

## **STATEMENT OF CONSIDERATIONS**

### **Request by General Motors, LLC for an Advance Waiver of Domestic and Foreign Invention Rights under DOE Cooperative Agreement No. DE-EE0006082; W(A)-2013-018, CH-1682**

The Petitioner, General Motors, LLC (GM), was awarded this cooperative agreement for the performance of work entitled "Computational Design and Development of a New Lightweight Cast Alloy for Advanced Cylinder Heads in High Efficiency Light Duty Engines." The goal of the cooperative agreement is to develop new, lightweight alloy materials to allow for higher cylinder pressures in high-efficiency, light-duty passenger vehicle engines. The overall goal is to develop a new lightweight cast alloy that provides a significant improvement (at least 25%) in high-temperature strength, and fatigue performance relative to existing state-of-the-art aluminum alloys used in the engine applications such as 319 or A356, with a similar materials density and manufacturing cost (<105% of the current materials and manufacturing cost). The waiver is intended to apply to GM's and its subcontractors' employee subject inventions, except inventions made by subcontractors eligible to retain title to inventions pursuant to P.L. 96-517 as amended.

The total estimated cost of the cooperative agreement is \$5,145,073, with GM cost sharing 32% or \$1,646,423. The DOE share is \$3,498,650 or 68%. The period of performance of the agreement is from February 1, 2013 through January 31, 2017.

In its response to questions 5 and 6 of the attached waiver petition, GM has described its technical competence in the field of automotive technologies. Specifically, GM states that it has a 100 year history of developing advanced automotive technologies and bringing those innovations to the marketplace in production vehicles. GM states it has experienced staffs with industry-recognized experts in Research & Development, Advanced Engineering, and Engineering that have access to the latest equipment and extensive support facilities. GM states it is the only U.S. automotive manufacturer that develops and manufactures engine blocks and cylinder heads internally as well as through suppliers. In addition to having broad experience with developing (modeling and experimental) and manufacturing high-volume cast engine components, GM is well-known as an expert in alloy development, metal casting, solidification, fatigue, and virtual casting. GM has numerous patents, patent applications, and record of inventions related to metal casting technologies. A sample listing has been provided as Exhibit "A" to its petition. GM has demonstrated its technological expertise in the area of automotive technologies.

From its response to question 10, GM states that it is unlikely that grant of the waiver will have any adverse effect upon market concentration. The technology that is the subject of this project must also compete against numerous other technologies being considered in attempts to improve energy efficiency and reduce oil consumption. GM has provided further details of the wealth of competing technologies that will mitigate any significant anti-competitive effect through grant of the waiver. Therefore, there is no evidence that grant of the waiver will have an adverse effect on competition.

The subject cooperative agreement will be modified to add the Patent Rights--Waiver clause in conformance with 10 CFR 784.12. The waiver shall be subject to the march-in, preference for U.S. industry, and Government license provisions, comparable to those set out in 35 U.S.C. § 202-204. The waiver will also include a paragraph entitled U.S. Competitiveness in which GM agrees to substantial U. S. manufacture of subject inventions (attached hereto). Additionally, GM agrees not to transfer subject inventions to any other entity unless that other entity agrees to these same requirements.



In view of the cost sharing and other equities between GM and its subcontractors, it is anticipated that the parties will develop an appropriate allocation of patent rights among the participants to facilitate the expeditious development of the technology forming the subject matter of the agreement. Accordingly, DOE will waive title to all subject inventions made by GM's employees and its subcontractors' employees, regardless of tier, except inventions made by subcontractors eligible to retain title pursuant to P.L. 96-517, as amended, or National Laboratories, to GM or its subcontractors, as mutually agreed by the parties. Except as otherwise approved in writing by DOE Patent Counsel, a party's acceptance of a subcontract under this agreement, at any tier, shall constitute GM's certification that it has provided that party with a copy of this Statement of Considerations and that party's notice to DOE that it accepts the terms and conditions of this advance waiver. Furthermore, a subcontractor has the right to request a waiver from DOE in its own right, rather than having to pass through the contractor to acquire title to subject inventions. Additionally, subcontractors who receive title under this waiver shall notify DOE Patent Counsel in writing of such disposition of patent rights.

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.

[REDACTED]

Mark P. Dvorscak  
Deputy Chief Counsel  
Office of Intellectual Property Law

Date June 19, 2013  
Amended: 9/19/13

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 and consent to assignment 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:

[REDACTED]

Patrick Davis  
Acting Program Manager  
Office of Vehicle Technologies Program,  
EE-2G

Date 10/22/13

[REDACTED]

John T. Lucas  
~~Acting~~ Assistant General Counsel  
for Technology Transfer and  
Intellectual Property

Date 11/25/2013

(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.