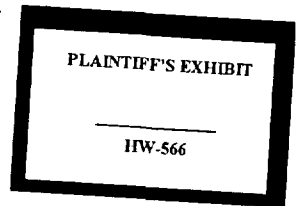


State of Delaware
Office of the Secretary of State

TF-1338

PAGE 1



I, HARRIET SMITH WINDSOR, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE RESTATED CERTIFICATE OF "HARBISON-WALKER REFRACTORIES COMPANY", FILED IN THIS OFFICE ON THE TWENTY-FIFTH DAY OF JUNE, A.D. 1996, AT 9 O'CLOCK A.M.



Harriet Smith Windsor
Harriet Smith Windsor, Secretary of State

0780176 8100

010500704

AUTHENTICATION: 1381681

DATE: 10-09-01

AMENDED
AND
RESTATED
CERTIFICATE OF INCORPORATION
OF
HARBISON-WALKER REFRACTORIES COMPANY

-00000000-

Harbison-Walker Refractories Company, a corporation organized and existing under the laws of the State of Delaware, hereby certifies as follows:

1. The name of the corporation is Harbison-Walker Refractories Company and the name under which the corporation was originally incorporated is Dresser Finance Corporation.

The date of filing its original Certificate of Incorporation with the Secretary of State was March 22, 1972.

2. Pursuant to Sections 242 and 245 of the Delaware General Corporation Law, this Restated Certificate of Incorporation restates and integrates and further amends the provisions of the Certificate of Incorporation of this Corporation.

3. The text of the Certificate of Incorporation, as amended, is hereby restated and further amended to read in its entirety as follows:

ARTICLE I

The name of the Corporation (hereinafter called the "corporation") is Harbison-Walker Refractories Company.

ARTICLE II

The registered office of the Corporation shall be in the City of Wilmington, County of New Castle, State of Delaware. The name of the registered agent in charge thereof is The Prentice-Hall Corporation System, Inc. whose address is 1013 Centre Road, Wilmington, New Castle County, Delaware, 19805.

ARTICLE III

The nature of the business and purposes to be conducted or promoted by the Corporation is any lawful act or activity, including but not limited to manufacturing, for which corporations may be organized under the General Corporation Law of Delaware.

ARTICLE IV

The total number of shares of stock which the corporation shall have authority to issue is Twenty-Five Million (25,000,000) shares of Common Stock with a par value of twenty-five cents (\$0.25) each.

ARTICLE V

In furtherance and not in limitation of the powers conferred under the corporation laws of Delaware, the Board of Directors of the Corporation is expressly authorized to make by-laws not inconsistent with law or with its certificate of incorporation, relating to the business of the Corporation, the conduct of its affairs, and its rights or powers or the rights or powers of its

stockholders, directors, officers or employees, and to alter, amend or repeal same from time to time.

ARTICLE VI

The corporation is to have perpetual existence.

ARTICLE VI

Elections of directors need not be by written ballot unless the by-laws of the corporation shall so provide.

Meetings of stockholders may be held within or without the State of Delaware, as the by-laws may provide. The books of the corporation may be kept (subject to any provision contained in the statutes) outside the State of Delaware at such place or places as may be designated from time to time by the board of directors or in the by-laws of the corporation.

ARTICLE VIII

A. Elimination of Certain Liability of Directors.

No Director shall be personally liable to the Corporation or any stockholder for monetary damages for breach of fiduciary duty by such Director as a Director, except for any matter in respect of which such Director shall be liable under Section 174 of the Delaware General Corporation Law or any amendment thereto or successor provision thereof or shall be liable by reason that, in addition to any and all other requirements for such liability, he (i) shall have breached his duty of loyalty to the Corporation or its stockholders, (ii) in acting or in failing to act, shall not have acted in good faith or shall have acted in a manner involving intentional

misconduct or a knowing violation of law or (iii) shall have derived an improper personal benefit from the transaction in respect of which such breach of fiduciary duty occurred. Neither the amendment nor repeal of Section A of this Article VIII shall eliminate or reduce the effect of Section A of this Article VIII in respect of any matter occurring, or any cause of action, suit or claim that, but for Section A of this Article VIII would accrue or arise, prior to such amendment or repeal. If the Delaware General Corporation Law is amended after approval by the stockholders of this Article VIII to authorize corporate action further eliminating or limiting the personal liability of Directors, then the liability of a Director of the Corporation shall be eliminated or limited to the fullest extent permitted by the Delaware General Corporation Law, as so amended from time to time.

B. Indemnification and Insurance.

1. Right to Indemnification. Each person who was or is made a party or is threatened to be made a party to or is involved in any action, suit or proceeding, whether civil, criminal, administrative or investigative (hereinafter, a "proceeding"), by reason of the fact that he or she, or a person of whom he or she is the legal representative, is or was a Director or officer of the Corporation or is or was serving at the request of the Corporation as a director or officer of another corporation or of a partnership, joint venture, trust or other enterprise, including service with respect to employee benefit plans maintained or sponsored by the Corporation (hereinafter, "Corporate Agent"), whether the basis of such proceeding is alleged action in an official capacity as a Director or officer of the Corporation or Corporate Agent or in any other capacity while serving as a Director, officer, or Corporate Agent, shall be indemnified and held harmless by the

Corporation to the fullest extent authorized by the Delaware General Corporation Law, as the same exists or may hereafter be amended (but, in the case of any such amendment, only to the extent that such amendment permits the Corporation to provide broader indemnification rights than said Law permitted the Corporation to provide prior to such amendment), against all expense, liability and loss (including attorneys' fees, judgments, fines, excise taxes pursuant to the Employee Retirement Income Security Act of 1974 or penalties and amounts paid or to be paid in settlement) reasonably incurred or suffered by such person in connection therewith and such indemnification shall continue as to a person who has ceased to be a Director, officer, or Corporate Agent and shall inure to the benefit of his or her heirs, executors and administrators; provided, however, that, except as provided in Paragraph 2 hereof, the Corporation shall indemnify any such person seeking indemnification in connection with a proceeding (or part thereof) initiated by such person only if such proceeding (or part thereof) was authorized by the Board of Directors of the Corporation. The right to indemnification conferred in this Section shall be a contractual right and shall include the right to be paid by the Corporation the expenses incurred in defending any such proceeding in advance of its final disposition; provided, however, that, if the Delaware General Corporation Law requires, the payment of such expenses incurred by a Director or officer in advance of the final disposition of a proceeding shall be made only upon delivery to the Corporation of an undertaking, by or on behalf of such Director or officer, to repay all amounts so advanced if it shall ultimately be determined that such Director or officer is not entitled to be indemnified under this Section or otherwise. The Corporation may, by action of its Board of

Directors, provide indemnification to employees and other agents of the Corporation with the same scope and effect as the foregoing indemnification of Directors, officers and Corporate Agents.

2. Right of Claimant to Bring Suit. If a claim under Paragraph 1 of this Section B is not paid in full by the Corporation within thirty days after a written claim has been received by the Corporation, the claimant may at any time thereafter bring suit against the Corporation to recover the unpaid amount of the claim and, if successful in whole or in part, the claimant shall be entitled to be paid also the expense of prosecuting such claim. It shall be a defense to any such action (other than an action brought to enforce a claim for expenses incurred in defending any proceeding in advance of its final disposition where the required undertaking, if any is required, has been tendered to the Corporation) that the claimant has not met the standard of conduct which makes it permissible under the Delaware General Corporation Law for the Corporation to indemnify the claimant for the amount claimed, but the burden of proving such defense shall be on the Corporation. Neither the failure of the Corporation (including its Board of Directors, independent legal counsel, or its stockholders) to have made a determination prior to the commencement of such action that indemnification of the claimant is proper in the circumstances because he or she has met the applicable standard of conduct set forth in the Delaware General Corporation Law, nor an actual determination by the Corporation (including its Board of Directors, independent legal counsel, or its stockholders) that the claimant has not met such applicable standard of conduct, shall be

a defense to the action or create a presumption that the claimant has not met the applicable standard of conduct.

3. Non-Exclusivity of Rights. The right to indemnification and the payment of expenses incurred in defending a proceeding in advance of its final disposition conferred in this Section shall not be exclusive of any other right which any person may have or hereafter acquire under any statute, provision of this Certificate of Incorporation, By-law, agreement, vote of stockholders or disinterested Directors, or otherwise.

4. Insurance. The Corporation may maintain insurance, at its expense, to protect itself and any Director, officer, employee or agent of the Corporation or another corporation, partnership, joint venture, trust or other enterprise against any such expense, liability or loss, whether or not the Corporation would have the power to indemnify such person against such expense, liability or loss under the Delaware General Corporation Law.

ARTICLE IX

A. Number of Directors. The number of directors constituting the entire Board of Directors of the Corporation shall be not less than three nor more than 15 as fixed from time to time by vote of a majority of the entire Board; provided, however, that the number of directors shall not be reduced so as to shorten the term of any director at the time in office.

B. Removal of Directors. Notwithstanding any other provisions of this Certificate of Incorporation or the By-Laws of the Corporation (and notwithstanding the fact that some lesser percentage may be specified by law, this Certificate of Incorporation or the By-Laws of

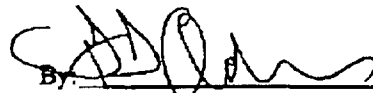
the Corporation), any director or the entire Board may be removed at any time, but only for cause.

ARTICLE X

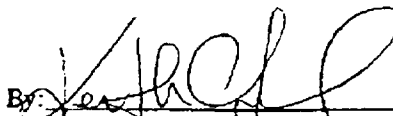
The corporation reserves the right to amend, alter, change or repeal any provision contained in this Certificate of Incorporation, in the manner now or hereafter prescribed by statute, and all rights conferred upon stockholders herein are granted subject to this reservation.

IN WITNESS WHEREOF, this Restated Certificate of Incorporation has been signed by Graham L. Adelman, its Vice President, and attested by Kenneth C. Fernandez, its Assistant Secretary, this 17th day of June, 1996.

Harbison-Walker Refractories Company

By: 
G. L. Adelman, Vice President

ATTEST:

By: 
Kenneth C. Fernandez
Assistant Secretary