STATEMENT OF CONSIDERATIONS

REQUEST BY ALBERMARLE CORPORATION FOR AN ADVANCE WAIVER OF PATENT RIGHTS TO INVENTIONS MADE UNDER SUBCONTRACT QZ001 UNDER COOPERATIVE AGREEMENT DE-FC26-08NT43291; W(A)-2010-042; CH-1568

Albermarle Corporation requests an advance waiver of domestic and foreign patent rights for all subject inventions made under its subcontract under the referenced cooperative agreement between The Department of Energy and The University of North Dakota-Energy & Environmental Research Center (EERC) entitled, "EERC-DOE Joint Program on research and Development for Fossil Energy-Related Resources". The purpose of the cooperative agreement is to develop an integrated fuel production capability including the valuation of Albermarle-developed and manufactured catalyst samples by the EERC using EERC laboratory and pilot scale integrated gasification and gas cleanup Fischer-Tropsch (FT) systems, as well as FT wax-upgrading systems. The EERC work will perform process development work while Albermarle' scope of work will primarily focus on the adaptation and bench-scale manufacture of Albermarle's proprietary FT catalysts. This waiver is for inventions made by Albermarle's employees only; EERC is eligible to retain title to its employee's inventions pursuant to P.L. 96-517, as amended.

The work under this agreement is expected to take place between May 1, 2010 and June 30, 2011. The total amount of Albermarle's subcontract is \$382,000, with Albermarle providing \$191,000 cash-equivalent cost share or 50%. The total value of the prime award is \$46,957,685, and EERC is cost-sharing \$10,473,987 or 28%. DOE is providing the remaining 72% (\$36,483,698).

With respect to its technical competency in the field of heterogeneous catalysts, Albermarle states that it has been involved in the development, manufacture, marketing, and sale of these for over 40 years. Albermarle has worked with clients in the development of renewable fuels, and has developed a heterogeneous catalyst to process vegetable oil into a fully fungible green biodiesel. Albermarle states it has extensive R&D and technology knowledge and resources, including extensive scaling-up expertise, and manufacturing excellence. Albermarle has demonstrated its technical competency in the field of heterogeneous catalysts.

Albermarle states that grant of the waiver will not have an adverse impact on competition as there are a variety of competing technologies in the market. In addition, Albermarle states that grant of the waiver will provide Albermarle the incentive to develop new catalysts and introduce them to the marketplace. Albermarle states the availability of these catalysts could hasten the possibility of cheaper and more readily available alternative fuels that may result from the use of these catalysts. Grant of the waiver will not place Albermarle in a dominant position and should have a positive effect on competition and market concentration.

This advance waiver of the Government's rights in inventions is subject to the usual advance patent waiver licensing provisions, and the government license, march-in rights, and preference for U.S. industry provisions set out in 35 U.S.C. 202-204. The advance patent waiver also includes the attached U.S. Competitiveness clause (paragraph t) which requires products embodying any waived invention or produced through the use of any waived invention be manufactured substantially in the United

States unless the participant can show to the satisfaction of DOE that it is not commercially feasible to do so. The contractor further agrees to make the above condition binding on any assignee, licensee or other entity acquiring rights to any waived invention, including subsequent assignees or licensees. Should the Contractor or other such entity receiving rights in any waived 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 DOE. In addition, the contractor agrees to submit copies of issued U.S. Patents resulting from waived inventions, and to submit annual reports on the utilization of a waived subject invention or on efforts at obtaining such utilization that are being made by the Contractor or any of its licensees or assignees.

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 agreement in a fashion which will make the 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.

Mark P. Dvorscak Deputy Chief Counsel Intellectual Property Law Division

Date: January 26, 2011

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 will not apply to any modification or extension of the cooperative agreement, where through such modification or extension, the purpose, scope or cost of the cooperative agreement has been substantially altered.

CONCURRENCE:

Regis Conrad
Office of Clean Energy Systems
Office of Fossil Energy

FF-22

Date 0 16 2011

APPROVAL:

John T. Lucas, Acting
Assistant General Counsel for
Technology Transfer and
Intellectual Property, GC-62

Date 2/3/2011

(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.