

PATENT ASSIGNMENT COVER SHEET

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EPAS ID: PAT5364918

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
GE-HITACHI NUCLEAR ENERGY AMERICAS LLC	12/14/2018

RECEIVING PARTY DATA

Name:	NORDION (CANADA) INC.
Street Address:	447 MARCH ROAD
City:	OTTAWA
State/Country:	CANADA
Postal Code:	K2K 1X8

PROPERTY NUMBERS Total: 1

Property Type	Number
Patent Number:	9362009

CORRESPONDENCE DATA

Fax Number: (604)683-3558

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.

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ATTORNEY DOCKET NUMBER:	V813423US
NAME OF SUBMITTER:	COLLEEN TYLER
SIGNATURE:	/COLLEEN TYLER/
DATE SIGNED:	02/07/2019

Total Attachments: 6

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PATENT ASSIGNMENT

In consideration of good and valuable consideration, the receipt and legal sufficiency of which are hereby acknowledged, GE-Hitachi Nuclear Energy Americas LLC whose full post office address is 3901 Castle Hayne Road, Wilmington, North Carolina, U.S.A. ("Assignor"), hereby assigns, conveys and transfers to Nordion (Canada) Inc. whose full post office address is 447 March Road, Ottawa, Ontario, Canada ("Assignee"), any and all of its rights, title, interest, property and benefit in and to the patent applications and the issued patents listed in Schedule A (the "Patents") and the inventions claimed therein, to the full end of the term for which the said Patents may be granted, including, without limitation, the right to apply for Letters Patent in all countries throughout the world and all rights to claim priority based on said Patents under the terms of any international convention, and including all rights in all countries throughout the world to sue and recover for past infringement of such Patents, the same to be held and enjoyed by Assignee, as fully and completely as by Assignor, had this assignment not been made.

EXECUTED this 14th day of December, 2018.

GE-HITACHI NUCLEAR ENERGY
AMERICAS LLC

Signature: _____

Name: LANCE HALL _____

Position: ENR- GEH SERVICES _____

Witnessed By: -

Signature: _____

Name: THOMAS APOLLONIO _____

Position: GM PM+S GEH _____

NORDION (CANADA) INC.



Signature: _____

Name: KEVIN BROOKS _____

Position: President _____

Witnessed By: -

Signature: _____

Name: BOB SEALEY _____

Position: Senior Business Development Specialist _____

**SCHEDULE A
GEH PATENTS**

Docket Number	Filing Suffix	Filing Country Name	Disclosure Status	Filing Status Description	Title	Application Date	Application Number	Issue Date	Patent Number
158464	1	UNITED STATES	Filed	Issued	Rod Assembly for Nuclear Reactors	12/3/2004	11/002677	4/28/2009	7526058
158464	3	JAPAN	Filed	Issued	Rod Assembly for Nuclear Reactors	11/30/2005	2005-344805	8/2/2013	5330634
158464	5	UNITED STATES	Filed	Issued	Rod Assembly for Nuclear Reactors	7/30/2008	12/219906	9/23/2014	8842801
158464	6	SWITZERLAND	Filed	Issued	Rod Assembly for Nuclear Reactors	11/28/2005	05257285.6	3/27/2013	1667165
158464	8	SPAIN	Filed	Issued	Rod Assembly for Nuclear Reactors	11/28/2005	05257285.6	3/27/2013	1667165
158464	9	FINLAND	Filed	Issued	Rod Assembly for Nuclear Reactors	11/28/2005	05257285.6	3/27/2013	1667165
158464	10	FRANCE	Filed	Issued	Rod Assembly for Nuclear Reactors	11/28/2005	05257285.6	3/27/2013	1667165
158464	11	SWEDEN	Filed	Issued	Rod Assembly for Nuclear Reactors	11/28/2005	05257285.6	3/27/2013	1667165
158486	1	UNITED STATES	Filed	Issued	Method of Producing Isotopes in Power Nuclear Reactors	12/3/2004	11/002680	2/10/2015	8953731
158486	2	CANADA	Filed	Issued	Method of Producing Isotopes in Power Nuclear Reactors	11/24/2005	2527682	1/14/2014	2527682
158486	4	JAPAN	Filed	Issued	Method of Producing Isotopes in Power Nuclear Reactors	11/30/2005	2005-344804	10/26/2012	5118297
158486	6	UNITED STATES	Filed	Issued	Method of Producing Isotopes in Power Nuclear Reactors	9/27/2010	12/890845	1/19/2016	9239385
158486	9	SWITZERLAND	Filed	Issued	Method of Producing Isotopes in Power Nuclear Reactors	12/1/2005	05257403.5	9/12/2012	1667166
158486	12	SPAIN	Filed	Issued	Method of Producing Isotopes in Power Nuclear Reactors	12/1/2005	05257403.5	9/12/2012	1667166
158486	13	FINLAND	Filed	Issued	Method of Producing Isotopes in Power Nuclear Reactors	12/1/2005	05257403.5	9/12/2012	1667166
158486	14	FRANCE	Filed	Issued	Method of Producing Isotopes in Power Nuclear Reactors	12/1/2005	05257403.5	9/12/2012	1667166
158486	18	SWEDEN	Filed	Issued	Method of Producing Isotopes in Power Nuclear Reactors	12/1/2005	05257403.5	9/12/2012	1667166
226365	19	CANADA	Filed	Issued	Method of Producing Isotopes in Power Nuclear Reactors	11/24/2005	2831249	8/25/2015	2831249
226365	1	UNITED STATES	Filed	Issued	Fail-Free Fuel Bundle Assembly	11/28/2007	11/946272	12/1/2015	9202598
226365	2	CANADA	Filed	Issued	Fail-Free Fuel Bundle Assembly	11/13/2008	2643845	10/4/2016	2643845
226365	3	CHINA	Filed	Issued	Fail-Free Fuel Bundle Assembly	11/28/2008	200810179649.9	5/22/2013	200810179649.9
226365	6	RUSSIA	Filed	Issued	Fail-Free Fuel Bundle Assembly	11/27/2008	2008146951	1/27/2013	2473983
226365	7	TAIWAN	Filed	Issued	Fail-Free Fuel Bundle Assembly	11/17/2008	97144359	10/21/2014	457946
226365	8	GERMANY, FEDERAL REPUBLIC OF	Filed	Issued	Fuel Bundle Assembly With Reduced Risk of Damage	11/24/2008	08169770.8	3/5/2014	2071579

226365	9	SPAIN	Filed	Issued	Fuel Bundle Assembly With Reduced Risk of Damage	11/24/2008	08169770.8	3/5/2014	2071579
226365	10	FRANCE	Filed	Issued	Fuel Bundle Assembly With Reduced Risk of Damage	11/24/2008	08169770.8	3/5/2014	2071579
226365	11	GREAT BRITAIN	Filed	Issued	Fuel Bundle Assembly With Reduced Risk of Damage	11/24/2008	08169770.8	3/5/2014	2071579
226365	12	SWEDEN	Filed	Issued	Fuel Bundle Assembly With Reduced Risk of Damage	11/24/2008	08169770.8	3/5/2014	2071579
226368	1	UNITED STATES	Filed	Issued	Fuel Rod Design Using Internal Spacer Element and Methods of Using Same	11/28/2007	11987159	9/23/2014	8842800
226368	3	RUSSIA	Filed	Issued	Fuel Rod Design Using Internal Spacer Element and Methods of Using Same	11/27/2008	2008146972	1/27/2013	2473985
226368	4	TAIWAN	Filed	Issued	Fuel Rod Design Using Internal Spacer Element and Methods of Using Same	11/17/2008	97144351	2/21/2015	1474340
226368	5	CANADA	Filed	Issued	Fuel Rod Design Using Internal Spacer Element and Methods of Using Same	11/13/2008	2643848	10/4/2016	2643848
226368	6	CHINA	Filed	Issued	Designing of Fuel Rod Using Internal Spacer element and Method of Using the Same	11/28/2008	200810179638.0	5/22/2013	200810179638.0
226368	7	JAPAN	Filed	Issued	Fuel Rod Design Using Internal Spacer Element and Methods of Using Same	11/17/2008	2008-292875	9/5/2014	5607876
226368	8	GERMANY, FEDERAL REPUBLIC OF	Filed	Issued	Nuclear Fuel Assembly With Fuel Rod Using Internal Spacer Element	11/24/2008	08169769.0	2/25/2015	2065896
226368	9	SPAIN	Filed	Issued	Nuclear Fuel Assembly With Fuel Rod Using Internal Spacer Element	11/24/2008	08169769.0	2/25/2015	2065896
226368	10	FRANCE	Filed	Issued	Nuclear Fuel Assembly With Fuel Rod Using Internal Spacer Element	11/24/2008	08169769.0	2/25/2015	2065896
226368	11	GREAT BRITAIN	Filed	Issued	Nuclear Fuel Assembly With Fuel Rod Using Internal Spacer Element	11/24/2008	08169769.0	2/25/2015	2065896
226368	12	SWEDEN	Filed	Issued	Nuclear Fuel Assembly With Fuel Rod Using Internal Spacer Element	11/24/2008	08169769.0	2/25/2015	2065896
226543	1	UNITED STATES	Filed	Issued	Cross-Section Reducing Isotope System	11/28/2007	11946258	6/7/2016	9362009
226543	2	CANADA	Filed	Issued	Cross-Section Reducing Isotope System	11/13/2008	2643841	10/10/2017	2643841

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226543	3	CHINA	Filed	Issued	Cross-Section Reducing Isotope System	11/28/2008	200810179633.8	11/6/2013	200810179633.8
226543	5	JAPAN	Filed	Issued	Cross-Section Reducing Isotope System	11/18/2008	2008-294019	5/23/2014	5547887
226543	6	RUSSIA	Filed	Issued	Cross-Section Reducing Isotope System	11/27/2008	2008146953	12/27/2013	2503073
226543	8	SWITZERLAND	Filed	Issued	Cross-Section Reducing Isotope System	11/24/2008	08169773	11/2/2016	2065899
226543	9	SPAIN	Filed	Issued	Cross-Section Reducing Isotope System	11/24/2008	08169773	11/2/2016	2065899
226543	10	FINLAND	Filed	Issued	Cross-Section Reducing Isotope System	11/24/2008	08169773.2	11/2/2016	2065899
226543	11	GREAT BRITAIN	Filed	Issued	Cross-Section Reducing Isotope System	11/24/2008	08169773.2	11/2/2016	2065899
226543	12	SWEDEN	Filed	Issued	Cross-Section Reducing Isotope System	11/24/2008	08169773	11/2/2016	2065899
229304	1	UNITED STATES	Filed	Issued	Irradiation Target Retention Systems, Fuel Assemblies Having the Same, and Methods of Using the Same	5/1/2008	12/149408	11/1/2011	8050377
229304	2	CANADA	Filed	Issued	Irradiation Target Retention Systems, Fuel Assemblies Having the Same, and Methods of Using the Same	4/23/2009	2664023	12/6/2016	2664023
229304	3	CHINA	Filed	Issued	Irradiation Target Retention Systems, Fuel Assemblies Having the Same, and Methods of Using the Same	4/29/2009	200910138818.9	6/25/2014	200910138818.9
229304	5	JAPAN	Filed	Issued	Irradiation Target Retention Systems, Fuel Assemblies Having the Same, and Methods of Using the Same	4/23/2009	2009-104620	11/29/2013	5421645
229304	6	RUSSIA	Filed	Issued	Irradiation Target Retention Systems, Fuel Assemblies Having the Same, and Methods of Using the Same	4/30/2009	2009116682	5/20/2013	2482560
229304	9	SPAIN	Filed	Issued	Irradiation Target Retention Systems and Fuel Assemblies Having the Same	4/24/2009	09158693.3	6/19/2013	2120241
229304	10	FRANCE	Filed	Issued	Irradiation Target Retention Systems and Fuel Assemblies Having the Same	4/24/2009	09158693.3	6/19/2013	2120241
229304	12	SWEDEN	Filed	Issued	Irradiation Target Retention Systems and Fuel Assemblies Having the Same	4/24/2009	09158693.3	6/19/2013	2120241

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232414	1	UNITED STATES	Filed	Issued	System for Assembling or Disassembling a Segmented Rod	3/30/2009	12/4/14055	3/25/2014	8681921
232414	3	JAPAN	Filed	Issued	System for Assembling or Disassembling a Segmented Rod	3/26/2010	2010-071275	8/7/2015	5789085
232414	4	SWEDEN	Filed	Issued	System for Assembling or Disassembling a Segmented Rod	3/17/2010	1050241-7	4/17/2012	1050241-7
232734	1	UNITED STATES	Filed	Issued	Methods and Apparatuses for Producing Isotopes In Nuclear Fuel Assembly Water Rods	7/15/2009	12/458531	1/28/2014	8638899
232734	4	JAPAN	Filed	Issued	Methods and Apparatuses for Producing Isotopes In Nuclear Fuel Assembly Water Rods	7/8/2010	2010-155314	4/10/2015	5727727
232734	5	RUSSIA	Filed	Issued	Methods and Apparatuses for Producing Isotopes In Nuclear Fuel Assembly Water Rods	7/15/2010	2010129226	3/10/2015	2543964
232734	8	SPAIN	Filed	Issued	Methods and Apparatuses for Producing Isotopes In Nuclear Fuel Assembly Water Rods	7/9/2010	10168990.9	3/20/2013	2276038
232734	10	GREAT BRITAIN	Filed	Issued	Methods and Apparatuses for Producing Isotopes In Nuclear Fuel Assembly Water Rods	7/9/2010	10168990.9	3/20/2013	2276038
232734	11	SWEDEN	Filed	Issued	Methods and Apparatuses for Producing Isotopes In Nuclear Fuel Assembly Water Rods	7/9/2010	10168990.9	3/20/2013	2276038
241515	1	UNITED STATES	Filed	Issued	Irradiation Target Positioning Devices and Methods of Using the Same	3/5/2010	12/718260	9/24/2013	8542789
241515	2	CANADA	Filed	Issued	Irradiation Target Positioning Devices and Methods of Using the Same	2/24/2011	2732902	4/17/2018	2732902
241515	4	SWEDEN	Filed	Issued	Irradiation Target Positioning Devices and Methods of Using the Same	2/18/2011	1150132-7	5/14/2013	1150132-7
241515	5	TAIWAN	Filed	Issued	Irradiation Target Positioning Devices and Methods of Using the Same	3/4/2011	100107400	11/11/2015	1508100
243163	1	UNITED STATES	Filed	Issued	Rod Assembly for Nuclear Reactors	9/10/2010	12/879612	2/20/2018	9899107
243163	3	JAPAN	Filed	Issued	Rod Assembly for Nuclear Reactors	9/8/2011	2011-195608	1/9/2015	5675538
243163	5	FINLAND	Filed	Issued	Fuel Rod Assembly for Nuclear Reactors	9/7/2011	11180346.6	5/28/2014	2428966

243163	6	FRANCE	Filed	Issued	Fuel Rod Assembly for Nuclear Reactors	9/7/2011	11180346.6	5/28/2014	2428966
243163	8	SPAIN	Filed	Issued	Fuel Rod Assembly for Nuclear Reactors	9/7/2011	11180346.6	5/28/2014	2428966
243163	9	SWEDEN	Filed	Issued	Fuel Rod Assembly for Nuclear Reactors	9/7/2011	11180346.6	5/28/2014	2428966
243163	10	SWITZERLAND	Filed	Issued	Fuel Rod Assembly for Nuclear Reactors	9/7/2011	11180346.6	5/28/2014	2428966
248255	1	UNITED STATES	Filed	Issued	Irradiation Target Encapsulation Assembly and Method of Assembly	9/23/2011	13/241669	11/24/2015	9196390
278443	1	UNITED STATES	Filed	Issued	Generating isotopes in an irradiation target holder installed in a nuclear reactor startup source holder position	06/05/2015	14/705190	17/07/2018	10026515
278443	2	JAPAN	Filed	Filed	Systems and Methods for Generating Isotopes in Nuclear Reactors Startup Source Holders	27/04/2016	2016-088653		
278443	5	SPAIN	Filed	Issued	Systems and Methods for Generating Isotopes in Nuclear Reactors Startup Source Holders	03/05/2016	16168194.5	18/04/2018	3091539
278443	6	SWEDEN	Filed	Issued	Systems and Methods for Generating Isotopes in Nuclear Reactors Startup Source Holders	03/05/2016	16168194.5	18/04/2018	3091539
278443	7	SWITZERLAND	Filed	Issued	Systems and Methods for Generating Isotopes in Nuclear Reactors Startup Source Holders	03/05/2016	16168194.5	18/04/2018	3091539
278443	4	UNITED STATES	Filed	Filed	Irradiation Target Holders and Methods of Using the Same in a Nuclear Reactor Startup Source Holder Position	18/06/2018	16/011560		

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