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PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
ISAMU HIWATASHI	02/24/2014
MANA IWAKI	02/24/2014
KENJI KUSUNOKI	02/24/2014
SEIICHI MATSUMURA	02/24/2014
KIYOISHI ISHIHAMA	02/24/2014
TAKAHISA FUNABIKI	02/24/2014

RECEIVING PARTY DATA

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PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14344901

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PATENT REEL: 044948 FRAME: 0452 504780849

ATTORNEY DOCKET NUMBER:	FUMO5.001APC
NAME OF SUBMITTER:	TSUNEAKI NISHIMURA
SIGNATURE:	/tsuneaki nishimura/
DATE SIGNED:	02/15/2018
Total Attachments: 2	•

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> **PATENT REEL: 044948 FRAME: 0453**

Application No.: Unknown Filing Date: Unknown

Docket Number: Page 1 of 2

ASSIGNMENT

WHEREAS, Isamu HIWATASHI, a Japanese citizen, residing at Osaka Japan, Mana IWAKI, a Japanese citizen, residing at Osaka Japan, Kenji KUSUNOKI, a Japanese citizen, residing at Osaka Japan, Seiichi MATSUMURA, a Japanese citizen, residing at Ibaraki Japan, Kiyoshi ISHIHAMA, a Japanese citizen, residing at Ibaraki Japan and Takahisa FUNABIKI, a Japanese citizen, residing at Ibaraki Japan, (individual hereinafter "ASSIGNOR") invented certain new and useful improvements, technology, inventions, developments, ideas or discoveries related to

PLATE HEAT EXCHANGER

(collectively hereinafter referred to as the "Work") for which an application for Letters Patent in the United States has been prepared for filing (identified above) with the United States Patent and Trademark Office (hereinafter the "Application");

AND WHEREAS, HISAKA WORKS, LTD., a Japan Corporation, with its principal place of business at 4-2-14, Fushimimachi, Chuo-ku, Osaka-shi, Osaka 541-0044 Japan, and Hitachi-GE Nuclear Energy, Ltd., 1-1, Saiwai-cho 3-chome, Hitachi-shi, Ibaraki 317-0073 Japan (hereinafter the "ASSIGNEE"), desires to acquire the entire right, title, and interest in and to the Application and the Work:

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, ASSIGNOR hereby acknowledges that ASSIGNOR has sold, assigned, transferred and set over, and by these presents does hereby sell, assign, transfer and set over, unto said ASSIGNEE, its successors, legal representatives and assigns, the entire right, title, and interest throughout the world in the Application and the Work, including all provisional applications relating thereto, and all nonprovisional applications claiming priority thereto, including, all divisions, continuations, continuations-in-part, reissues, and reexaminations thereof, and all Letters Patent of the United States which may be granted thereon and all reissues and extensions thereof, and all rights of priority under International Conventions and any related Letters Patent which may hereafter be granted or filed in any country or countries foreign to the United States, all extensions, renewals and reissues thereof; and ASSIGNOR hereby authorizes and requests the Commissioner of Patents of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents on applications as aforesaid, to issue all related Letters Patent to the ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND ASSIGNOR DOES HEREBY sell, assign, transfer, and convey to ASSIGNEE, its successors, legal representatives, and assigns all claims for damages and all remedies arising out of any violation of the rights assigned hereby that may have accrued prior to the date of assignment to ASSIGNEE, or may accrue hereafter, including, but not limited to, the right to sue for, collect, and retain damages for past infringements of said Letters Patent before or after issuance.

AND ASSIGNOR DOES HEREBY covenant and agree that ASSIGNOR will communicate to said ASSIGNEE, its successors, legal representatives and assigns, any facts known to ASSIGNOR respecting the Work, and testify in any legal proceeding, assist in the preparation of any other provisional or non-provisional applications relating to the Application and the Work or any improvements made thereto, sign all lawful papers, execute and make all rightful oaths and/or declarations in connection with the Application and the Work including any improvements made thereto, any patent applications filed therefrom, and any continuing application filed from any of the aforementioned applications, and generally do everything possible to aid the ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper patent protection for the Work in all countries.

PATENT REEL: 044948 FRAME: 0454

FPP-4404-US PCT/JP2012/073399

Docket Number: Application No.: Unknown Filing Date: Unknown Page 2 of 2 Legal Name of inventor: Isamu HIWATASHI Inventor Signature: 150mu HJWATASH1 Date: February 24, 2014 Legal Name of inventor: Mana IWAKI Inventor Signature: Mana I WAKI Date: February 24, 2014 Legal Name of inventor: Kenji KUSUNOKI Inventor Signature: Designature Date: February 24, 2014 Legal Name of inventor: Seiichi MATSUMURA Inventor Signature: 大公 村 青 _____ Date: February 24, 2014 Legal Name of inventor: Kiyoshi ISHIHAMA Legal Name of inventor: Takahisa FUNABIKI Inventor Signature: Vahahien Jumlahi Date: February 24,2014

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