

STATEMENT OF CONSIDERATIONS

REQUEST BY THE BATTELLE ENERGY ALLIANCE AS OPERATOR OF IDAHO NATIONAL LABORATORY FOR WAIVER OF U.S. AND FOREIGN RIGHTS IN AN IDENTIFIED INVENTION, DOE DOCKET NO. S-109,900; U.S. PATENT NUMBER 7,946,342 MADE UNDER DOE CONTRACT NO. DE-AC07-05ID14517 WITH THE BATTELLE ENERGY ALLIANCE; W(I)-2012-002, CH-1646

This waiver was requested by the Battelle Energy Alliance (BEA), currently the manager and operator of Idaho National Laboratory (INL) under prime contract number DE-AC07-05ID14517. The subject invention was conceived and reduced to practice solely by BEA employees under its M&O Contract with the DOE. The invention was not elected by BEA and a patent application was prosecuted by the DOE Patent Counsel resulting in U.S. patent no. 7,946,342, issued on May 24, 2011. This petition is for a waiver of the U.S. Government's rights in the subject invention, so that title to the invention will be added to BEA's existing portfolio of oil and gas extraction technologies, which is anticipated to be licensed to one of a number of potential licensees currently in licensing discussions with BEA.

The subject invention enables deep oil recovery from heavy oil reservoirs. Briefly, the subject invention describes a method of oil recovery whereby a basic solution such as sodium hydroxide is injected into an oil reservoir containing acidic crude oil (heavy crude oils are generally acidic). The chemical reaction between the injected basic solution and the in-place acidic crude oil forms a surfactant that reduces the interfacial tension vastly improving the microscopic displacement efficiently, thereby decreasing the viscosity of the crude oil and enhancing oil recovery.

As explained in response to questions 3, and 4 of the attached waiver petition, the invention was conceived under Laboratory Directed Research and Development (LDRD) funding, specifically LDRD WP05-008 (B&R Code YN0100000). The DOE has spent approximately \$15,000 dollars to develop the invention. There is no continuing Government funding planned at this time. The inventor has further developed the invention, without the use of Government funding, resulting in improvements described in invention disclosure S-126,639, BA-571, which BEA is currently pursuing patent protection.

Regarding the response to question 8 of the attached waiver petition, BEA anticipates that it will license this invention, if this waiver is granted by the DOE. BEA also anticipates that once licensed, further work in the form of Work for Others (WFO) or Cooperative Research and Development Agreements (CRADAs) is expected to further develop the invention for commercialization. It is anticipated that the licensee will utilize this technology to extract crude oil, including heavy oil reserves within the United States, which was previously viewed as irretrievable, thereby increasing our oil supply and oil production capabilities.

Grant of the waiver will not have an adverse impact on competition or on market concentration, since BEA is subject to Public Laws 98-620 and 101-189 in its technology transfer activities. The technology transfer provisions of the contract further require consideration to fairness of opportunity in conducting licensing activities. BEA agrees to accept the terms of the above-identified contract including the government license, march-in rights and preference for U.S. industry set forth in 35 USC 202, 203 and 204.

Upon evaluation of the waiver petition, in view of all the objectives and considerations set

forth in 10 C.F.R 784, all of which have been considered, it is recommended that the requested waiver be granted.

 /Daniel D. Park/
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Date: 1/10/2012

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Date: 1/10/2012

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.

CONCURRENCE:

APPROVAL:



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