

STATEMENT OF CONSIDERATIONS

REQUEST BY CATERPILLAR INC. FOR AN ADVANCED WAIVER OF DOMESTIC AND FOREIGN PATENT RIGHTS UNDER PRIME CONTRACT NO. DE-AC36-83CH10093, NREL SUBCONTRACT NO. NREL-ZAS-7-16609-01; W(A)-98-011; CH-0969

This subcontract is in close out. The Petitioner, Caterpillar Inc. (hereinafter "Caterpillar"), has requested a waiver of domestic and foreign patent rights for all subject inventions arising from its participation under the above referenced subcontract entitled "Ignition Assist Systems for DI Diesel Cycle Medium Duty Alternative Fuel Engines." This subcontract pertains to the development of technology that allows for optimum use of alternative transportation fuels. As only one invention has been disclosed under this contract, "Low Current - Extended Duration Spark Ignition System" (S-100,015), this waiver is applicable only to this subject invention.

The objective of this subcontract was to evaluate the potential of three ignition assist technologies, specifically: a) short-duration, high power spark (SDHP), b) a long-duration, low power spark (LDLP), and c) micro pilot lube oil injection. The goal of this contract was to demonstrate an ignition system life of 10,000 hours and a system cost of less than 50% of the glow plug system while meeting or exceeding the thermal efficiency of the glow plug system.

This project was performed in two phases, over a period of approximately four and one half years. The two phases of the subcontract ran from June 24, 1997 to December 31, 2001 at a total cost of \$797,052.00, of which the Petitioner's cost share was \$398,526.00 or an approximate 50%-cost share. This waiver is applicable over both phases of the contract, contingent upon the Petitioner maintaining, in aggregate, substantially the same cost sharing percentage over the course of the cooperative agreement (i.e., 50%).


As noted in its waiver petition, Petitioner, is a world leader in the design, development production and marketing of medium and heavy duty diesel engines, spark ignited gas engines, and industrial gas turbine engines. The Petitioner produces approximately 113,000 diesel engines per year that cover a power range from 42 to 7,300 horsepower. Sales to the U.S. Government represent approximately one half of 1 percent of total sales. For example, in 1995 the Petitioner sold \$89,000,000 in products to the U.S. Government, which represents 0.56% of the Petitioner's total sales that year of 16.07 billion. In addition the Petitioner has numerous patents relating to fuel system technology, typically numbering more than 50 per year in this technology alone. Considering Petitioner's technical expertise, established market position, and significant investment in this technology, including significant cost sharing in this subcontract, it is reasonable to conclude that Petitioner will continue to further develop and commercialize the technology which may arise from this subcontract.

Referring to item 9 of the waiver petition, granting this waiver is not anticipated to have any adverse impact on competition. There are several large, very competitive manufacturers in the market of medium duty engines. The Petitioner will compete with the other manufacturers and while obtaining a position in alternate fuel engine market, help to promote development in the alternate fuels engine market. The granting of this waiver can be expected to stimulate


competition in the field by providing a competitive source of alternate fuel engines.

The Petitioner has agreed that this waiver will be subject to the usual government license and march-in and U.S. preference provisions, equivalent to those set out in 35 U.S.C. 202-204, as well as appropriate background patent, and data licensing provisions. Further, Petitioner has agreed to the attached U.S. competitiveness provisions (clause (t)), wherein the Petitioner has agreed that products embodying any waived invention or produced through the use of any waived invention will be manufactured substantially in the United States unless Petitioner can show to the satisfaction of the DOE that it is not commercially feasible to do so, and in any event it will not license, assign or otherwise transfer any waived invention to any entity unless that entity agrees to these same requirements.

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 subcontract 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 Part 784, all of which have been considered, it is recommended that the requested waiver be granted.


Thomas G. Anderson
Assistant Chief Counsel
Office of Intellectual
Property Law

Date: 11-26-02

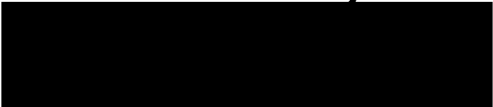

Mark LaMarre
Patent Attorney
Office of Intellectual
Property Law

Date: November 26, 2002

Based upon the foregoing Statement of Considerations and representations in the attached waiver petition, it is determined that the interest 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 will not apply to any substantial modification or extension of the subcontract, when through such modification or extension, the purpose, scope or cost of the agreement has been substantially altered.

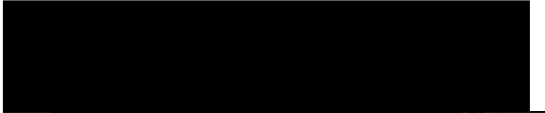
CONCURRENCE:

APPROVAL:



Stephen J. Goguen
Freedom Car and Vehicle
Technologies Office
EE-2G

Date: 12/19/02



Paul Gottlieb
Assistant General Counsel for Technology
Transfer and Intellectual Property
GC-62

Date: 12-20-02

(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.

WAIVER ACTION - ABSTRACT
W(A)-98-001

REQUESTOR

Caterpillar Inc.

SUBCONTRACT SCOPE OF
WORK

To evaluate the potential of three ignition assist technologies, specifically; a) short-duration , high power spark (SDHP), b) long-duration, low power spark (LDLP), and c) micro pilot lube oil injection. The goal of this contract is to demonstrate an ignition system life of 10,000 hours and a system cost of less than 50% of the glow plug system while meeting or exceeding the thermal efficiency of the glow plug system.

RATIONALE FOR DECISION

Significant experience in the design of alternate fuel engines - 50% cost sharing.
