

STATEMENT OF CONSIDERATIONS

PETITION FOR ADVANCE WAIVER OF PATENT RIGHTS BY UNITED TECHNOLOGIES RESEARCH CENTER (UTRC) DEVELOPED UNDER A SUB-AWRD OF DOE COOPERATIVE AGREEMENT NO. DE-FE0024066 BETWEEN DOE AND CERALINK; W(A)-2016-004; CH-1759

The Petitioner, UTRC, has requested a waiver of domestic and certain foreign patent rights for all subject inventions that may be conceived or first actually reduced to practice by UTRC arising from its participation under a sub-award to the above referenced cooperative agreement entitled "Additive Manufacturing for Cost Efficient Production of Compact Heat Exchangers."

The objective of the project is the development of a high-temperature and compact ceramic heat exchanger based on the laminated object manufacturing technique. The target prototype may reduce the weight to volume ratio by 60% compared to metal heat exchangers and could allow operation well above 1500 °F (816 °C). Selecting a ceramic material over standard metal may allow a much more compact size, as well as higher operating temperatures. The project could lead to an estimated 25% increase in system level recuperator thermal efficiency, energy savings in aerospace, distributed combined heat and power generation, and might lead to reductions in CO₂, NO_x, and SO_x emissions.

The total cost of the subaward with Petitioner is approximately \$225K with the Petitioner and its Partner Ceralink providing about 20% cost sharing. This waiver is contingent upon the Petitioner maintaining, in aggregate, the above cost sharing percentages over the course of the cooperative agreement.

As noted in its waiver petition, Petitioner is a world leader in R&D and UTRC has invested significant amounts into research and development of advanced heat exchangers including exchangers manufacturing through additive manufacturing.


Considering Petitioner's technical expertise and significant investment in this technology, it is reasonable to conclude that Petitioner will continue to develop and ultimately commercialize the technology and products which may arise from this cooperative agreement.

Petitioner 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, Petitioner has agreed to the attached U.S. Competitiveness provision paragraph (t). In brief, Petitioner 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 the Petitioner can show to the satisfaction of the DOE that is not commercially feasible to do so.

Referring to item 10 of the waiver petition, granting this waiver is not anticipated to have any adverse impact on competition. If anything, the technology forming the subject matter of the collaboration can be expected to stimulate competition. UTRC has

an extensive history of partnership and licensing arrangements with companies in various commercial markets.

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 cooperative agreement in a fashion which will make the above 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.



Brian J. Lally
Deputy Chief Counsel
Intellectual Property Law Division
DOE Chicago Office

Date: January 21, 2016

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 shall 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:



Angelos Kokkinos
Director
Office of Advanced Fossil
Technology Systems
FE-22

Date: Feb. 2, 2018

APPROVAL:



Brian Lally
Assistant General Counsel for Technology
Transfer and Intellectual Property, GC-62

Date: 2/15/18