



Amended and Restated Bylaws of Koppers Holdings Inc. (a Pennsylvania Corporation) Dated August 8, 2007

Article I: Offices and Fiscal Year

Section 1.01. Registered Office Provider. The name of the registered office provider of the corporation and the county of venue is Corporation Service Company, Allegheny County, until otherwise established by an amendment of the articles of incorporation (the "articles") or by the Board of Directors and a record of such change is filed with the Pennsylvania Department of State in the manner provided by law.

Section 1.02. Other Offices. The corporation may also have offices at such places within or without the Commonwealth of Pennsylvania as the Board of Directors may from time to time appoint or the business of the corporation may require.

Section 1.03. Fiscal Year. The fiscal year of the corporation shall begin on the 1st day of January in each year.

Article II: Notice--Waivers--Meetings Generally

Section 2.01. Manner of Giving Notice.

General Rule. Whenever written notice is required to be given to any person under the provisions of the Pennsylvania Business Corporation Law of 1988 (the "Business Corporation Law") or by the articles or these bylaws, it may be given to the person either personally or by sending a copy thereof by first class or express mail, postage prepaid, or by courier service, charges prepaid, or by facsimile transmission, to the address (or to the facsimile number) of the person appearing on the books of the corporation or, in the case of directors, supplied by the director to the corporation for the purpose of notice. If the notice is sent by mail or courier service, it shall be deemed to have been given to the person entitled thereto when deposited in the United States mail or with a courier service for delivery to that person or, in the case of facsimile transmission, when received. A notice of meeting shall specify the place, day and hour of the meeting and any other information required by any other provision of the Business Corporation Law, the articles or these bylaws.

Section 2.02. Notice of Meetings of Board of Directors. Notice of a regular meeting of the Board of Directors need not be given, except as required by law. Notice of every special meeting of the Board of Directors shall be given to each director by telephone or in writing at least five days before the time at which the meeting is to be held. Every such notice shall state the time and place of the meeting. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the board need be specified in a notice of the meeting.

Section 2.03. Notice of Meetings of Shareholders.

(a) General Rule. Written notice specifying the place, date and time of every meeting of the shareholders shall be given by, or at the direction of, the Secretary or other authorized person to each shareholder of record entitled to vote at the meeting at least ten days prior to the day named for the meeting. If the Secretary neglects or refuses to give notice of a meeting, the person or persons calling the meeting may do so. In the case of a special meeting of shareholders, the notice shall specify the general nature of the business to be transacted.

(b) Notice of Action by Shareholders on Bylaws. In the case of a meeting of shareholders that has as one of its purposes action on the bylaws, written notice shall be given to each shareholder that the purpose, or one of the purposes, of the meeting is to consider the adoption, amendment or repeal of the bylaws. There shall be included in, or enclosed with, the notice a copy of the proposed amendment or a summary of the changes to be affected thereby.

(c) Adjourned Shareholder Meetings. When a meeting of shareholders is adjourned, it shall not be necessary to give any notice of the adjourned meeting or of the business to be transacted at an adjourned meeting, other than by announcement at the meeting at which the adjournment is taken, unless the board fixes a new record date for the adjourned meeting in which event notice shall be given in accordance with this Section 2.03.

Section 2.04. Waiver of Notice.

(a) Written Waiver. Whenever any written notice is required to be given under the provisions of the Business Corporation Law, the articles or these bylaws, a waiver thereof in writing, signed by the person or persons entitled to the notice, whether before or after the time stated therein, shall be deemed equivalent to the giving of the notice. Neither the business to be transacted at, nor the purpose of, a meeting need be specified in the waiver of notice of the meeting.

(b) Waiver by Attendance. Attendance of a person at any meeting shall constitute a waiver of notice of the meeting except where a person attends a meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting was not lawfully called or convened.

Section 2.05. Modification of Proposal Contained in Notice. Whenever the language of a proposed resolution is included in a written notice of a meeting required to be given under the provisions of the Business Corporation Law or the articles or these bylaws, the meeting considering the resolution may without further notice adopt it with such clarifying or other amendments as do not enlarge its original purpose.

Section 2.06. Exception to Requirement of Notice.--Shareholders Without Forwarding Addresses. Notice or other communications need not be sent to any shareholder with whom the corporation has been unable to communicate for more than 24 consecutive months because communications to the shareholder are returned unclaimed or the shareholder has otherwise failed to provide the corporation with a current address. Whenever the shareholder provides the corporation with a current address, the corporation shall commence sending notices and other communications to the shareholder in the same manner as to other shareholders.

Section 2.07. Use of Conference Telephone and Similar Equipment. Any director may participate in any meeting of the Board of Directors, and the Board of Directors may provide by

resolution with respect to a specific meeting or with respect to a class of meetings that one or more persons may participate in a meeting of the shareholders of the corporation, by means of conference telephone or similar communications equipment by means of which all persons participating in the meeting can hear each other. Participation in a meeting pursuant to this section shall constitute presence in person at the meeting.

Article III: Shareholders

Section 3.01. Place of Meeting. All meetings of the shareholders of the corporation shall be held at the registered office of the corporation unless another place is designated by the Board of Directors in the notice of a meeting.

Section 3.02. Annual Meeting. The Board of Directors may fix and designate the date and time of the annual meeting of the shareholders, but if no such date and time is fixed and designated by the board, the meeting for any calendar year shall be held on the third Wednesday of April in such year, if not a legal holiday under the laws of the Commonwealth of Pennsylvania, and, if a legal holiday, then on the next succeeding business day, not a Saturday, at 10:00 a.m. The business at an annual meeting of shareholders shall include (a) a review of the business of the preceding year, (b) the election of directors to succeed those whose terms shall expire, and (c) such other business as may properly be brought before the meeting as provided in this Section. The proposal of business to be considered by the shareholders at an annual meeting of shareholders may be made (i) pursuant to the corporation's notice of meeting, (ii) by the presiding officer, (iii) by or at the direction of the Board of Directors, or (iv) by one or more shareholders in accordance with applicable rules of the Securities and Exchange Commission and the provisions of this Section. For business to be properly brought before an annual meeting by a shareholder pursuant to clause (iii) of the preceding sentence, such business must be a proper matter for shareholder action, the shareholder must have given timely notice thereof in writing to the Secretary of the corporation and such notice must comply with the following requirements:

(1) To be timely, a shareholder's notice given pursuant to this Section must be received at the principal executive offices of the corporation, addressed to the Secretary, not later than (i) 90 days prior to such annual meeting (unless a different date for such notice has been stated in the corporation's most recent proxy materials distributed to shareholders), or (ii) if the annual meeting is to be held on a date other than the third Wednesday of April in such year as set forth above, the close of business on the tenth day following the first public disclosure of the date of such meeting. The first public disclosure of the date of any annual meeting of shareholders shall be when public disclosure of such meeting date is first made in a filing by the corporation with the Securities and Exchange Commission, in any notice given to the New York Stock Exchange, or in a news release reported by any national news service. In no event shall the public announcement of an adjournment of an annual meeting commence a new time period for the giving of a shareholder's notice as described above.

(2) Each such notice from a shareholder shall set forth: (A) as to the shareholder giving the notice and the beneficial owner, if any, on whose behalf the notice is given (x) the name and address of such shareholder and of such beneficial owner, and (y) the class and number of shares of the corporation which are owned of record and beneficially by such shareholder and such beneficial owner, and (B) a representation that the shareholder is a beneficial

owner of stock of the corporation entitled to vote at such meeting and intends to be present at the meeting in person or by proxy to make such nomination or proposal.

(3) Each notice of nomination for the election of a director from a shareholder also shall set forth: (A) the name and address of the person to be nominated, (B) a description of all arrangements or understandings between the shareholder and the nominee and any other person or persons (naming such person or persons) pursuant to which the nomination is to be made by the shareholder, (C) such other information regarding the nominee as would be required to be included in proxy materials filed under applicable rules of the Securities and Exchange Commission had the nominee been nominated by the Board of Directors, and (D) the written consent of the nominee to serve as a director of the corporation if so elected.

(4) Each notice of a proposal for action at an annual meeting from a shareholder also shall set forth a brief description of the proposal, the reasons for making such proposal, and any direct or indirect interest of the shareholder, or any person on whose behalf the shareholder is acting, in making such proposal.

(5) The presiding officer of the meeting may refuse to permit any nomination for the election of a director or proposal to be made at any annual meeting by a shareholder who has not complied with all of the foregoing procedures.

Section 3.03. Special Meetings. Special meetings of the shareholders may be called at any time by resolution of the Board of Directors or the chairman of the Board of Directors, which may fix the date, time and place of the meeting. If the board or chairman does not fix the date, time or place of the meeting, it shall be the duty of the Secretary to do so. A date fixed by the Secretary shall not be more than 60 days after the date of the adoption of the resolution of the board calling the special meeting.

Section 3.04. Quorum and Adjournment, General Rule. A meeting of shareholders of the corporation duly called shall not be organized for the transaction of business unless a quorum is present. The presence in person or by proxy of shareholders entitled to cast at least a majority of the votes which all shareholders are entitled to cast on the particular matter shall constitute a quorum for the purposes of acting on such matter.

Section 3.05. Action by Shareholders. Except as otherwise provided in the Business Corporation Law, the articles, or these bylaws, when a quorum is present at a meeting, the vote of shareholders present, in person or by proxy, entitled to cast at least a majority of the votes which all shareholders present and voting (excluding abstentions) are entitled to cast on a particular matter shall decide such matter.

Section 3.06. Organization. At every meeting of the shareholders, the chairman of the board, if there be one, or, in the case of vacancy in office or absence of the chairman of the board, one of the following persons present in the order stated: the Chief Executive Officer, the President, the vice presidents in their order of rank and seniority, or a person chosen by vote of the shareholders present, shall act as chairman of the meeting. The Secretary or, in the absence of the Secretary, an Assistant Secretary shall act as Secretary of the meeting.

Section 3.07. Voting Rights of Shareholders. Unless otherwise provided in the articles, every shareholder of the corporation shall be entitled to one vote for every share outstanding in the name of the shareholder on the books of the corporation.

Section 3.08. Voting and Other Action by Proxy.

(a) General Rule.

(1) Every shareholder entitled to vote at a meeting of shareholders may authorize another person to act for the shareholder by proxy.

(2) The presence of, or vote or other action at a meeting of shareholders by a proxy of a shareholder shall constitute the presence of, or vote or action by the shareholder.

(b) Execution and Filing. Every proxy shall be executed in writing by the shareholder or by the duly authorized attorney-in-fact of the shareholder and filed with the Secretary of the corporation. A proxy, unless coupled with an interest, shall be revocable at will, notwithstanding any other agreement or any provision in the proxy to the contrary, but the revocation of a proxy shall not be effective until written notice thereof has been given to the Secretary of the corporation. An unrevoked proxy shall not be valid after three years from the date of its execution unless a longer time is expressly provided therein.

Section 3.09. Voting by Fiduciaries and Pledges. Shares of the corporation standing in the name of a trustee or other fiduciary and shares held by an assignee for the benefit of creditors or by a receiver may be voted by the trustee, fiduciary, assignee or receiver. A shareholder whose shares are pledged shall be entitled to vote the shares until the shares have been transferred into the name of the pledgee, or a nominee of the pledgee, but nothing in this section shall affect the validity of a proxy given to a pledgee or nominee.

Section 3.10. Voting by Joint Holders of Shares, General Rule. Where shares of the corporation are held jointly or as tenants in common by two or more persons, as fiduciaries or otherwise:

(a) if only one or more of such persons is present in person or by proxy, all of the shares standing in the names of such persons shall be deemed to be represented for the purpose of determining a quorum and the corporation shall accept as the vote of all the shares the vote cast by a joint owner or a majority of them; and

(b) if the persons are equally divided upon whether the shares held by them shall be voted or upon the manner of voting the shares, the voting of the shares shall be divided equally among the persons without prejudice to the rights of the joint owners or the beneficial owners thereof among themselves.

Section 3.11. Voting by Corporations.

(a) Voting by Corporate Shareholders. Any corporation that is a shareholder of this corporation may vote at meetings of shareholders of this corporation by any of its officers or agents, or by proxy appointed by any officer or agent, unless some other person, by resolution of the Board of Directors of the other corporation or a provision of its articles or bylaws, a copy of which resolution or provision certified to be correct by one of its officers has been filed with

the Secretary of this corporation, is appointed its general or special proxy in which case that person shall be entitled to vote the shares.

(b) **Controlled Shares.** Shares of this corporation owned, directly or indirectly, by it and controlled, directly or indirectly, by the Board of Directors of this corporation, as such, shall not be voted at any meeting and shall not be counted in determining the total number of outstanding shares for voting purposes at any given time.

Article IV: Board of Directors

Section 4.01. Powers; Personal Liability.

(a) **General Rule.** Unless otherwise provided by statute, all powers vested by law in the corporation shall be exercised by or under the authority of, and the business and affairs of the corporation shall be managed under the direction of, the Board of Directors.

(b) Personal Liability of Directors.

(1) A director shall not be personally liable, as such, for monetary damages (including, without limitation, any judgment, amount paid in settlement, penalty, punitive damages or expense of any nature (including, without limitation, attorneys' fees and disbursements)) for any action taken, or any failure to take any action, unless: (i) the director has breached or failed to perform the duties of his or her office under Subchapter 17B of the Business Corporation Law or any successor provision; and (ii) the breach or failure to perform constitutes self-dealing, willful misconduct or recklessness.

(2) The provisions of paragraph (1) shall not apply to the responsibility or liability of a director pursuant to any criminal statute, or the liability of a director for the payment of taxes pursuant to local, State or Federal law.

(c) **Notation of Dissent.** A director of the corporation who is present at a meeting of the Board of Directors, or of a committee of the board, at which action on any corporate matter is taken on which the director is generally competent to act, shall be presumed to have assented to the action taken unless his or her dissent is entered in the minutes of the meeting or unless the director files his or her written dissent to the action with the Secretary of the meeting before the adjournment thereof or transmits the dissent in writing to the Secretary of the corporation immediately after the adjournment of the meeting. The right to dissent shall not apply to a director who voted in favor of the action. Nothing in this section shall bar a director from asserting that minutes of the meeting incorrectly omitted his or her dissent if, promptly upon receipt of a copy of such minutes, the director notifies the Secretary, in writing, of the asserted omission or inaccuracy.

Section 4.02. Selection of Directors. The number, qualifications, manner of election, time and place of meeting, compensation and powers and duties of the directors of the corporation shall be fixed from time to time by or pursuant to these bylaws and the articles. Nominations for the election of directors may be made only by the Board of Directors or a committee appointed by the Board of Directors or by any shareholder entitled to vote for the election of directors; but a nomination may be made by a shareholder only if written notice of such nomination has been given to the Secretary of the corporation in accordance with Section 3.02 hereof.

Section 4.03. Number and Term of Office.

(a) Number.--The Board of Directors shall consist of such number of directors, not less than 5 nor more than 15, as may be determined from time to time by resolution of the Board of Directors.

(b) Term of Office. Each director shall hold office as provided in the articles.

Section 4.04. Place of Meetings. Meetings of the Board of Directors may be held at such place within or without the Commonwealth of Pennsylvania as the Board of Directors may from time to time appoint or as may be designated in the notice of the meeting.

Section 4.05. Organization of Meetings. At every meeting of the Board of Directors, the chairman of the board, if there be one, or, in the case of a vacancy in the office or absence of the chairman of the board, one of the following officers present in the order stated: the Chief Executive Officer, the President, the vice presidents in their order of rank and seniority, or a person chosen by a majority of the directors present, shall act as chairman of the meeting. The Secretary or, in the absence of the Secretary, an Assistant Secretary shall act as Secretary of the meeting.

Section 4.06. Regular Meetings. Regular meetings of the Board of Directors shall be held at such time and place as shall be designated from time to time by resolution of the Board of Directors.

Section 4.07. Special Meetings. Special meetings of the Board of Directors shall be held whenever called by the chairman or by two or more of the directors.

Section 4.08. Quorum of and Action by Directors.

(a) General Rule. A majority of the directors in office of the corporation shall be necessary to constitute a quorum for the transaction of business and the acts of a majority of the directors present and voting at a meeting at which a quorum is present shall be the acts of the Board of Directors.

(b) Action by Written Consent. Any action required or permitted to be taken at a meeting of the directors may be taken without a meeting if, prior or subsequent to the action, a consent or consents thereto by all of the directors in office is filed with the Secretary of the corporation.

Section 4.09. Committees.

(a) Establishment and Powers. The Board of Directors may, by resolution adopted by a majority of the directors in office, establish one or more committees to consist of one or more directors of the corporation. With respect to each committee established by the board, the Board of Directors shall, by one or more resolutions adopted by a majority of the whole board, determine the duties and responsibilities, determine the number of members, appoint the members and the committee chair and fill each vacancy occurring in the membership.

Section 4.10. Compensation. The Board of Directors shall have the authority to fix the compensation of directors for their services as directors and a director may be a salaried officer of the corporation.

Section 4.11. Vacancies. Vacancies in the Board of Directors, including vacancies resulting from an increase in the number of directors, shall be filled by a majority vote of the directors then in office, though less than a quorum, except as otherwise required by the Business Corporation Law.

Article V: Officers

Section 5.01. Officers Generally.

(a) Number, Qualifications and Designation. The officers of the corporation shall be a President and Chief Executive Officer, one or more Vice Presidents, a Secretary, a Treasurer, and such other officers as may be elected in accordance with the provisions of Section 5.03. Officers may but need not be directors or shareholders of the corporation. The Board of Directors may elect from among the members of the board a chairman of the board and a vice chairman of the board.

(b) Bonding. The corporation may secure the fidelity of any or all of its officers by bond or otherwise.

(c) Standard of Care. In lieu of the standards of conduct otherwise provided by law, officers of the corporation shall be subject to the same standards of conduct, including standards of care and loyalty and rights of justifiable reliance, as shall at the time be applicable to directors of the corporation. An officer of the corporation shall not be personally liable, as such, to the corporation or its shareholders for monetary damages (including, without limitation, any judgment, amount paid in settlement, penalty, punitive damages or expense of any nature (including, without limitation, attorneys' fees and disbursements)) for any action taken, or any failure to take any action, unless the officer has breached or failed to perform the duties of his or her office under the articles of incorporation, these bylaws, or the applicable provisions of law and the breach or failure to perform constitutes self-dealing, willful misconduct or recklessness. The provisions of this subsection shall not apply to the responsibility or liability of an officer pursuant to any criminal statute or for the payment of taxes pursuant to local, state or federal law.

Section 5.02. Election, Term of Office and Resignations.

(a) Election and Term of Office. The officers of the corporation, except those elected by delegated authority pursuant to Section 5.03, shall be elected by the Board of Directors, and each such officer shall hold office until a successor has been selected and qualified or until his or her earlier death, resignation or removal.

(b) Resignations. Any officer may resign at any time upon written notice to the corporation. The resignation shall be effective upon receipt thereof by the corporation or at such subsequent time as may be specified in the notice of resignation.

Section 5.03. Subordinate Officers, Committees and Agents. The Board of Directors may from time to time elect such other officers and appoint such committees, employees or other agents as the business of the corporation may require. The Board of Directors may delegate to any officer or committee the power to elect subordinate officers and to retain or appoint employees or other agents, or committees thereof, and to prescribe the authority and duties of such subordinate officers, committees, employees or other agents.

Section 5.04. Removal of Officers and Agents. Any officer or agent of the corporation may be removed by the Board of Directors with or without cause. The removal shall be without prejudice to the contract rights, if any, of any person so removed. Election or appointment of an officer or agent shall not of itself create contract rights.

Section 5.05. Authority. General Rule. All officers of the corporation, as between themselves and the corporation, shall have such authority and perform such duties in the management of the corporation as may be provided by or pursuant to resolutions or orders of the Board of Directors or, in the absence of controlling provisions in the resolutions or orders of the Board of Directors, as may be determined by or pursuant to these bylaws.

Section 5.06. The Chairman of the Board. The chairman of the Board shall preside at all meetings of the Board of Directors at which he is present and shall call meetings of the board and board committees when he deems them necessary. Unless otherwise precluded from doing so by these bylaws, he may be a member of the committees of the board. He shall act as chairman at all meetings of the shareholders at which he is present unless he elects that the Chief Executive Officer shall so preside. The chairman of the Board may be designated by the board as an officer of the corporation and may be elected by the board as the Chief Executive Officer. The chairman of the Board shall perform all duties as may be assigned to him by the Board of Directors.

Section 5.07. The President and Chief Executive Officer. The President shall have such powers and duties as may, from time to time, be prescribed by the Board of Directors. Unless the Board of Directors shall otherwise direct, the President shall be the Chief Executive Officer of the corporation.

The Chief Executive Officer shall have general charge of the affairs of the corporation, subject to the control of the Board of Directors. He may appoint all officers and employees of the corporation for whose election no other provision is made in these bylaws, and may discharge or remove any officer or employee, subject to action thereon by the Board of Directors as required by these bylaws. He shall be the officer through whom the board delegates authority to corporate management, and shall be responsible to see that all orders and resolutions of the board are carried into effect by the proper officers or other persons. He shall also perform all duties as may be assigned to him by the Board of Directors. The Chief Executive Officer shall sign, execute, and acknowledge, in the name of the corporation, deeds, mortgages, bonds, contracts or other instruments, authorized by the Board of Directors, except in cases where the signing and execution thereof shall be expressly delegated by the Board of Directors, or by these bylaws, to some other officer or agent of the corporation.

Section 5.08. The Vice Presidents. The Vice Presidents shall perform such duties as may from time to time be assigned to them by the Board of Directors or the President.

Section 5.09. The Secretary. The Secretary or an Assistant Secretary shall attend all meetings of the shareholders and of the Board of Directors and all committees thereof and shall record all the votes of the shareholders and of the directors and the minutes of the meetings of the shareholders and of the Board of Directors and of committees of the board in a book or books to be kept for that purpose; shall see that notices are given and records and reports properly kept and filed by the corporation as required by law; shall be the custodian of the seal of the corporation and see that it is affixed to all documents to be executed on behalf of the corporation under its seal; and, in general, shall perform all duties incident to the office of

Secretary, and such other duties as may from time to time be assigned by the board or the President.

Section 5.10. The Treasurer. The Treasurer or an Assistant Treasurer shall have or provide for the custody of the funds or other property of the corporation; shall collect and receive or provide for the collection and receipt of moneys earned by or in any manner due to or received by the corporation; shall deposit all funds in his or her custody as Treasurer in such banks or other places of deposit as the board may from time to time designate; shall, whenever so required by the board, render an account showing all transactions as Treasurer, and the financial condition of the corporation; and, in general, shall discharge such other duties as may from time to time be assigned by the board or the President.

Article VI: Certificates of Stock, Transfer, Etc.

Section 6.01. Share Certificates. Every holder of fully-paid stock in the corporation shall be entitled to a certificate or certificates, consecutively numbered, to be in such form as the Board of Directors may from time to time prescribe, and signed (in facsimile or otherwise, as permitted by law) by the President or one of the Vice Presidents or other officer designated by the board, countersigned by the Secretary or Treasurer and sealed with the corporate seal of the corporation; and if such certificates of stock are signed or countersigned by a corporate transfer agent or a corporate registrar of this corporation, such signature of the President, Vice President or other officer, such counter-signature of the Secretary or Treasurer, and such seal, or any of them, may be executed in facsimile, engraved or printed.

Section 6.02. Share Register. The share register or transfer books and blank share certificates shall be kept by the Secretary or by any transfer agent or registrar designated by the Board of Directors for that purpose.

Article VII: Indemnification of Directors, Officers and Other Authorized Representatives

Section 7.01. Scope of Indemnification.

(a) General Rule. The corporation shall indemnify an indemnified representative against any liability incurred in connection with any proceeding in which the indemnified representative may be involved as a party or otherwise by reason of the fact that such person is or was serving in an indemnified capacity, including, without limitation, liabilities resulting from any actual or alleged breach or neglect of duty, error, misstatement or misleading statement, negligence, gross negligence or act giving rise to strict or products liability, except:

(1) where such indemnification is expressly prohibited by applicable law;

(2) until such time as the conduct of the indemnified representative has been finally determined pursuant to Section 7.06 or otherwise: (i) to constitute willful misconduct or recklessness within the meaning of 15 Pa. C.S.A. § 1746(b) or any superseding provision of law sufficient in the circumstances to bar indemnification against liabilities arising from the conduct; or (ii) to be based upon or attributable to the receipt by the indemnified representative from the corporation of a personal benefit to which the indemnified representative is not legally entitled; or (3) to the extent such indemnification has been finally determined in a final adjudication pursuant to Section 7.06 to be otherwise unlawful.

(b) Partial Payment. If an indemnified representative is entitled to indemnification in respect of a portion, but not all, of any liabilities to which such person may be subject, the corporation shall indemnify such indemnified representative to the maximum extent for such portion of the liabilities.

(c) Presumption. The termination of a proceeding by judgment, order, settlement or conviction or upon a plea of nolo contendere or its equivalent shall not of itself create a presumption that the indemnified representative is not entitled to indemnification.

(d) Definitions. For purposes of this article:

(1) "indemnified capacity" means any and all past, present and future service by an indemnified representative in one or more capacities as a director, officer, employee or agent of the corporation, or, at the request of the corporation, as a director, officer, employee, agent, fiduciary or trustee of another corporation, partnership, joint venture, trust, employee benefit plan or other entity or enterprise;

(2) "indemnified representative" means any and all directors and officers of the corporation and any other person designated as an indemnified representative by the Board of Directors of the corporation (which may, but need not, include any person serving at the request of the corporation, as a director, officer, employee, agent, fiduciary or trustee of another corporation, partnership, joint venture, trust, employee benefit plan or other entity or enterprise);

(3) "liability" means any damage, judgment, amount paid in settlement, fine, penalty, punitive damages, excise tax assessed with respect to an employee benefit plan, or cost or expense of any nature (including, without limitation, attorneys' fees and disbursements); and

(4) "proceeding" means any threatened, pending or completed action, suit, appeal or other proceeding of any nature, whether civil, criminal, administrative or investigative, whether formal or informal, and whether brought by or in the right of the corporation, a class of its security holders or otherwise.

Section 7.02. Proceedings Initiated by Indemnified Representatives. Notwithstanding any other provision of this article, the corporation shall not indemnify under this article an indemnified representative for any liability incurred in a proceeding initiated (which shall not be deemed to include counter claims or affirmative defenses) or participated in as an intervenor or amicus curiae by the person seeking indemnification unless such initiation of or participation in the proceeding is authorized, either before or after its commencement, by the affirmative vote of a majority of the directors in office. This section does not apply to reimbursement of expenses incurred in successfully prosecuting or defending an arbitration under Section 7.06 or otherwise successfully prosecuting or defending the rights of an indemnified representative granted by or pursuant to this article.

Section 7.03. Advancing Expenses. The corporation shall pay the expenses (including attorneys' fees and disbursements) incurred in good faith by an indemnified representative in advance of the final disposition of a proceeding described in Section 7.01 or the initiation of or participation in a proceeding which is authorized pursuant to Section 7.02 upon receipt of an undertaking by or on behalf of the indemnified representative to repay the amount if it is ultimately determined pursuant to Section 7.06 that such person is not entitled to be indemnified

by the corporation pursuant to this article. The financial ability of an indemnified representative to repay an advance shall not be a prerequisite to the making of such advance.

Section 7.04. Securing of Indemnification Obligations. To further effect, satisfy or secure the indemnification obligations provided herein or otherwise, the corporation may maintain insurance, obtain a letter of credit, act as self-insurer, create a reserve, trust, escrow, cash collateral or other fund or account, enter into indemnification agreements, pledge or grant a security interest in any assets or properties of the corporation, or use any other mechanism or arrangement whatsoever in such amounts, at such costs, and upon such other terms and conditions as the Board of Directors shall deem appropriate. Absent fraud, the determination of the Board of Directors with respect to such amounts, costs, terms and conditions shall be conclusive against all security holders, officers and directors and shall not be subject to voidability.

Section 7.05. Payment of Indemnification. An indemnified representative shall be entitled to indemnification within 30 days after a written request for indemnification has been delivered to the Secretary of the corporation.

Section 7.06. Arbitration.

(a) General Rule. Any dispute related to the right to indemnification, contribution or advancement of expenses as provided under this article, except with respect to indemnification for liabilities arising under the Securities Act of 1933 that the corporation has undertaken to submit to a court for adjudication, shall be decided by arbitration in Pittsburgh, Pennsylvania, in accordance with the commercial arbitration rules then in effect of the American Arbitration Association, before a single arbitrator selected by agreement of the parties. In the event that the parties cannot agree upon the selection of an arbitrator within ten (10) days after arbitration is initiated, the parties agree that the American Arbitration Association in Pittsburgh, Pennsylvania will select the arbitrator.

(b) Arbitration Procedures. The arbitrator shall decide the dispute or controversy in accordance with the following procedures:

(1) Within ten (10) days of the selection of an arbitrator, each party shall submit to the arbitrator its written position (the "Initial Submission") provided that neither memorandum of position shall exceed 10 pages, double spaced plus such documentary evidence as the parties deem necessary. In connection with the Initial Submission, neither of the parties may submit (and the arbitrator may not accept) any additional documentation (including affidavits).

(2) Within ten (10) days of the delivery of the Initial Submission, each party may submit to the arbitrator a reply memorandum (the "Reply Submission"), provided that neither reply memorandum shall exceed 5 pages, double spaced. In connection with the Reply Submission, neither of the parties may submit (and the arbitrator may not accept) any additional documentation (including affidavits).

(3) Within ten (10) days of the expiration of the period for the delivery of the Reply Submission, the arbitrator, if he or she deems it necessary or advisable, may call a hearing which may be by telephone conference (the "Hearing"). At any Hearing, the arbitrator may ask representatives and counsel for the parties questions with respect to the issue to be decided and positions of the parties. In connection with the Hearing,

neither of the parties may offer (and the arbitrator may not accept) any testimony or additional documentation (including affidavits).

(4) Within seven (7) days after the later to occur, if such is to occur, of (i) the Hearing or (ii) the Reply Submission, the arbitrator shall render his or her decision.

(5) The arbitrator shall notify promptly the parties in writing of the decision, together with the amount of any dispute resolution costs arising with respect thereto (the "Notice of Decision"). The Notice of Decision need not contain an explanation of the decision or grounds therefor.

(6) The decision entered by the arbitrator shall be final, binding and nonappealable and judgment may be entered thereon by any party in accordance with applicable law in any court of competent jurisdiction, except that the corporation shall be entitled to interpose as a defense in any such judicial enforcement proceeding any prior final judicial determination adverse to the indemnified representative under Section 7.01(a)(2) in a proceeding not directly involving indemnification under this article. This arbitration provision shall be specifically enforceable.

(c) Qualifications of Arbitrator. The arbitrator selected as provided herein is required to be or have been a director or executive officer of a corporation whose shares of common stock were listed during at least one year of such service on the New York Stock Exchange or the American Stock Exchange or quoted on the National Association of Securities Dealers Automated Quotations System.

(d) Burden of Proof. The party or parties challenging the right of an indemnified representative to the benefits of this article shall have the burden of proof.

(e) Expenses. The corporation shall reimburse an indemnified representative for the expenses (including attorneys' fees and disbursements) incurred in successfully prosecuting or defending such arbitration.

Section 7.07. Contribution. If the indemnification provided for in this article or otherwise is unavailable for any reason in respect of any liability or portion thereof, the corporation shall contribute to the liabilities to which the indemnified representative may be subject in such proportion as is appropriate to reflect the intent of this article or otherwise.

Section 7.08. Contract Rights; Amendment or Repeal. All rights under this article shall be deemed a contract between the corporation and the indemnified representative pursuant to which the corporation and each indemnified representative intend to be legally bound. Any repeal, amendment or modification hereof shall be prospective only and shall not affect any rights or obligations then existing.

Section 7.09. Scope of Article. The rights granted by this article shall not be deemed exclusive of any other rights to which those seeking indemnification, contribution or advancement of expenses may be entitled under any statute, agreement, vote of shareholders or disinterested directors or otherwise, both as to action in an indemnified capacity and as to action in any other capacity. The indemnification, contribution and advancement of expenses provided by or granted pursuant to this article shall continue as to a person who has ceased to be an indemnified representative in respect of matters arising prior to such time, and shall inure to the benefit of the heirs, executors, administrators and personal representatives of such a person.

Section 7.10. Reliance on Provisions. Each person who shall act as an indemnified representative of the corporation shall be deemed to be doing so in reliance upon the rights of indemnification, contribution and advancement of expenses provided by this article.

Section 7.11. Interpretation. The provisions of this article are intended to constitute bylaws authorized by 15 Pa. C.S.A. § 1746.

Article VIII: Miscellaneous

Section 8.01. Corporate Seal. The corporation shall have a corporate seal in the form of a circle containing the name of the corporation, the year of incorporation and such other details as may be approved by the Board of Directors. The affixation of the corporate seal shall not be necessary to the valid execution, assignment or endorsement by the corporation of any instrument or other document.

Section 8.02. Checks. All checks, notes, bills of exchange or other similar orders in writing shall be signed by such one or more officers or employees of the corporation as the Board of Directors may from time to time designate.

Section 8.03. Contracts.

(a) General Rule. Except as otherwise provided in the Business Corporation Law in the case of transactions that require action by the shareholders, the Board of Directors may authorize any officer or agent to enter into any contract or to execute or deliver any instrument on behalf of the corporation, and such authority may be general or confined to specific instances.

(b) Statutory Form of Execution of Instruments. Any note, mortgage, evidence of indebtedness, contract or other document, or any assignment or endorsement thereof, executed or entered into between the corporation and any other person, when signed by one or more officers or agents having actual or apparent authority to sign it, or by the President or Vice President and Secretary or Assistant Secretary or Treasurer or Assistant Treasurer of the corporation, shall be held to have been properly executed for and in behalf of the corporation, without prejudice to the rights of the corporation against any person who shall have executed the instrument in excess of his or her actual authority.

Section 8.04. Corporate Records.

(a) Required Records. The corporation shall keep complete and accurate books and records of account, minutes of the proceedings of the incorporators, shareholders and directors and a share register giving the names and addresses of all shareholders and the number and class of shares held by each. The share register shall be kept at either the registered office of the corporation in the Commonwealth of Pennsylvania or at its principal place of business wherever situated or at the office of its registrar or transfer agent. Any books, minutes or other records may be in written form or any other form capable of being converted into written form within a reasonable time.

(b) Right of Inspection. Every shareholder shall, upon written verified demand stating the purpose thereof, have a right to examine, in person or by agent or attorney, during the usual hours for business for any proper purpose, the share register, books and records of account, and records of the proceedings of the incorporators, shareholders and directors and to make

copies or extracts therefrom. A proper purpose shall mean a purpose reasonably related to the interest of the person as a shareholder. In every instance where an attorney or other agent is the person who seeks the right of inspection, the demand shall be accompanied by a verified power of attorney or other writing that authorizes the attorney or other agent to so act on behalf of the shareholder. The demand shall be directed to the corporation at its registered office in the Commonwealth of Pennsylvania or at its principal place of business wherever situated.