Form PTO-1595 (Rev. 07 OMB No. 0651-0027 (e	7/05) xp. 6/30/2008)			U.S. DEPARTMENT OF COMMERCE United States Patent and Trademark Office
MR	PATENTS ONLY S-137,089			
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) SIEMENS ENERGY, INC. 4400 ALAFAYA TRAIL ORLANDO, FL 32826-2399		2. Name and address of receiving party(ies) Name: <u>United States Department of Energy</u> Internal Address:		
Additional name(s) of conveying party(ies) attached? Yes No 3. Nature of conveyance/Execution Date(s): Execution Date(s) 10/20/2010 Assignment Merger			Street Address: 1000 Independence Ave., S.W	
Security Agreement Joint Research Agreement Government Interest Assigni		Change of Name	City: <u>Washington</u> State: <u>D.C.</u>	
	er 9424, Confirm		Clountry: <u>USA</u> , Additional name(s) & ad	Zip: <u>20585</u> ddress(es) attached? ☐ Yes ☑ No
4. Application or p A. Patent Applicati 12/884,486			document is being filed B. Patent No.(s) ached? Yes No	d together with a new application.
concerning document should be mailed:			6. Total number of applications and patents involved: 1	
Name: Michael J. Dobbs Internal Address: U. S. Dept. of Energy, IPLD		7. Total fee (37 CFR 1.21(h) & 3.41) \$ Authorized to be charged by credit card Authorized to be charged to deposit account		
Street Address: 9800 S. Cass Ave		Enclosed None required (government interest not affecting title)		
City: <u>Argonne</u>	7:	D:60490		ast 4 Numbers
	ate: <u> L </u>		b. Deposit Account Number Authorized User Name	
Email Address: Confirmatory.License@ch.doe.gov		Authorized Use	a ridille	
9. Signature:	John D. Crai	Signature vero #71,245		7/27/7015 Date mber of pages Including cover attachments, and documents:
Name of Person Signing sheet, attachments, and documents:				

Documents to be recorded (Including cover sheet) should be faxed to (671) 273-0140, or malled to:
Mail Stop Assignment Recordation Services, Director of the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450

CONFIRMATORY LICENSE

Title of Invention: Turbine Component Cooling Channel Mesh with Intersection Chambers

Inventor(s): Ching-Pang Lee, John J. Marra

Patent Application Serial No: | 12/884,486

Filing Date: September 17, 2010

Patent Number: N/A

Issue Date: N/A

Name of Contractor: Siemens Energy, Inc.

DOE Contract No.: DE-FC26-05NT42644

DOE Case No.: S-122,755

Contractor Docket No.: 2010P15246US (formerly 2010E03586US)

The Contractor has reported the above-identified invention as a Subject Invention to DOE and has elected to retain title thereto.

Accordingly, this document is confirmatory of the nonexclusive, nontransferable, irrevocable, paid-up, worldwide license in this subject invention, patent application and any resulting patent, including any continuation, divisional, reissue, or supplemental application thereof, to practice or to have practiced for or on behalf of the United States throughout the world; and of all other rights acquired by the Government by the patent rights clause in the above-identified contract.

It is understood and agreed that this license does not preclude the Government from asserting rights under the provisions of said contract or of any other agreement between the Government and the Contractor, or from asserting any other rights of the Government with respect to the above-identified subject invention.

The Government is hereby granted an irrevocable power to inspect and make copies of the aboveidentified patent application.

Signed this 20th day of October, 2010

Siemens Energy, Inc. hn Musone, Assistant Secretary

4400 Alafaya Trail, Orlando, Florida 32826-2399

PATENT REEL: 036287 FRAME: 0526

RECORDED: 08/05/2015