

PATENT ASSIGNMENT

Electronic Version v1.1

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SUBMISSION TYPE:	NEW ASSIGNMENT												
NATURE OF CONVEYANCE:	ASSIGNMENT												
CONVEYING PARTY DATA													
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Emory D. Collins</td> <td>09/04/2013</td> </tr> <tr> <td>Guillermo D. DelCul</td> <td>09/04/2013</td> </tr> <tr> <td>Rodney D. Hunt</td> <td>09/04/2013</td> </tr> <tr> <td>Jared A. Johnson</td> <td>09/04/2013</td> </tr> <tr> <td>Barry B. Spencer</td> <td>09/04/2013</td> </tr> </tbody> </table>		Name	Execution Date	Emory D. Collins	09/04/2013	Guillermo D. DelCul	09/04/2013	Rodney D. Hunt	09/04/2013	Jared A. Johnson	09/04/2013	Barry B. Spencer	09/04/2013
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Barry B. Spencer	09/04/2013												
RECEIVING PARTY DATA													
Name:	UT-Battelle, LLC												
Street Address:	One Bethel Valley Road												
Internal Address:	4500N, MS-6258												
City:	Oak Ridge												
State/Country:	TENNESSEE												
Postal Code:	37831-6258												
PROPERTY NUMBERS Total: 1													
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13079897</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13079897								
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CORRESPONDENCE DATA													
Fax Number:	8655740381												
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>													
Phone:	(865) 574-4178												
Email:	vanceke@oml.gov												
Correspondent Name:	Joseph A. Marasco												
Address Line 1:	One Bethel Valley Road												
Address Line 2:	4500N, MS-6258												
Address Line 4:	Oak Ridge, TENNESSEE 37831-6258												
ATTORNEY DOCKET NUMBER:	2278.1												

CH \$40.00 13079897

NAME OF SUBMITTER:	Karen E. Vance
Signature:	/KE Vance/
Date:	09/05/2013
Total Attachments: 3 source=2278.1 Assignment EPAS rv#page1.tif source=2278.1 Assignment EPAS rv#page2.tif source=2278.1 Assignment EPAS rv#page3.tif	

**RECORDATION FORM COVER SHEET
PATENTS ONLY**

To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.

1. Name of conveying party(ies)
Emory D. Collins
Guillermo D. DelCul
Rodney D. Hunt
Jared A. Johnson
Barry B. Spencer

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

2. Name and address of receiving party(ies)
Name: UT-Battelle, LLC
Internal Address: 4500N, MS-6258
Street Address: One Bethel Valley Road
City: Oak Ridge
State: TN
Country: USA Zip: 37831-6258

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

3. Nature of conveyance/Execution Date(s):
Execution Date(s) 09/04/2013

Assignment Merger
 Security Agreement Change of Name
 Joint Research Agreement
 Government Interest Assignment
 Executive Order 9424, Confirmatory License
 Other _____

4. Application or patent number(s): This document is being filed together with a new application.
A. Patent Application No.(s)
13/079,897
B. Patent No.(s)

Additional numbers attached? Yes No

5. Name and address to whom correspondence concerning document should be mailed:
Name: Joseph A. Marasco
Internal Address: UT-Battelle, LLC
Street Address: One Bethel Valley Road
4500N, MS-6258
City: Oak Ridge
State: TN Zip: 37831-6258
Phone Number: (865) 574-4178
Fax Number: (865) 574-0381
Email Address: marascoja@ornl.gov

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40.00

Authorized to be charged by credit card
 Authorized to be charged to deposit account
 Enclosed
 None required (government interest not affecting title)

8. Payment Information

a. Credit Card Last 4 Numbers _____
Expiration Date _____

b. Deposit Account Number 13-1958

Authorized User Name Karen E. Bowman

9. Signature: _____ /Joseph A. Marasco/ _____ 09/05/2013
Signature Date
Joseph A. Marasco, Reg. No. 32,798
Name of Person Signing

Total number of pages including cover sheet, attachments, and documents: 3

Documents to be recorded (including cover sheet) should be faxed to (571) 273-0140, or mailed to:
Mail Stop Assignment Recordation Services, Director of the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450

ASSIGNMENT

WHEREAS, we the below-named inventors whose residences are as stated below, have an interest in an invention entitled:

Advanced Dry Head-End Reprocessing of Light Water Reactor Spent Nuclear Fuel

(hereinafter referred to as "Subject Invention") for which are described in United States Patent Application No. 13/079,897 filed on April 5, 2011, and

WHEREAS, UT-BATTELLE, LLC, a limited liability company of the State of Tennessee, having an office at One Bethel Valley Road, P. O. Box 2008, Oak Ridge, Tennessee 37831-6258, hereinafter referred to as "ASSIGNEE," is desirous of acquiring our entire right, title and interest of the undersigned in the same;

NOW, THEREFORE, in accordance with the terms of our employment agreement with ASSIGNEE and for good and valuable consideration, the receipt of which is hereby acknowledged, we hereby assign and transfer to ASSIGNEE and its successors in interest our entire right, title and interest in the Subject Invention to all rights of priority thereto pursuant to the International Convention for the Protection of Industrial Property, and in any Letters Patent on the Subject Invention that may be granted in the United States of America and in any and all foreign countries, including any and all Letters Patent that are divisions, reissues, continuations, substitutions or extensions of any Letters Patent or patent applications therefor on the Subject Invention.

We hereby authorize and request the Commissioner of the United States Patent and Trademark Office and the officials of any and all foreign countries to issue any and all of said Letters Patent, when granted, to the ASSIGNEE.

Further, we hereby agree to communicate to said ASSIGNEE or its representatives any facts known to us respecting said Subject Invention, to testify in any legal proceedings, sign all lawful papers, execute all divisional, continuation, substitution, renewal and reissue applications, to execute all necessary assignment papers to cause any and all of said Letters Patent to be issued to said ASSIGNEE, and to make all rightful oaths and generally do everything possible to aid said ASSIGNEE and its representatives to obtain and enforce proper protection for said Subject Invention in the United States of America and in any and all foreign countries.

We further agree that the terms, covenants and conditions of this assignment shall inure to the benefit of ASSIGNEE, its successors, assigns, and legal representatives, and shall be binding on us, our heirs, legal representatives, and assigns.

Full Name of Inventor: Emory D. Collins

Signature:  Date: 9/4/2013

Residence: 12020 Butternut Lane, Knoxville, Tennessee 37934

Full Name of Inventor: Guillermo D. DelCul

Signature:  Date: 9/4/2013

Residence: 1401 Wincherry Road, Powell, Tennessee 37849

Full Name of Inventor: Rodney D. Hunt

Signature:  Date: 9/4/2013

Residence: 3006 Sugar Grove Valley, Harriman, Tennessee 37748

Full Name of Inventor: Jared A. Johnson

Signature:  Date: 9/4/2013

Residence: 2111 Briarhill Lane, Knoxville, Tennessee 37921

Full Name of Inventor: Barry B. Spencer

Signature:  Date: 9/4/13

Residence: 8133 Wiebels Drive, Knoxville, Tennessee 37931