STATEMENT OF CONSIDERATIONS

ADVANCE CLASS WAIVER OF PATENT RIGHTS FOR TECHNOLOGY DEVELOPED UNDER DOE FUNDING AGREEMENTS RELATING TO DOE'S RECOVERY ACT: CARBON CAPTURE AND SEQUESTRATION FROM INDUSTRIAL SOURCES AND INNOVATIVE CONCEPTS FOR BENEFICIAL CO₂ USE; DOE FUNDING OPPORTUNITY ANNOUNCMENT DE-F0A-0000015; W(C)-09-019; CH1528

The Department of Energy Office of Fossil Energy anticipates providing federal assistance in the form of cooperative agreements or Technology Investment Agreements (TIAs)¹ for two specific project objectives, identified as Technology Areas, to demonstrate: (1) Large-scale industrial CO₂ Capture and Sequestration (CCS) projects from industrial sources; and (2) Innovative concepts for beneficial CO₂ use. In Technology Area 1, the objective is to demonstrate advanced technologies that capture and sequester carbon dioxide emissions from industrial sources into underground formation to put to beneficial use that permanently prevents the CO2 from entering the atmosphere. The objective of Technology Area 2 is to demonstrate innovative concepts for beneficial CO2 use, which include, but are not limited to, CO2 mineralization to carbonates directly through conversion of CO2 in flue gas; use of CO2 from power plants or industrial applications to grow algae/biomass; or conversion of the CO2 to fuels and chemicals

DOE expects to make multiple awards having two phases: a seven month preliminary design Phase 1, and a Design, Construction, and Operation Phase 2. To be considered for Phase 2 funding, Phase 1 recipients will be required to submit a detailed Renewal Application. In accordance with the Energy Independence and Security Act of 2007, the recipient cost share is required to be 20% or higher (20% of the total project costs and at least 20% during each budget period and each subphase of the project).

All types of entities are eligible to apply, except other Federal agencies, Federally Funded Research and Development Center (FFRDC) Contractors, and non profit organizations described in section 501(c)(4) of the Internal Revenue Code of 1986 that engaged in lobbying activities after December 31, 1995.

¹ Only awards resulting from Cooperative Agreements are subject to the terms of this class waiver; Intellectual Property terms will be separately negotiated in any awards resulting in a TIA.

Considering the above, it is the purpose of this class waiver to vest title in new inventions made under this program by large business awardees in a fashion enabling them to expediently commercialize the various technologies. Accordingly, DOE will waive the Government's title to subject inventions, other than inventions made by Bayh-Dole participants pursuant to P.L. 96-517, as amended, or National Laboratories, to the above identified large business entities. Since cost sharing is at least 20%, it is expected that patent rights will be allocated among the participants on the basis of cost.

This advance class waiver of the Government's rights in inventions is subject to the usual advance patent waiver and background data licensing provisions. The terms of the advance patent waiver include the usual Government license, march-in rights, and preference for U.S. industry provisions comparable to those set out in 35 U.S.C. §§ 202-204. This advance patent waiver also includes the attached U.S. Competitiveness clause which requires that products embodying any waived invention or produced through the use of any waived invention be manufactured substantially in the United States unless the participant can show to the satisfaction of DOE that it is not commercially feasible to do so. In the event DOE agrees to foreign manufacture, there will be a requirement that the Government's support of the technology be recognized in some appropriate manner, e.g., recoupment of the Government's investment, etc. The Contractor will further agree to make this condition binding on any assignee or licensee or any entity otherwise acquiring rights to any waived invention, including subsequent assignees or licensees. Should the Contractor or other such entity receiving rights in any waived invention undergo a change in ownership amounting to a controlling interest, then the waiver, assignment, license, or other transfer of rights in the waived invention is suspended until approved in writing by DOE.

The grant of this class waiver is not expected to result in adverse effects on competition or market concentration. Rather the waiver should enhance competition and growth in the coal power industry of the United States. The Contractor agrees to submit copies of issued U.S. Patents resulting from waived inventions, and to submit annual reports on the utilization of a waived invention or on efforts at obtaining such utilization that are being made by the Contractor or any of its licensees or assignees.

This advance class waiver shall apply to grants made to large business entities who meet the minimum cost-sharing requirement as set forth above for the two Technology Investment Areas, and who have provided written notice to DOE of their

acceptance of the terms and conditions of this class waiver. The waiver will remain in effect as long as such cost sharing is maintained, in aggregate, over the term of the agreement. No separate waiver petition is required to be submitted.

Considering the foregoing, and in view of the statutory objectives to be obtained and the factors to be considered under DOE's waiver regulation, 10 C.F.R. 784, all of which have been considered, it has been determined that this class waiver as set forth above will best serve the interest of the United States and the general public. It is recommended that the waiver be granted.

Mark P. Dvorscak Deputy Chief Counsel Intellectual Property Law Division

Date: teb. 24 2010

Based on the foregoing Statement of Considerations, it is determined that the United States and the general public will best be served by a waiver of rights of the scope described above, and therefore the waiver is granted. This waiver shall not apply to any modification or extension of this agreement, where through such modification or extension, the purpose, scope, or cost of the agreement is substantially altered.

Regis Conrad, FE-22
Office of Clean Energy Systems
Office of Fossil Energy

Paul /* Gottlieb Assistant General Counsel for Technology Transfer and Intellectual Property Date:

APPROVAL:

t) U. S. Competitiveness

The Contractor agrees that any products embodying any waived invention or produced through the use of any waived invention will be manufactured substantially in the United States unless the Contractor can show to the satisfaction of the DOE that it is not commercially feasible to do so. In the event the DOE agrees to foreign manufacture, there will be a requirement that the Government's support of the technology be recognized in some appropriate manner, e.g., recoupment of the Government's investment, etc. The Contractor agrees that it will not license, assign or otherwise transfer any waived invention to any entity unless that entity agrees to these same requirements. Should the Contractor or other such entity receiving rights in the invention undergo a change in ownership amounting to a controlling interest, then the waiver, assignment, license, or other transfer of rights in the waived invention is suspended until approved in writing by the DOE.