## STATEMENT OF CONSIDERATIONS

PETITION FOR ADVANCE WAIVER OF PATENT RIGHTS BY POET RESEARCH, INC. ("POET") UNDER COOPERATIVE AGREEMENT NO. DE-FC36-08088033 BETWEEN POET AND DOE; W(A)-08-035; CH-1455

The Petitioner, POET, has requested a waiver of domestic and certain foreign patent rights for all subject inventions that may be conceived or first actually reduced to practice by POET arising from its participation under the above referenced cooperative agreement entitled "Integrated Corn Cellulose Biorefinery: Next Generation Chemicals Platform."

The objective of the current project is to enhance the economics of corn-to-ethanol bio-refineries. More specifically the object is the development of technologies relevant to production of a broad range of bio-based products (including chemicals and animal feeds) that eventually can increase the feasibility of renewable fuel production by enhancing integrated biorefinery economics, and results in improved rural development. The project encompasses equipment evaluation, method development and testing at the pilot scale. Tasks under the project include the evaluation and development of several new processes including extraction of zein (a low nutrient protein suitable for use as an industrial biopolymer) from corn based fermentation substrates, extraction of oil from condensed corn solubles (i.e. syrup) for potential use as a feedstock for biodiesel, and extraction of oil from germ to be used as a feedstock for various biofuels.

The total cost of the current award is approximately \$3 million with the Petitioner providing about 50% cost sharing. This waiver is contingent upon the Petitioner maintaining, in aggregate, the above cost sharing percentages over the course of the cooperative agreement.

It should be noted that the current project is unrelated to DOE Cooperative Agreement DE-FC36-07GO17026 entitled "Project Liberty" which was awarded to one of Petitioner's subsidiaries, POET Project Liberty, LLC (PPLLC). The objective of Project Liberty is the transformation of a 50 MGPY grain-to-ethanol plant in Emmetsburg, Iowa into an integrated corn-to-ethanol and cellulose-to-ethanol biorefinery. The first phase of the agreement was signed in October 2007 and provided PPLC with an initial \$3.7 million for preliminary design, engineering and feedstock collection. The second phase of Project Liberty provides up to \$76.3 million for final design, construction, start-up and continuous operation of the plant. Once complete, the facility will produce 125 MGPY, of which 25 million gallons will be from corn fiber and corn cobs.

As noted in its waiver petition, Petitioner, is the largest ethanol producer in the United States and one of the largest in the world. The company produces in excess of one billion gallons of ethanol from 26 ethanol plants and has been engaged in the development and implementation of new technologies related to ethanol production over the past 10 years. From 2002 through 2006 the company developed and

implemented technology related to raw starch processing and dry corn fractionation. During the same time in a related research and development effort the company collaborated with NREL and South Dakota State in the evaluation of pretreatment, saccharification, and fermentation technologies for cellulosic corn fiber. Furthermore, POET invests significant amounts of its profits each year into research and development of technologies related to cellulosic ethanol production.

Considering Petitioner's technical expertise and significant investment in this technology including sizable cost sharing in this cooperative agreement, it is reasonable to conclude that Petitioner will continue to develop and ultimately commercialize the technology and products which may arise from this cooperative agreement.

Petitioner has agreed that this waiver shall be subject to the march-in and preference for U.S. industry provisions, as well as the U.S. Government license, comparable to those set out in 35 U.S.C. 202-204. Further, Petitioner has agreed to the attached U.S. Competitiveness provision paragraph (t). In brief, Petitioner has agreed that products embodying a waived invention or produced through the use of a waived invention will be manufactured substantially in the United Sates unless the Petitioner can show to the satisfaction of the DOE that is not commercially feasible to do so.

Referring to item 10 of the waiver petition, granting this waiver is not anticipated to have any adverse impact on competition. If anything, the technology forming the subject matter of the collaboration can be expected to stimulate competition. POET has an extensive history of partnership and licensing arrangements with companies in various commercial markets and the development of bio-based fuels such as cellulosic ethanol provide competition with petroleum based fuels.

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 cooperative agreement in a fashion which will make the above 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 784, all of which have been considered, it is recommended that the requested waiver be granted.

/Brian J. Lally/
Brian J. Lally
Assistant Chief Counsel
Intellectual Property Law Division
DOE Chicago Office

Date: December 5, 2008

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 shall 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:** 

Janques A. Beaudry-Losique Program Manager Office of Biomass Program EE-2E

Date: 12-11-08

APPROVAL:

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

Date: 12-08

## **WAIVER ACTION - ABSTRACT** W(A)-08-035

**REQUESTOR** POET

CONTRACT SCOPE
The objective of the project is the development of technologies relevant to production of a broad range of bio-based products

**RATIONALE FOR DECISION** Approximately 50% Cost Sharing

## (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.