

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT3126943

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT	
<b>NATURE OF CONVEYANCE:</b>	SECURITY AGREEMENT	
<b>CONVEYING PARTY DATA</b>		
	<b>Name</b>	<b>Execution Date</b>
	ECO SERVICES OPERATIONS LLC	12/01/2014
<b>RECEIVING PARTY DATA</b>		
<b>Name:</b>	CREDIT SUISSE AG, CAYMAN ISLANDS BRANCH, AS COLLATERAL AGENT	
<b>Street Address:</b>	7033 LOUIS STEPHENS DRIVE, PO BOX 110047	
<b>City:</b>	RESEARCH TRIANGLE PARK	
<b>State/Country:</b>	NORTH CAROLINA	
<b>Postal Code:</b>	27709	
<b>PROPERTY NUMBERS Total: 5</b>		
<b>Property Type</b>	<b>Number</b>	
<b>Patent Number:</b>	6818799	
<b>Patent Number:</b>	7034193	
<b>Patent Number:</b>	6315975	
<b>Patent Number:</b>	6197837	
<b>Patent Number:</b>	6245216	
<b>CORRESPONDENCE DATA</b>		
<b>Fax Number:</b>		
<i>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.</i>		
<b>Email:</b>	michael.barys@thomsonreuters.com	
<b>Correspondent Name:</b>	ELAINE CARRERA, LEGAL ASSISTANT	
<b>Address Line 1:</b>	80 PINE ST	
<b>Address Line 2:</b>	C/O CAHILL GORDON & REINDEL LLP	
<b>Address Line 4:</b>	NEW YORK, NEW YORK 10005	
<b>NAME OF SUBMITTER:</b>	ELAINE CARRERA	
<b>SIGNATURE:</b>	/Michael Barys TR/	
<b>DATE SIGNED:</b>	12/01/2014	
<b>Total Attachments: 10</b>		
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## PATENT SECURITY AGREEMENT

This PATENT SECURITY AGREEMENT is entered into as of December 1, 2014 (this "**Agreement**"), among Eco Services Operations LLC, a Delaware limited liability company (the "**Grantor**") and Credit Suisse AG, Cayman Islands Branch ("**CS**"), as collateral agent (in such capacity, the "**Collateral Agent**") for the Secured Parties.

Reference is made to that certain Pledge and Security Agreement, dated as of the date hereof (as amended, restated, amended and restated, supplemented or otherwise modified from time to time and in effect on the date hereof, the "**Security Agreement**"), among the Loan Parties party thereto and the Collateral Agent. The Lenders (as defined below) have extended credit to the Borrower (as defined in Credit Agreement (as defined below)) subject to the terms and conditions set forth in that certain Credit Agreement dated as of the date hereof (as amended, restated, amended and restated, supplemented or otherwise modified and in effect on the date hereof, the "**Credit Agreement**"), by and among, Eco Services Operations LLC, a Delaware limited liability company ("**Borrower**"), Eco Services Intermediate Holdings LLC, a Delaware limited liability company, the Lenders from time to time party thereto (the "**Lenders**") and CS, in its capacities as issuing bank and as administrative agent and collateral agent for the Lenders. Consistent with the requirements set forth in Sections 4.01 and 5.12 of the Credit Agreement and Section 4.03(c) of the Security Agreement, the parties hereto agree as follows:

SECTION 1. **Terms.** Capitalized terms used in this Agreement and not otherwise defined herein have the meanings specified in the Security Agreement.

SECTION 2. **Grant of Security Interest.** As security for the prompt and complete payment or performance, as the case may be, in full of the Secured Obligations, [each][the] Grantor, pursuant to the Security Agreement, did and hereby does pledge, collaterally assign, mortgage, transfer and grant to the Collateral Agent, its successors and permitted assigns, on behalf of and for the ratable benefit of the Secured Parties, a continuing security interest in all right, title or interest in, to or under all of the following assets, whether now owned or at any time hereafter acquired by or arising in favor of such Grantor and regardless of where located (collectively, the "**Patent Collateral**"):

- A. all Patents, including those Patent registrations and pending applications in the United States Patent and Trademark Office listed on Schedule I hereto;
- B. the right to sue third parties for past, present and future infringements of any Patent; and
- C. all proceeds of and any right associated with the foregoing;

in each case to the extent the foregoing items constitute Collateral.

SECTION 3. **Security Agreement.** The security interests granted to the Collateral Agent herein are granted in furtherance, and not in limitation of, the security interests granted to the Collateral Agent pursuant to the Security Agreement. The Grantor hereby acknowledges and affirms that the rights and remedies of the Collateral Agent with respect to the Patent Collateral are more fully set forth in the Security Agreement, the terms and provisions of which are hereby incorporated herein by reference as if fully set forth herein. In the event of any conflict between the terms of this Agreement and the Security Agreement, the terms of the Security Agreement shall govern.

SECTION 4. **Governing Law.** This Agreement shall be governed by, and construed in accordance with, the laws of the State of New York.

[Signature Pages Follow]

IN WITNESS WHEREOF, the parties hereto have duly executed this Agreement as of the day and year first above written.

ECO SERVICES OPERATIONS LLC

By: 

Name: James Harton

Title: Chief Executive Officer

[SIGNATURE PAGE TO PATENT SECURITY AGREEMENT]

**PATENT**  
**REEL: 034500 FRAME: 0967**

CREDIT SUISSE AG, CAYMAN ISLANDS  
BRANCH,  
as Collateral Agent

By: \_\_\_\_\_

Name:

Title:


  
JOHN D. TORONTO

AUTHORIZED SIGNATORY

By: \_\_\_\_\_

Name:

Title:

  
WHITNEY GASTON  
AUTHORIZED SIGNATORY

[SIGNATURE PAGE TO PATENT SECURITY AGREEMENT]

PATENT

REEL: 034500 FRAME: 0968

**SCHEDULE I**

**PATENTS**

<b>OWNER</b>	<b>PATENT NUMBER</b>	<b>DESCRIPTION</b>
Eco Services Operations LLC	6,818,799	Process for Removing Tar From Spent Acid
Eco Services Operations LLC	7,034,193	Method For Purifying Spent Acid
Eco Services Operations LLC	6,315,975	Suspension System Using Fumed Silica
Eco Services Operations LLC	6,197,837	Method For Fluidizing Tars
Eco Services Operations LLC	6,245,216	Method For Fluidizing Tars

**PATENT APPLICATIONS**

None.

## **EXHIBIT A**

### **[FORM OF] PATENT SECURITY AGREEMENT SUPPLEMENT**

This PATENT SECURITY AGREEMENT SUPPLEMENT is entered into as of [●] [●], 20[●] (this “**Patent Security Agreement Supplement**”), among [●] ([each, a][the] “**Grantor**”) and Credit Suisse AG, Cayman Islands Branch (“**CS**”), as collateral agent (in such capacity, the “**Collateral Agent**”) for the Secured Parties.

Reference is made to that certain Pledge and Security Agreement, dated as of [\_\_\_\_], 2014 (as amended, restated, amended and restated, supplemented or otherwise modified from time to time and in effect on the date hereof, the “**Security Agreement**”), among the Loan Parties party thereto and the Collateral Agent. The Lenders (as defined below) have extended credit to the Borrower (as defined in Credit Agreement (as defined below)) subject to the terms and conditions set forth in that certain Credit Agreement dated as of [\_\_\_\_], 2014 (as amended, restated, amended and restated, supplemented or otherwise modified and in effect on the date hereof, the “**Credit Agreement**”), by and among, Eco Services Operations LLC, a Delaware limited liability company (“**Borrower**”), Eco Services Intermediate Holdings LLC, a Delaware limited liability company, the Lenders from time to time party thereto (the “**Lenders**”) and CS, in its capacities as issuing bank and as administrative agent and collateral agent for the Lenders. Consistent with the requirements set forth in Sections 4.01 and 5.12 of the Credit Agreement, the [Grantor][Grantors] and the Collateral Agent have entered into that certain Patent Security Agreement, dated as of [●] [●], 20[●] (as amended, restated, amended and restated, supplemented or otherwise modified from time to time and in effect on the date hereof, the “**Patent Security Agreement**”). Under the terms of the Security Agreement, the Grantor has granted to the Collateral Agent for the benefit of the Secured Parties as security interest in the Additional Patent Collateral (as defined below) and have agreed, consistent with the requirements of Section 4.03(c) of the Security Agreement, to execute this Patent Security Agreement Supplement. Now, therefore, the parties hereto agree as follows:

**SECTION 1. Terms.** Capitalized terms used in this Patent Security Agreement Supplement and not otherwise defined herein have the meanings specified in the Security Agreement.

**SECTION 2. Grant of Security Interest.** As security for the prompt and complete payment or performance, as the case may be, in full of the Secured Obligations, [each][the] Grantor, pursuant to the Security Agreement, did and hereby does pledge, collaterally assign, mortgage, transfer and grant to the Collateral Agent, its successors and permitted assigns, on behalf of and for the ratable benefit of the Secured Parties, a continuing security interest in all right, title or interest in, to or under all of the following assets, whether now owned or at any time hereafter acquired by or arising in favor of [such][the] Grantor and regardless of where located (collectively, the “**Additional Patent Collateral**”):

- A. the Patent registrations and pending applications in the United States Patent and Trademark Office listed on Schedule I hereto;
- B. the right to sue third parties for past, present and future infringements of such Patent registrations and pending applications; and
- C. all proceeds of and any right associated with the foregoing;

in each case to the extent the foregoing items constitute Collateral.

Exhibit A

SECTION 3. **Security Agreement.** The security interests granted to the Collateral Agent herein are granted in furtherance, and not in limitation of, the security interests granted to the Collateral Agent pursuant to the Security Agreement. **[Each][The]** Grantor hereby acknowledges and affirms that the rights and remedies of the Collateral Agent with respect to the Additional Patent Collateral are more fully set forth in the Security Agreement, the terms and provisions of which are hereby incorporated herein by reference as if fully set forth herein. In the event of any conflict between the terms of this Patent Security Agreement Supplement and the Security Agreement, the terms of the Security Agreement shall govern.

SECTION 4. **Governing Law.** This Agreement shall be governed by, and construed in accordance with, the laws of the State of New York.

[Signature Pages Follow]

Exhibit A



IN WITNESS WHEREOF, the parties hereto have duly executed this Patent Security Agreement Supplement as of the day and year first above written.

[●]

By: \_\_\_\_\_

Name: [●]

Title: [●]

Exhibit A

CREDIT SUISSE AG, CAYMAN ISLANDS  
BRANCH,  
as Collateral Agent

By: \_\_\_\_\_  
Name: [●]  
Title: [●]

By: \_\_\_\_\_  
Name: [●]  
Title: [●]

Exhibit A

**SCHEDULE I**

**PATENTS**

REGISTERED OWNER	SERIAL NUMBER	DESCRIPTION

**PATENT APPLICATIONS**

APPLICANT	APPLICATION NO.	DESCRIPTION