

STATEMENT OF CONSIDERATIONS

REQUEST BY UNITED TECHNOLOGIES RESEARCH CENTER ("UTRC") FOR AN ADVANCE WAIVER OF PATENT RIGHTS UNDER DOE AWARD NO. DE-EE0005775; W(A) 2015-006

UTRC has requested a waiver of patent rights of the United States of America for all subject inventions arising from its participation under the above referenced award entitled "High Thermal Conductivity Polymer Composites for Low-Cost Heat Exchangers."

The purpose of the award is to identify, evaluate and characterize composite materials to enable the fabrication of non-metallic heat exchangers for commercial applications. Materials shall be evaluated for their ability to meet the properties required for integration into a high-performance heat exchanger. The evaluation shall be based on published data as well as modeled or measured data for key properties.


The total anticipated cost of the project is \$930,193 of which \$186,039 will be cost share for a cost share percentage of 20%. This waiver is contingent upon UTRC maintaining a cost sharing percentage of at least 20% during the course of the award. The period of performance for the award is December 15, 2014 to September 30, 2016.

As noted in the waiver petition, UTRC is the central research organization for United Technologies Corporation (UTC), the parent company to industry leaders Carrier (air conditioning), Otis (elevators), UTAS (environmental control systems), and Pratt & Whitney (aircraft engines). UTRC has broad experience in the development of technology and its commercialization, supporting the breadth of UTC's business units. Specific to this project, UTRC has extensive experience in the modeling and design of heat exchangers including knowledge in metallic and non-metallic materials for use with heat exchangers. UTRC has two patent applications and over 10 invention disclosures in the area of polymer based heat exchangers. UTRC has invested approximately two million dollars in the area of polymer matrix composites in general and about \$400,000 in work directly related to nanocomposite materials.

UTRC has agreed that this waiver shall be subject to the march-in and preference for U.S. industry provisions, as well as the U.S. Government license, comparable to those set out in 35 U.S.C. 202-204. Further, UTRC has agreed to the attached U.S. Competitiveness provision, paragraph (t). In brief, UTRC has agreed that products embodying a waived invention or produced through the use of a waived invention will be manufactured substantially in the United States unless UTRC can show to the satisfaction of the DOE that it is not commercially feasible to do so.

Referring to item 10 of the waiver petition, granting this waiver is anticipated to have a minimal effect on limiting competition. The targeted technology is replacing metal heat exchangers with plastic heat exchangers to lower cost and complexity. The current market leaders will likely have similar or competing technologies that will not be impacted by this waiver. As example, there are some plastic heat exchangers already available in the market from various sources.

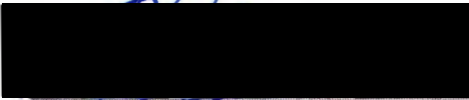
Considering the foregoing, it is believed that awarding this waiver will provide UTRC with the necessary incentive to invest its resources in commercializing the results of the award in a manner that will make the above technology available to the public in the shortest time. Therefore, upon evaluation 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 awarded.


Glen R. Drysdale
Patent Attorney
Golden Field Office

Date: 2-19-15

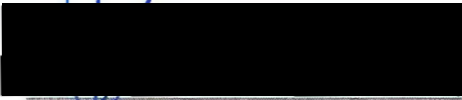
Based upon the foregoing Statement of Considerations and representations in the attached waiver petition, it is determined that the interests of the United States and the general public will be best served by a waiver of patent rights of the scope determined above, and therefore the waiver is awarded.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

CONCURRENCE:


Mark Johnson
Office Director
Advanced Manufacturing Office

Date: 3/20/15

APPROVAL:


John I. Lucas
Assistant General Counsel for Technology
Transfer and Intellectual Property

Date: 3/23/15

(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.