PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	

CONVEYING PARTY DATA

Name	Execution Date
Andrew D. Odell	06/13/2012
Robert J. Scholz	06/12/2012
James A. Tangen	06/15/2012
Gerald F. Davina	06/07/2012
Joseph F. Giannelli	06/07/2012
Susan E. Garcia	06/11/2012

RECEIVING PARTY DATA

Name:	ELECTRIC POWER RESEARCH INSTITUTE, INC.
Street Address:	1300 West WT Harris Blvd
City:	Charlotte
State/Country:	NORTH CAROLINA
Postal Code:	28262

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13478953

CORRESPONDENCE DATA

Fax Number:(704)599-8719Phone:704-599-8911

Email: bct@THL-IPLAW.COM

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

via US Mail.

Correspondent Name: TREGO, HINES & LADENHEIM, PLLC Address Line 1: 9300 HARRIS CORNERS PARKWAY

Address Line 2: SUITE 210

Address Line 4: CHARLOTTE, NORTH CAROLINA 28269-3797

ATTORNEY DOCKET NUMBER: 1036/159US

PATENT REEL: 028530 FRAME: 0538 340,00 13478953

501985240

NAME OF SUBMITTER:	Brandon C. Trego
Total Attachments: 6 source=1036-159US-assig#page1.tif source=1036-159US-assig#page2.tif source=1036-159US-assig#page3.tif source=1036-159US-assig#page4.tif source=1036-159US-assig#page5.tif source=1036-159US-assig#page6.tif	

PATENT REEL: 028530 FRAME: 0539

ASSIGNMENT

For good and valuable consideration of which we acknowledge receipt, I/we:

(name) (residence)

Andrew D. Odell Kennett Square, Pennsylvania

Robert J. Scholz Kennett Square, Pennsylvania

James A. Tangen Parsippany, New Jersey

Gerald F. Davina Parsippany, New Jersey

Joseph F. Giannelli Parsippany, New Jersey

Susan Elaine Garcia Paso Robles, California

hereby sell and assign to:

Electric Power Research Institute, Inc., 1300 West W. T. Harris Blvd., Charlotte, NC 28262

(hereinafter referred to as "Assignee"), its successors and assigns our entire respective rights, titles and interests in and to the invention and improvements invented and originated by us and described in the following United States Patent Application:

Serial No. (if known): 13/478,953

Filing Date (if known): May 23, 2012

Title: APPARATUS AND METHOD FOR OBTAINING GASEOUS HYDROGEN CONCENTRATIONS IN A MECHANICAL VACUUM PUMP GAS STREAM OF A BWR

and any and all applications for patent and patents therefrom in any and all countries, including all divisions, continuations, reexaminations and reissues thereof, and all rights of priority resulting from the filing of said United States application, and authorize and request any official whose duty it is to issue patents, to issue any patent on said inventions and improvements resulting therefrom to said Assignee, or its successors or assigns and agree that on request and without further consideration, but at the expense of said Assignee, I/we will communicate to said Assignee or its representatives or nominees any facts known to me/us respecting said inventions and improvements and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, reexamination and reissue applications, make all rightful oaths and generally do everything possible to aid said Assignee, its successors, assigns, and nominees to obtain and enforce proper patent protection for said invention and its improvements in all countries.

WITNESS MY hand and seal this 13 day of June, 2012
and Odll
Andrew D. Odell NOTARY ACKNOWLEDGMENT
STATE OF New Mexico
COUNTY OF Sawler Fle
I, Dachelle Burrows, a Notary Public for said County and State do hereby
certify that Audrow Odoll appeared before me personally and signed the
aforementioned Assignment.
This the 3 day of June, 2012
Notary Public Notary Public
My Commission Expires 9. 15.15
SEAL

Robert J. Scholz NOTARY ACKNOWLEDGMENT STATE OF	WITNESS MY hand and seal this day of	,2012
I,	Robert J. Scholz NOTARY ACK	KNOWLEDGMENT
I,	STATE OF	
appeared before me personally and signed the aforementioned Assignment. This the day of, 2012 Notary Public Notary Public My Commission Expires SEAL WITNESS MY hand and seal this /5 day of, 2012 MOTARY ACKNOWLEDGMENT STATE OF NOTARY ACKNOWLEDGMENT STATE OF / Morris I, Maria A ligarva, a Notary Public for said County and State do heret certify that James A . Tangen appeared before me personally and signed the aforementioned Assignment. This the 15 day of, 2012 WARRAN ALLAWA	COUNTY OF	
This the day of	I,	, a Notary Public for said County and State do hereby
Notary Public Notary Public for said County and State do hered aforementioned Assignment. Notary Public Notary Public Notary Public Notary Public Notary Public	certify that	appeared before me personally and signed the
Notary Public My Commission Expires SEAL WITNESS MY hand and seal this	aforementioned Assignment.	
SEAL WITNESS MY hand and seal this	This the day of	
WITNESS MY hand and seal this	Not	ary Public
WITNESS MY hand and seal this	My Commission Expires	
WITNESS MY hand and seal this	SEAL	
I, Mana T. Algarva, a Notary Public for said County and State do herely certify that James A. Tangen appeared before me personally and signed the aforementioned Assignment. This the 15 day of June, 2012 Notary Public	STATE OF New Jersey	KNOWLEDGMENT
aforementioned Assignment. This the 15 day of June, 2012 Notary Public	Mais T Alance	Notes Dublic for said County and State de house
This the 15 day of June, 2012	10-	
Notary Public		
Notary Public My Commission Expires Must 22, 2016 SEAL	This the 15 day of June	, 2012
SEAL CONTROLLER CONTRO	My Commission Expires Must 22, 201	ary Public
	SEAL SEAL SEAL SEAL SEAL SEAL SEAL SEAL	

ASSIGNMENT

For good and valuable consideration o	f which we acknowledge receipt, I/we:	
(name)	(residence)	
Andrew D. Odell	Kennett Square, Pennsylvania	a miliaria
Robert J. Scholz	Kennett Square, Pennsylvania Gler Mills, F	ENNSYIUMNIA
James A. Tangen	Kennett Square, Pennsylvania Kennett Square, Pennsylvania Parsippany, New Jersey Parsippany, New Jersey	PSC Chel
Gerald F. Davina	Parsippany, New Jersey	10/3 6/19/2
Joseph F. Giannelli	Parsippany, New Jersey	
Susan Elaine Garcia	Paso Robles, California	
hereby sell and assign to:		
Electric Power Research Institute, Inc.	, 1300 West W. T. Harris Blvd., Charlotte, NC 28262	
(hereinafter referred to as "Assignee") to the invention and improvements in Application:	, its successors and assigns our entire respective rights, title vented and originated by us and described in the following	es and interests in and g United States Patent

Serial No. (if known): 13/478,953

Filing Date (if known): May 23, 2012

Title: APPARATUS AND METHOD FOR OBTAINING GASEOUS HYDROGEN CONCENTRATIONS IN A MECHANICAL VACUUM PUMP GAS STREAM OF A BWR

and any and all applications for patent and patents therefrom in any and all countries, including all divisions, continuations, reexaminations and reissues thereof, and all rights of priority resulting from the filing of said United States application, and authorize and request any official whose duty it is to issue patents, to issue any patent on said inventions and improvements resulting therefrom to said Assignee, or its successors or assigns and agree that on request and without further consideration, but at the expense of said Assignee, I/we will communicate to said Assignee or its representatives or nominees any facts known to me/us respecting said inventions and improvements and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, reexamination and reissue applications, make all rightful oaths and generally do everything possible to aid said Assignee, its successors, assigns, and nominees to obtain and enforce proper patent protection for said invention and its improvements in all countries.

WITNESS MY hand and seal this	day of	, 2012
Andrew D. Odell	NOTARY ACK	<u>NOWLEDGMENT</u>
STATE OF		
COUNTY OF		
I,		, a Notary Public for said County and State do hereby
certify that		appeared before me personally and signed the
aforementioned Assignment.		
This the day of		, 2012
	Nota	ry Public
My Commission Expires		·
SEAL		

WITNESS MY hand and seal this
Robert J. Scholz NOTARY ACKNOWLEDGMENT
state of Pennsylvania
COUNTY OF York
certify that Robert J. Scholz appeared before me personally and signed the
certify that Robert J. Scholz appeared before me personally and signed the
aforementioned Assignment.
This the 12th day of June , 2012
Annet L. Wiley COMMONWEALTH OF PENNSYLVANIA Notarial Seal
Notary Public Peach Bottom Twp., York County
My Commission Expires June 17, 2014 Member. Pennsylvania Association of Notaries
SEAL
WITNESS MY hand and seal this day of, 2012
James A. Tangen NOTARY ACKNOWLEDGMENT
STATE OF
COUNTY OF
I,, a Notary Public for said County and State do hereby
certify thatappeared before me personally and signed the
aforementioned Assignment.
This the, 2012
Notary Public
My Commission Expires
SEAL

WITNESS MY hand and seal this
Herold F. Davina NOTARY ACKNOWLEDGMENT
STATE OF NEW JErsey
COUNTY OF Morris
I, Maria I. Algarra, a Notary Public for said County and State do hereby certify that Gerald F. Daving appeared before me personally and signed the
certify that Gerald F. Daying appeared before me personally and signed the
aforementioned Assignment.
This the
This the
Notary Public
My Commission Expires August 22, 2016
SEAL
WITNESS MY hand and seal this
Joseph F. Giannelli NOTARY ACKNOWLEDGMENT
Joseph F. Giannelli STATE OF New Jersey COUNTY OF Morris
Joseph F. Giannelli STATE OF New Jersey NOTARY ACKNOWLEDGMENT
Joseph F. Giannelli STATE OF New Jersey COUNTY OF Morris
Joseph F. Giannelli STATE OF New Jersey COUNTY OF Morris I, Maria I. Algaria, a Notary Public for said County and State do hereby
Joseph F. Giannelli STATE OF New Jersey COUNTY OF Morris I, Maria I. Algara, , a Notary Public for said County and State do hereby certify that Joseph F. Giannelli appeared before me personally and signed the
Joseph F. Giannelli STATE OF
Joseph F. Giannelli STATE OF
Joseph F. Giannelli STATE OF Now Jersey COUNTY OF Morris I, Maria I. Algaria , a Notary Public for said County and State do hereby certify that Joseph F. Giannelli appeared before me personally and signed the aforementioned Assignment. This the J day of June , 2012 Hama A Warnia June , 2012
Joseph F. Giannelli STATE OF New Jersey COUNTY OF Morris I, Maria I. Algaria, a Notary Public for said County and State do hereby certify that Joseph F. Giannelli appeared before me personally and signed the aforementioned Assignment. This the J day of June, 2012 Mana A Algaria

Page 3

WITNESS MY hand and seal this day of
Susan Elaine Garcia NOTARY ACKNOWLEDGMENT
STATE OF New-Mixed
COUNTY OF Santa He AM
Layele F. Fuche , a Notary Public for said County and State do hereby
certify that Susai appeared before me personally and signed the
aforementioned Assignment.
This the /// day of /// 20/2-2012
Notary Public Notary Public Coyola P. Fischer
My Commission Expires // /5 NOTARY PUBLIC STATE OF NEW MEXICO My Commission Expires:
SEAL
WITNESS MY hand and seal this day of
WITHESS WIT hand and sear and day of, as a
NOTARY ACKNOWLEDGMENT
STATE OF New-Mexico
COUNTY OF Santa De M.M
I, Layela P. Fisch, a Notary Public for said County and State do hereby
certify that Susan State do hereby appeared before me personally and signed the
aforementioned Assignment.
This the day of, 2012
L. OFFICIAL SEAL
Notary Print C
My Commission Expires 10 -18-15 My Commission Expires: 10-18-15
SEAL

Page 4