STATEMENT OF CONSIDERATIONS

REQUEST BY THE FORD MOTOR COMPANY ("FORD") FOR AN ADVANCE WAIVER OF DOMESTIC AND FOREIGN PATENT RIGHTS UNDER DOE AWARD NO. DE-EE0005764 W(A)2016-005

FORD has requested a waiver of domestic and foreign patent rights for all inventions that may be or have been conceived or first actually reduced to practice by FORD's employees in the course of or under the above referenced award entitled "Rapid Freeform Sheet Metal Forming: Technology Development and System Verification" ("subject inventions"). The award was made under the Innovative Manufacturing Initiative (DE-FOA-0000560).

As set forth in FORD's petition for this waiver, the objectives of the project being funded by the award is to develop a transformational Rapid Freeform Sheet Metal Forming Technology (RAFFT). The RAFFT has the potential to increase manufacturing energy productivity up to ten times at a fraction of the cost of conventional technologies. This technology is a flexible and energy-efficient process that completely eliminates the need of having geometric-specific forming dies.

The period of performance for the award is from July 1, 2013 through June 30, 2016.

The total anticipated cost of the cooperative agreement is \$9,510,000. DOE is contributing \$7,037,400. FORD and its subcontractors are contributing \$2,472,600 for a cost share of 26%. This waiver is contingent upon FORD maintaining, in aggregate, at least 20% cost sharing percentage over the course of the award.

FORD is one of the largest automakers in the world, with vast research and manufacturing capabilities. It has a history of developing innovative technical solutions for manufacturing processes, including in the area of sheet metal forming. It was one of the first companies in the world that conceived freeform incremental forming, the core technology in RAFFT. It also developed Inserted Draw Die Technology, Springback Compensation Technology and Compressed Radius Hemming Technology. It has invested more than \$40 million in the research and development of sheet metal forming technology. In view of the foregoing, it is reasonable to conclude that FORD can continue to and ultimately be successful in developing, utilizing, and commercializing the technology resulting from the award.

FORD does not anticipate that the granting of this waiver would place FORD in a preferred or dominant position in the advanced sheet metal forming technologies field. This conclusion is based on the other vehicle automakers, in addition to FORD, who are actively pursuing research on advanced sheet metal forming methods in order to reduce vehicle weight. FORD intends to commercialize the subject inventions to the extent practical, either through its own production or through licensing. In the event that FORD commercializes the subject inventions through its own production, it believes it would be only one of several competitors in this area. If FORD does commercialize the subject inventions through licensing, it would likely do it on a non-exclusive basis in accordance with its past practices.

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, the waiver shall be subject to the attached U.S. Competitiveness provision paragraph (t). In brief, products embodying a waived subject invention or produced through the use of a waived subject invention will be manufactured substantially in the United Sates unless FORD can show to the satisfaction of the DOE that is not commercially feasible to do so.

In FORD's petition for this waiver, in addition to requesting a waiver for its subject inventions, it requested a waiver for the subject inventions of its subcontractors. Except for agency employees working at FORD, under the direction of FORD management (referred to as "contract employees"), this waiver is strictly limited to subject inventions of FORD. The waiver does not apply to or grant any rights to any subject inventions made by a subcontractor employee.

Considering the foregoing, it is believed that granting a waiver to subject inventions of FORD will provide FORD with the necessary incentive to invest its resources in commercializing the results of the award in a manner that will make the subject inventions 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 R. Drysdale Patent Attorney Golden Field Office

Date: 6/25/18

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 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:

APPROVAL:



Dr. Robert Ivester Office Director Advanced Manufacturing Office Brian Lally Assistant General Counsel for Technology Transfer and Intellectual Property

Date: ____6/25/2018_____ Date: _____

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 DOE that it is not commercially feasible to do so. In the event 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 further agrees to make the above condition binding on any assignee or licensee or any entity otherwise 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 any waived invention is suspended until approved in writing by DOE.