

## STATEMENT OF CONSIDERATIONS

REQUEST BY UNITED TECHNOLOGIES CORPORATION FOR AN ADVANCE  
WAIVER OF PATENT RIGHTS UNDER DOE SOLICITATION NO. DE-PS36-  
02GO92004; W(A)-03-031; CH-1161

As set out in the attached waiver petition and in subsequent discussions with DOE Patent Counsel, United Technologies Corporation (UTC) 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 of UTC's waiver petition, the objective of this agreement is to develop a new complex hydride compound capable of reversibly storing a hydrogen capacity equal to or greater than 7.5 weight percent and having capacity to regenerate for 500 cycles with 100 percent efficiency. The project will encompass all of the technology development stages for identifying, developing and commercializing complex hydride compound hydrogen storage media, including the application of multiple synthetic methodologies to isolate new hydrides, and couple thermodynamic predictions and structural characterizations to verify structures of newly identified phases. UTC anticipates conducting three levels of performance evaluations to select compositions for further development, optimize dehydrogenation/hydrogenation catalysis with spectroscopic mechanistic studies and screening simulations, develop manufacturing processes to reduce cost and scale-up production, and develop a business analyses to the commercialization of hydrogen storage systems integrated with fuel cell power plants.

The work under this agreement is expected to take place over a period of three years at a total cost of \$2,905,943. UTC is obligated to cost share \$778,562, or about 27 percent of the total cost of the project.

In view of the cost sharing and other equities between UTC 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 UTC's 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 UTC 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 UTC's 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 UTC's petition, UTC is a world leader in high performance, low-emission fuel cell systems integration and configuration and production for military, commercial, transportation, residential and space applications. This, coupled with UTC's cost sharing, clearly demonstrates the likelihood that UTC 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 usual advance patent waiver 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 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. 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 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.

Referring to item 10 of the waiver petition, granting this waived is not anticipated to have any adverse impact on competition. If anything, the technology forming the subject matter of this agreement can be expected to provide a competitive alternative to the other technologies currently being developed.

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 waived be granted



Thomas G. Anderson  
Assistant Chief Counsel  
Intellectual Property Law Division

Date: 9/24/03

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 contract, where through such modification or extension, the purpose, scope or cost of the contract has been substantially altered.

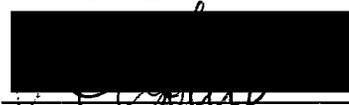
CONCURRENCE:



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

Date: 12/11/03

APPROVAL:



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

Date: 12-16-03

(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)-03-031

(CH-1161)

REQUESTOR

United Technologies  
Corporation

CONTRACT SCOPE OF WORK

Development of complex hydride  
compounds for hydrogen storage

RATIONALE FOR DECISION

27% cost sharing

DISPOSITION