Form PTO-1595 (Rev. 07/05) U.S. DEPARTMENT OF COMMERCE OMB No. 0651-0027 (exp. 6/30/2008) United States Patent and Trademark Office RECORDATION FORM COVER SHEET S-110,657 .IP PATENTS ONLY 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) 2. Name and address of receiving party(ies) Name: United States Department of Energy AIR PRODUCTS AND CHEMICALS, INC. Internal Address: Additional name(s) of conveying party(ies) attached? ___Yes ✔ No 3. Nature of conveyance/Execution Date(s): Street Address: 1000 Independence Ave., S.W. Execution Date(s) 04-19-2007 Assignment Merger City: Washington Security Agreement Change of Name Joint Research Agreement State: D.C. Government Interest Assignment Country: USA Zip: 20585 Executive Order 9424, Confirmatory License Other Additional name(s) & address(es) attached? Yes V No 4. Application or patent number(s): This document is being filed together with a new application. A. Patent Application No.(s) B. Patent No.(s) 11/365,780 Additional numbers attached? Yes Vo 5. Name and address to whom correspondence 6. Total number of applications and patents concerning document should be mailed: involved: 1 Name: Mark P. Dvorscak 7. Total fee (37 CFR 1.21(h) & 3.41) \$___ Internal Address: U. S. Dept. of Energy, IPLD Authorized to be charged by credit card Authorized to be charged to deposit account Enclosed Street Address: 9800 S. Cass Ave None required (government interest not affecting title) 8. Payment Information City: <u>Argonne</u> a. Credit Card Last 4 Numbers _____ State: <u>| L</u> Zip:<u>60439</u> Expiration Date Phone Number: 630-252-2393 b. Deposit Account Number Fax Number: 630-252-2779 Authorized User Name Email Address: 9. Signature: Signature Date Total number of pages including cover Michael J. Dobbs #58.093 sheet, attachments, and documents: Name of Person Signing

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06837 USA

CONFIRMATORY LICENSE

Title

PRODUCTION OF CARBON MONOXIDE-FREE HYDROGEN AND

HELIUM FROM A HIGH-PURITY SOURCE

Inventor (s)

Timothy C. Golden and Thomas S. Farris

Serial No.

11/365780

Filing Date:

02/28/2006

Contractor

AIR PRODUCTS AND CHEMICALS, INC.

DOE Contract No. :

DE-FC36-05GO85026

DOE Case No.

S-110,657 - Docket No. 06837

DOE Advanced Waiver No.: W(A) -06-005, CH-1361

Foreign Applications filed in or intended to be filed at Contractor's expense in (countries): Canada, European Patent Convention and Taiwan.

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 above-identified patent application.

Signed this _____ day of __April

AIR PRODUCTS AND CHEMICALS, INC. (Contractor)

(SEAL)

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PATENT REEL: 019229,FRAME, 0836 **