PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Norimasa MaeKawa	03/29/2013
Koya Inoue	03/29/2013
Hiroshi Shimazu	03/29/2013
Shunji Koya	03/29/2013
Naoki Kinishige	03/29/2013
Nobuhiro Ohshita	03/29/2013

RECEIVING PARTY DATA

Name:	Nippon Steel & Sumikin Engineering Co., Ltd.	
Street Address:	Osaki Center Building	
Internal Address:	5-1, Osaki 1-chome, Shinagawa-ku	
City:	Tokyo	
State/Country:	JAPAN	
Postal Code:	141-8604	

Name:	NS Plant Designing Corporation	
Street Address:	46-59, Oaza Nakabaru, Tobata-ku, Kitakyushu-shi	
City:	Fukuoka	
State/Country:	JAPAN	
Postal Code:	804-0002	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14005019

CORRESPONDENCE DATA

Fax Number: 3029846399

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

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PATENT REEL: 031203 FRAME: 0262

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Email: rsipple@mccarter.com Correspondent Name: McCarter & English, LLP Address Line 1: Renaissance Center Address Line 2: 405 N. King Street, 8th Floor Address Line 4: Wilmington, DELAWARE 19801 119244-00041 ATTORNEY DOCKET NUMBER: NAME OF SUBMITTER: Eamonn P. Morrison Signature: /Eamonn P. Morrison/ Date: 09/13/2013 Total Attachments: 2

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> **PATENT REEL: 031203 FRAME: 0263**

Attorney's Docket No.: //9244-0004/

Assignment of Application

WHEREAS, I (WE)
Norimasa MAEKAWA, Koya INOUE and Hiroshi SHIMAZU of all
c/o Nippon Steel & Sumikin Engineering Co., Ltd., 46-59, Oaza Nakabaru,
Tobata-ku, Kitakyushu-shi, Fukuoka 804-8501 Japan and
Shunji KOYA, Naoki KUNISHIGE and Nobuhiro OHSHITA of all
c/o NS Plant Designing Corporation, 46-59, Oaza Nakabaru, Tobata-ku,
Kitakyushu-shi, Fukuoka 804-0002 Japan , respectively,
have invented certain new and useful improvements in:
TOP-FIRING HOT BLAST STOVE
for which an application for Letters Patent was executed on
(Application No. <u>PCT/JP2012/056339</u> , filed <u>March 13, 2012</u>), and
WHEREAS, NIPPON STEEL & SUMIKIN ENGINEERING CO., LTD. and
NS PLANT DESIGNING CORPORATION
(hereinafter referred to as "ASSIGNEE")having a place of business at:
Osaki Center Building, 5-1, Osaki 1-chome, Shinagawa-ku, Tokyo 141-8604 Japan and
46-59, Oaza Nakabaru, Tobata-ku, Kitakyushu-shi, Fukuoka 804-0002 Japan ,
respectively, is desirous of acquiring the entire right, title and interest in and to said invention
and in and to any Letters Patent that may be granted therefore in the United States and its
territorial possessions and in any and all foreign countries;

NOW, THEREFORE, in consideration of the sum of FIVE DOLLARS (\$5.00), the receipt whereof is hereby acknowledged, and for other good and valuable consideration, I (WE), by these presents do sell, assign and transfer unto said ASSIGNEE, the full and exclusive right to the said invention in the United States and its territorial possessions and in all foreign countries and the entire right, title and interest in and to any and all Letters Patent which may be granted therefor in the United States and its territorial possessions and in any and all foreign countries and in and to any and all divisions, reissues, continuations, substitutions and renewals thereof.

I (WE) hereby authorize and request the Patent Office Officials in the United States and its territorial possessions and any official of any and all foreign countries to issue any and all of said Letters Patent, when granted, to said ASSIGNEE as the assignee of my (our) entire right, title and interest in and to the same, for the sole use and behoof of said ASSIGNEE, its (his) successors and assigns, to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by me (us) had this Assignment and sale not been made.

REEL: 031203 FRAME: 0264

Further, I (WE) agree that I (WE) will communicate to said ASSIGNEE or its legal representatives and assigns covenant and any facts known to me (us) respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitute, renewal and reissue applications, execute all necessary assignment papers to cause any and all of said Letter Patent to be issued to said ASSIGNEE, make all rightful oaths, and, generally do everything possible to aid said ASSIGNEE, its (his) successors and assigns, to obtain and enforce proper protection for said invention in the United States and its territorial possessions and in any and all foreign countries.

The undersigned hereby grant(s) the firm of McCARTER & ENGLISH, LLP of Renaissance Centre, 405 N. King Street, 8th Floor Wilmington, DE 19801 U.S.A. the power to insert on this assignment any further identification, including the application number and filing date, which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

Date: March 29, 2013	Norimasa Maekawa
,	(Signature of inventor) Norimasa MAEKAWA
Date: March 29,2013	Koya Inoue
	(Signature of inventor) Koya INOUE
Date: March 29, 2013	Hiroshi Shimazu
	(Signature of inventor) Hiroshi SHIMAZU
Date: March 29, 2013	Shunji Koya
	(Signature of inventor) Shunji KOYA
Date: March 29, 2013	Naoki kunishige
	(Signature of inventor) Naoki KUNISHIGE
Date: March 29, 2013	Nobuhiro Ohshita
	(Signature of inventor) Nobuhiro OHSHITA

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