## STATEMENT OF CONSIDERATIONS

Request by AlliedSignal, Inc. for Waiver of Domestic and Foreign Patent Rights to inventions that may arise under Contract No. DE-FC04-93AL94462 between the United States Department of Energy (DOE) and AlliedSignal, Inc. DOE Docket: W(A)93-013

The Petitioner, AlliedSignal, Inc. (AlliedSignal), has requested a waiver of all domestic and foreign patent rights to inventions which it may conceive or reduce to practice in the course of work under Contract No. DE-FC04-93AL94462, a Cooperative Agreement with DOE. The project period is May 14, 1993 through May 13, 1996.

The Cooperative Agreement covers work in designing a biological/chemical production process for caprolactam using microbial bioprocesses that convert cyclohexane to cyclohexanone or caprolactone with minimum waste and energy. This bioconversion could replace the current Nylon-6 production process. The Cooperative Agreement is divided into three phases with each phase projected to require one year for completion. The total estimated cost for the project is \$1,247,066 of which AlliedSignal will cost-share 50% evenly over all phases. The remainder will be provided by DOE under B&R Code ED 3002.

AlliedSignal, a diversified, international organization, possesses expertise in the area of technology applicable to the Cooperative Agreement and owns proprietary technologies for enzyme and microorganisms immobilization, the use of immobilized enzymes involved in the corn wet milling processes, and immobilized cells in bioreactors for organic waste degradation. AlliedSignal has a successful record in commercializing innovative and important products and processes. Its physical resources, experimental know-how and technical teams are the result of continuous and long-term expenditure on R&D efforts. AlliedSignal states that the commitment, resources and investments represented by its earlier successes will be extended to the continued development of the Biological/Chemical Caprolactam production program of the present Cooperative Agreement.

In addition to 50% cost-sharing, AlliedSignal will commit to the project a team of people selected from those normally used in its commercial enterprises. Also, personnel including pilot plant operator, laboratory technician, research scientist, process engineer, economic analyst and manager are all in place and prepared to do the work proposed for the Cooperative Agreement.

According to AlliedSignal, commercializing and licensing technology are significant sources of the business' income, and the development of new technology with a well-defined patent position is important to its business growth. Implied in AlliedSignal's statements contained in the Petition for Waiver is a demonstrated incentive and commitment to commercialize and license technologies for business gain. AlliedSignal states that, without patent rights to the subject inventions, it has little incentive to expend the necessary funds to undertake development and commercialization of such inventions.

Although AlliedSignal is not a small business, it has agreed nonetheless that any waiver of rights, if granted, shall be subject to the government license, march-in rights and U.S. preference provisions set forth in 35 U.S.C. 202, 203, and 204. In addition, AlliedSignal agrees to comply with U.S. Competitiveness whereby any products embodying any waived invention or produced through the use of any waived invention will be manufactured substantially in the United States, unless AlliedSignal can show to the satisfaction of the Contracting Officer that it is not commercially feasible to do so.

Based on the foregoing, AlliedSignal is well-qualified to commercialize any invention that may arise under the present Cooperative Agreement, and this in a manner that will not result in an undue concentration of the market for caprolactam production. It is therefore believed that the grant of the requested waiver will ensure that any new technology produced under the contract will be commercialized as early as possible by the Petitioner, AlliedSignal, who has, as pointed out above, not only the technical and commercial ability to do so, but also sufficient financial interest, as demonstrated by its significant sharing of cost in the proposed contract and its business incentive to reap profits from commercialization of the technology.

Accordingly, upon evaluation of the petition and in view of the objectives and considerations set forth in 41 CFR 9-9.109-6, all of which have been considered, it is recommended that the requested waiver of patent rights be granted to AlliedSignal, Inc.

Russell D. Elliott Patent Attorney		
Date:	912193	

Based on the foregoing Statement of Considerations and the representations made in the attached waiver petition it is determined that the interest of the United States and the general public will be best served by a grant of the requested waiver, and therefore the waiver is hereby granted. This waiver does not apply to any modification or extension of the agreement other than those described in this Statement, when through such modification or extension, the purpose, scope, or funds applied to the Agreement becomes substantially altered.

CONCURRENCE:

Mariana L. Uhrlaub

Conservation and Renewable Energy CE-60, Headquarters

member 4, 1993 Date

APPROVAL:

Richard E. Constant

Assistant General Counsel for Intellectual Property

11/0/93

Date