STATEMENT OF CONSIDERATIONS

REQUEST BY MODINE MANUFACTURING COMPANY, INC. FOR AN ADVANCE WAIVER OF DOMESTIC AND FOREIGN INVENTION RIGHTS UNDER SUBCONTRACT QZ0001 UNDER DOE COOPERATIVE AGREEMENT NO. DEFC26-05NT42419; W(A)-09-046, CH-1506

The Petitioner, Modine Manufacturing Company, Inc. (Modine) is a subcontractor to Cummins under this cooperative agreement for the performance of work entitled, "Exhaust Energy Recovery a.k.a Waste Heat Recovery (WHR)". The goal of this program is to improve the efficiency of internal combustion engines for light- and heavy-duty engines through technological advances in waste hear recovery. Specifically, performance enhancements include: improving fuel efficiency by 10% or more by recovering wasted heat energy; reducing overall vehicle cost by eliminating the need for additional heat rejection capacity; and increasing cooling capacity for optimum combustion efficiency and performance. Modine was selected by Cummins to design, develop, and manufacture heat exchangers and thermal system technology. Cummins was previously granted an advance waiver for its inventions under the cooperative agreement (W(A)-07-036), this waiver will apply to inventions made by Modine employees.

The total estimated cost of the cooperative agreement is \$11,746,236, with the DOE share and Cummins' cost share each being \$5,873,118, or 50%. According to its response to question 3 of the petition, Modine states that it has been issued eight purchase orders from Cummins to cover the specifics of detail design, prototype assembly and limited testing of two generations of heat exchangers in support of this contract. The total value of these subcontracts is approximately \$341,305. Cummins has indicated in an e-mail message (attached) that it is contributing a portion of its cost-share to Modine through these purchase orders. The period of performance is from May 1, 2005 through October 31, 2008.

In its response to questions 5 and 6 of the attached waiver petition, Modine has described its technical competence in the field of heat transfer and thermal management systems. It is a global leader in thermal management technology, serving the vehicular, industrial, commercial, building HVAC&R, and fuel cell markets. Modine has over 2,000 worldwide patent covering innovations in heat exchanger design and stationary power generation. It has attached brochures that further detail its expertise in these fields. Modine's response demonstrates its technical competency in the field of heat transfer and thermal management systems.

In its response to question 10 of the attached waiver petition, Modine states that there are many competing technologies being applied to engines for efficiency, emissions, reliability and cost, and that it is unlikely that the waiver will yield a preferred or dominant position. Therefore, grant of the waiver will have a positive effect on competition and market concentration.

The subject cooperative agreement will be modified to add the Patent Rights--Waiver clause in conformance with 10 CFR 784.12, wherein Cummins has agreed to the provisions of 35 U.S.C §§ 202, 203, and 204. This waiver clause will also include a paragraph entitled U.S. Competitiveness, in which Modine agrees to substantial U.S. manufacture of subject inventions (attached hereto). Additionally, Modine agrees not to transfer subject inventions to any other entity unless that other entity agrees to these same requirements.

Considering the foregoing, it is believed that granting the waiver will provide the Petitioner with the necessary incentive to invest resources in the commercialization of the results of the agreement in a fashion which will make the agreement's benefits available to the public in the shortest practicable time. In addition, it would appear that grant of the above requested waiver would not result in an adverse effect on competition nor result in excessive market concentration. Therefore, 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, as set forth above, be granted.

Mark P. Dvorscak
Deputy Chief Counsel
Intellectual Property Law Division

Date July 27, 2009

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

CONCURRENCE:

Patrick B. Davis
Program Manager

Energy Efficiency and Renewable Energy

Date 4 10/19

Vehicle Technologies Program

APPROVAL:

Paul A. Gettlieb // Assistant Genera/Counsel for Technology Transfer and Intellectual Property, GC-62

Date 1/-13-09

(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.