MR

OMB No. 0651-0027 (exp. 6/30/2008)

Name of conveying party(ies):

N. WILSONVILLE, AL 35186

Execution Date(s) 11/18/2012

Joint Research Agreement

Government Interest Assignment

4. Application or patent number(s):

A. Patent Application No.(s)

Name: James B. Potts

City: Argonne

State: IL

9. Signature:

✓ Executive Order 9424, Confirmatory License

5. Name and address to whom correspondence

Internal Address: U. S. Dept. of Energy, IPLD

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J Security Agreement

3. Nature of conveyance/Execution Date(s):

Merger

☐ Change of Name

SOURTHERN COMPANY

31800 HIGHWAY 25

Assignment

Other

13/405,312

03/27/2015



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U.S. DEPARTMENT OF COMMERCE United States Patent and Trademark Office

S-127,680 To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below. 2. Name and address of receiving party(les) Name: United States Department of Energy Internal Address: _ Additional name(s) of conveying party(ies) attached? 🔲 Yes 🗹 No Street Address: 1000 Independence Ave., S.W. City: <u>Washington</u> State: D.C. Zip:20585 Country: USA Additional name(s) & address(es) attached? ☐ Yes ☑ No This document is being filed together with a new application. B. Patent No.(s) Additional numbers attached? Yes No 6. Total number of applications and patents involved: 1 7. Total fee (37 CFR 1.21(h) & 3.41) \$_ Authorized to be charged by credit card Authorized to be charged to deposit account ✓ None required (government interest not affecting title) 8. Payment Information a. Credit Card Last 4 Numbers _ Expiration Date _____ b. Deposit Account Number _____ Authorized User Name ___

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Department of Energy

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CONFIRMATORY LICENSE

Title of Invention:

Oxycombustion in Transport Oxy-Combustor

Inventor(s):

Guohai Liu, Wan Wang Peng, Pannalal Vimalchand

Patent Application Serial No:

13/405,312

Filing Date 02/26/2012

Patent Number:

Issue Date:

Name of Contractor (i.e. Contractor, Subcontractor, Grant, or Cooperative Agreement, as applicable):

Name of Contractor: Southern Company

DOE Contract No. (i.e. Contract, Subcontract, Grant, or Cooperative Agreement, as applicable):

DE-NT0000749

DOE Case No.: S-127.680

Contractor Docket No.: SCS11

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.

Contractor Name

Southern Company

Roxam7. Laid

Official's Name

Roxann F. Laird

Official's Title

Director NCCC

Business Address 31800 Highway 25 N. Wilsonville, AL 35186

PATENT

Signed on: 11/8/12

REEL: 035343 FRAME: 0738

RECORDED: 03/20/2015