if the time and place thereof, and the means of remote communication, if any, by which stockholders and proxy holders may be deemed to be present in person and vote at such adjourned meeting, are announced at the meeting at which the adjournment is taken. At the adjourned meeting, the Corporation may transact any business which 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, notice of the adjourned meeting in accordance with the requirements of Section 2.5 shall be given to each stockholder of record entitled to notice of and to vote at the meeting.

Section 2.7 Quorum. Unless otherwise required by applicable law or the Certificate of Incorporation, the holders of a majority of the voting power of the Corporation’s capital 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. Where a separate vote by a class or classes or series is required, a majority of the voting power of the shares of such class or classes or series present in person or represented by proxy shall constitute a quorum entitled to take action with respect to such vote. A quorum, once established, shall not be broken by the withdrawal of enough votes to leave less than a quorum.

If, however, such quorum shall not be present or represented at any meeting of the stockholders, either the chair of the meeting or the stockholders entitled to vote thereat, present in person or represented by proxy, shall have power to adjourn the meeting from time to time, in the manner provided in Section 2.6, until a quorum shall be present or represented.

Section 2.8 Voting. Unless otherwise required by law, the Certificate of Incorporation or these By-Laws, any question brought before any meeting of the stockholders, other than the election of directors, shall be decided by the affirmative vote of the holders of a majority of the total number of votes of the Corporation's capital stock represented at the meeting and entitled to vote on such question, voting as a single class. Unless otherwise provided in the Certificate of Incorporation, and subject to Section 2.11, each stockholder represented at a meeting of the stockholders shall be entitled to cast one (1) vote for each share of the capital stock entitled to vote thereat held by such stockholder. Such votes may be cast in person or by proxy as provided in Section 2.9. The Board of Directors, in its discretion, or the officer of the Corporation presiding at a meeting of the stockholders, in such officer's discretion, may require that any votes cast at such meeting shall be cast by written ballot.

Shares of stock of the Corporation belonging to the Corporation, or to another corporation a majority of the shares entitled to vote in the election of directors of which are held by the Corporation, shall not be voted at any meeting of stockholders of the Corporation and shall not be counted in the total number of outstanding shares for the purpose of determining whether a quorum is present.

Section 2.9 Proxies. Each stockholder entitled to vote at a meeting of the stockholders may authorize another person or persons to act for such stockholder by proxy filed with the Secretary before or at the time of the meeting, but no such proxy shall be voted or acted upon after three (3) years from its date, unless such proxy provides for a longer period.

Section 2.10 List of Stockholders Entitled to Vote. The officer of the Corporation who has charge of the stock ledger of the Corporation shall prepare and make, or have prepared and made, at least ten (10) days before every meeting of the 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. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting, during ordinary business hours, for a period of at least ten (10) days prior to the meeting either (i) at a place within the city where the meeting is to be held, which place shall be specified in the notice of the meeting, or, if not so specified, at the place where the meeting is to be held or (ii) during ordinary business hours, at the principal place of business of the Corporation. If the meeting is to be held at a place, then the list shall also be produced and kept at the time and place of the meeting during the whole time thereof, and may be inspected by any stockholder who is present. If the meeting is to be held solely by means of remote communication, then the list shall also be open to the examination of any stockholder during the whole time of the meeting on a reasonably accessible electronic network, and the information required to access such list shall be provided with the notice of the meeting.

Section 2.11 Record Date. In order that the Corporation may determine the stockholders entitled to notice of or to vote at any meeting of the stockholders or any

adjournment thereof, the Board of Directors may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted by the Board of Directors, and which record date shall not be more than sixty (60) nor less than ten (10) days before the date of such meeting. If no record date is fixed by the Board of Directors, the record date for determining stockholders entitled to notice of or to vote at a meeting of the 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. A determination of stockholders of record entitled to notice of or to vote at a meeting of the stockholders shall apply to any adjournment of the meeting; provided, however, that the Board of Directors may fix a new record date for the adjourned meeting.

Section 2.12 Stock Ledger. The stock ledger of the Corporation shall be the only evidence as to who are the stockholders entitled to examine the stock ledger, the list required by Section 2.10 or the books of the Corporation, or to vote in person or by proxy at any meeting of the stockholders.

Section 2.13 Conduct of Meetings. The Board of Directors of the Corporation may adopt by resolution such rules and regulations for the conduct of any meeting of the stockholders as it shall deem appropriate. Except to the extent inconsistent with such rules and regulations as adopted by the Board of Directors, the chair of any meeting of the stockholders shall have the right and authority to prescribe such rules, regulations and procedures and to do all such acts as, in the judgment of such chair, are appropriate for the proper conduct of the meeting. Such rules, regulations or procedures, whether adopted by the Board of Directors or prescribed by the chair of the meeting, may include, without limitation, the following: (i) the establishment of an agenda or order of business for the meeting; (ii) the determination of when the polls shall open and close for any given matter to be voted on at the meeting; (iii) rules and procedures for maintaining order at the meeting and the safety of those present; (iv) limitations on attendance at or participation in the meeting to stockholders of record of the Corporation, their duly authorized and constituted proxies or such other persons as the chair of the meeting shall determine; (v) restrictions on entry to the meeting after the time fixed for the commencement thereof; and (vi) limitations on the time allotted to questions or comments by participants.

Section 2.14 Inspectors of Election. In advance of any meeting of the stockholders, the Board of Directors, by resolution, the Chairman of the Board or the Chief Executive Officer shall appoint one or more inspectors to act at the meeting and make a written report thereof. One or more other persons may be designated as alternate inspectors to replace any inspector who fails to act. If no inspector or alternate is able to act at a meeting of the stockholders, the chair of the meeting shall appoint one or more inspectors to act at the meeting. Unless otherwise required by applicable law, inspectors may be officers, employees or agents of the Corporation. Each inspector, before entering upon the discharge of the duties of inspector, shall take and sign an oath faithfully to execute the duties of inspector with strict impartiality and according to the best of such inspector's ability. The inspector shall have the duties prescribed by law and shall take charge of the polls and, when the vote is completed, shall make a certificate of the result of the vote taken and of such other facts as may be required by applicable law.

Section 2.15 Nature of Business at Meetings of Stockholders. Only such business may be transacted at an Annual Meeting of Stockholders as is either (a) specified in the notice of

meeting (or any supplement thereto) given by or at the direction of the Board of Directors (or any duly authorized committee thereof), (b) otherwise properly brought before the Annual Meeting by or at the direction of the Board of Directors (or any duly authorized committee thereof), or (c) otherwise properly brought before the Annual Meeting by any stockholder of the Corporation (i) who is a stockholder of record on the date of the giving of the notice provided for in this Section 2.15 and on the record date for the determination of stockholders entitled to notice of and to vote at such Annual Meeting, (ii) who is entitled to vote at such Annual Meeting and (iii) who complies with the notice procedures set forth in this Section 2.15. Clause (c) of the preceding sentence shall be the exclusive means for a stockholder to bring business before an Annual Meeting (other than matters properly brought under Rule 14a-8 under Securities Exchange Act of 1934, as amended (the “Exchange Act”), or any successor provision of law, and included in the Corporation’s notice of meeting).

In addition to any other applicable requirements, for business to be properly brought before an Annual Meeting by a stockholder, such stockholder must have given timely notice thereof in proper written form to the Secretary of the Corporation. To be timely, a stockholder’s notice to the Secretary must be delivered to or be mailed and received at the principal executive offices of the Corporation not later than the close of business on the ninetieth (90th) day nor earlier than the close of business on the one hundred and twentieth (120th) day prior to the anniversary date of the immediately preceding Annual Meeting of Stockholders; provided, however, that in the event that the Annual Meeting is called for a date that is not within thirty (30) days before or after such anniversary date, or in the case of the Corporation’s first Annual Meeting, notice by the stockholder in order to be timely must be so received not later than the close of business on the tenth (10th) day following the day on which such notice of the date of the Annual Meeting was mailed or such public disclosure of the date of the Annual Meeting was made, whichever first occurs. In no event shall the adjournment or postponement of an Annual Meeting, or the public announcement of such an adjournment or postponement, commence a new time period (or extend any time period) for the giving of a stockholder’s notice as described above.

To be in proper written form, a stockholder’s notice to the Secretary must set forth the following information: (a) as to each matter such stockholder proposes to bring before the Annual Meeting, a brief description of the business desired to be brought before the Annual Meeting, the reasons for conducting such business at the Annual Meeting, the text of the proposal or business (including the text of any resolutions proposed for consideration and, in the event that such business includes a proposal to amend these By-Laws, the language of the proposed amendment), and (b) as to the stockholder giving notice and the beneficial owner, if any, on whose behalf the proposal is being made, (i) the name and address of such person; (ii) (A) the class or series and number of all shares of stock of the Corporation which are owned, directly or indirectly, beneficially or of record by such person and any affiliates or associates of such person, (B) the name of each nominee holder of shares of all stock of the Corporation owned beneficially but not of record by such person or any affiliates or associates of such person, and the number of such shares of stock of the Corporation held by each such nominee holder, (C) whether and the extent to which any derivative instrument, swap, option, warrant, short interest, hedge or profit interest or other transaction has been entered into by or on behalf of such person, or any affiliates or associates of such person, with respect to stock of the Corporation and (D) whether and the extent to which any other transaction, agreement,

arrangement or understanding (including any short position or any borrowing or lending of shares of stock of the Corporation) has been made by or on behalf of such person, or any affiliates or associates of such person, the effect or intent of any of the foregoing being to mitigate loss to, or to manage risk or benefit of stock price changes for, such person, or any affiliates or associates of such person, or to increase or decrease the voting power or pecuniary or economic interest of such person, or any affiliates or associates of such person, with respect to stock of the Corporation; (iii) a description of all agreements, arrangements, or understandings (whether written or oral) between or among such person, or any affiliates or associates of such person, and any other person or persons (including their names) in connection with the proposal of such business and any material interest of such person or any affiliates or associates of such person, in such business, including any anticipated benefit therefrom to such person, or any affiliates or associates of such person; (iv) a representation (a) that the stockholder giving notice is a holder of record of stock of the Corporation entitled to vote at the Annual Meeting or Special Meeting and intends to appear in person or by proxy at the Annual Meeting to bring such business before the meeting and (b) whether the stockholder (and any beneficial owners on whose behalf the proposal is made) intends to continue to hold the shares through the date of the Annual Meeting or Special Meeting; (v) a representation whether the stockholder or any of the beneficial owners intends or is part of a group which 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 which, together with the holdings of such stockholder and all such beneficial owners, is sufficient to approve or adopt the proposal, and/or (b) otherwise to solicit proxies from stockholders in support of such proposal; and (vi) any other information relating to such person that would be required to be disclosed in a proxy statement or other filing required to be made in connection with the solicitation of proxies by such person with respect to the proposed business to be brought by such person before the Annual Meeting pursuant to Section 14 of the Exchange Act and the rules and regulations promulgated thereunder.

A stockholder providing notice of business proposed to be brought before an Annual Meeting shall further update and supplement such notice, if necessary, so that the information provided or required to be provided in such notice pursuant to this Section 2.15 shall be true and correct as of the record date for determining the stockholders entitled to receive notice of the Annual Meeting and such update and supplement shall be delivered to or be mailed and received by the Secretary at the principal executive offices of the Corporation not later than five (5) business days after the record date for determining the stockholders entitled to receive notice of the Annual Meeting.

No business shall be conducted at the Annual Meeting of Stockholders except business brought before the Annual Meeting in accordance with the procedures set forth in this Section 2.15; provided, however, that, once business has been properly brought before the Annual Meeting in accordance with such procedures, nothing in this Section 2.15 shall be deemed to preclude discussion by any stockholder of any such business. If the chair of an Annual Meeting determines that business was not properly brought before the Annual Meeting in accordance with the foregoing procedures, the chair shall declare to the meeting that the business was not properly brought before the meeting and such business shall not be transacted.

Notwithstanding the foregoing provisions of this Section 2.15, unless otherwise required by law or expressly waived in writing by the Corporation, if the stockholder (or a qualified

representative of the stockholder) does not appear at the Annual Meeting to present such proposed business, such proposed business shall not be transacted, notwithstanding that proxies in respect of such vote may have been received by the Corporation. For purposes of this Section 2.15, 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 Annual Meeting and such person must produce such writing or electronic transmission, or a reliable reproduction of the writing or electronic transmission, at the Annual Meeting.

Nothing contained in this Section 2.15 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 (or any successor provision of law).

Section 2.16 Nomination of Directors. Only persons who are nominated in accordance with the following procedures shall be eligible for election as directors of the Corporation, except as may be otherwise provided in the Certificate of Incorporation with respect to the right, if any, of holders of preferred stock of the Corporation to nominate and elect a specified number of directors in certain circumstances. Nominations of persons for election to the Board of Directors may be made at any Annual Meeting of Stockholders or at any Special Meeting of Stockholders called for the purpose of electing directors (i) by or at the direction of the Board of Directors (or any duly authorized committee thereof) or (ii) by any stockholder of the Corporation (a) who is a stockholder of record on the date of the giving of the notice provided for in this Section 2.16 and on the record date for the determination of stockholders entitled to notice of and to vote at such Annual Meeting or Special Meeting, (b) who is entitled to vote at such Annual Meeting or Special Meeting and (c) who complies with the notice procedures set forth in this Section 2.16. Clause (ii) of the preceding sentence shall be the exclusive means for a stockholder to make nominations of persons for election to the Board of Directors.

In addition to any other applicable requirements, for a nomination to be made by a stockholder, such stockholder must have given timely notice thereof in proper written form to the Secretary of the Corporation. To be timely, a stockholder's notice to the Secretary must be delivered to or be mailed and received at the principal executive offices of the Corporation (a) in the case of an Annual Meeting, not later than the close of business on the ninetieth (90th) day nor earlier than the close of business on the one hundred and twentieth (120th) day prior to the anniversary date of the immediately preceding Annual Meeting of Stockholders; provided, however, that in the event that the Annual Meeting is called for a date that is not within thirty (30) days before or after such anniversary date, or in the case of the Corporation's first Annual Meeting, notice by the stockholder in order to be timely must be so received not later than the close of business on the tenth (10th) day following the day on which such notice of the date of the Annual Meeting was mailed or such public disclosure of the date of the Annual Meeting was made, whichever first occurs; and (b) in the case of a Special Meeting of Stockholders called for the purpose of electing directors, not later than the close of business on the tenth (10th) day following the day on which notice of the date of the Special Meeting was mailed or public disclosure of the date of the Special Meeting was made, whichever first occurs. In no event shall the adjournment or postponement of an Annual Meeting or a Special Meeting called for the purpose of electing directors, or the public announcement of such an adjournment or

postponement, commence a new time period (or extend any time period) for the giving of a stockholder's notice as described above.

To be in proper written form, a stockholder's notice to the Secretary must set forth the following information: (a) as to each person whom the stockholder proposes to nominate for election as a director (i) the name, age, business address and residence address of such person, (ii) the principal occupation or employment of such person, (iii) (A) the class or series and number of all shares of stock of the Corporation which are owned, directly or indirectly, beneficially or of record by such person and any affiliates or associates of such person, (B) the name of each nominee holder of shares of all stock of the Corporation owned beneficially but not of record by such person or any affiliates or associates of such person, and the number of such shares of stock of the Corporation held by each such nominee holder, (C) whether and the extent to which any derivative instrument, swap, option, warrant, short interest, hedge or profit interest or other transaction has been entered into by or on behalf of such person, or any affiliates or associates of such person, with respect to stock of the Corporation and (D) whether and the extent to which any other transaction, agreement, arrangement or understanding (including any short position or any borrowing or lending of shares of stock of the Corporation) has been made by or on behalf of such person, or any affiliates or associates of such person, the effect or intent of any of the foregoing being to mitigate loss to, or to manage risk or benefit of stock price changes for, such person, or any affiliates or associates of such person, or to increase or decrease the voting power or pecuniary or economic interest of such person, or any affiliates or associates of such person, with respect to stock of the Corporation; and (iv) any other information relating to such person that would be required to be disclosed in a proxy statement or other filing required to be made in connection with solicitations of proxies for election of directors pursuant to Section 14 of the Exchange Act, and the rules and regulations promulgated thereunder; and (b) as to the stockholder giving the notice, and the beneficial owner, if any, on whose behalf the nomination is being made, (i) the name and record address of the stockholder giving the notice and the name and principal place of business of such beneficial owner; (ii) (A) the class or series and number of all shares of stock of the Corporation which are owned beneficially or of record by such person and any affiliates or associates of such person, (B) the name of each nominee holder of shares of the Corporation owned beneficially but not of record by such person or any affiliates or associates of such person, and the number of shares of stock of the Corporation held by each such nominee holder, (C) whether and the extent to which any derivative instrument, swap, option, warrant, short interest, hedge or profit interest or other transaction has been entered into by or on behalf of such person, or any affiliates or associates of such person, with respect to stock of the Corporation and (D) whether and the extent to which any other transaction, agreement, arrangement or understanding (including any short position or any borrowing or lending of shares of stock of the Corporation) has been made by or on behalf of such person, or any affiliates or associates of such person, the effect or intent of any of the foregoing being to mitigate loss to, or to manage risk or benefit of stock price changes for, such person, or any affiliates or associates of such person, or to increase or decrease the voting power or pecuniary or economic interest of such person, or any affiliates or associates of such person, with respect to stock of the Corporation; (iii) a description of all agreements, arrangements, or understandings (whether written or oral) between or among such person, or any affiliates or associates of such person, and any proposed nominee or any other person or persons (including their names) pursuant to which the nomination(s) are being made by such person, and any material interest of such person, or any affiliates or associates of such person, in such nomination, including any

anticipated benefit therefrom to such person, or any affiliates or associates of such person; (iv) a representation (a) that the stockholder giving notice is a holder of record of stock of the Corporation entitled to vote at the Annual Meeting or Special Meeting and intends to appear in person or by proxy at the Annual Meeting or Special Meeting to nominate the persons named in its notice and (b) whether the stockholder (and any beneficial owners on whose behalf the nomination is made) intends to continue to hold the shares through the date of the Annual Meeting or Special Meeting; (v) a representation whether the stockholder or any of the beneficial owners intends or is part of a group which 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 which, together with the holdings of such stockholder and all such beneficial owners, is sufficient to elect the nominee, and/or (b) otherwise to solicit proxies from stockholders in support of such nomination; and (vi) any other information relating to such person that would be required to be disclosed in a proxy statement or other filings required to be made in connection with the solicitation of proxies for election of directors pursuant to Section 14 of the Exchange Act and the rules and regulations promulgated thereunder. Such notice must be accompanied by a written consent of each proposed nominee to being named as a nominee and stating such nominee's intention, if elected, to serve the full term of the class of directors for which such nominee is standing for election. The Corporation may require any proposed nominee to furnish such other information as the Corporation may reasonably require to determine the eligibility of such proposed nominee to serve as a director of the Corporation.

A stockholder providing notice of any nomination proposed to be made at an Annual Meeting or Special Meeting shall further update and supplement such notice, if necessary, so that the information provided or required to be provided in such notice pursuant to this Section 2.16 shall be true and correct as of the record date for determining the stockholders entitled to receive notice of the Annual Meeting or Special Meeting, and such update and supplement shall be delivered to or be mailed and received by the Secretary at the principal executive offices of the Corporation not later than five (5) business days after the record date for determining the stockholders entitled to receive notice of such Annual Meeting or Special 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 2.16. If the chair of the meeting determines that a nomination was not made in accordance with the foregoing procedures, the chair shall declare to the meeting that the nomination was defective, and such defective nomination shall be disregarded.

Notwithstanding the foregoing provisions of this Section 2.16, unless otherwise required by law or expressly waived in writing by the Corporation, if the stockholder (or a qualified representative of the stockholder) does not appear at the Annual Meeting or Special Meeting to present such nomination, such nomination shall be disregarded, notwithstanding that proxies in respect of such vote may have been received by the Corporation. For purposes of this Section 2.16, 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 Annual Meeting or Special Meeting and such person must produce such writing or electronic transmission, or a reliable reproduction of the writing or electronic transmission, at the Annual Meeting or Special Meeting.

ARTICLE III

DIRECTORS

Section 3.1 Number and Election of Directors. The Board of Directors shall consist of not less than three (3) nor more than fifteen (15) members, the exact number of which shall be fixed from time to time exclusively pursuant to a resolution adopted by the affirmative vote of a majority of the entire Board of Directors, and subject to the rights of the holders of the preferred stock, if any, the exact number may be increased or decreased (but not to less than three (3) or more than fifteen (15)). Except as provided in Section 3.2, directors shall be elected by a majority of the votes cast at the annual meeting of stockholders; provided, however, that, if the number of nominees for director exceeds the number of directors to be elected, directors shall be elected by a plurality of the votes cast. A director shall hold office until the Annual Meeting for the year in which his or her term expires and until his or her successor shall be elected and shall qualify, subject, however, to prior death, resignation, retirement, disqualification or removal from office. Directors need not be stockholders.

The directors shall, until the Annual Meeting of Stockholders to be held in 2021, be divided into three classes, designated Class I, Class II and Class III. Each class shall consist, as nearly as may be possible, of an equal number of directors. The term of the Class I directors shall terminate on the date of the 2020 Annual Meeting of Stockholders; the term of the Class II directors elected at the 2018 Annual Meeting of Stockholders shall terminate on the date of the 2021 Annual Meeting of Stockholders; and the term of the Class III directors shall terminate on the date of the 2019 Annual Meeting of Stockholders or, in each case, upon such director's earlier death, resignation or removal. At each succeeding Annual Meeting of Stockholders beginning with the 2019 Annual Meeting of Stockholders, directors standing for election shall be elected annually for one-year terms expiring at the next succeeding Annual Meeting of Stockholders and until his or her respective successor has been duly elected and qualified.

Section 3.2 Vacancies. Subject to the terms of any one or more classes or series of preferred stock, any vacancy on the Board of Directors that results from an increase in the number of directors or the death, resignation, retirement, disqualification, removal from office or other cause may be filled by a majority of the Board of Directors then in office, in their sole discretion, even if less than a quorum, or by a sole remaining director, in his or her sole discretion. Any director appointed to fill a vacancy on the Corporation's Board of Directors not resulting from an increase in the number of directors shall have the same remaining term as that of his or her predecessor. In no case will a decrease in the number of directors have the effect of removing or shortening the term of any incumbent director.

Section 3.3 Duties and Powers. The business and affairs of the Corporation shall be managed by or under the direction of the Board of Directors which may exercise all such powers of the Corporation and do all such lawful acts and things as are not by statute or by the Certificate of Incorporation or by these By-Laws required to be exercised or done by the stockholders.

Section 3.4 Meetings; Notice. The Board of Directors and any committee thereof may hold meetings, both regular and special, either within or without the State of Delaware. Regular

meetings of the Board of Directors or any committee thereof may be held without notice at such time and at such place as may from time to time be determined by the Board of Directors or such committee, respectively. Special meetings of the Board of Directors may be called by the Chairman of the Board, the Chief Executive Officer or a majority of the members of the Board of Directors. Special meetings of any committee of the Board of Directors may be called by the chair of such committee, the Chief Executive Officer, or any director serving on such committee. Notice of all meetings shall state the place, date and hour of the meeting and shall be given to each director (or, in the case of a committee, to each member of such committee) either by mail not less than seven (7) days before the date of the meeting, by facsimile or other means of electronic communication on three (3) days' notice, by personal delivery or telephone on twenty-four (24) hours' notice, or on such shorter notice as the person or persons calling such meeting may deem necessary or appropriate in the circumstances. Any director may waive notice of any meeting before or after the meeting. The attendance of a director at any meeting shall constitute a waiver of notice of such meeting, except where 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. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the Board of Directors need be specified in any notice or waiver of notice of such meeting unless so required by law.

Section 3.5 Organization. At each meeting of the Board of Directors or any committee thereof, the Chairman of the Board of Directors or the chair of such committee, as the case may be, or, in his or her absence, a director chosen by a majority of the directors present, shall act as chair. Except as provided below, the Secretary of the Corporation shall act as secretary at each meeting of the Board of Directors and of each committee thereof. In case the Secretary shall be absent from any meeting of the Board of Directors or of any committee thereof, an Assistant Secretary shall perform the duties of secretary at such meeting; and in the absence from any such meeting of the Secretary and all the Assistant Secretaries, the chair of the meeting may appoint any person to act as secretary of the meeting. Notwithstanding the foregoing, the members of each committee of the Board of Directors may appoint any person to act as secretary of any meeting of such committee and the Secretary or any Assistant Secretary of the Corporation may, but need not if such committee so elects, serve in such capacity.

Section 3.6 Resignations and Removals of Directors. Any director of the Corporation may resign from the Board of Directors or any committee thereof at any time, by giving notice in writing or by electronic transmission to the Chairman of the Board of Directors, the Chief Executive Officer or the Secretary of the Corporation and, in the case of a committee, to the chair of such committee. Such resignation shall take effect at the time therein specified or, if no time is specified, immediately; and, unless otherwise specified in such notice, the acceptance of such resignation shall not be necessary to make it effective.

Prior to and until the time at which the Board of Directors ceases to be classified pursuant to Section 3.1 of these By-Laws, except as otherwise required by applicable law and subject to the rights, if any, of the holders of shares of preferred stock then outstanding, any director or the entire Board of Directors may be removed from office at any time, but only for cause and only by the affirmative vote of the holders of at least a majority of the shares of voting common stock. From and after the time at which the Board of Directors ceases to be classified pursuant to Section 3.1, except as otherwise required by applicable law and subject to the rights, if any, of

the holders of shares of preferred stock then outstanding, any or all of the directors of the Corporation may be removed from office at any time, with or without cause, by the affirmative vote of the holders of at least a majority of shares of voting common stock. Any director serving on a committee of the Board of Directors may be removed from such committee at any time by the Board of Directors.

Section 3.7 Quorum. Except as otherwise required by law, the Certificate of Incorporation or these By-Laws, at all meetings of the Board of Directors or any committee thereof, a one third (1/3rd) of the entire Board of Directors, but not less than three (3), or one third (1/3rd) of the directors constituting such committee, but not less than two (2), as the case may be, shall constitute a quorum for the transaction of business and the act of a majority of the directors or committee members present at any meeting at which there is a quorum shall be the act of the Board of Directors or such committee, as applicable. If a quorum shall not be present at any meeting of the Board of Directors or any committee thereof, the directors present thereat may adjourn the meeting from time to time, without notice other than announcement at the meeting of the time and place of the adjourned meeting, until a quorum shall be present.

Section 3.8 Actions of the Board by Written Consent. Unless otherwise provided in the Certificate of Incorporation or these By-Laws, any action required or permitted to be taken at any meeting of the Board of Directors or of any committee thereof may be taken without a meeting, if all the members of the Board of Directors or such committee, as the case may be, consent thereto in writing or by electronic transmission, and the writing or writings or electronic transmission are filed with the minutes of proceedings of the Board of Directors or such committee.

Section 3.9 Meetings by Means of Conference Telephone. Unless otherwise provided in the Certificate of Incorporation or these By-Laws, members of the Board of Directors, or any committee thereof, may participate in a meeting of the Board of Directors or such committee by means of a conference telephone or other communications equipment by means of which all persons participating in the meeting can hear each other, and participation in a meeting pursuant to this Section 3.9 shall constitute presence in person at such meeting.

Section 3.10 Committees. The Board of Directors shall have, at all times, the following standing committees: an Audit Committee, a Compensation Committee and a Governance and Nominating Committee. Each of the Audit Committee, the Compensation Committee and the Governance and Nominating Committee will consist of at least three members. The Board of Directors may designate one or more other standing or special committees, each such committee to consist of one or more of the directors of the Corporation. The Board of Directors will appoint committee members of each standing committee and the chair of each such committee on the recommendation of the Governance and Nominating Committee. Each member of a committee must meet the requirements for membership, if any, imposed by applicable law and the rules and regulations of any securities exchange or quotation system on which the securities of the Corporation are listed or quoted for trading. The Board of Directors may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of any such committee. Subject to the rules and regulations of any securities exchange or quotation system on which the securities of the Corporation are listed or quoted for trading, in the absence or disqualification of a member of a committee, and in

the absence of a designation by the Board of Directors of an alternate member to replace the absent or disqualified member, the member or members thereof present at any meeting and not disqualified from voting, whether or not such member or members constitute a quorum, may unanimously appoint another qualified member of the Board of Directors to act at the meeting in the place of any absent or disqualified member. Any committee, to the extent permitted by law and provided in its charter or as may be assigned to it by the Board of Directors, shall have and may exercise all the powers and authority of the Board of Directors in the management of the business and affairs of the Corporation, and may authorize the seal of the Corporation to be affixed to all papers which may require it. Each committee shall keep regular minutes and report to the Board of Directors when required. Notwithstanding anything to the contrary contained in this Article III, any resolution of the Board of Directors establishing or directing any committee of the Board of Directors or establishing or amending the charter of any such committee may establish requirements or procedures relating to the governance and/or operation of such committee that are different from, or in addition to, those set forth in these By-Laws and, to the extent that there is any inconsistency between these By-Laws and any such resolution or charter, the terms of such resolution or charter shall be controlling.

Section 3.11 Executive Committee. The Board of Directors may provide for an executive committee of two or more directors and shall elect the members thereof to serve during the pleasure of the Board of Directors. The Board of Directors may designate one of such members to act as chair, provided that the Chairman of the Board shall be a member of the Executive Committee and, if present, shall preside at any meeting of the Executive Committee. The Board of Directors shall have the power at any time to change the membership of the committee, to fill vacancies in it, or to dissolve it. During the intervals between the meetings of the Board of Directors, the Executive Committee shall possess and may exercise any or all of the powers of the Board of Directors in the management of the business and affairs of the Corporation to the extent authorized by resolution adopted by a majority of the entire Board of Directors.

The Executive Committee may determine its rules of procedure and the notice to be given of its meetings, and it may appoint such committees and assistants as it shall from time to time deem necessary. A majority of the members of the committee shall constitute a quorum.

Section 3.12 Compensation. The Board of Directors, upon the recommendation of the Compensation Committee, shall from time to time determine the form and amount of fees or compensation to be paid to the directors for services as such to the Corporation, including, but not limited to, fees and expenses for serving on and/or attendance at meetings of the Board of Directors or its committees. No such payment shall preclude any director from serving the Corporation in any other capacity and receiving compensation therefor.

Section 3.13 Interested Directors. No contract or transaction between the Corporation (or any of its subsidiaries or affiliates) and one or more of its directors or officers, or between the Corporation (or any of its subsidiaries or affiliates) and any other corporation, partnership, association or other organization in which one or more of its directors or officers are directors or officers or have a financial interest, shall be void or voidable solely for this reason, or solely because the director or officer is present at or participates in the meeting of the Board of Directors or committee thereof which authorizes the contract or transaction, or solely because

any such director's or officer's vote is counted for such purpose if: (i) the material facts as to the director's or officer's relationship or interest and as to the contract or transaction are disclosed or are known to the Board of Directors or the committee, and the Board of Directors or committee in good faith authorizes the contract or transaction by the affirmative vote of a majority of the disinterested directors, even though the disinterested directors be less than a quorum; or (ii) the material facts as to the director's or officer's relationship or interest and as to the contract or transaction are disclosed or are known to the stockholders entitled to vote thereon, and the contract or transaction is specifically approved in good faith by vote of the stockholders; or (iii) the contract or transaction is fair as to the Corporation as of the time it is authorized, approved or ratified by the Board of Directors, a committee thereof or the stockholders. Common or interested directors may be counted in determining the presence of a quorum at a meeting of the Board of Directors or of a committee which authorizes the contract or transaction.

ARTICLE IV

OFFICERS

Section 4.1 General. The officers of the Corporation shall be chosen by the Board of Directors and shall be a Chief Executive Officer, a Secretary and a Treasurer. The Board of Directors, in its discretion, also may choose a President, one or more Vice Presidents, Assistant Secretaries, Assistant Treasurers and other officers. Any number of offices may be held by the same person, unless otherwise prohibited by law, the Certificate of Incorporation or these By-Laws. The officers of the Corporation need not be stockholders of the Corporation.

Section 4.2 Election. The Board of Directors, at its first meeting held after each Annual Meeting of Stockholders, shall elect the officers of the Corporation who shall hold their offices for such terms and shall exercise such powers and perform such duties as shall be determined from time to time by the Board of Directors; and each officer of the Corporation shall hold office until such officer's successor is elected and qualified, or until such officer's earlier death, resignation or removal. Any officer elected by the Board of Directors may be removed at any time by the Board of Directors. Any vacancy occurring in any office of the Corporation shall be filled by the Board of Directors. The salaries of all officers of the Corporation shall be fixed by the Board of Directors. Any officer may resign at any time by delivering a notice of resignation given in writing or electronic transmission to the Board of Directors or the Chief Executive Officer or the Secretary. Unless otherwise specified therein, such resignation shall take effect upon delivery.

Section 4.3 Voting Securities Owned by the Corporation. Powers of attorney, proxies, waivers of notice of meeting, consents and other instruments relating to securities owned by the Corporation may be executed in the name of and on behalf of the Corporation by the Chief Executive Officer, any President, any Vice President or any other officer authorized to do so by the Board of Directors and any such officer may, in the name of and on behalf of the Corporation, take all such action as any such officer may deem advisable to vote in person or by proxy at any meeting of security holders of any corporation in which the Corporation may own securities and at any such meeting shall possess and may exercise any and all rights and power incident to the ownership of such securities and which, as the owner thereof, the Corporation

might have exercised and possessed if present. The Board of Directors may, by resolution, from time to time confer like powers upon any other person or persons.

Section 4.4 Chairman of the Board of Directors. The Board of Directors, in its discretion, may choose a Chairman (who shall be a director but need not be elected as an officer). The Chairman of the Board of Directors shall preside at all meetings of the stockholders, the Board of Directors and the Executive Committee (if one shall have been appointed). The Chairman of the Board of Directors shall perform such other duties and may exercise such other powers as may from time to time be assigned by these By-Laws or by the Board of Directors.

Section 4.5 Chief Executive Officer. The Chief Executive Officer shall, subject to the control of the Board of Directors and the Chairman of the Board of Directors, have general supervision of the business of the Corporation and shall see that all orders and resolutions of the Board of Directors are carried into effect. The Chief Executive Officer shall execute all bonds, mortgages, contracts and other instruments of the Corporation requiring a seal, under the seal of the Corporation, except where required or permitted by law to be otherwise signed and executed and except as provided by Section 7.5. In the absence or disability of the Chairman of the Board of Directors, the Chief Executive Officer shall preside at all meetings of the stockholders. The Chief Executive Officer shall also perform such other duties and may exercise such other powers as may from time to time be assigned to such officer by these By-Laws or by the Board of Directors.

Section 4.6 Vice Presidents. Each Vice President shall have such powers and shall perform such duties as shall be assigned to him by the Board of Directors.

Section 4.7 Secretary. The Secretary shall attend all meetings of the Board of Directors and all meetings of the stockholders and record all the proceedings thereat in a book or books to be kept for that purpose; the Secretary shall also perform like duties for committees of the Board of Directors when required. The Secretary shall give, or cause to be given, notice of all meetings of the stockholders and special meetings of the Board of Directors, and shall perform such other duties as may be prescribed by the Board of Directors, the Chairman of the Board of Directors or the Chief Executive Officer, under whose supervision the Secretary shall be. If the Secretary shall be unable or shall refuse to cause to be given notice of all meetings of the stockholders and special meetings of the Board of Directors, and if there be no Assistant Secretary, then either the Board of Directors or the Chief Executive Officer may choose another officer to cause such notice to be given. The Secretary shall have custody of the seal of the Corporation and the Secretary or any Assistant Secretary, if there be one, shall have authority to affix the same to any instrument requiring it and when so affixed, it may be attested by the signature of the Secretary or by the signature of any such Assistant Secretary. The Board of Directors may give general authority to any other officer to affix the seal of the Corporation and to attest to the affixing by such officer's signature. The Secretary shall see that all books, reports, statements, certificates and other documents and records required by law to be kept or filed are properly kept or filed, as the case may be.

Section 4.8 Treasurer. The Treasurer shall have the custody of the corporate funds and securities and shall keep full and accurate accounts of receipts and disbursements in books

belonging to the Corporation and shall deposit all moneys and other valuable effects in the name and to the credit of the Corporation in such depositories as may be designated by the Board of Directors. The Treasurer shall disburse the funds of the Corporation as may be ordered by the Board of Directors, taking proper vouchers for such disbursements, and shall render to the Chief Executive Officer and the Board of Directors, at its regular meetings, or when the Board of Directors so requires, an account of all transactions as Treasurer and of the financial condition of the Corporation. If required by the Board of Directors, the Treasurer shall give the Corporation a bond in such sum and with such surety or sureties as shall be satisfactory to the Board of Directors for the faithful performance of the duties of the office of the Treasurer and for the restoration to the Corporation, in case of the Treasurer's death, resignation, retirement or removal from office, of all books, papers, vouchers, money and other property of whatever kind in the Treasurer's possession or under the Treasurer's control belonging to the Corporation.

Section 4.9 Assistant Secretaries. Assistant Secretaries, if there be any, shall perform such duties and have such powers as from time to time may be assigned to them by the Board of Directors, the Chief Executive Officer, any Vice President, if there be one, or the Secretary, and in the absence of the Secretary or in the event of the Secretary's inability or refusal to act, shall perform the duties of the Secretary, and when so acting, shall have all the powers of and be subject to all the restrictions upon the Secretary.

Section 4.10 Assistant Treasurers. Assistant Treasurers, if there be any, shall perform such duties and have such powers as from time to time may be assigned to them by the Board of Directors, the Chief Executive Officer, any Vice President, if there be one, or the Treasurer, and in the absence of the Treasurer or in the event of the Treasurer's inability or refusal to act, shall perform the duties of the Treasurer, and when so acting, shall have all the powers of and be subject to all the restrictions upon the Treasurer. If required by the Board of Directors, an Assistant Treasurer shall give the Corporation a bond in such sum and with such surety or sureties as shall be satisfactory to the Board of Directors for the faithful performance of the duties of the office of Assistant Treasurer and for the restoration to the Corporation, in case of the Assistant Treasurer's death, resignation, retirement or removal from office, of all books, papers, vouchers, money and other property of whatever kind in the Assistant Treasurer's possession or under the Assistant Treasurer's control belonging to the Corporation.

Section 4.11 Other Officers. Such other officers as the Board of Directors may choose shall perform such duties and have such powers as from time to time may be assigned to them by the Board of Directors. The Board of Directors may delegate to any other officer of the Corporation the power to choose such other officers and to prescribe their respective duties and powers.

ARTICLE V

STOCK

Section 5.1 Uncertificated Shares. Unless otherwise provided by resolution of the Board of Directors, each class or series of the shares of capital stock in the Corporation shall be issued in uncertificated form pursuant to the customary arrangements for issuing shares in such form. Shares shall be transferable only on the books of the Corporation by the holder thereof in

person or by attorney upon presentment of proper evidence of succession, assignation or authority to transfer in accordance with the customary procedures for transferring shares in uncertificated form.

Section 5.2 Dividend Record Date. In order that the Corporation may determine the stockholders entitled to receive payment of any dividend or other distribution or allotment of any rights or the stockholders 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 of Directors may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted, and which record date shall be not more than sixty (60) days prior to such action. If no record date is fixed, the record date for determining stockholders for any such purpose shall be at the close of business on the day on which the Board of Directors adopts the resolution relating thereto.

Section 5.3 Record Owners. 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, and to hold liable for calls and assessments a 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 any other person, whether or not it shall have express or other notice thereof, except as otherwise required by law.

Section 5.4 Transfer and Registry Agents. The Corporation may from time to time maintain one or more transfer offices or agencies and registry offices or agencies at such place or places as may be determined from time to time by the Board of Directors.

ARTICLE VI

NOTICES

Section 6.1 Notices. Whenever written notice is required by law, the Certificate of Incorporation or these By-Laws, to be given to any director, member of a committee or stockholder, such notice may be given either personally by mail, facsimile or other means of electronic communication or by other lawful means. If mailed, such notice shall be deemed to be delivered when deposited in the United States mail addressed to such director, member of a committee or stockholder, at such person's address as it appears on the records of the Corporation, with postage thereon prepaid. If notice be by facsimile or other means of electronic communication, such notice shall be deemed to be given at the time provided in the DGCL. Such further notice shall be given as may be required by law.

Section 6.2 Waivers of Notice. Whenever any notice is required by applicable law, the Certificate of Incorporation or these By-Laws, to be given to any director, member of a committee or stockholder, a waiver thereof in writing, signed by the person or persons entitled to notice, whether before or after the time stated therein, shall be deemed equivalent thereto. Attendance of a person at a meeting, present in person or represented by proxy, shall constitute a waiver of notice of such meeting, except where the person 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. Neither the business to be transacted at, nor the

purpose of, any Annual or Special Meeting of Stockholders or any regular or special meeting of the directors or members of a committee of directors need be specified in any written waiver of notice unless so required by law, the Certificate of Incorporation or these By-Laws.

ARTICLE VII

GENERAL PROVISIONS

Section 7.1 Dividends. Dividends upon the capital stock of the Corporation, subject to the requirements of the DGCL and the provisions of the Certificate of Incorporation, if any, may be declared by the Board of Directors at any regular or special meeting of the Board of Directors (or any action by written consent in lieu thereof in accordance with Section 3.8), and may be paid in cash, in property, or in shares of the Corporation's capital stock. Before payment of any dividend, there may be set aside out of any funds of the Corporation available for dividends such sum or sums as the Board of Directors from time to time, in its absolute discretion, deems proper as a reserve or reserves to meet contingencies, or for purchasing any of the shares of capital stock, warrants, rights, options, bonds, debentures, notes, scrip or other securities or evidences of indebtedness of the Corporation, or for equalizing dividends, or for repairing or maintaining any property of the Corporation, or for any proper purpose, and the Board of Directors may modify or abolish any such reserve.

Section 7.2 Disbursements. All checks or demands for money and notes of the Corporation shall be signed by such officer or officers or such other person or persons as the Board of Directors may from time to time designate.

Section 7.3 Fiscal Year. Unless otherwise fixed by resolution of the Board of Directors, the fiscal year of the Corporation shall end on December 31.

Section 7.4 Corporate Seal. The corporate seal shall have inscribed thereon the name of the Corporation, the year of its organization and the words "Corporate Seal, Delaware". The seal may be used by causing it or a facsimile thereof to be impressed or affixed or reproduced or otherwise.

Section 7.5 Contracts. These By-Laws, the Board of Directors or the Chief Executive Officer may authorize any officer or officers or any agent or agents to enter into any contract or execute and deliver any instrument or other document in the name of and on behalf of the Corporation, and such authority may be general or confined to specific instances.

ARTICLE VIII

INDEMNIFICATION

Section 8.1 Power to Indemnify in Actions, Suits or Proceedings other than Those by or in the Right of the Corporation. Subject to Section 8.3, the Corporation shall indemnify 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 (other than an action by or in the right of the Corporation), by reason of the fact that such person is or was a director or officer of the Corporation, or is or was a director, officer or employee of

the Corporation serving at the request of the Corporation as a director, officer, employee or agent of, or in a fiduciary capacity with respect to, another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding if such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the Corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe such person's conduct was unlawful. The termination of any action, suit or proceeding by judgment, order, settlement, conviction, or upon a plea of nolo contendere or its equivalent, shall not, of itself, create a presumption that the person did not act in good faith and in a manner which such person reasonably believed to be in or not opposed to the best interests of the Corporation, and, with respect to any criminal action or proceeding, had reasonable cause to believe that such person's conduct was unlawful.

Section 8.2 Power to Indemnify in Actions, Suits or Proceedings by or in the Right of the Corporation. Subject to Section 8.3, the Corporation shall indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the Corporation to procure a judgment in its favor by reason of the fact that such person is or was a director or officer of the Corporation, or is or was a director, officer or employee of the Corporation serving at the request of the Corporation as a director, officer, employee or agent of, or in a fiduciary capacity with respect to, another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees) actually and reasonably incurred by such person in connection with the defense or settlement of such action or suit if such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the Corporation; except that no indemnification shall be made in respect of any claim, issue or matter as to which such person shall have been adjudged to be liable to the Corporation unless and only to the extent that the Court of Chancery of the State of Delaware or the court in which such action or suit was brought shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.

Section 8.3 Authorization of Indemnification. Any indemnification under this Article VIII (unless ordered by a court) shall be made by the Corporation only as authorized in the specific case upon a determination that indemnification of the present or former director, officer or employee is proper in the circumstances because such person has met the applicable standard of conduct set forth in Section 8.1 or Section 8.2, as the case may be. Such determination shall be made, with respect to a person who is a director, officer or employee at the time of such determination, (i) by a majority vote of the directors who are not parties to such action, suit or proceeding, even though less than 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 if such directors so direct, by independent legal counsel in a written opinion or (iv) by the stockholders. Such determination shall be made, with respect to present or former employees or former directors and officers, by any person or persons having the authority to act on the matter on behalf of the Corporation. To the extent, however, that a present or former director, officer or employee of the Corporation has been successful on the merits or otherwise in defense of any action, suit or proceeding described above, or in defense of any claim, issue or

matter therein, such person shall be indemnified against expenses (including attorneys' fees) actually and reasonably incurred by such person in connection therewith, without the necessity of authorization in the specific case.

Section 8.4 Good Faith Defined. For purposes of any determination under Section 8.3 of this Article VIII, a person shall be deemed to have acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the Corporation, or, with respect to any criminal action or proceeding, to have had no reasonable cause to believe such person's conduct was unlawful, if such person's action is based on the records or books of account of the Corporation or another enterprise, or on information supplied to such person by the officers of the Corporation or another enterprise in the course of their duties, or on the advice of legal counsel for the Corporation or another enterprise or on information or records given or reports made to the Corporation or another enterprise by an independent certified public accountant or by an appraiser or other expert selected with reasonable care by the Corporation or another enterprise. The provisions of this Section 8.4 shall not be deemed to be exclusive or to limit in any way the circumstances in which a person may be deemed to have met the applicable standard of conduct set forth in Section 8.1 or Section 8.2, as the case may be.

Section 8.5 Indemnification by a Court. Notwithstanding any contrary determination in the specific case under Section 8.3, and notwithstanding the absence of any determination thereunder, any director, officer or employee may apply to the Court of Chancery of the State of Delaware or any other court of competent jurisdiction in the State of Delaware for indemnification to the extent otherwise permissible under Section 8.1 or Section 8.2. The basis of such indemnification by a court shall be a determination by such court that indemnification of the director, officer or employee is proper in the circumstances because such person has met the applicable standard of conduct set forth in Section 8.1 or Section 8.2, as the case may be. Neither a contrary determination in the specific case under Section 8.3 nor the absence of any determination thereunder shall be a defense to such application or create a presumption that the director, officer or employee seeking indemnification has not met any applicable standard of conduct. Notice of any application for indemnification pursuant to this Section 8.5 shall be given to the Corporation promptly upon the filing of such application. If successful, in whole or in part, the director, officer or employee seeking indemnification shall also be entitled to be paid the expense of prosecuting such application.

Section 8.6 Expenses Payable in Advance. Expenses (including attorneys' fees) incurred by a current or former director or officer or employee entitled to indemnification under this Article VIII in defending any civil, criminal, administrative or investigative action, suit or proceeding shall be paid by the Corporation in advance of the final disposition of such action, suit or proceeding upon receipt of an undertaking by or on behalf of such current or former director, officer or employee to repay such amount if it shall ultimately be determined that such person is not entitled to be indemnified by the Corporation as authorized in this Article VIII.

Section 8.7 Nonexclusivity of Indemnification and Advancement of Expenses. The indemnification and advancement of expenses provided by, or granted pursuant to, this Article VIII shall not be deemed exclusive of any other rights to which those seeking indemnification or advancement of expenses may be entitled under the Certificate of Incorporation, these By-Laws, any statute, agreement, vote of stockholders or disinterested directors or otherwise, both as to

action in such person's official capacity and as to action in another capacity while holding such office, it being the policy of the Corporation that indemnification of the persons specified in Section 8.1 and Section 8.2 shall be made to the fullest extent permitted by law. The provisions of this Article VIII shall not be deemed to preclude the indemnification of any person who is not specified in Section 8.1 or Section 8.2 but whom the Corporation has the power or obligation to indemnify under the provisions of the DGCL, or otherwise.

Section 8.8 Insurance. The Corporation may purchase and maintain insurance on behalf of any person who is or was a director, officer or employee of the Corporation, or is or was a director or officer of the Corporation serving at the request of the Corporation as a director, officer, employee or agent of, or in a fiduciary capacity with respect to, another corporation, partnership, joint venture, trust or other enterprise against any liability asserted against such person and incurred by such person in any such capacity, or arising out of such person's status as such, whether or not the Corporation would have the power or the obligation to indemnify such person against such liability under the provisions of this Article VIII.

Section 8.9 Certain Definitions. For purposes of this Article VIII, references to "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 or officers, so that any person who is or was a director or officer of such constituent corporation, or is or was a director or officer of such constituent corporation or is or was a director, officer or employee of such constituent corporation serving at the request of such constituent corporation as a director, officer, employee or agent of, or in a fiduciary capacity with respect to, another corporation, partnership, joint venture, trust or other enterprise, shall stand in the same position under the provisions of this Article VIII with respect to the resulting or surviving corporation as such person would have with respect to such constituent corporation if its separate existence had continued. The term "another enterprise" as used in this Article VIII shall mean any other corporation or any partnership, joint venture, trust, employee benefit plan or other enterprise of which such person is or was serving at the request of the Corporation as a director, officer, employee, fiduciary or agent. For purposes of this Article VIII, 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, or fiduciary with respect to, another enterprise which imposes duties on, or involves services by, such director, officer or employee 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 Article VIII.

Section 8.10 Survival of Indemnification and Advancement of Expenses. The indemnification and advancement of expenses provided by, or granted pursuant to, this Article VIII shall, unless otherwise provided when authorized or ratified, continue as to a person who has ceased to be a director, officer or employee and shall inure to the benefit of the heirs, executors and administrators of such a person.

Section 8.11 Limitation on Indemnification. Notwithstanding anything contained in this Article VIII to the contrary, except for proceedings to enforce rights to indemnification (which shall be governed by Section 8.5), the Corporation shall not be obligated to indemnify any person entitled to indemnification under this Article VIII (or his or her heirs, executors or personal or legal representatives) or advance expenses in connection with a proceeding (or part thereof) initiated by such person unless such proceeding (or part thereof) was authorized or consented to by the Board of Directors of the Corporation.

Section 8.12 Indemnification of Employees and Agents. The Corporation may, to the extent authorized from time to time by the Board of Directors, provide rights to indemnification and to the advancement of expenses to other employees and agents of the Corporation similar to those conferred in this Article VIII to directors and officers of the Corporation.

Section 8.13 Amendment or Repeal. Any repeal or modification of the foregoing provisions of this Article XIII shall not adversely affect any right or protection hereunder of a director, officer or employee of the Corporation in respect of any proceeding (regardless of when such proceeding is first threatened, commenced or completed) arising out of, or related to, any act or omission occurring prior to the time of such repeal or modification.

ARTICLE IX

AMENDMENTS

Section 9.1 Amendments. In furtherance and not in limitation of the powers conferred upon it by the laws of the State of Delaware, the Board of Directors shall have the power to adopt, amend, alter or repeal these By-Laws. The affirmative vote of at least a majority of the Board of Directors shall be required to adopt, amend, alter or repeal these By-Laws. In addition, these By-Laws may be altered, amended or repealed, in whole or in part, or new By-Laws may be adopted by the stockholders with the affirmative vote of the holders of at least a majority of the total number of votes of the Corporation's capital stock then outstanding; provided, however, that notice of such alteration, amendment, repeal or adoption of new By-Laws by the stockholder be contained in the notice of such meeting of the stockholders.

ARTICLE X

CONSTRUCTION

Section 10.1 Construction. In the event of any conflict between the provisions of these By-Laws as in effect from time to time and the provisions of the Certificate of Incorporation as in effect from time to time, the provisions of the Certificate of Incorporation shall be controlling.

Section 10.2 Entire Board of Directors. As used in this Article IX and in these By-Laws generally, the term "entire Board of Directors" means the total number of directors which the Corporation would have if there were no vacancies and each other reference to the "Board of Directors" means the total number of directors then in office.

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