

## STATEMENT OF CONSIDERATIONS

REQUEST BY CONSOLIDATED NATURAL GAS (CNG) (THE PARTICIPANT) FOR ADVANCE WAIVER OF DOMESTIC AND FOREIGN PATENT RIGHTS IN INVENTIONS OF THE PARTICIPANT UNDER DOE-PETC CRADA NO.PC-93-009, W(A)-93-034, CH-0819 - MASTER CRADA FOR PROJECTS DIRECTED TO FUELS COMBUSTION, EVALUATION AND FLOW ANALYSES - PROJECT #1 REDUCING EDDY AFTER BURN (REAB) FOR NITRIC OXIDE REDUCTION AND RELATED TECHNOLOGIES

The Department of Energy has delegated authority to the PETC Laboratory Director to enter into CRADAs and, with the concurrence of cognizant Intellectual Property Counsel, to deal with intellectual property matters arising under the CRADA, including waiving of the Government's patent rights thereunder.

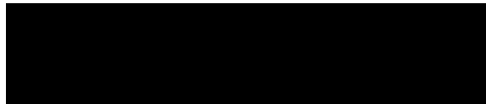
Participant desires to obtain an advance waiver of the Government's rights in any inventions that may be conceived or first actually reduced to practice by the Participant under this CRADA and has petitioned therefor. Participant has agreed to standard terms and conditions for such an advance patent waiver including royalty-free license for Governmental purposes and march-in-rights. In addition, the Participant has accepted a special U.S. Competitiveness provision attached hereto.

The proposed CRADA is for a series of projects directed to fuel flow, combustion and evaluation including the design and enhancement of natural-gas injectors, natural-gas related combustion projects and various other natural-gas related processes, devices and software. The first project (REAB) will use PETC's Flow Analysis Lab to study flow dynamics of vortex formation in an attempt to optimize natural-gas injector designs and thereby reduce natural gas requirements for NOx emission control. The Participant has background technology evidenced by U.S. Patent Nos. 4,779,545; 5,078,064 and 5,181,475 which relate to the subject matter of the first and subsequent projects to be conducted under this CRADA.

CNG will bear its own administrative cost and the cost of support services labor and materials while PETC will contribute use of the facilities, facilities improvements and federal staff for project management, diagnostic testing, modeling, and reporting. The total cost (excluding facilities use) of the REAB project is estimated to be \$40,000 with the Participant contributing about \$30,000 and PETC assuming the remainder of the cost. This waiver of Government rights shall apply to all subsequent projects under this CRADA in which the Participant assumes at least 20% of the total cost and which projects are agreed to in writing by PETC and the Participant within 3 years of the below date of approval.

In view of Participant's contributions to this CRADA, including management personnel and funds valued in excess of twenty percent of the overall value of this CRADA and Participant's investment in related background research which evidence a commitment to attempt to commercialize the results of this CRADA, it is believed that a grant of advance waiver is in the public interest.

Based on the foregoing and representations in the attached Petition for Advance Waiver of Patent Rights and in view of the objectives and considerations set forth in DOE PR 9-9.109-6, all of which have been considered, 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 the agreement where, through such modification or extension, the purpose, scope, or cost-sharing plan of the CRADA is substantially altered.



Hugh W. Glenn  
Assistant Chief Counsel  
Intellectual Property  
Law Division

APPROVAL:



Sun W. Chun, Director  
Pittsburgh Energy Technology  
Center

Date 11/15/93

U.S. COMPETITIVENESS:

- A. The Participant agrees that any products, processes, or services for use or sale in the United States under any United States Patent resulting from a subject invention shall be manufactured or practiced substantially in the United States.
- B. The Participant also agrees that any products, or products produced by a process or service, using intellectual property arising from the performance of this CRADA shall be manufactured substantially in the United States.
- C. Notwithstanding the provisions of paragraph B, the requirements for manufacturing products or practicing processes substantially in the United States for foreign sales may be waived by DOE upon a showing by Participant or its assignee, in writing, that under the circumstances domestic manufacture by the Participant/assignee is not commercially feasible and that reasonable but unsuccessful efforts have been made to grant licenses on similar terms to potential licensees that would be likely to manufacture substantially in the United States. Such showing shall include some form of significant economic and technical benefits flowing to the United States as a quid pro quo for the DOE to waive the requirement for substantial United States manufacture and practice. Such showing by Participant must be approved in writing by DOE.