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01-26-1999

100948367

U.S. DEPARTMENT OF COMMERCE
Patent and Trademark Office

To the Honorable Commissioner of Pa... d original documents or copy thereof.

JAN 26

1. Name of conveying party(ies):
WES Acquisition Corporation

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

2. Name and address of receiving party(ies)

Name: Wexford Management LLC
Internal Address:

Street Address: 411 West Putnam Avenue

City: Greenwich State: CT ZIP: 06830

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

3. Nature of conveyance:

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

Execution Date: January 30, 1998

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)

B. Patent No.(s)
See attached Schedule A

Additional numbers attached? ☒ Yes ☐ No

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

Name: Nancy A. Udell Esq.
Internal Address: Howard, Smith and Levin LLP

Street Address: 1330 Avenue of the Americas

City: New York State: NY ZIP: 10019

6. Total number of applications and patents involved: 10

7. Total fee (37 CFR 3.41).....$400

☒ Enclosed

☐ Authorized to be charged to deposit account.

8. Deposit account number:

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

DO NOT USE THIS SPACE

9. Statement and signature.

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

Nancy A. Udell
Name of Person Signing

Signature

1/21/99
Date

Total number of pages including cover sheet, attachments, and document: 9

Mail documents to be recorded with required cover sheet information to:
Commissioner of Patents & Trademarks, Box Assignments
Washington, D.C.

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PATENTS

Schedule A

1.	**TITLE:**	Gas Conditioning Apparatus
	PATENT NO.:	4,466,815
	FILE DATE:	05/03/82
	SN:	374,516
	ISSUE DATE:	08/21/84
	EXPIRATION DATE:	08/21/01
2.	**TITLE:**	Apparatus for Preheating Combustion Air, etc.
	PATENT NO.:	4,602,673
	FILE DATE:	10/03/84
	SN:	637,394
	ISSUE DATE:	07/29/86
	EXPIRATION DATE:	07/29/03
3.	**TITLE:**	Gas Conditioning Means for a Plurality of Boilers
	PATENT NO.:	4,333,746
	FILE DATE:	04/24/81
	SN:	257,343
	ISSUE DATE:	06/08/82
	EXPIRATION DATE:	06/08/99
4.	**TITLE:**	Apparatus for Preheating Combustion Air, etc.
	PATENT NO.:	4,739,826
	FILE DATE:	07/07/86
	SN:	882,245
	ISSUE DATE:	04/26/88
	EXPIRATION DATE:	04/26/05
5.	**TITLE:**	Removal of Participate Matter From Combustion Gas Streams
	PATENT NO.:	4,987,839
	FILE DATE:	05/14/90
	SN:	523,312
	ISSUE DATE:	01/29/91
	EXPIRATION DATE:	01/29/08
6.	**TITLE:**	Apparatus for Preheating Combustion Air, etc.
	PATENT NO.:	4,903,755
	FILE DATE:	04/25/88
	SN:	185,861
	ISSUE DATE:	02/27/90
	EXPIRATION DATE:	07/29/03
7.	**TITLE:**	Conditioning of Gas Streams Containing Particulate
	PATENT NO.:	4,966,610
	FILE DATE:	06/05/89
	SN:	361,272
	ISSUE DATE:	10/30/90
	EXPIRATION DATE:	10/30/07

8.	**TITLE:**	Reduction of Acidic Emissions From Combustion of Sulfur, etc.
	PATENT NO.:	5,024,171
	FILE DATE:	03/19/90
	SN:	496,872
	ISSUE DATE:	06/18/91
	EXPIRATION DATE:	06/18/08
9.	**TITLE:**	Control of Addition of Conditioning Agents to Flue Gas
	PATENT NO.:	5,029,535
	FILE DATE:	05/14/90
	SN:	523,311
	ISSUE DATE:	07/09/91
	EXPIRATION DATE:	07/09/08
10.	**TITLE:**	Control System for Flue Gas Conditioning
	PATENT NO.:	5,122,162
	FILE DATE:	03/19/90
	SN:	496,873
	ISSUE DATE:	06/16/92
	EXPIRATION DATE:	06/16/09

FIRST AMENDMENT TO PATENT ASSIGNMENT

FIRST AMENDMENT TO PATENT ASSIGNMENT, dated as of January 30, 1998 (the Agreement") among WAHLCO INC., a California corporation ("Assignor"); WAHLCO ENVIRONMENTAL SYSTEMS, INC., a Delaware Corporation ("Borrower"); WES ACQUISITION CORP., a Delaware corporation ("WESAC"); the 1998 Lenders (as hereinafter defined); and WEXFORD MANAGEMENT LLC, a Connecticut limited liability company, as administrative and collateral agent for the Lenders (the "Agent").

WITNESSETH

WHEREAS, Assignor is the sole and exclusive owner of the Letters of Patent identified on Schedule I hereto, and of the patent applications in the United States Patent and Trademark Office identified on such Schedule I (all of the foregoing, collectively, the "Patents"), and of the inventions described and claimed therein; and

WHEREAS, Assignor is a wholly-owned subsidiary of Borrower, and Borrower and WESAC entered into that certain Term Loan Agreement dated as of July 28, 1995 (the "1995 Loan Agreement"); and

WHEREAS, to secure Borrower's obligations under the 1995 Loan Agreement, Assignor, Borrower and WESAC entered into that certain Security Agreement dated as of July 25, 1995 (the "Security Agreement") and Assignor and Borrower granted a security interest in the Collateral described therein to WESAC; and

WHEREAS, pursuant to the Security Agreement, Assignor executed a Patent Assignment in favor of WESAC as of December 28, 1995 (the "Existing Assignment"), whereby Assignor assigned all right, title and interest in and to the Patents to WESAC; and

~~WHEREAS, to amend and supplement the 1995 Loan agreement,~~ and to provide for additional credit facilities to Borrower, Borrower, each of the Lenders named therein and the Agent, as agent, have entered into that certain Amended and Restated Loan Agreement dated as of January 30, 1998 (the "1998 Credit Agreement"), pursuant to which the Lenders have agreed to make loans to Borrower and its Subsidiaries; and

WHEREAS, in connection with the execution and delivery of the 1998 Credit Agreement and as security for all the obligations of Borrower thereunder, the Lenders and the Agent are requiring that Assignor shall have executed and delivered this Agreement and granted and confirmed the security interests in the Patents contemplated hereby;

NOW, THEREFORE, in consideration of the premises and the covenants hereinafter contained and to induce the Lenders and the Agent to enter into the 1998 Credit Agreement, and to make the loans provided for therein, it is agreed as follows:

1. Definitions. Unless otherwise defined herein, terms defined in the 1998 Credit Agreement are used as therein defined and shall have (unless otherwise provided elsewhere in this Agreement) the following respective meanings (such meanings being equally applicable to both the singular and plural form of the terms defined):

"Agreement" shall mean this First Amendment to the Patent Assignment, including all amendments, modifications and supplements and any exhibits or schedules to any of the foregoing, and shall refer to the Agreement as the same may be in effect at the time such reference becomes operative.

"Existing Obligations" shall mean any Obligations now existing or hereafter arising under the 1995 Loan Agreement or any Loan Document;

"1998 Lenders" shall mean all the parties named as Lenders in the 1998 Credit Agreement.

2. Assignment. WESAC hereby assigns to the Agent, for the benefit of all the Lenders, the Existing Assignment of the Patents held by WESAC as of the date hereof. Assignor hereby consents to such assignment.

3. Security for Obligation. Each of Assignor and Borrower acknowledges, confirms and agrees that this Agreement sercures, and the assignment of the Patents is security for, the prompt payment in full when due, whether at stated maturity, by acceleration or otherwise, and performance of the Obligations, whether for principal, premium, interest, fees, costs and expenses, and all obligations of Borrower now or hereafter existing under this Agreement and under the First Amendment to the Security Agreement (collectively, the "Secured Obligations") including the Existing Obligations, and any and all other future advances, as well as all interest, fees, charges expenses, attorneys' fees and any other sum chargeable to borrower of any or all of its subsidiaries under any of the Loan Documents. Concurrently with the execution and delivery of this Agreement, each of the UCC-1 financing statement listed on Schedule I attached hereto shall be amended to assign the security interests represented thereby to the Agent.

4. Effect of Amendment. Assignor hereby confirms and agrees that, except as specifically amended hereby, the Existing Assignment continues in full force and effect.

5. Waiver. No delay on the part of the Agent in exercising any power of sale, Lien, option or other right hereunder, and no notice or demand which may be given to or made upon Assignor by the Agent with request to any power of sale, Lien, option or other right hereunder, shall constitute a waiver thereof, or limit or impair the

Agent's rights to take any action or to exercise any power of sale, Lien, option, or any other rights as against Assignor in any respect.

6. Assignment. Each Lender may assign, endorse or transfer any instrument evidencing all or any part of the Secured Obligators as provided in, and in accordance with, the 1998 Credit Agreement, and the holder of such instrument shall be entitled to the benefits of this Agreement.

7. Miscellaneous.

(a) The Agent may execute any of its duties hereunder by or through agents or employees and shall be entitled to advice of counsel concerning all matters pertaining to its duties hereunder.

(b) Assignor agrees to promptly reimburse the Agent for actual out-of-pocket expenses, including, without limitation, reasonable counsel fees, incurred in connection with the administrator and enforcement of this Agreement.

(c) Neither the Agent nor any of its respective officers, directors, employees, agents or counsel shall be liable for any action lawfully taken or omitted to be taken by it of them hereunder or in connection herewith, except for its or their own gross negligence or willful misconduct.

(d) The Agreement shall be binding upon Assignor and its successors and assigns, and shall inure to the benefit of, and be enforceable by, the Agent and its successors and assigns, and shall be governed by and construed and enforced in accordance with, the internal laws in effect in the State of New York without giving effect to principles of conflict of laws, and none of the terms or provisions of this Agreement may be waived, altered, modified or amended except in writing duly signed for on behalf of the Agent and Assignor.

8. Severability. If for any reason any provision or provisions hereof are determined to be invalid and contrary to any existing or future law, such inability shall not impair the operation of or effect those portions of this Agreement which are valid.

9. Notice. Whenever it is provided herein that any notice, demand, request, consent, approval or other communication shall or may be given to or served upon any of the parties by any other party, or whenever any of the parties desires to give or serve upon any other a communication with respect to this Agreement, each such notice, demand, request, consent, approval, declaration or other communication shall be in writing and shall be given as provided in Section 10.11 of the 1998 Credit Agreement.

10. Section Titles. The section titles contained in this Agreement are and shall be without substantive meaning or content of any kind whatsoever and are not a part of this Agreement.

11 Counterparts This Agreement may be executed in any number of counterparts, which shall, collectively and separately, constitute one document

IN WITNESS WHEREOF, each of the parties hereto has caused this First Amendment to the Patent Agreement to be executed and delivered by its duly authorized officer on the date first set forth above

WAHLCO, INC.

By: _____
Name:
Title:

WAHLCO, ENVIRONMENTAL SYSTEMS, INC

By: _____
Name:
Title:

WES ACQUISITION CORP.

By: _____
Name:
Title:

The foregoing First Amendment to the Patent Assignment is hereby accepted by the Agent:

WEXFORD MANAGEMENT, LLC.

By: _____
Name:
Title:

SCHEDULE I

TITLE:	Gas Conditioning Apparatus
PATENT NO.:	4,466,815
FILE DATE:	05/03/82
SN:	374,516
ISSUE DATE:	08/21/84
EXPIRATION DATE:	08/21/01

ABSTRACT:

A gas conditioning apparatus for conditioning flue gases and more particularly an improved means for purging a gas conditioning system of latent or residual sulfur trioxide which is normally produced by the gas conditioning system for conditioning of flue gases.

35248

SCHEDULE I

TITLE:	Apparatus for Preheating Combustion Air, etc.
PATENT NO.:	4,602,673
FILE DATE:	10/03/84
SN:	637,394
ISSUE DATE:	07/29/86
EXPIRATION DATE:	07/29/03

ABSTRACT:

An apparatus for preheating air for combustion for a combustion process while simultaneously reducing the NOx content of hot flue gases utilized to effect said preheating, said apparatus comprising: a regenerative revolving air heater which includes heat exchange elements having surfaces which are exposed to said hot flue gases, and a coating which acts as a catalyst for the reduction of NOx and is only on those heat exchange surfaces which are contacted by flue gas having a temperature greater than the condensation temperature of reaction produces resulting from material contained in said flue gas and from the added reducing agent.

SCHEDULE I

TITLE:	Gas Conditioning Means for a Plurality of Boilers
PATENT NO.:	4,333,746
FILE DATE:	04/24/81
SN:	257,343
ISSUE DATE:	06/08/82
EXPIRATION DATE:	06/08/99

ABSTRACT:

A gas conditioning means for a plurality of boilers and more particularly improved means for providing a conditioning mixture of sulfur trioxide (SO_3), from a single system, for injection into the flues gas streams of a plurality of boilers for the conditioning thereof.

SCHEDULE I

TITLE:	Apparatus for Preheating Combustion Air, etc.
PATENT NO.:	4,739,826
FILE DATE:	07/07/86
SN:	882,245
ISSUE DATE:	04/26/88
EXPIRATION DATE:	04/26/05

ABSTRACT:

An apparatus for preheating air for combustion for a combustion process while simultaneously reducing the NOx content of hot flue gas utilized to effect said preheating to attain advantages which relate to combustion and which result from higher combustion chamber tempearatures, such as accelerated ignition and more complete combustion, comprising: a recuperative air heater which includes heat exchange elements having surfaces which are exposed to said hot flue gases, and a coating which acts as a catalyst for the reduction of NOx, said coating being provided only with those heat exchange surfaces which are contacted by flue gases having a temperature greater than the condensation temperature of the reaction products resulting from the material contained in said flue gas and from added reducing agent in order to avoid formation of deposits on catalyst contact surfaces such as a result of flue gas, which is cooled off as it flows through the heat exchanger, falling below the condensation temperature.

SCHEDULE I

TITLE:	Removal of Participate Matter From Combustion Gas Streams
PATENT NO.:	4,987,839
FILE DATE:	05/14/90
SN:	523,312
ISSUE DATE:	01/29/91
EXPIRATION DATE:	01/29/08

ABSTRACT:

Unburned particulate matter is removed from a combustion gas stream by adding a conditioning agent to modify the resistivity of the particulate matter and passing the conditioning combustion gas stream through an electrostatic precipitator whose precipitating elements are energized with an intermittent applied voltage. The addition of conditioning agent and the precipitating voltage signal are mutually optimized. A controller receives measurement signals from sensors that monitor the total flow rate of the particulate matter in the gas stream before the electrostatic precipitate treatment, and the concentration of particulate matter in the gas stream after the treatment. Performance of the system may be optimized according to selected combinations of variables.

SCHEDULE I

TITLE:	Apparatus for Preheating Combustion Air, etc.
PATENT NO.:	4,903,755
FILE DATE:	04/25/88
SN:	185,861
ISSUE DATE:	02/27/90
EXPIRATION DATE:	07/29/03

ABSTRACT:

An apparatus for preheating air combustion for a combustion process while simultaneously reducing the NOx content of hot flue gases utilized to effect said perheating, said apparatus comprising:
a revolving regenerative air heater that includes heat exchange elements having surfaces that are exposed to said hot flue gases, with said surfaces having a coating that acts as a catalyst for the reduction of NOx, whereby said regenerative air heater is a revolving drum that is divided in a radial direction into individual chambers that contain said heat exchange elements, which are in the form of a heat storage mass comprised of a plurality of movable individual elements that are respectively provided with said catalyst coating.

SCHEDULE I

TITLE:	Conditioning of Gas Streams Containing Particulate
PATENT NO.:	4,966,610
FILE DATE:	06/05/89
SN:	351,272
ISSUE DATE:	10/30/90
EXPIRATION DATE:	10/30/07

ABSTRACT:

A method for precipating particulate matter from a flowing gas stream, comprising the steps of: furnishing a flowing gas stream containing particulate matter entrained therein; pretreating the particulate matter of the gas stream, by supplying to the gas stream a conditioning agent selected from the group consisting of sulfur trioxide, a gaseous compound containing ammonia, and water vapor, and substantially simultaneously, establishing an electrostatic potential between the conditioning agent and the particulate matter whereupon the conditioning agent deposits upon the particulate matter; and electrostatically precipating the particulate matter from the conditioned gas stream.

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SCHEDULE I

TITLE:	Reduction of Acidic Emissions From Combustion of Sulfur
Etc	
PATENT NO.:	5,024,171
FILE DATE:	03/19/90
SN:	496,872
ISSUE DATE:	06/18/91
EXPIRATION DATE:	06/18/08

ABSTRACT:

The sulfer trioxide in the combustion stream of a power plant is reactered with injected ammonia to produce a solic ammonia sulfate that is captured, and not released to the atmosphere. A feedforward signal indicative of the total mass flow os sulfur trioxide is determined as the product of the measured boiler and measured prior to the addition of ammonia. The ammonia mass flow injection rate is preferably at a normal stoichiometric ratio of from about 1.0 to 1.1 relative to the sulfur dioxide mass flow rate (that is, from about 2.0 to 2.2 times the molar mass flow rate of the sulfur trioxide), avoiding the production of ammmonia bisulfate. The ammonia content of the combustion gas stream is added. Based upon this feedback measurement, the amount of ammonia added is adjusted to be just sufficient to react with all of the sulfur trioxide, but not in such excess as to be environmentally detrimental.

SCHEDULE I

TITLE:	Control of Addition of Conditioning Agents to Flue Gas
PATENT NO.:	5,029,535
FILE DATE:	05/14/90
SN:	523,311
ISSUE DATE:	07/09/91
EXPIRATION DATE:	07/09/08

ABSTRACT:

Additions of contitioning agents to a particulate containing flue gas stream are controlled by a controller operating from feedforward and feedback signals received from sensors in the combustion and gas cleanup system, and, optionally, from the power consumption level of the electrostatic precipitator. The flow rates of the conitaior poditioning agents, such as sulfur trioxide and ammonia, are thereby balanced to achieve an optimal removal of particulate matter and also sulfur and sulfur compounds from the gas stream before it is exhausted to the atmosphere. A typical feedforward signal is the boiler loading, and typical feedback signals include residual sulfur trioxide and ammonia levels and stack gas opacity

35248

SCHEDULE I

TITLE:	Control System for Flue Gas Conditioning
PATENT NO.:	5,122,162
FILE DATE:	03/19/90
SN:	496,873
ISSUE DATE:	06/16/92
EXPIRATION DATE:	06/16/09

ABSTRACT:

The volumetric flow rate for the addition of a flue gas conditioning agent, such as sulfur trioxide, is established by maintaining the deriative of the electrostatic precipitator power with respect to flow rate within a preselected operating range. The derivative of the precipatator power with respect to time and the derivative of the flow rate with respect to time are measured, and then the deriatives are divided to determine the derivative of precipitator power with respect to flow rate. This calculated value is compared with a preselected operating range. If the calculated value is greater than the preselected operating range, the flow rate is reduced, until a steady state calculated derivative value within the operating range is reached.

STATE OF NEW YORK)
) ss
COUNTY OF NEW YORK)

I, [redacted] a Notary Public in and for said County, in the State aforesaid, DO HEREBY CERTIFY that [redacted] personally known to me to be the [redacted] of Wahlco, Inc., a corporation organized under the laws of the State of California, and personally known to me to be the same person whose name is subscribed to the foregoing Patent Assignment, appeared before me this day in person and acknowledged that (he)(she) signed and delivered the said Assignment as (his)(her) free and voluntary act, and as the free and voluntary act and deed of said corporation for the uses and purposes therein set forth.

GIVEN under my hand and seal this 2 day of February, 1998.

Notary Public

[redacted]

[NOTARIAL SEAL

My Commission Expires:

GINA BERNARDO
Notary Public, State of New York
No. 01BE5070541
Qualified in New York County
Commission Expires December 23, 1998

35248