

## STATEMENT OF CONSIDERATIONS

### REQUEST BY WEYERHAEUSER COMPANY, INC. FOR AN ADVANCE WAIVER OF DOMESTIC AND FOREIGN INVENTION RIGHTS UNDER DOE COOPERATIVE AGREEMENT NO. DE-FC26-04NT42259; W(A)-04-078; CH-1257

The Petitioner, Weyerhaeuser Company (Weyerhaeuser), was awarded this cooperative agreement for the performance of work entitled, "Advancement of High Temperature Black Liquor Gasification Technology." In this program, Weyerhaeuser use its New Bern, North Carolina gasification facility as a test bed to investigate key factors limiting process performance and reliability and then to demonstrate certain advancements to the Chemrec black liquor gasification technology or auxiliary processes to overcome those limitations. The approach used will be to first gain a fundamental understanding of the process issues limiting process performance and reliability. This will be done based on collection and analysis of field and laboratory data, and the development and use of process modeling tools. Based on the knowledge gained, the project team will develop and propose practical solutions to the underlying problems. The second phase of the project involves procurement, implementation, and evaluation of the solutions at the New Bern facility. Weyerhaeuser's project team includes Chemrec AB, a Swedish Company; Institute of Paper Science and Technology at Georgia-Tech; Process Simulation Ltd (University of British Columbia); and Simulent (University of Toronto). This waiver is applicable only to inventions of Weyerhaeuser.

The total estimated cost of the cooperative agreement is \$2,941,655. Weyerhaeuser is cost sharing \$1,621,725 or 55%; DOE is providing the remaining \$1,319,929 or 45%. The period of performance is from October 1, 2004 through July 1, 2007.

In its response to questions 5 and 6 of the attached waiver petition, Weyerhaeuser has described its technical competence in the field of black liquor gasification. Weyerhaeuser owns and operates its Chemrec black liquor gasifier as part of its pulp manufacturing operations. It was first installed in 1996 and through 200 Weyerhaeuser worked with Chemrec AB, the supplier of the technology to resolve technical issues that improved overall process availability from 48% to 80%. Subsequent work resulted in three Weyerhaeuser patents and one patent application. Weyerhaeuser states that collaboration with Oak Ridge National Laboratory has resulted in another patent application. Further amplification of this response is provided in attachments A, B, and C to the waiver petition. Weyerhaeuser's response demonstrates its technical competency in the field of black liquor gasification.

In its response to question 10 of the attached waiver petition, Weyerhaeuser states inventions made under this agreement are likely to be uniquely beneficial to the development of Chemrec's high temperature black liquor gasification technology. Due to Chemrec's technology leadership and patent position in the high-temperature black liquor gasification field, it is unlikely that others will attempt this high-temperature approach. Competition to the Chemrec technology is likely to come from other technology approaches, for example, the low-temperature fluidized-bed black liquor gasification technology under development by a competitor of the petitioner. Thus, grant of the waiver should have a positive effect 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, wherein Weyerhaeuser has agreed to the provisions of 35 U.S.C §§ 202, 203, and 204. This waiver clause will also include a paragraph entitled U.S. Competitiveness, in which Weyerhaeuser agrees to substantial U.S. manufacture of subject

inventions (attached hereto). Additionally, Weyerhaeuser agrees not to transfer subject inventions to any other entity unless that other entity agrees to these same requirements.

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 above requested waiver would 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.

[Redacted Signature]

Mark P. Dvorscak  
Assistant Chief Counsel  
Intellectual Property Law Division

Date: Dec 20, 2004

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 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.

CONCURRENCE:

[Redacted Signature]

Douglas Kaempf, Director  
Office of the Biomass Program,  
Energy Efficiency and  
Renewable Energy, EE-2E

Date: 3/2/05

APPROVAL:

[Redacted Signature]

Paul A. Gottlieb  
Assistant General Counsel  
for Technology Transfer and  
Intellectual Property, GC-62

Date: 3-3-05

(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.

***WAIVER ACTION - ABSTRACT***

**W(A)-04-078 (CH-1257)**

REQUESTOR

Weyerhaeuser Company  
Incorporated under DOE  
Cooperative Agreement  
No. DE-FC26-04NT42259

CONTRACT SCOPE OF WORK

Advancement of High Temperature  
Black Liquor Gasification Technology

RATIONALE FOR DECISION

55% cost sharing

DISPOSITION