STATEMENT OF CONSIDERATIONS

REQUEST BY DEGUSSA CORPORATION, FOR AN ADVANCE WAIVER OF DOMESTIC AND FOREIGN INVENTION RIGHTS UNDER A SUBCONTRACT WITH PETRO STAR UNDER DOE COOPERATIVE AGREEMENT NO. DE-FC26-01BC15281; W(A)-02-003, CH-1087

The Petitioner, Degussa, was awarded a subcontract under the subject cooperative agreement with Petro Star, Inc. for the performance of work entitled, "Conversion Extraction Desulfurization (CED)". According to the Statement of Project Objectives of the cooperative agreement, attached hereto for information, the overall objective of the work is to demonstrate the feasibility of using the CED process to reduce sulfur in diesel fuels. This technology assessment will include experimental work on the process using both lab scale and bench scale units, engine testing of the CED processed diesel and an economic evaluation of the process. As explained in response to question 1 of the attached waiver petition, the CED process is an alternative to hydrodesulfurization intended to remove sulfur from hydrocarbon fuels and produce ultra low sulfur diesel. The object of this subcontract is to further develop the process by collecting laboratory and small pilot scale data and applying chemical engineering process design principles to more accurately determine the process economics and to perform a conceptual design of a continuous pilot plant. This waiver is for inventions of the petitioner developed during the course of the cooperative agreement.

The total estimated cost of the cooperative agreement is about \$2,396,723 with Petro Star, the prime contractor, cost sharing about 45%, or \$1,100,663. DOE is funding 55% or \$1,296,060. The cost of the petitioner Degussa's subcontract is \$110,000, of which Degussa is contributing the full amount, or 100%. Copies of e-mail correspondence received by Mark Dvorscak, detailing Degussa's 100% cost share are attached as Exhibit 2.

In its response to questions 5 and 7 of the attached waiver petition, Degussa indicates that it is a chemical company with manufacturing plants located throughout North America, developing, manufacturing, and marketing chemicals. Degussa has been manufacturing hydrogen peroxide for almost one hundred years, and manufacture hydrogen peroxide with its own proprietary technology that is licensed to other producers. Degussa has extensive expertise in oxidative chemistry utilizing active oxygen compounds. Degussa's responses to questions 5 and 7 thus demonstrate its technical competency in chemical technology.

From its response to questions 9 and 10, Degussa indicates that grant of the waiver will enable Degussa and Petro Star to place any intellectual property developed under the cooperative agreement into a limited liability corporation that will commercialize and develop the process. Degussa states that the CED process is only expected to capture a portion of the total desulfurization market, of which hydrodesulfurization (HDS) is the dominant technology. Therefore, grant of the waiver will likely increase Degussa's incentive to rapidly commercialize CED technology, and will not have a negative impact on competition and market concentration.

The subject cooperative agreement will be modified to add the Patent Rights--Waiver clause in conformance with 10 CFR 784.12. This waiver clause will also include a paragraph entitled U.S. Competitiveness, in which Degussa agrees to substantial U.S. manufacture of subject inventions (attached as Exhibit 3). Additionally, Degussa agrees not to transfer subject inventions to any other entity unless that other entity agrees to these same requirements. The petitioner has further agreed to modification of the data clause of the subject cooperative

agreement (48 C.F.R. 952.227-14) by adding paragraph (k), Alternative VI, concerning contractor licensing of data.

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 requested waiver will 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.

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

Date april 18, 2002

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.

Arthur M. Hartstein FE-32 GTN OFFICE OF NATURAL GAS AND PETROLEUM

Date Mary 22, 2002

APPROVAL

Paul A. Gottlieb Assistant General Counsel for Technology Transfer and Intellectual Property

Date 5-28.02

(t) U. S. COMPETITIVENESS

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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.