01/15/2016 503652067

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT3698701

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
ERIC J. ESSWEIN	05/21/2013
MICHAEL BREITENSTEIN	05/13/2013
JOHN E. SNAWDER	05/13/2013
MICHAEL G. GRESSEL	05/21/2013
JERRY L. KRATZER	05/21/2013

RECEIVING PARTY DATA

Name:	THE UNITED STATES OF AMERICA, AS REPRESENTED BY THE SECRETARY, DEPARTMENT OF HEALTH AND HUMAN SERVICES
Street Address:	6011 EXECUTIVE BOULEVARD
Internal Address:	SUITE 325, MSC 7660
City:	BETHESDA
State/Country:	MARYLAND
Postal Code:	20892-7660

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14992963

CORRESPONDENCE DATA

Fax Number: (503)595-5301

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 5035955300

Email: sarah.flugum@klarquist.com

Correspondent Name: DEAKIN LAUER, KLARQUIST SPARKMAN, LLP

Address Line 1: 121 SW SALMON STREET

Address Line 2: **SUITE 1600**

Address Line 4: PORTLAND, OREGON 97204

ATTORNEY DOCKET NUMBER:	4239-88200-03
NAME OF SUBMITTER:	DEAKIN T. LAUER
SIGNATURE:	/Deakin T. Lauer/
DATE SIGNED:	01/15/2016

PATENT REEL: 037503 FRAME: 0040 503652067

Total Attachments: 8 source=Assignment#page1.tif source=Assignment#page3.tif source=Assignment#page4.tif source=Assignment#page5.tif source=Assignment#page6.tif source=Assignment#page7.tif source=Assignment#page8.tif

PATENT REEL: 037503 FRAME: 0041

ASSIGNMENT

We, Eric J. Esswein, of Conifer, Colorado, a citizen of the United States of America, Michael Breitenstein, of Cincinnati, Ohio, a citizen of the United States of America, John E. Snawder, of Williamstown, Kentucky, a citizen of the United States of America, Michael G. Gressel, of Cincinnati, Ohio, a citizen of the United States of America, and Jerry L. Kratzer, a citizen of the United States of America have invented SYSTEMS AND METHODS FOR CONTROLLING PARTICULATE RELEASE FROM LARGE EQUIPMENT. This is an Assignment of the following rights, title and interest: (check all that apply):

☑ United States of America rights, title and interest in the invention.
Foreign rights, title and interest in the invention.
An application to the Commissioner for Patents of the United States of America filed
herewith.
An application to the Commissioner for Patents of the United States of America has been
executed by the undersigned on:
☐ United States Provisional Patent Application Serial No. <u>61/673,658</u> filed on <u>July 19</u> ,
<u>2012</u> .
☐ United States Patent Application Serial No. <u>13/802,265</u> ; Date of Execution:; Date
of Filing: March 13, 2013.
United States Patent No(s):
International PCT Patent Application Serial No filed on
Other (specify):

We were employed by the Department of Health and Human Services at the time the invention was made. The conditions under which said invention was made are such as to entitle the Government of the United States of America under Paragraph 1(a) of Executive Order 10096, to the entire right, title, and interest in the invention, in the United States and all other countries throughout the world.

In consideration of our obligations under Executive Order 10096, and other valuable consideration, the receipt and sufficiency of which is hereby acknowledged, we the undersigned, have voluntarily sold, assigned, and transferred and do voluntarily sell, assign, and transfer to The Government of the United States of America as represented by the Secretary of the Department of Health and Human Services (hereinafter THE GOVERNMENT), and successors and assigns, our full and exclusive right, title, and interest in the patent application and invention throughout the United States of America, its territories and dependencies, and all other countries. This includes an assignment of all Letters Patent that may be granted on the invention in the United States of America and all countries throughout the world, and any divisional, renewal, continuation in whole or in part, substitution, conversion, reexamination, reissue, prolongation or extension thereof; and the right to claim priority from the patent application as provided for by United States law, the Patent Cooperation Treaty, the European Patent Convention, the Paris Convention, or other applicable law.

We authorize and request the issuance of said Letters Patent to THE GOVERNMENT, as assignee of our entire right, title, and interest to be held as fully and entirely as the same would

PATENT - Page 1 of 4

REEL: 037503 FRAME: 0042

have been held by us had this assignment not been made.

We warrant that there are no outstanding assignments, grants, liens, encumbrances, or agreements either written, oral, or implied that will impair, diminish, limit, or abridge the interest herein conveyed at the time of the execution of the present assignment.

We also agree upon reasonable request to communicate to THE GOVERNMENT, its representatives, assigns or agents, any facts known to us respecting the invention, and to testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing and reissue applications, make all rightful oaths, provide all requested documents, and do everything reasonably possible to aid THE GOVERNMENT and its assigns to obtain and enforce proper patent protection for the invention in the United States or any foreign country. These provisions are binding upon our heirs, legal representatives, administrators and assigns.

We have authorized THE GOVERNMENT to file and prosecute this patent application, as well as any corresponding international or national applications that claim priority from it. THE GOVERNMENT has the right to select attorneys or agents of its choice to prosecute at its discretion these applications on its behalf.

We grant the law firm of Klarquist Sparkman, LLP, the power to insert on this Assignment any further information that may be necessary or desirable in order to comply with all applicable legal requirements, including the rules of the United States Patent and Trademark Office, for submitting and recording this document.

IN TESTIMONY WHEREOF, Assignors have signed their names on the dates indicated.

Dated: 5 21/2013

STATE OF <u>Colorado</u>) ss.

This $21^{5^{\dagger}}$ day of 10° , 203, before me personally came the above-named Eric J. Esswein, who executed the foregoing Assignment in my presence, and who acknowledged to me that this instrument was executed by Eric J. Esswein's own free will for the purpose set forth therein.

Notary Public for WUS FARSU

My commission expires: 12/9/201

PASSIGNMENT - Page 2 of

REEL: 037503 FRAME: 0043

Dated: 5/13/2013	Much Bules Michael Breitenstein
STATE OF OHIO	
COUNTY OF HAMILTON ss.	
This 13 day of MAHAM Michael Breitenstein, who executed acknowledged to me that this instrum	, 2013, before me personally came the above-named the foregoing Assignment in my presence, and who nent was executed by Michael Breitenstein's own free will
[SEAL]	Notary Public for ST OF OHIO My commission expires: MAY 08, 2016 LOIS E. BREITENSTEIN NOTARY PUBLIC, STATE OF CHRO MY COMMISSION EXPIRES MAY 08, 2016
Dated: 5/13/2013	John E. Snawder
STATE OF OH 10	
COUNTY OF HAMI CTON ss.	
This day of MHY E. Snawder, who executed the foregome that this instrument was executed forth therein.	job 13, before me personally came the above-named John ing Assignment in my presence, and who acknowledged to by John E. Snawder's own free will for the purpose set
[SEAL]	Notary Public for 5T OF OHIO My commission expires: MAY 08, 2016
[SEAL]	LOIS E. BREITENSTEIN NOTARY PUBLIC, STATE OF CHIO MY COMMISSION EXPIRES MAY BY 2016

PASTENTT - Page 3 of 4

REEL: 037503 FRAME: 0044

Dated:	
	Michael G. Gressel
STATE OF) ss.	
) ss. COUNTY OF)	
Michael G. Gressel, who executed the foregoing	, before me personally came the above-named going Assignment in my presence, and who as executed by Michael G. Gressel's own free will for
	Notary Public for My commission expires:
[SEAL]	
Dated:	Jerry L. Kratzer
STATE OF) , ss.	
COUNTY OF) ss.	
Jerry L. Kratzer, who executed the foregoin	, before me personally came the above-named ng Assignment in my presence, and who as executed by Jerry L. Kratzer's own free will for the
	Notary Public for
	My commission expires:

[SEAL]

ASSIGNMENT

We, Eric J. Esswein, of Conifer, Colorado, a citizen of the United States of America, Michael Breitenstein, of Cincinnati, Ohio, a citizen of the United States of America, John E. Snawder, of Williamstown, Kentucky, a citizen of the United States of America, Michael G. Gressel, of Cincinnati, Ohio, a citizen of the United States of America, and Jerry L. Kratzer, a citizen of the United States of America have invented SYSTEMS AND METHODS FOR CONTROLLING PARTICULATE RELEASE FROM LARGE EQUIPMENT. This is an Assignment of the following rights, title and interest: (check all that apply):

☐ United States of America rights, title and interest in the invention.
Foreign rights, title and interest in the invention.
An application to the Commissioner for Patents of the United States of America filed
herewith.
An application to the Commissioner for Patents of the United States of America has been
executed by the undersigned on:
United States Provisional Patent Application Serial No. <u>61/673,658</u> filed on <u>July 19</u> ,
<u>2012</u> .
United States Patent Application Serial No. 13/802,265; Date of Execution:; Date
of Filing: March 13, 2013.
United States Patent No(s):
International PCT Patent Application Serial No filed on
Other (specify):

We were employed by the Department of Health and Human Services at the time the invention was made. The conditions under which said invention was made are such as to entitle the Government of the United States of America under Paragraph 1(a) of Executive Order 10096, to the entire right, title, and interest in the invention, in the United States and all other countries throughout the world.

In consideration of our obligations under Executive Order 10096, and other valuable consideration, the receipt and sufficiency of which is hereby acknowledged, we the undersigned, have voluntarily sold, assigned, and transferred and do voluntarily sell, assign, and transfer to The Government of the United States of America as represented by the Secretary of the Department of Health and Human Services (hereinafter THE GOVERNMENT), and successors and assigns, our full and exclusive right, title, and interest in the patent application and invention throughout the United States of America, its territories and dependencies, and all other countries. This includes an assignment of all Letters Patent that may be granted on the invention in the United States of America and all countries throughout the world, and any divisional, renewal, continuation in whole or in part, substitution, conversion, reexamination, reissue, prolongation or extension thereof; and the right to claim priority from the patent application as provided for by United States law, the Patent Cooperation Treaty, the European Patent Convention, the Paris Convention, or other applicable law.

We authorize and request the issuance of said Letters Patent to THE GOVERNMENT, as assignee of our entire right, title, and interest to be held as fully and entirely as the same would

PÅSTENFT - Page 1 of 4
REEL: 037503 FRAME: 0046

have been held by us had this assignment not been made.

We warrant that there are no outstanding assignments, grants, liens, encumbrances, or agreements either written, oral, or implied that will impair, diminish, limit, or abridge the interest herein conveyed at the time of the execution of the present assignment.

We also agree upon reasonable request to communicate to THE GOVERNMENT, its representatives, assigns or agents, any facts known to us respecting the invention, and to testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing and reissue applications, make all rightful oaths, provide all requested documents, and do everything reasonably possible to aid THE GOVERNMENT and its assigns to obtain and enforce proper patent protection for the invention in the United States or any foreign country. These provisions are binding upon our heirs, legal representatives, administrators and assigns.

We have authorized THE GOVERNMENT to file and prosecute this patent application, as well as any corresponding international or national applications that claim priority from it. THE GOVERNMENT has the right to select attorneys or agents of its choice to prosecute at its discretion these applications on its behalf.

We grant the law firm of Klarquist Sparkman, LLP, the power to insert on this Assignment any further information that may be necessary or desirable in order to comply with all applicable legal requirements, including the rules of the United States Patent and Trademark Office, for submitting and recording this document.

IN TESTIMONY WHEREOF, Assignors have signed their names on the dates indicated.

Dated:	
	Eric J. Esswein
STATE OF)	
COUNTY OF) ss.	
J. Esswein, who executed the foregoing As	, before me personally came the above-named Eric signment in my presence, and who acknowledged to ric J. Esswein's own free will for the purpose set forth
	Notary Public for
[SEAL]	My commission expires:

PASTENETT - Page 2 of 4

REEL: 037503 FRAME: 0047

Dated:	
	Michael Breitenstein
STATE OF) COUNTY OF)	SS.
COUNTY OF	
Michael Breitenstein, who execu	,, before me personally came the above-named ted the foregoing Assignment in my presence, and who trument was executed by Michael Breitenstein's own free will
	Notary Public for My commission expires:
[SEAL]	· · · · · · · · · · · · · · · · · · ·
Dated:	John E. Snawder
STATE OF) COUNTY OF)	SS.
E. Snawder, who executed the fo	,, before me personally came the above-named John regoing Assignment in my presence, and who acknowledged to uted by John E. Snawder's own free will for the purpose set
	Notary Public for My commission expires:

[SEAL]

Dated:
STATE OF OHIO
COUNTY OF HAMILTON) ss.
This day of May , 2013, before me personally came the above-named Michael G. Gressel, who executed the foregoing Assignment in my presence, and who acknowledged to me that this instrument was executed by Michael G. Gressel's own free will for the purpose set forth therein.
Notary Public for ST OF OH/O My commission expires: LOIS E. BREITENSTEIN NOTARY PUBLIC, STATE OF OHIO MY COMMISSION EXPIRES MAY 08, 2016
,
Dated: $\frac{5/21/2013}{\text{Jerry L. Kratzer}}$
STATE OF OHIO
COUNTY OF HAMILTON) ss.
This L day of MM 2013, before me personally came the above-named Jerry L. Kratzer, who executed the foregoing Assignment in my presence, and who acknowledged to me that this instrument was executed by Jerry L. Kratzer's own free will for the purpose set forth therein.
Notary Public for ST OF OH 10 My commission expires: M AY 08, 2016 LOIS E. BREITENSTEIN NOTARY PUBLIC, STATE OF OHIO MY COMMISSION EXPIRES 148, 2016

PASTEMENT - Page 4 of 4

REEL: 037503 FRAME: 0049