

## STATEMENT OF CONSIDERATIONS

REQUEST BY ALLIED SIGNAL, INC. FOR AN ADVANCE WAIVER OF DOMESTIC AND FOREIGN PATENT RIGHTS UNDER SUBCONTRACT NO. SAX-20035-4 WITH PENTASTAR ELECTRONICS, INC. UNDER DOE CONTRACT NO. DE-AC02-94CE50390; W(A)-94-033; CH-0843

The Petitioner, Allied Signal, Inc., has requested a waiver of domestic and foreign patent rights for all subject inventions arising from its participation under the above referenced subcontract entitled "Direct Hydrogen Fueled PEM Fuel Cell Development Program."

The objective of the subcontract is to advance the performance and economic viability of a direct hydrogen fueled proton exchange membrane (PEM) fuel power system, including the identification of critical problems for system scale-up and vehicle integration and the integration of the fuel cell power system into a sub-scale vehicle propulsion system simulator. The work will involve research, development, design, fabrication, and test activities conducted on hydrogen storage systems, fuel cell stacks, gas management ancillaries, and fuel cell system controllers.

The total anticipated cost of the subcontract is \$10 million, with the Petitioner's share being \$2.1 million, for approximately twenty one percent (21%) cost sharing. The cost sharing for the subcontract may include cost participation by other lower-tier subcontractors, at any tier. However, the continuation of the waiver is contingent upon the Petitioner maintaining, in aggregate, substantially the above cost sharing percentage over the entire course of the subcontract.

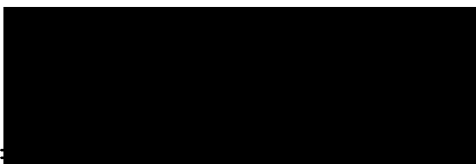
As noted in its waiver petition, although there is not currently an existing market for PEM fuel cells, the Petitioner is uniquely qualified to advance the PEM fuel cell toward a commercially viable product because of its existing expertise in automotive component and system development, as well as its technological position in the hydrogen storage and proton exchange membrane fuel cell technology. In addition to its extensive patent portfolio within this particular field, the Petitioner states that through 1993, it has expended more than \$1.3 million on research and development in this field and has committed about \$775,000 in company funding for continued research in 1994. Considering Petitioner's technical expertise and significant investment in this technology including sizable cost sharing in this subcontract, it is reasonable to conclude

that Petitioner will continue to develop and ultimately commercialize the products or processes which may arise from this subcontract.

Petitioner 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, Petitioner has agreed to the U.S. competitiveness provisions as attached to this Statement. In brief, 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. Further, Petitioner has agreed that it will not license, assign or otherwise transfer any waived invention to any entity unless that entity agrees to these same requirements.

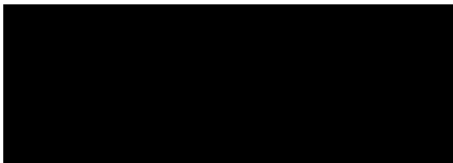
Referring to item 9 of the waiver petition, granting this waiver is not anticipated to have any adverse impact on competition. There are currently other designs, as well as competitors, in the field of PEM fuel cells. The success of this subcontract can be expected to further the infusion of new technology, increase competition in the field, and spur existing competitors to further developments.

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: 8/16/96

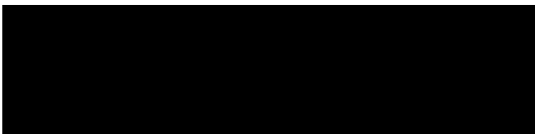


Daniel D. Park  
Patent Attorney  
Office of Intellectual  
Property Law

Date: 8/19/96

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 described above, and therefore the waiver is granted. This waiver shall not apply to any modification or extension of the subcontract, where through such modification or extension, the purpose, scope or cost of the subcontract has been substantially altered.

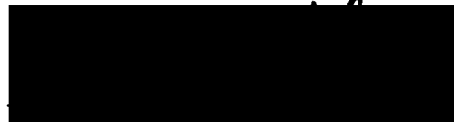
CONCURRENCE:



Pandit G. Patil  
Director, Office of Advanced  
Automotive Technologies  
EE-32

Date: 1/6/97

APPROVAL:



Paul G. Gries  
Assistant General Counsel  
for Technology Transfer  
and Intellectual Property

Date: 1-6-97

(c) (3) (ix) U.S. Competitiveness

The Subcontractor 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 Subcontractor can show to the satisfaction of the DOE that it is not commercially feasible to do so. In the event that 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 Subcontractor 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 Subcontractor 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)-94-033

<u>REQUESTOR</u>	<u>SUBCONTRACT SCOPE OF WORK</u>	<u>RATIONALE FOR DECISION</u>	<u>DISPOSITION</u>
Allied Signal, Inc.	Development of hydrogen PEM fuel cell	21% cost sharing	