P.02 NOV-03-2009 14:51 FROM 2166214072 TO 15712730140 U.S. DEPARTMENT OF COMMERCE RECORDATION FORM COVER SHEET FORM PTO-1595 Patent and Trademark Office (Rev. 6-93) PATENTS ONLY OMB No. 0651-0011(exp. 4/94) OUR FILE ML-019368 US GEN To the Honorable Commissioner of Patents and Trademark: Please record the attached original documents or copy thereof. 2. Name and address of receiving party(ies) Name of conveying party(ies): Name: MSSI Refractory, LLC______ M.S.S.I., Inc. Street Address: 2 John Street Additional name(s) of conveying party(ies) attached?

Yes
No City: McKees Rocks State: Pennsylvania Zip: 15136-3266 3. Nature of conveyance: Merger Additional name(s) & address(es) attached? ☐ Yes ☒No ⊠ Assignment ☐ Change of Name Security Agreement Other _____ Execution Date: October 7, 2009 Application number(s) or patent number(s): If this document is being filed together with a new application, the execution date of the application is: В. Patent No.(s) 6,579,491 Patent Application No.(s) A. Additional numbers attached? ☐ Yes ☒ No 6. Total number of applications and patents involved: 5. Name and address of party to whom correspondence concerning document should be mailed: 7. Total fee (37 CFR 3.41)·····\$40.00 Name: John R. Hlavka Enclosed Authorized to be charged to deposit Internal Address: Tarolli, Sundheim, Covell, PTO-2038 authorizing credit card payment \boxtimes & Tummino L.L.P.

9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy

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1300 East Ninth Street

Suite 1700

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PATENT

P.O. Box 1450, Alexandria, VA 22313-1450 **REEL: 023456 FRAME: 0747**

Reg. No.: 29,076

ML-019368USGEN

ASSIGNMENT

Whereas, M.S.S.I., Inc., a Pennsylvania Corporation having a place of business at 2 John Street, McKees Rocks, Pennsylvania, 15136-3266 U.S.A., hereinafter referred to as "Assignor", is the owner of the entire right, title and interest in United States Patent No. 6,579,491; and

Whereas, MSSI Refractory, LLC, an Ohio Limited Liability Company having a place of business at 2 John Street, McKees Rocks, Pennsylvania, 15136-3266 U.S., hereinafter referred to as "Assignee", desires to acquire the entire right, title and interest of the Assignor in the said U.S. patent.

Now, therefore, for valuable consideration, receipt of which is hereby acknowledged, the above-named Assignor hereby sells, assigns and transfers to the above-named Assignee, its successors and assigns, the entire right, title and interest in the said U.S. patent, and any reissues or re-examinations thereof, together with all claims for damages by reason of past infringement of the said U.S. patent with the right to Assignee to sue for and collect the same for their own use and employment.

Assignor hereby covenants that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this Assignment.

M.S.S.I., Inc.

| Date: 10/7/09 | By: Gary D. Duri |
|-------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | Title: Pres. |
| STATE OF |) · |
| COUNTY OF |) ss) |
| Cifrey Fruin M.S.S.I., Inc., who duly exe | to me known to be the PRESIDENT of cuted this instrument for the purposes set fortiAttle air Jakes at he/she executed this assignment on NOTARY PRESIDENT STATE OF CHICAR SHEET STATE OF CHICAR STATE OF CHICA |

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PATENT REEL: 023456 FRAME: 0748