

STATEMENT OF CONSIDERATIONS

REQUEST FOR ADVANCE WAIVER OF PATENT RIGHTS BY THE UTC
FUEL CELLS, LLC, UNDER GRANT NO. DE-FG36-06GO86042
ENTITLED "FUEL CELL FREEZE/COLD START PROJECT", W(A)-06-
021, CH-1380

The Petitioner, UTC Fuel Cells, LLC (UTC) has requested a waiver of domestic and foreign patent rights for all subject inventions arising under the above referenced grant entitled "Fuel Cell Freeze/Cold Start Project". This advance waiver is intended to apply to all subject inventions made under the above identified grant by UTC employees and those of its subcontractors, 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.

As noted in item 2 of Applicant's waiver petition, UTC's purpose will be to characterize polymer electrolyte membrane (PEM) fuel cell durability and performance under freezing conditions in order to gain an improved understanding of the technology gaps as to performance and durability.

The total anticipated cost of the project is \$1,237,600 with DOE's share being \$990,000 (80%) and UTC's share being \$247,600 (20%) of the total cost respectively.

As is brought out in items 5 and 6 of the waiver petition, UTC is a wholly owned subsidiary of United Technologies Corporation whose fuel cells provide safe and reliable power for a variety of uses, one of which is the NASA space shuttle. UTC is currently engaged in commercial product development with automotive manufacturers to develop PEM fuel cells for use in cars. One major problem they face is the performance of the fuel cells in freezing conditions where the freeze/thaw cycle hinders operational performance while adversely effecting durability. UTC's technical expertise, in the area of PEM fuel cells under freezing conditions, is demonstrated by their holding of 16 U.S. patents and having another 13 patent applications pending in this area of technology.

Referring to items 7 and 8, UTC invests more than \$100M annually to develop new fuel cells with \$2M annually going into freeze related areas. Thus, UTC annually makes a significant investment in the areas of laboratory development, computer modeling, and analytical instrumentation to promote state of the art research and development facilities and analytical tools.

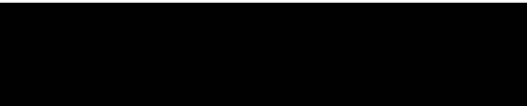
The grant of this waiver should effectively promote the continued development and commercial utilization of the subject inventions. Having the intellectual property rights to the inventions developed under the subject agreement will allow UTC to

commercialize the technology through licensing agreements with major automotive manufactures.

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 which requires that products embodying a waived invention or produced through the use of a waived invention will be manufactured substantially in the United States unless the Petitioner can show to the satisfaction of the DOE that is not commercially feasible to do so. UTC further agrees to make the above conditions binding on any assignee or licensee or any entity otherwise acquiring rights in the waived inventions, including subsequent assignees and licensees. Should UTC or other such entity receiving rights in a 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 inventions is suspended until approved in writing by DOE.

Referring to item 10 of the waiver petition, granting this waiver will not have an adverse impact on competition as there are several companies engaged in fuel cell development.

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 grant 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 784, all of which have been considered, it is recommended that the requested waiver be granted.


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Assistant Chief Counsel
Intellectual Property Law Division

Date: 6/5/2007


Bradley W. Smith
Patent Attorney
Intellectual Property Law Division

Date: 6/5/07

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

CONCURRENCE:

[Redacted Signature]

Samuel Biondo
~~Program Manager~~ Director
Office of Fossil Energy, FE-22
↑ Clean Energy Systems

Date: 1-28-08

APPROVAL:

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Date: 1-29-08

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JoAnn Milliken
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1-18-08
Date:

WAIVER ACTION - ABSTRACT
W(A)-06-021

REQUESTOR

CONTRACT SCOPE OF
WORK

RATIONALE FOR DECISION

(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.