

9/3/02 RE

09-04-2002

HEET

U.S. DEPARTMENT OF COMMERCE  
Patent and Trademark Office

OMB No. 0651-0011 (exp. 4/94)

Tab Settings



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To the Honorable Commissioner of Patents

Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

Gas Research Institute

SEP -3 PM 12:51  
FINANCE SECTION

2. Name and address of receiving party(ies)

Name: Varidigm Corporation

Internal Address: Suite 128

Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

3. Nature of conveyance:

☒ Assignment☐ Merger☐ Security Agreement☐ Change of Name☐ Other

Street Address: 2355 Polaris Lane

City: Plymouth State: Minnesota Zip: 55447

Execution Date: 01 March 2002

Additional name(s) & address(es) attached? ☐ Yes ☒ No

4. 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:

A. Patent Application No.(s)

See attached continuation sheet

B. Patent No.(s)

See attached continuation sheet

Additional numbers attached? ☒ Yes ☐ No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Roland W. Norris

Internal Address: Pauley Petersen Kinne &amp; Erickson

Street Address: 2800 West Higgins Road

Suite 365

City: Hoffman Estates State: IL Zip: 60195

6. Total number of applications and patents involved: 18

7. Total fee (37 CFR 3.41).....\$ 720.00

☒ Enclosed☐ Authorized to be charged to deposit account

8. Deposit Account :

(Attach duplicate copy of this page if paying by deposit account)

9/03/2002 6TON11 00000194 5899686

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Roland W. Norris

Name of Person Signing

Signature

23 August 2002

Date

Reg. No. 32,799

Total number of pages including cover sheet, attachments, and document: 5

Attorney  
Docket No.:  
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23 August 2002

23 Aug 02  
Date

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PATENT  
REEL: 013231 FRAME: 0921

# CONTINUATION SHEET

## *U.S. Patent No.*

5,899,686  
5,997,285  
6,004,129  
5,485,953  
5,706,190  
5,801,940  
5,772,501  
5,602,758  
5,648,772  
5,796,234  
5,932,981  
6,133,699  
6,329,783  
6,329,785  
5,202,951

## *U.S. Patent Application Serial No.*

60/304,954  
09/904,428  
60/322,133

lar/I

VC-General

**ASSIGNMENT  
Of  
PATENTS and PATENT APPLICATIONS**

WHEREAS, Gas Research Institute, a non-profit corporation duly organized and existing under and by virtue of the laws of the State of Illinois, and having its principal office and place of business at 1700 S. Mt Prospect Road, Des Plaines, Illinois 60018, hereinafter referred to as ASSIGNOR, has acquired all rights, title and interest in certain new and useful improvements in inventions which are described and claimed in the United States Patents and United States Patent Applications listed on Schedule A attached hereto and made a part hereof by reference; being hereinafter referred to as said "Inventions"; and

WHEREAS, Varidigm Corporation, a corporation duly organized and existing under and by virtue of the laws of the State of Delaware and having its principal office and place of business at 2355 Polaris Lane, Suite 128, Plymouth, Minnesota 55447, hereinafter referred to as ASSIGNEE, is desirous of acquiring ASSIGNOR'S entire rights, title and interest in and to said Inventions and said U.S. Patents listed on Schedule A attached hereto.

NOW THEREFORE BE IT KNOWN THAT, for and in consideration of good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, ASSIGNOR has sold, assigned, transferred and set over and by these presents does hereby sell, assign, transfer and set over to and unto ASSIGNEE, its successors and assigns, the entire right, title and interest in and to said Inventions, and in, to and under the U.S. Patents and U.S. Patent Applications listed on Schedule A attached hereto and any other related applications for Letters Patent therefore of the United States or foreign countries, and in, to and under all divisions, reissues, continuations, extensions and reexaminations thereof, and covenants that ASSIGNOR has the full right so to do and it has not executed and will not execute any agreement in conflict with this Assignment; and the Commissioner of Patents is hereby authorized and requested to issue all United States Letters Patent on said Inventions included herein to ASSIGNEE, as assignee of ASSIGNOR'S entire interest.

Gas Research Institute

By: Thomas C. O'Laughlin  
Thomas C. O'Laughlin  
Secretary

Dated: Nov. 4, 2000

SCHEDULE A  
PATENTS

US Patent #	Invention Title	Inventors	Issue Date
5,899,686	Gas Burner Apparatus having Flame Holder Structure with a Contoured Surface	Carbone, Philip; Benedek, Karen; Farina, Michael J.	5/4/99
5,997,285	Burner Housing and Plenum Configuration for Gas-Fired Burners	Carbone, Philip; Benedek, Karen; Farina, Michael J.; Schmidt; Stephan E.	12/7/99
6,004,129	Burner Housing and Plenum Configuration for Gas-Fired Burners	Carbone, Philip; Benedek, Karen; Farina, Michael J.; Schmidt; Stephan E.	12/21/99
5,485,953	Method and Apparatus for Controlling the Circulation of Heat Transfer Fluid for Thermal Conditioning Systems for Spaces	Bassett, William W.; Russ, Robert M.; Webster, Thomas L.	1/23/96
5,706,190	Fault Tolerant HVAC System	Russ, Robert M.; Lincoln, Larry A.; Merry, Nir	1/6/98
5,801,940	Fault Tolerant HVAC System	Russ, Robert M.; Bassett, William W.; Glorioso, Charles A.; Merry, Nir ; Lincoln, Larry A.	9/1/98
5,772,501	Indoor Environmental Conditioning System and Method for Controlling the Circulation of Non-Conditioned Air	Russ, Robert M.; Lincoln, Larry A.; Merry, Nir; Webster, Thomas L.	6/30/98
5,602,758	Installation Link-Up Procedure	Russ, Robert M.; Bassett, William W.; Webster, Thomas L.; Merry, Nir ; Lincoln, Larry A.	2/11/97
5,648,722	Apparatus and Method for Determining the State of an Electrical Switch within an HVAC System	Merry, Nir ; Hammons, Jack Francis	7/15/97

5,796,234	Variable speed Motor Apparatus and Method for Forming Same From a Split Capacitor Motor	Vrionis, Nick	8/18/98
5,932,981	Apparatus and Method for Reduced Voltage Controller	Vrionis, Nick	8/3/99
6,133,699	Method and Apparatus for Operating a Plurality of Motors with a Single Controller	Vrionis, Nick G.; Russ, Robert M.; Blau, Dave; Farrer, Leland M.	10/17/00
6,329,783	Apparatus for Continuously Variable Speed Elective Motor Applications	Vrionis, Nickolas G.; Eichorn, Ronald L.	12/11/01
6,329,785	Pulse Width Modulated Controlled Induction Motor (4 Step)	Starkie, Alan; Vrionis, Nickolas G.	12/11/01
5,202,951	Mass Flow Rate Control System and Method	Doyle, Edward F.	4/13/93

### PATENT APPLICATIONS

US Patent Application #	Invention Title	Inventors	Filing Date
S/N 60/304,954	Multi-Speed Controller for Air Moving Applications Using an AC Induction Motor	Vrionis, Nickolas G.; Ratz, James W.	7/12/01
S/N 09/904,428	Constant CFM Control Algorithm for an Air Moving System Utilizing a Centrifugal Blower Driven by an Induction Motor	Eichorn, Ronald L.	7/12/01
S/N 60/322,133	Variable Output Combustion Controller	Sigafus, Paul E.; Torborg, Ralph H.; Ratz, James W.	9/10/01