

## STATEMENT OF CONSIDERATIONS

### REQUEST BY AIR PRODUCTS AND CHEMICALS, INC. FOR AN ADVANCE WAIVER OF PATENT RIGHTS UNDER DOE COOPERATIVE AGREEMENT NO. DE-FC36-04GO14008 ENTITLED "DESIGN AND DEVELOPMENT OF NEW CARBON-BASED SORBENT SYSTEMS FOR AN EFFECTIVE CONTAINMENT OF HYDROGEN"; W(A)-04-028; CH-1197

As set out in the attached waiver petition and in subsequent discussions with DOE Patent Counsel, Air Products and Chemicals Inc. (Air Products) has requested an advance waiver of domestic and foreign patent rights for all subject inventions made under the above-identified cooperative agreement by its employees and its subcontractors' employees, regardless of tier, except inventions made by subcontractors eligible to retain title to inventions pursuant to P.L. 96-517, as amended, and National Laboratories.

Referring to item 2 in Air Products' waiver petition, the purpose of this multiple-phase agreement encompasses the design and development of carbon-based sorbent systems for reversibly containing hydrogen. It is anticipated that the sorption-based hydrogen storage systems contemplated under this agreement will be used in support of DOE's FreedomCAR program and other portable-power initiatives.

The work under the agreement is expected to take place over a period of about three years at a total cost of \$6,121,279. Air Products is obligated to cost share \$1,775,171, or about 29 percent of the total cost of the project.

In view of the cost sharing and other equities between Air Products and its subcontractors, it is anticipated that the parties will develop an appropriate allocation of patent rights among the participants to facilitate the expeditious development of the technology forming the subject matter of the agreement. Accordingly, DOE will waive title to all subject inventions made by Air Products' employees and its subcontractors' employees, regardless of tier, except inventions made by subcontractors eligible to retain title pursuant to P.L. 96-517, as amended, or National Laboratories, to Air Products or its subcontractors, as mutually agreed by the parties. Except as otherwise approved in writing by DOE Patent Counsel, a party's acceptance of a subcontract under this agreement, at any tier, shall constitute Air Products' certification that it has provided that party with a copy of this Statement of Considerations and that party's notice to DOE that it accepts the terms and conditions of this advance waiver. Additionally, subcontractors who receive title under this waiver shall notify DOE Patent Counsel in writing of such disposition of patent rights.

Referring to items 5-9 of Air Products' waiver petition, Air Products is an industry leader in the development of hydrogen fuel packaging with broad experience in packaged gases and hydrogen technology. This, coupled with Air Products' cost sharing, clearly demonstrates the likelihood that Air Products will continue development and commercialization of the results of this agreement.

This advance waiver of the Government's rights in inventions is subject to the attached advance patent waiver clause and background data licensing provisions, and the government license, march-in rights, and preference for U.S. industry provisions set out in 35 U.S.C. 202-204. The advance patent waiver also includes the attached U.S. Competitiveness clause (paragraph t) which requires products embodying any waived invention or produced through the

use of any waived invention by 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. The contractor further agrees to make the above condition binding on any assignee, licensee or other entity 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 an 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.

Referring to item 10 of the waiver petition, granting this waiver is not anticipated to have any adverse impact on competition as there are a variety of competing technologies in the relevant hydrogen storage market.

Considering the foregoing, it is believed that granting this waiver will provide Petitioner with the necessary incentive to invest its resources in the commercialization of the results of the agreement in a fashion which will make the technology available to the public in the shortest practicable time. Therefore, upon evaluation of the waiver petition and in view of the objectives and considerations set forth in 10 CFR Part 784, all of which have been considered, it is recommended that the requested waiver be granted.

[Redacted Signature]

Thomas G. Anderson  
Assistant Chief Counsel  
Intellectual Property Law Division

Date: 10-13-04

Based upon the foregoing Statement of Considerations and representations in the attached waiver petition, it is determined that the interests of the United States and the general public will best be served by a waiver of patent rights of the scope described above, and therefore the waiver is granted. This waiver will not apply to any modification or extension of the cooperative agreement, where through such modification or extension, the purpose, scope or cost of the cooperative agreement has been substantially altered.

CONCURRENCE:

[Redacted Signature]

Steven G. Chalk, Director  
Office of Hydrogen, Fuel Cells and  
Infrastructure Technologies Program  
EE-2H

Date: 11/16/04

APPROVAL:

[Redacted Signature]

Paul A. Gottlieb  
Assistant General Counsel for Technology  
Transfer and Intellectual Property, GC-62

Date: 11-26-04

(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.

# WAIVER ACTION - ABSTRACT

W(A)-04-028 (CH-1197)

REQUESTOR

AIR PRODUCTS AND  
CHEMICALS, INC.

CONTRACT SCOPE OF WORK

DESIGN AND DEVELOPMENT OF  
NEW CARBON-BASED SORBENT  
SYSTEMS FOR AN EFFECTIVE  
CONTAINMENT OF HYDROGEN

RATIONALE FOR DECISION

29% cost sharing

DISPOSITION