

BYLAWS
OF
PPG INDUSTRIES, INC.

**(Incorporated under the Laws of the
Commonwealth of Pennsylvania)**

Amended and Restated, effective April 19, 2007

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BYLAWS
OF
PPG INDUSTRIES, INC.

(Incorporated under the Laws of the Commonwealth of Pennsylvania)

ARTICLE I

MEETINGS OF SHAREHOLDERS

Section 1.1. Annual Meetings. An annual meeting of the shareholders shall be held each year on such day as the Board of Directors of the Corporation (the “Board of Directors”) may designate, or, if not so designated, on the third Thursday in April if not a legal holiday, and if a legal holiday, then on the next business day following. Annual meetings shall be held at such geographic location, within or without the Commonwealth of Pennsylvania, as designated by the Board of Directors.

Section 1.2. Business at Annual Meetings. The business at each annual meeting of the shareholders shall include: (a) a review of the business of the preceding year; (b) the election of directors; and (c) such other business as may properly be brought before the meeting. No business may be transacted at any annual meeting other than (i) matters referred to in the notice of the meeting or any supplement thereto, (ii) matters otherwise properly brought before the meeting by or at the direction of the Board of Directors, (iii) matters properly brought before the meeting by one or more shareholders, but only in accordance and upon compliance with the provisions of the proxy rules of the Securities and Exchange commission and the notice provisions of Sections 1.3 and 1.4 of these bylaws and (iv) matters which are incidental or germane to any of the foregoing.

Section 1.3. Nominations of Director Candidates. Nominations for the election of directors at a meeting of shareholders may be made only (a) by the Board of Directors or a committee appointed by the Board of Directors or (b) by a holder of record of stock entitled to vote in the election of the directors to be elected; but a nomination (other than a nomination to fill a vacancy resulting from removal from office by a vote of the shareholders under Article Sixth of the Restated Articles of Incorporation) may be made by a shareholder only if written notice of such nomination is given, either by personal delivery or by United States mail, postage prepaid, to the Secretary and has been received

by the Secretary at the principal executive offices of the Corporation not later than (i) with respect to an election to be held at an annual meeting of shareholders held on the third Thursday in April, 90 days prior to such annual meeting and (ii) with respect to an election to be held at an annual meeting of shareholders held on a date other than the third Thursday in April or an election to be held at a special meeting of the shareholders, the close of business on the tenth day following the date of the first public disclosure of the date of such meeting. For purposes of this Section 1.3, the first public disclosure of the date of any special meeting of shareholders or any annual meeting of shareholders held on a date other than the third Thursday in April shall be when disclosure of such meeting date is first made in a filing made 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 the Dow Jones News Service, Reuters, Bloomberg, Associated Press or comparable national news service. Each notice of nomination from a shareholder shall set forth: (a) the name and address of the shareholder who intends to make the nomination and of the person or persons to be nominated; (b) a representation that the shareholder is a holder of record 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 nominate the person or persons specified in the notice; (c) a description of all arrangements or understandings between the shareholder and each nominee and any other person or persons (naming such person or persons) pursuant to which the nomination or nominations are to be made by the shareholder; (d) such other information regarding each nominee proposed by such shareholder as would be required to be included in a proxy statement filed pursuant to the proxy rules of the Securities and Exchange Commission, had the nominee been nominated by the Board of Directors; and (e) the written consent of each nominee, signed by such nominee, to serve as a director of the Corporation if so elected. The presiding officer of the meeting may refuse to acknowledge the nomination of any person by a shareholder not made in compliance with the foregoing procedure.

Section 1.4. Other Matters Brought by Shareholders. For business other than nominations of director candidates properly brought before an annual meeting by a shareholder pursuant to clause (c) of Section 1.2 of these bylaws, the shareholder must give timely notice thereof in writing to the Secretary and such business must otherwise be a proper matter for shareholder action. To be timely, a shareholder's notice shall be given, either by personal delivery or by United States mail, postage prepaid, to the Secretary and received by the Secretary at the principal executive offices of the Corporation not later than 90 days prior to such annual meeting, provided that, if such annual meeting is held on a date other than the third Thursday in April, such written notice must be given within ten days after the first public disclosure of the date of such meeting. For purposes of this Section 1.4, the first public disclosure of the date of any

annual meeting of shareholders held on a date other than the third Thursday in April shall be when 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 the Dow Jones News Service, Reuters, Bloomberg, Associated Press or comparable national news service. Such shareholder's notice shall set forth (a) as to each matter a brief description of the business desired to be brought before the meeting, the reasons for conducting such business at the meeting and any material interest in such business of such shareholder; (b) the beneficial owner, if any, on whose behalf the notice is given and a specific representation that the shareholder intends to be present at the meeting in person or by proxy to present and speak as to such business; and (c) as to the shareholder giving the notice and the beneficial owner, if any, on whose behalf the notice is given (i) the name and address of such shareholder, as they appear on the Corporation's books, and of such beneficial owner and (ii) the class and number of shares of the Corporation which are owned beneficially and of record by such shareholder and such beneficial owner. The presiding officer of the meeting may refuse to permit any business to be brought before an annual meeting by a shareholder without compliance with the procedure set forth in this Section 1.4.

Section 1.5. Special Meetings. Special meetings of the shareholders may be called at any time, for the purpose or purposes set forth in the call, by the Board of Directors or by the Chairman of the Board of Directors. Special meetings shall be held at the registered office of the Corporation, or at such other places, within or without the Commonwealth of Pennsylvania, as may be designated by the Board of Directors or the Chairman of the Board of Directors.

Section 1.6. Business at Special Meetings. No business may be transacted at any special meeting of the shareholders other than matters referred to in the notice of the meeting or any supplement thereto and matters which are incidental or germane thereto.

Section 1.7. Notice. Notice specifying the geographic location, date and time and the general nature of business to be transacted at each meeting of the shareholders shall be given by the Secretary to each shareholder of record entitled to vote at such meeting.

Section 1.8. Quorum. A shareholders' meeting shall not be organized for the transaction of business unless a quorum is present. At any meeting, the presence in person or by proxy of shareholders entitled to cast the minimum number of votes required by law to constitute a quorum on a particular matter in the absence of a bylaw to the contrary, or if no such number is required by law, at least a majority of the votes which all shareholders are entitled to cast on such matter, shall be necessary and sufficient to

organize a meeting for the purpose of considering such matter. If a proxy casts a vote on behalf of a shareholder on any issue other than a procedural motion considered at a meeting of shareholders, the shareholder shall be deemed to be present during the entire meeting for purposes of determining whether a quorum is present for consideration of any other issue. Notwithstanding the withdrawal of enough shareholders to leave less than the number of votes required by the preceding sentence, the shareholders who continue to be present at a duly organized meeting shall constitute a quorum in order to continue to do business until adjournment. If a meeting cannot be organized because a quorum has not attended, those present in person or by proxy may by majority vote adjourn the meeting to such time and place as they may determine, and it shall not be necessary to give notice of such adjourned meeting or the business to be transacted at such meeting to any shareholder other than by announcement at the meeting at which such adjournment is taken, unless the Board of Directors fixes a new record date for the adjourned meeting.

Section 1.9. Voting. In order to vote at any meeting, a shareholder must be personally present or vote by proxy. When authorized by the presiding officer, the voting at a meeting of the shareholders may be by voice; but at any meeting of shareholders any qualified voter may demand a stock vote on a matter properly before the meeting, whereupon (i) with respect to any matter specifically set forth in the notice of meeting, such stock vote shall be taken by ballot, and (ii) in the case of any other vote, such stock vote may be taken by ballot, by show of hands, or any other manner selected by the presiding officer. If the vote is taken by ballot, each ballot shall state the name of the shareholder voting and the number of shares voted by him, and if such ballot be cast by proxy, it shall state the name of the proxy voting and the number of shares voted by him as proxy. Each shareholder shall be entitled to one vote for each share having voting power registered in his name on the books of the Corporation as of the record date for the determination of the shareholders entitled to vote at the meeting, and it may be voted by the shareholder or his duly authorized proxy. When a stock vote is demanded, all questions shall be decided by a 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 the particular matter, unless otherwise especially provided in these bylaws, in the Restated Articles of Incorporation, as amended from time to time (the "Restated Articles of Incorporation"), or by law, and except that in the case of privileged, subsidiary or incidental motions or questions involving the convenience of the shareholders present, the presiding officer may call for a per capita vote, either by voice or by show of hands. Where a proxy or proxies represent the holders of shares entitled to cast in aggregate a sufficient number of votes to adopt a

particular resolution, the vote of such proxy or proxies may, in the discretion of the presiding officer, constitute action by the shareholders.

A complete list of the shareholders entitled to vote at any meeting of shareholders, arranged in alphabetical order with the address of and the number of shares held by each, shall be prepared by the Secretary and shall be produced and kept open at the time and place of the meeting and shall be subject to the inspection of any shareholder during the whole time of the meeting. In lieu of the making of a list, the Corporation may make the information therein available at the meeting by any other means.

Section 1.10. Proxies. Every shareholder entitled to vote at a meeting of the shareholders or to express consent or dissent to corporate action in writing without a meeting may authorize another person or persons, but not more than three, to act for him by proxy. Every proxy shall be executed or authenticated by the shareholder or by his duly authorized attorney-in-fact, in a manner authorized by applicable law and filed with or transmitted to the Secretary or the designated agent of the Corporation.

Section 1.11. Meeting Procedure. At all meetings of shareholders, the Chairman of the Board of Directors shall preside, but in his absence, the presiding officer shall be designated by the Board of Directors, or if not so designated, selected by the shareholders present. The Secretary shall take the minutes of the meeting, but in the absence of the Secretary or an Assistant Secretary, the presiding officer shall designate any person to take the minutes of the meeting. The presiding officer of any meeting shall determine the order of business and the procedure at the meeting, including such regulation of the conduct of discussion as seems to him in order. The conduct of meetings shall be governed by accepted corporate practice (not Roberts' Rules), the fundamental rule being that all who are entitled to take part shall be treated with fairness and good faith.

Section 1.12. Election and Resignation of Directors.

- (a) Subject to any rights of the holders of any class or series of stock to elect directors separately, each director shall be elected by a vote of the majority of the votes cast with respect to that director at any meeting for the election of directors at which a quorum is present, in accordance with Section 1.8 of these Bylaws; provided, that, if, at the close of the notice period set forth in Section 1.3 of these Bylaws, the number of nominees exceeds the number of directors to be elected, the directors shall be elected by the vote of a plurality of the votes cast and entitled to vote on the election of directors in person or by proxy at any such meeting. For purposes of this Section 1.12, a vote of the

majority of the votes cast means that the number of shares voted “for” a director must exceed 50% of the votes cast with respect to that director.

- (b) If an incumbent director is running uncontested and is not elected as provided in subsection (a), such director shall promptly offer to tender his or her irrevocable resignation to the Board. The Nominating and Governance Committee, or such other committee designated by the Board, will recommend to the Board whether to accept or reject the resignation, or whether other action should be taken. The Board will act on the Committee’s recommendation and publicly disclose its decision and the rationale behind it within ninety (90) days following the date of the certification of the election results. The director who tenders his or her resignation will not participate in the Board’s decision with respect to such resignation.
- (c) Any director may resign at any time by delivering written notice to the Chairman of the Board of Directors, if any, or to the chief executive officer, the president or the secretary of the corporation. Such resignation shall take effect at the time specified in the notice or, if no time is specified, immediately. Unless such notice is provided pursuant to subsection (b) of this Section 1.12, or acceptance is otherwise specified in such notice, the acceptance of such resignation shall not be necessary to make it effective.

ARTICLE II

BOARD OF DIRECTORS

Section 2.1. Number, Classification and Removal; Vacancies.

Article Sixth of the Restated Articles of Incorporation reads as follows:

“SIXTH. 6.1 The business and affairs of the corporation shall be managed by a Board of Directors comprised as follows:

- (a) The Board of Directors shall consist of not less than 9 nor more than 17 persons, the exact number to be fixed from time to time by the Board of Directors pursuant to a resolution adopted by a majority vote of the directors then in office;

- (b) Directors shall, from and after the annual meeting of shareholders held in 1987, continue to be classified with respect to the time for which they shall severally hold office by dividing them into 3 classes, as nearly equal in number as possible. At such meeting and at each succeeding annual meeting of shareholders, the class of directors then being elected shall be elected to hold office for a term of 3 years. Each director shall hold office for the term for which elected and until his or her successor shall have been elected and qualified;
- (c) Subject to the rights of the holders of any series of preferred stock then outstanding, any director, any class of directors, or the entire Board of Directors, may be removed from office by shareholder vote at any time, with or without assigning any cause, but only if shareholders entitled to cast at least 80% of the votes which all shareholders would be entitled to cast at an annual election of directors or of such class of directors shall vote in favor of such removal; provided, however, that no individual director shall be removed (unless the entire Board of Directors or any class of directors be removed) in case the votes cast against such removal would be sufficient, if voted cumulatively for such director, to elect him or her to the class of directors of which he or she is a member; and
- (d) Subject to the rights of the holders of any series of preferred stock then outstanding, vacancies in the Board of Directors, including vacancies resulting from an increase in the number of directors, shall be filled only by a majority vote of the remaining directors then in office, though less than a quorum, except that vacancies resulting from removal from office by a vote of the shareholders may be filled by the shareholders at the same meeting at which such removal occurs. All directors elected to fill vacancies shall hold office for a term expiring at the annual meeting of shareholders at which the term of the class to which they have been elected expires. No decrease in the number of directors constituting the Board of Directors shall shorten the term of any incumbent director.

6.2 Notwithstanding any other provisions of law, the Restated Articles or the bylaws of the corporation, the affirmative vote of the holders of at least 80% of the voting power of the then outstanding shares of capital stock of the corporation entitled to vote in an annual election of directors, voting together as a single class, shall be required to amend or repeal, or to adopt any provision inconsistent with, this Article Sixth.”

Section 2.2. Qualifications and Powers. No person shall be elected a director unless such person owns at least 100 shares of Common Stock of the Corporation. In addition to the powers and authority expressly conferred upon it by these bylaws and the Restated Articles of Incorporation, the Board of Directors may exercise all such powers of the Corporation and do all such lawful acts and things in the management of the Corporation as are not, by these bylaws, by the Restated Articles of Incorporation, or by law directed or required to be exercised or done by the shareholders.

Section 2.3. Organizational Meeting. The first regular meeting of each newly-elected Board of Directors shall be held immediately following the annual meeting of the shareholders, and no notice of such meeting shall be necessary in order legally to constitute the meeting, provided that a quorum of the Board of Directors shall be present. At such meeting the Board of Directors shall organize itself, and may elect officers, appoint members of standing committees and transact any other business.

Section 2.4. Regular Meetings; Notice. Regular meetings of the Board of Directors shall be held at such time and place as shall be designated by the Board of Directors from time to time. Notice of such regular meetings of the Board of Directors shall not be required to be given, except as otherwise expressly required in these bylaws or by law. However, whenever the time or place of regular meetings shall be initially fixed or changed, notice of such action shall be given to each director not participating in such action. Any business may be transacted at any regular meeting.

Section 2.5. Special Meetings; Notice. Special meetings of the Board of Directors may be called at any time by the Chairman of the Board of Directors or, in his absence or during his inability to act, by the Chief Executive Officer or, in the absence or during the inability of either to act, by the Vice Chairman of the Board of Directors or, in the absence or during the inability of any of them to act, by the President, or by any four directors of the Corporation, by giving notice to the Secretary. Notice of every special meeting of the Board of Directors stating the place, day and hour thereof shall be given by the Secretary to each director by being mailed by first class at least five days, or express mail or sent by courier service at least three days, or sent by telex, telegram, facsimile transmission, e-mail or other electronic communication, or given personally or by telephone at least 24 hours, before the time at which the meeting is to be held. Any business may be transacted at any special meeting.

Section 2.6. Quorum; Action. A meeting of the Board of Directors shall not be organized for the transaction of business unless a quorum is present. At any meeting, a majority of the directors then in office shall be necessary and sufficient to organize the

meeting. A meeting at which a quorum is not present may be adjourned from time to time by a majority vote of those present to such time and place as they may determine, and it shall not be necessary to give notice of such adjourned meeting or the business to be transacted thereat other than by announcement at the meeting at which such adjournment is taken. Notwithstanding the withdrawal of enough directors to leave less than a majority, the directors who continue to be present at a duly organized meeting shall constitute a quorum in order to continue to do business. Unless otherwise provided in these bylaws, in the Restated Articles of Incorporation or by law, the acts of a majority of the directors present and voting (excluding abstentions) at a duly organized meeting shall be the acts of the Board of Directors. The yeas and nays shall be taken and recorded in the minutes at the request of any director present at a meeting.

Section 2.7. Fees and Expenses. The Board of Directors shall fix the compensation of each director (except for those directors who are officers of the Corporation, whose compensation is to be fixed by the Officers-Directors Compensation Committee) including, without limitation: (a) a fixed annual fee; and (b) a fixed sum for attendance at any meeting of the Board of Directors or any committee. Directors shall be reimbursed for the expenses of attendance at any meeting of the Board of Directors or any committee.

Section 2.8. Charitable Contributions. The Board of Directors may authorize contributions out of the income of the Corporation for the public welfare or for religious, charitable, scientific, or educational purposes.

Section 2.9. Catastrophe. Notwithstanding any other provisions of law, the Restated Articles of Incorporation or these bylaws, during any emergency period caused by a national catastrophe or local disaster, a majority of the surviving members (or the sole survivor) of the Board of Directors who have not been rendered incapable of acting because of incapacity or the difficulty of communication or transportation to the place of meeting, shall constitute a quorum for the sole purpose of electing directors to fill such emergency vacancies or to reduce the size of the full Board of Directors or both; and a majority of the directors (or the sole survivor) present at such a meeting may take such action. Directors so elected shall serve until such absent directors are able to attend meetings or until the shareholders act to elect directors for such purpose. During such an emergency period, if the Board of Directors and the Executive Committee are unable to or fail to meet, any action appropriate to the circumstances may be taken by such officers of the Corporation as may be present and able. Questions as to the existence of a national catastrophe or local disaster and the number of surviving members capable of acting shall be conclusively determined at the time by the directors or the officers so acting.

Section 2.10. Limitation of Liability. To the fullest extent that the laws of the Commonwealth of Pennsylvania, as in effect on January 27, 1987, or as thereafter amended, permit the elimination or limitation of the liability of directors, no director of the Corporation shall be personally liable for monetary damages as such for any action taken, or any failure to take any action, as a director. This Section 2.10 shall not apply to any actions filed prior to January 27, 1987, nor to any breach of performance of duty or any failure of performance of duty by any director occurring prior to January 27, 1987. The provisions of this Section 2.10 shall be deemed to be a contract with each director of the Corporation who serves as such at any time while such provisions are in effect, and each such director shall be deemed to be serving as such in reliance on such provisions. Any amendment to or repeal of this Section 2.10, or adoption of any other Article or bylaw of the Corporation, which has the effect of increasing director liability shall require the affirmative vote of at least 80% of the voting power of the then outstanding shares of capital stock of the Corporation entitled to vote in an annual election of directors, voting together as a single class. Any such amendment or repeal, other Article or bylaw, shall operate prospectively only and shall not have effect with respect to any action taken, or any failure to act, by a director prior thereto.

ARTICLE III

COMMITTEES

Section 3.1. Standing Committees. The Board of Directors, upon the recommendation of the Nominating and Governance Committee, shall appoint the members of the following standing committees:

(a) Audit Committee, comprised of independent, non-employee members of the Board of Directors, which shall be responsible for appointing, retaining or terminating, compensating, and overseeing the work of the independent public accountants for the Corporation; review with the independent public accountants and the internal auditors the scope and plan of their respective future audit programs and their respective reports and recommendations concerning audit findings; meet with the officers of the Corporation and separately with the independent public accountants and with the internal auditors to review audits, annual financial statements prior to their release, accounting and financial controls and compliance with appropriate codes of conduct; report on its meetings to the

Board of Directors together with its comments and recommendations; and have such other powers and perform such other duties as the Board of Directors may specify.

(b) Nominating and Governance Committee, comprised of non-employee members of the Board of Directors, which shall recommend to the Board of Directors (i) the persons to be nominated by the Board of Directors to stand for election as directors at the annual meeting of the shareholders, (ii) the person or persons to be elected by the Board of Directors to fill any vacancy or vacancies in the Board of Directors, (iii) the persons to be elected by the Board of Directors to the offices of the Chairman of the Board of Directors, Chief Executive Officer, Vice Chairman of the Board of Directors, President and any office which would cause such person to be an executive officer (as defined under the Securities Exchange Act of 1934) of the Corporation, (iv) the persons to be appointed by the Board of Directors as members of the Executive Committee, (v) actions to be taken regarding the structure, organization and functioning of the Board of Directors and (vi) the directors to be appointed to serve as members, and as chairmen, of the standing and other committees established by the Board of Directors; and have such other powers and perform such other duties as the Board of Directors may specify.

(c) Officers-Directors Compensation Committee, comprised of non-employee members of the Board of Directors, which shall approve, adopt, administer, interpret, amend, suspend or terminate the compensation plans of the Corporation applicable to, and fix the compensation and benefits of, (i) all officers of the Corporation serving as directors of the Corporation and (ii) all executive officers (as defined under the Securities Exchange Act of 1934) of the Corporation; and have such other powers and perform such other duties as the Board of Directors may specify.

(d) Technology and Environment Committee, comprised of non-employee members of the Board of Directors, which shall (i) assess the science and technology capabilities of the Corporation; (ii) consult with management concerning technologies that can have a material impact on the Corporation; (iii) review the status of the Corporation's environment, health, safety and product stewardship policies, programs and practices; (iv) consult with management concerning current and emerging environment, health, safety and product stewardship issues that can have a material impact on the Corporation; and have such other powers and perform such other duties as the Board of Directors may specify.

Section 3.2. Other Committees. The Board of Directors shall establish the Executive Committee and may establish such other committees as it may deem appropriate, all of which committees shall have such powers and perform such duties as

the Board of Directors may specify and have such membership, which may or may not include directors, as the Board of Directors may appoint.

Section 3.3. Organization of and Action by Committees. All committee members appointed by the Board of Directors shall serve at the pleasure of the Board of Directors. All committees shall determine their own organization, procedures and times and places of meeting, unless otherwise directed by the Board of Directors. Any action taken by any committee shall be subject to alteration or revocation by the Board of Directors; provided, however, that third parties shall not be prejudiced by such alteration or revocation.

ARTICLE IV

OFFICERS

Section 4.1. Election. The Board of Directors shall elect a Chairman of the Board of Directors, a Secretary and a Treasurer. In addition, the Board of Directors may elect a Chief Executive Officer, Vice Chairman of the Board of Directors, President and Controller, or any one or more of them, and may elect one or more Vice Presidents or other officers. Each officer elected by the Board of Directors shall serve until the next organizational meeting of the Board of Directors and until his successor, if any, shall have been elected, unless his resignation or removal shall expressly be effective earlier. Each officer appointed by the Executive Committee shall serve until his successor, if any, shall have been appointed, unless his resignation or removal shall expressly be effective earlier. Any officer of the Corporation may be removed by the Board of Directors with or without cause.

Section 4.2. Chairman. The Chairman of the Board of Directors shall have general control and direction of the business of the Corporation. He shall preside at all meetings of shareholders and directors and shall have such other powers and perform such other duties as the Board of Directors may specify. The Chairman of the Board of Directors shall be an ex officio member, without the right to vote, of the Audit, Nominating and Governance, Officers-Directors Compensation and Technology and Environment Committees. No person shall hold the position of Chairman of the Board of Directors for a period in excess of ten years.

Section 4.3. Chief Executive Officer. Subject to the control of the Chairman of the Board of Directors, the Chief Executive Officer shall have general control and direction of the business of the Corporation. If no person is elected to the office of the Chief Executive Officer, the Chairman of the Board of Directors shall be the Chief Executive Officer.

Section 4.4. Vice Chairman. The Vice Chairman of the Board of Directors shall have such powers and perform such duties as the Board of Directors or the Chairman of the Board of Directors may specify.

Section 4.5. President. The President shall have such powers and perform such duties as the Board of Directors or the Chairman of the Board of Directors may specify. If the office of President is vacant, the Chairman of the Board of Directors shall have all of the powers and perform all acts incident to the office of the President.

Section 4.6. Vice Presidents and Other Officers. The Vice Presidents and other officers elected by the Board of Directors shall have such powers and perform such duties as the Board of Directors, the Chairman of the Board of Directors, the Chief Executive Officer, the Vice Chairman of the Board of Directors or the President may specify. In the absence of the Chairman of the Board of Directors, the Chief Executive Officer, the Vice Chairman of the Board of Directors and the President, or during their inability to act, such Vice Presidents and other officers may exercise, subject to the control of the Board of Directors, the powers and duties of the Chairman of the Board of Directors, the Chief Executive Officer, the Vice Chairman of the Board of Directors and the President. The Vice Presidents and other officers appointed by the Executive Committee shall have such powers and perform such duties as the entity that appointed them or any officers to whom they report, directly or indirectly, may specify.

Section 4.7. Secretary. The Secretary shall attend all meetings of the shareholders and of the Board of Directors and shall keep careful records of all such meetings, the proceedings of which shall be transcribed into the minute book of the Corporation over his signature. He shall have custody of the corporate seal and of all books, documents, and papers of the Corporation committed to his charge. He shall cause all notices to be given to shareholders and to directors of the Corporation as may be required by law or these bylaws. He shall make such reports, have such other powers and perform such other duties as are authorized or required by law or the Board of Directors may specify. The Secretary may delegate to one or more Assistant Secretaries any of his powers and duties. In the absence of the Secretary or during his inability to act, his powers and duties shall be performed by one or more Assistant Secretaries.

Section 4.8. Treasurer. The Treasurer shall have the custody and care of, and shall manage and invest, all the money, securities, and funds of the Corporation. To the extent not invested in stocks, bonds or other securities, the Treasurer shall deposit the money and funds of the Corporation in such bank or banks or depositories as the Board of Directors may designate, provided that the Board of Directors may delegate to the Treasurer, subject to such limitations as it may from time to time prescribe, the power to designate such bank or banks or depositories. Under the direction of the Board of Directors, the Treasurer shall pay out and dispose of all drafts, notes, checks, warrants, and orders for the payment of money; render such statements to the Board of Directors as it shall require; and have such other powers and perform such other duties as the Board of Directors may specify or which are authorized or required of the Treasurer by law. The Treasurer may delegate any of his powers and duties to one or more Assistant Treasurers and, if authorized by the Board of Directors, any officer or agent of the Corporation. If required by the Board of Directors, the Treasurer and any Assistant Treasurer shall give bond for the faithful discharge of his duties in such amount as may be fixed by the Board of Directors and with such surety as may be approved by the Board of Directors. In the absence of the Treasurer or during his inability to act, his powers and duties shall be performed by one or more Assistant Treasurers.

Section 4.9. Controller. The Controller shall keep or cause to be kept all books of account and accounting records of the Corporation. He shall periodically render to the Board of Directors financial statements and reports covering the results of the operations of the Corporation. Subject to the control of the Board of Directors, he shall determine all accounting policies and procedures, including, without limiting the generality of the foregoing, matters relating to depreciation, depletion, valuation of inventories, the method of creating reserves and accruals, and the establishment of the value of land, buildings, equipment, securities and other assets and shall perform all other acts authorized or required of the Controller by law and shall have such other powers and perform such other duties as the Board of Directors may specify. The Controller may delegate to one or more Assistant Controllers any of his powers and duties. In the absence of the Controller or during his inability to act, his powers and duties shall be performed by one or more Assistant Controllers. If the office of Controller is vacant, his duties shall be performed by the officer designated by the Board of Directors.

Section 4.10. Vacancies. Vacancy in any office or position by reason of death, resignation, removal, disqualification or any other cause, shall be filled in the manner provided in this ARTICLE IV for regular election or appointment to such office.

Section 4.11. Delegation of Duties. In case of the absence of any officer of the Corporation, or for any other reason that the Board of Directors may deem sufficient, the Board of Directors may delegate for the time being the powers and duties, or any of them, of such officer to any other officer or director or other person whom it may select.

ARTICLE V

MISCELLANEOUS CORPORATE TRANSACTIONS AND DOCUMENTS

Section 5.1. Borrowing. No officer, agent or employee of the Corporation shall have any power or authority to borrow money on its behalf, to guarantee or pledge its credit, or to mortgage or pledge any of its real or personal property, except within the scope and to the extent of such authority as may be delegated by the Board of Directors. Authority may be granted by the Board of Directors for any of the above purposes and may be general or limited to specific instances.

Section 5.2. Execution of Instruments. All properly authorized notes, bonds, drafts, acceptances, checks, endorsements (other than for deposit), guarantees, and all evidences of indebtedness of the Corporation whatsoever, and all deeds, mortgages, contracts and other instruments requiring execution by the Corporation may be signed by the Chairman of the Board of Directors, the Chief Executive Officer, the Vice Chairman of the Board of Directors, the President, any Vice President or the Treasurer; and authority to sign any such instruments, which may be general or confined to specific instances, may be conferred by the Board of Directors upon any other person or persons, subject to such requirements as to countersignature or other conditions, as the Board of Directors may from time to time determine. Facsimile signatures may be used on checks, notes, bonds or other instruments. Any person having authority to sign on behalf of the Corporation may delegate, from time to time, by instrument in writing, all or any part of such authority to any person or persons if authorized so to do by the Board of Directors. Unless otherwise delegated, the Board of Directors retains the authority to approve any and all transactions entered into on behalf of the Corporation.

Section 5.3. Voting and Acting with Respect to Stock and Other Securities Owned by the Corporation. The Chairman of the Board of Directors, the Chief Executive Officer, the Vice Chairman of the Board of Directors, the President, any Vice President or the Treasurer of the Corporation shall have the power and authority to vote and act with respect to all stock and other securities in any other corporation owned by this

Corporation, unless the Board of Directors confers such authority, which may be general or confined to specific instances, upon some other officer or person. Any person so authorized shall have the power to appoint an attorney or attorneys, with general power of substitution, as proxies for the Corporation, with full power to vote and act on behalf of the Corporation with respect to such stock and other securities.

ARTICLE VI

INDEMNIFICATION

Section 6.1. Entitlement to Indemnification. The Corporation shall, to the extent that a determination of entitlement is made pursuant to, or to the extent that entitlement to indemnification is otherwise accorded by, this Article, indemnify every person who was or is a director, officer or employee of the Corporation (hereinafter referred to as the “Indemnitee”) who was or is involved in any manner (including, without limitation, as a party or a witness), or is threatened to be made so involved, in any threatened, pending or completed investigation, claim, action, suit or proceeding, whether civil, criminal, administrative or investigative (including without limitation, any investigation, claim, action, suit or proceeding by or in the right of the Corporation) by reason of the fact that the Indemnitee is or was a director, officer or employee of the Corporation, or is or was serving at the request of the Corporation as a director, officer, employee, fiduciary or other representative of another corporation, partnership, joint venture, trust, employee benefit plan or other entity (such investigation, claim, action, suit or proceeding hereinafter being referred to as a “Proceeding”), against any expenses and any liability actually and in good faith paid or incurred by such person in connection with such Proceeding; provided, that indemnification may be made with respect to a Proceeding brought by an Indemnitee against the Corporation only as provided in the last sentence of this Section 6.1. As used in this Article, the term “expenses” shall include fees and expenses of counsel and all other expenses (except any liability) and the term “liability” shall include amounts of judgments, fines or penalties and amounts paid in settlement. Indemnification may be made under this Article for expenses incurred in connection with any Proceeding brought by an Indemnitee against the Corporation only if (1) the Proceeding is a claim for indemnification under this Article or otherwise, (2) the Indemnitee is successful in whole or in part in the Proceeding for which expenses are claimed, or (3) the indemnification for expenses is included in a settlement of, or is awarded by a court in, a Proceeding to which the Corporation is a party.

Section 6.2. Advancement of Expenses. All expenses incurred in good faith by or on behalf of the Indemnitee with respect to any Proceeding shall, upon written request submitted to the Secretary of the Corporation, be advanced to the Indemnitee by the Corporation prior to final disposition of such Proceeding, subject to any obligation which may be imposed by law or by provision in the Articles, bylaws, an agreement or otherwise to repay the Corporation in certain events.

Section 6.3. Indemnification Procedure.

(a) To obtain indemnification under this Article, an Indemnitee shall submit to the Secretary of the Corporation a written request, including such supporting documentation as is reasonably available to the Indemnitee and reasonably necessary to the making of a determination of whether and to what extent the Indemnitee is entitled to indemnification. The Secretary of the Corporation shall promptly thereupon advise the General Counsel in writing of such request.

(b) The Indemnitee's entitlement to indemnification shall be determined by a Referee (selected as hereinafter provided) in a written opinion. The Referee shall find the Indemnitee entitled to indemnification unless the Referee finds that the Indemnitee's conduct was such that, if so found by a court, indemnification would be prohibited by Pennsylvania law.

(c) "Referee" means an attorney with substantial expertise in corporate law who neither presently is, nor in the past five years has been, retained to represent: (i) the Corporation or the Indemnitee, or an affiliate of either of them, in any matter material to either such party, except to act as a Referee in similar proceedings, or (ii) any other party to the Proceeding giving rise to a claim for indemnification under this Article. The Corporation's General Counsel, if Disinterested (as hereinafter defined), or if not, the Corporation's senior officer who is Disinterested, shall propose a Referee. The Secretary of the Corporation shall notify the Indemnitee of the name of the Referee proposed, whose appointment shall become final unless the Indemnitee, within 10 days of such notice, reasonably objects to such Referee as not being qualified, independent or unbiased. If the Corporation and the Indemnitee cannot agree on the selection of a Referee, or if the Corporation fails to propose a Referee, within 45 days of the submission of a written request for indemnification, the Referee shall be selected by the American Arbitration Association. The General Counsel or a senior officer shall be deemed Disinterested if not a party to the Proceeding and not alleged in the pleadings as to the Proceeding to have participated in the action, or participated in the failure to act, which is the basis for the relief sought in the Proceeding.

(d) Notwithstanding any other provision of this Article, to the extent that there has been a determination by a court as to the conduct of an Indemnitee such that indemnification would not be prohibited by Pennsylvania law, or if an Indemnitee would be entitled by Pennsylvania law to indemnification, the Indemnitee shall be entitled to indemnification hereunder.

(e) A determination under this Section 6.3 shall be conclusive and binding on the Company but not on the Indemnitee.

Section 6.4. Partial Indemnification. If an Indemnitee is entitled under any provision of this Article to indemnification by the Corporation of a portion, but not all, of the expenses or liability resulting from a Proceeding, the Corporation shall nevertheless indemnify the Indemnitee for the portion thereof to which the Indemnitee is entitled.

Section 6.5. Insurance. The Corporation may purchase and maintain insurance to protect itself and any Indemnitee against expenses and liability asserted or incurred by any Indemnitee in connection with any Proceeding, whether or not the Corporation would have the power to indemnify such person against such expense or liability by law, under an agreement or under this Article. The Corporation may create a trust fund, grant a security interest or use other means (including, without limitation, a letter of credit) to ensure the payment of such amounts as may be necessary to effect indemnification.

Section 6.6. Agreements. The Corporation may enter into agreements with any director, officer or employee of the Corporation, which agreements may grant rights to the Indemnitee or create obligations of the Corporation in furtherance of, different from, or in addition to, but not in limitation of, those provided in this Article, without shareholder approval of any such agreement. Without limitation of the foregoing, the Corporation may obligate itself (1) to maintain insurance on behalf of the Indemnitee against certain expenses and liabilities and (2) to contribute to expenses and liabilities incurred by the Indemnitee in accordance with the application of relevant equitable considerations to the relative benefits to, and the relative fault of, the Corporation.

Section 6.7. Miscellaneous. The entitlement to indemnification and advancement of expenses provided for in this Article (1) shall be a contract right, (2) shall not be exclusive of any other rights to which an Indemnitee may otherwise be entitled under any Article, bylaw, agreement, vote of shareholders or directors or otherwise, (3) shall continue as to a person who has ceased to be a director, officer or employee and (4) shall

inure to the benefit of the heirs and legal representatives of any person entitled to indemnification or advancement of expenses under this Article.

Section 6.8. Construction. If any provision of this Article shall be held to be invalid, illegal or unenforceable for any reason (1) such provision shall be invalid, illegal or unenforceable only to the extent of such prohibition and the validity, legality and enforceability of the remaining provisions of this Article shall not in any way be affected or impaired thereby, and (2) to the fullest extent possible, the remaining provisions of this Article shall be construed so as to give effect to the intent manifested by the provision held invalid, illegal or unenforceable.

Section 6.9. Effectiveness. This Article shall apply to every Proceeding other than a Proceeding filed prior to January 27, 1987, except that it shall not apply to the extent that Pennsylvania law does not permit its application to any breach of performance of duty or any failure of performance of duty by an Indemnitee occurring prior to January 27, 1987.

Section 6.10. Amendment. This Article may be amended or repealed at any time in the future by vote of the directors without shareholder approval; provided, that any amendment or repeal, or adoption of any Article of the Restated Articles or any other bylaw of the Corporation, which has the effect of limiting the rights granted to directors under this Article, shall require the affirmative vote of at least 80% of the voting power of the then outstanding shares of capital stock of the Corporation entitled to vote in an annual election of directors, voting together as a single class. Any amendment or repeal, or such Article or other bylaw, limiting the rights granted under this Article shall operate prospectively only, and shall not limit in any way the indemnification provided for herein with respect to any action taken, or failure to act, by an Indemnitee prior thereto.

ARTICLE VII

CAPITAL STOCK

Section 7.1. Share Certificates. Every holder of fully-paid stock of the Corporation shall be entitled to a certificate or certificates, 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 Chairman of the Board of Directors, the Chief Executive Officer, the Vice Chairman of the Board of Directors, the President or any Vice President

and also by the Secretary or the Treasurer or an Assistant Secretary or an Assistant Treasurer, which certificate or certificates shall represent and certify the number of shares of stock owned by such holder. In case any officer, transfer agent or registrar who has signed (in facsimile or otherwise, as permitted by law) any share certificate shall cease to be such officer, transfer agent or registrar before the certificate is issued, it may be issued by the Corporation with the same effect as if the officer, transfer agent or registrar had not ceased to be such at the date of its issue. The Board of Directors may authorize the issuance of certificates for fractional shares or, in lieu thereof, scrip or other evidence of ownership, which may (or may not) as determined by the Board of Directors entitle the holder thereof to voting, dividends or other rights of shareholders.

Section 7.2. Transfer of Shares. Transfers of shares of stock of the Corporation shall be made on the books of the Corporation only upon surrender to the Corporation of the certificate or certificates for such shares properly endorsed by the shareholder or by his assignee, agent or legal representative, who shall furnish proper evidence of assignment, authority or legal succession, or by the agent of one of the foregoing thereunto duly authorized by an instrument duly executed and filed with the Corporation in accordance with regular commercial practice.

Section 7.3. Holders of Record. The Corporation shall be entitled to treat the holder of record of any share or shares of stock of the Corporation as the holder and owner in fact thereof for all purposes and shall not be bound to recognize any equitable or other claim to or interest in any share on the part of any person other than the registered holder thereof, whether or not it shall have express or other notice thereof, except as expressly provided by law. The Board of Directors may fix a record date, within any applicable limits imposed by law or the Restated Articles of Incorporation, for the determination of shareholders for any purpose, including meetings, payment of dividends, allotment of rights and reclassification, conversion or exchange of shares. The Board of Directors may adopt a procedure whereby a shareholder of the Corporation may certify in writing to the Corporation that all or a portion of the shares registered in the name of the shareholder are held for the account of a specified person or persons. The resolution of the Board of Directors adopting such a procedure may set forth: (1) the classification of shareholder who may certify; (2) the purpose or purposes for which the certification may be made; (3) the form of certification and information to be contained therein; (4) if the certification is with respect to a record date, the time after the record date within which the certification must be received by the Corporation; and (5) such

other provisions with respect to the procedure as are deemed necessary or desirable. Upon receipt by the Corporation of a certification complying with the procedure, the persons specified in the certification shall be deemed, for the purposes set forth in the certification, to be the holders of record of the number of shares specified in place of the shareholder making the certification.

Section 7.4. Replacement. Each duly appointed transfer agent and registrar of the Corporation may issue and register, respectively, from time to time, without further action or approval by or on behalf of the Corporation, new certificates of stock of the Corporation to replace certificates claimed to have been lost, stolen, or destroyed, upon receipt by the transfer agent of an Affidavit of Loss and Bond of Indemnity in such amount and upon such terms as may be required by the transfer agent to protect the Corporation, the transfer agent and registrar against all loss, cost or damage arising from the issuance of such new certificates, provided that a Bond of Indemnity shall not be required where not more than five shares of stock are involved.

ARTICLE VIII

MISCELLANEOUS

Section 8.1. Description of Seal. The corporate seal of the Corporation shall be inscribed with the name of the Corporation, and the words “Corporate Seal,” and may be used by causing it or a facsimile thereof to be impressed or affixed or in any manner reproduced.

Section 8.2. Fiscal Year. The fiscal year of the Corporation shall be the calendar year.

Section 8.3. Gender. In these bylaws, words used in the masculine gender shall include the feminine.

Section 8.4. Adoption, Amendment or Repeal of Bylaws. Except as otherwise provided by law, in the Restated Articles of Incorporation or in these bylaws, new or additional bylaws may be adopted and these bylaws may be amended or repealed by action of the Board of Directors at any regular or special meeting, subject to the power of the shareholders to change such action.

CERTIFICATE

I, _____, Assistant Secretary of PPG Industries, Inc., a Pennsylvania corporation, hereby certify that the foregoing is a true and correct copy of the bylaws of the Corporation.

Witness my hand and the corporate seal of the Corporation this ____ day of _____.

Assistant Secretary