STATEMENT OF CONSIDERATIONS

REQUEST BY CHEMTURA CORPORATION FOR AN ADVANCE WAIVER OF THE GOVERNMENT'S DOMESTIC AND FOREIGN PATENT RIGHTS UNDER DOE COOPERATIVE AGREEMENT DE-EE0003986; DOE WAIVER NO. W(A)2011-010; CH1591

The Petitioner, Chemtura Corporation (Chemtura), has requested an Advance Waiver of the Government's domestic and foreign rights to inventions in the above cited research and development cooperative agreement issued by DOE's National Energy Technology Laboratory (NETL). See attached Chemtura's Petition, Answer 1.

Subject of the R&D Contract

Title: Developing Next Generation Refrigeration Lubricants for Low Global Warming Potential/Low Ozone Depleting Refrigeration and Air Conditioning Systems

The purpose of the project is to develop and test new synthetic lubricants that possess high compatibility with new low ozone depleting (LOD) and low global warming potential (LGWP) refrigerants and offer improved lubricity and wear protection over current lubricant technologies. These should reduce energy consumption and extend the life of refrigeration systems in residential heating, ventilating and air-conditions equipment as well as other home appliances. See Petition Answer 2 for more details.

Chemtura's Expertise in the Field

The Hatco Division of Chemtura has been manufacturing and supplying synthetic refrigeration lubricants to the industry for over 20 years. Hatco/Chemtura has had an active R&D effort toward the development of new ester technologies for several years and recently expanded their facilities to include advanced high pressure test equipment capable of evaluating lubricants in the presence of refrigerants. Chemtura has a number of patents and patent applications in the area of lubricants for refrigeration. Chemtura supplies both marketing partners selling lubricants and HVAC OEM (Original Equipment Manufacturer) system and compressor builders. See Petition Answers 5 & 6.

The Allocation of Patent Rights

Chemtura has requested the worldwide rights in all inventions developed under this cooperative agreement. The total budget for the two-year project is \$1,930,640. Chemtura's cost share for the project is \$478,400, which is 25% of the total budget. This exceeds the 20% minimum required cost share. See Petition Answer 3.

Chemtura has made substantial investment to develop this technology at private expense. Chemtura requests title to Subject Inventions to further its existing portfolio. Thus, the company can attract technology partners with an interest in jointly developing certain aspects of the Statement of Considerations DOE Waiver No. W(A)2011-010 Page 2 of 3

technology, licensing the technology for commercialization and/or combining the technology with other technologies. However, ownership of Subject Inventions will not likely place Chemtura in a dominant position in this field, which contains a large number of market and technology segments. The field encompassed by this work does not represent a majority percentage of the total market for refrigeration lubricants. See Petition Answer 8, 9 & 10.

With Chemtura owning any inventions under this cooperative agreement, the US market and economy will be advanced since Chemtura is a US company with manufacturing facilities in the United States. The patent rights waiver is subject to the retained government-use license, marchin rights, reporting requirements, 35 U.S.C. 204, and following DOE's standard U.S. Competitiveness provision:

U.S. Competitiveness

The waiver recipient 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 waiver recipient can show to the satisfaction of DOE that it is not commercially feasible to do so. The waiver recipient further agrees to make the above condition binding on any assignee or licensee or any entity otherwise acquiring rights to any waived invention, including subsequent assignees or licensees.

Conclusion

Chemtura was selected as the most qualified U.S. company capable of performing the tasks under this project. The technology being developed is closely aligned with Chemtura's business and extensive research in this field. Therefore, the Government believes that the inventions created under this cooperative agreement should be owned by Chemtura for commercialization.

For the foregoing reasons, and 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 be granted.

Date:

Assistant Chief Counsel for Intellectual Property DOE Chicago Office

Statement of Considerations DOE Waiver No. W(A)2011-010 Page 3 of 3

Based on the foregoing Statement of Considerations, it is determined that the interests of the United States and the general public will best be served by waiver of the United States' domestic and foreign patent right as set forth herein, and therefore, the waiver is granted. This waiver shall not apply to a modification or extension of the cooperative agreement where, through such modification or extension, the purpose, scope or DOE cost has been substantially altered. This waiver shall not affect any waiver previously granted.

CONCURRENCE:

	•			Date:_			
Roland Risser Program Manager Office of the Build		ogies	Program				
APPROVED:		·, ·	r j				
	Market 1	A17.	en Seus en e	Date:	< '	•	J

John Llicas
Assistant General Counsel

for Technology Transfer and Intellectual Property