

STATEMENT OF CONSIDERATIONS

REQUEST FOR ADVANCE WAIVER OF PATENT RIGHTS BY THE BOEING COMPANY "BOEING" UNDER DOE AWARD NO. DE-EE0005780; W(A) 2017-002

BOEING 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 "Energy Efficient Thermoplastic Composite Manufacturing." BOEING's partners in this award are Cytec Engineered Materials, AjaxTOCCO and Temper Inc. This waiver applies only to BOEING.

The objective of the award is to demonstrate and document the energy efficiency plus the technical and economic viability of induction consolidation and joining of full-scale integrated thermoplastic composite structures for aerospace application, using smart susceptors. This will be accomplished thru the development of equipment and processes along with the subsequent fabrication of a full-scale component. This component, when successful fabrication is complete, will demonstrate the capability to meet high production rates for commercial airplane fabrication when using the selected fabrication methods.

The total anticipated cost of the award is \$6,365,603. BOEING and its partners will be providing \$1,865,603 of cost share or about twenty-nine percent (29%) cost share. The anticipated cost for BOEING's activities under the award is \$2,449,621 with BOEING contributing \$1,153,724 cost share. The waiver is contingent upon BOEING maintaining, in aggregate, the above cost sharing percentage over the course of the award.

The period of performance for the award is 2014 through 2018.


As noted in the waiver petition, BOEING has invested significant resources in induction processing system and methods developments over the last 20 years. It has invested more than \$10 million in induction heating technology using smart susceptors and more than \$100 million in the development and implementation of automated material placements. BOEING leads the industry in the implementation of high rate very large scale material placement machines and demonstrated ability to design, develop, and integrate new delivery heads onto various motion platforms.

BOEING 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, BOEING has agreed to the attached U.S. Competitiveness provision, paragraph (t). In brief, BOEING 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 BOEING 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, BOEING does not believe the waiver would place it in a dominant position. BOEING believes if it is successful the technology will create an

opportunity for new and existing competitors to develop more energy efficient processes and increase the market for thermoplastic materials in the composite industry.


Considering the foregoing, it is believed that awarding this waiver will provide BOEING 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 granted.


Glen Drysdale
Patent Attorney
Golden Field Office

Date: 4/10/17


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 granted. 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
Director
Advanced Manufacturing Office

Date: 4-19-2017

APPROVAL:


Brian Lally
Assistant General Counsel for Technology
Transfer and Intellectual Property

Date: 5/12/17

(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.