STATEMENT OF CONSIDERATIONS

CLASS WAIVER OF THE U.S. GOVERNMENT'S DOMESTIC AND FOREIGN PATENT RIGHTS IN SUBJECT INVENTIONS ARISING UNDER THE MONITORED NATURAL ATTENUATION AND ENHANCED PASSIVE REMEDIATION OF CHLORINATED SOLVENTS ALTERNATIVE PROJECT TO PROJECT SUBCONTRACTORS UNDER DOE CONTRACT NO. DE-AC09-96SR18500 AND TO THE LARGE BUSINESS LOWER TIER SUBCONTRACTORS THEREUNDER; (W(C)-2004-001) [ORO-785]

This waiver of the U.S. Government's domestic and foreign patent rights in Monitored Natural Attenuation and Enhanced Passive Remediation of Chlorinated Solvents Alternative Project (MNA/EPR Alternative Project) subject inventions is intended to cover Project Subcontractors under DOE Contract No. DE-AC09-96SR18500 with Westinghouse Savannah River Company (WSRC), other than domestic small business and nonprofit organization project subcontractors and lower tier subcontractors covered by Public Law 96-517, performing field and applied research studies addressing one or more of the high priority technical needs for the MNA/EPR Alternative Project. These Project Subcontractors may utilize for research studies four "testbeds" at the Savannah River Site (SRS) with chlorinated solvent contaminated plumes present at various concentrations, plume geometries, and biological conditions identified in the attached list (Attachment A). The list of designated test bed facilities may be enlarged or diminished by the Assistant General Counsel for Technology Transfer and Intellectual Property upon written request by the Office of Cleanup Technologies (EM-21 or successor organization).

This waiver does not apply to small business or non-profit organization subcontractors covered by Public Law 96-517, as amended, regardless of tier of subcontracting. These small businesses and nonprofit organizations shall receive title to their subject inventions arising under the MNA/EPR Alternative Project as required by Public Law 96-517, as amended. This waiver also does not grant any rights in inventions made by employees of WSRC or other DOE National Laboratories. This waiver does not apply to demonstrations at designated test bed facilities which are under the cognizance of programs other than the Office of Cleanup Technologies.

This class waiver represents a streamlined waiver process whereby individual Project Subcontractors and lower tier subcontractors under the MNA/EPR Alternative Project meeting the requirements described herein need not request individual waivers to gain the U.S. Government's domestic and foreign patent rights, but may rely on this waiver to obtain such rights. In the event that an individual Project Subcontractor or lower tier subcontractor cannot satisfy the criteria for obtaining patent rights under this waiver, that Project Subcontractor or lower tier subcontractor may request a waiver in accordance with 10 CFR 784.

Background

Efficient, effective and responsible use of Monitored Natural Attenuation (MNA) and Enhanced Passive Remediation (EPR) for chlorinated solvents is critical to the Department of Energy (DOE) as the organization shifts its efforts to site closure.

Chlorinated solvents represent many of the largest and most challenging plumes at DOE sites across the country – including the Savannah River Site, Oak Ridge Site, and the Hanford Site. Central to the MNA/EPR Alternative Project is an integrated portfolio of research studies. The selected studies will be based on a group of specific technical targets that have been identified to enhance the understanding and implementation of MNA and EPR. Field and applied research studies are strongly emphasized in this program, and the research efforts can be field or laboratory based, dependent on the technical target(s) being investigated. To facilitate the work, the Department of Energy Savannah River Site has identified four available field research sites, "testbeds," with chlorinated solvent contaminated plumes present at varying concentrations, plume geometries, and biogeochemical conditions. These research efforts, to be performed under subcontracts with WSRC, are to last no more than 18 months with a follow-on 4-month period for data evaluation and report writing. It is anticipated that several subcontracts, ranging from $50K to $150K, will be awarded. No cost-sharing by the Project Subcontractors is expected.

In accordance with the objective stated in 10 CFR 784.3, of encouraging "participation by private persons in DOE's energy research and development, and demonstration programs", a waiver for this project will provide incentive for innovative technology demonstrators to reduce their new concepts and inventions to practice during the course of the MNA/EPR Alternative Project by assuring them intellectual property rights. Without such a waiver, participation in this project by private parties may be more limited.

As set forth below, there are four general topics for focused research under the MNA/EPR Alternative Project and within each general topic area are 16 high priority and technical implementation targets:

I. Direct measures of Attenuation Mechanisms

A. Develop advanced bioassessment tools for determining ongoing and potential microbial processes at different sites

B. Develop field scale correlations between species, functional genes, and degradation rate and potential

C. Conduct further research on oxidative and reductive processes

D. Develop direct measures and indicators for abiotic attenuation mechanisms

II. Strategies to support characterization and monitoring

A. Develop a scenario-based framework to support characterization monitoring and modeling decision-making.

B. Develop specific alternative monitoring configurations to collect data during system performance monitoring stage

C. Improve integration of modeling into MNA evaluation and implementation

D. Improve reaction forms and include variable linear equilibrium partitioning coefficients within analytical models.

III. Tools to support characterization and monitoring

A. Develop threshold and binary monitoring devices and strategies for long-term monitoring

B. Remote sensing of a parameter(s) that can be related to system performance
C. Develop spectroscopy methods (IR and other optical methods) to measure critical MNA parameters
D. Develop improved dissolved oxygen measurement approaches
E. Develop methods to measure flux more directly than traditional methods (groundwater and contaminant flux).
F. Samplers that integrate over distances and volumes

IV. Use of passive or semipassive enhancements
A. Microbiology – Bioaugmentation
B. Modifying Large-scale Hydrology

Class Waiver of the U.S. Government's Domestic and Foreign Patent Rights in Project Subcontractor's and Lower Tier Subcontractor's Subject Inventions

Section 152 of the Atomic Energy Act of 1954, as amended (42 USC 2182) and Section 9 of the Federal Non-nuclear Energy Research and Development Act of 1974 (42 USC 5908) generally require that the Government take title to subject inventions, unless a waiver is granted. Under the authority of 42 USC 2182 and 5908 and 10 CFR 784, it is a purpose of this class waiver to provide a waiver of the U.S. Government's domestic and foreign patent rights in subject inventions, arising under the MNA/EPR Alternative Project subcontracts with WSRC to the Project Subcontractor.

This waiver of the Government's rights in inventions as set forth herein is subject to the march-in and preference for U.S. industry provisions, as well as the U.S. Government license, as set out in 35 U.S.C. 202-204. The waiver of the U.S. Government's patent rights in inventions as set forth herein is also conditioned on the Project Subcontractor accepting the attached patent clause and background data clause. The background patent and data clauses require the Project Subcontractor to license the Government for purposes of site remediation and for commercialization purposes in the event the Project Subcontractor fails to commercialize a subject invention. Further the Project Subcontractor must agree to the attached U.S. Competitiveness clause. After consultation with the Assistant General Counsel for Technology Transfer and Intellectual Property and for good cause, the above provisions for a particular transaction may be modified by DOE Patent Counsel. As stated earlier, although no cost sharing is expected from the Project Subcontractors, a waiver here is warranted in view of the mutual benefits obtained from the subcontract arrangement. The waiver here will provide the needed incentive for the more rapid development of innovative and cost-effective technologies for the remediation of contaminated waste sites around the DOE complex.

With respect to the lower tier subcontracts, it is a further purpose of this class waiver to provide a waiver of the U.S. Government's domestic and foreign patent rights in subject inventions of the lower tier subcontractors, arising under a sub-subcontract with WSRC, to the lower tier subcontractors. This waiver of the Government's rights as set forth herein is conditioned on the lower tier subcontractor accepting the same terms and conditions under which the Project Subcontractor will be granted the class waiver. These terms include the attached patent clause, the background patent and data

clauses, the conditions set forth in 35 U.S.C. 202-204 and the attached U.S. Competitiveness provisions. The background patent and data clauses require the lower tier subcontractor to license the Government for purposes of site remediation and for commercialization purposes in the event the lower tier subcontractor fails to commercialize a subject invention. Further the Project Subcontractor must agree to the attached U.S. Competitiveness clause. After consultation with the Assistant General Counsel for Technology Transfer and Intellectual Property and for good cause, the above provisions for a particular transaction may be modified by DOE Patent Counsel. In recognition of the lower tier subcontractors' right to request a waiver of patent rights under their own subcontract, this waiver will apply only to such lower tier subcontractors who provide to the DOE, in writing, acknowledgement of their waiver rights and agreement to the terms and their subcontract. Again, this waiver shall not impact the rights of small business and nonprofit organizations subject to Public Law 96-517, as amended, at any tier, nor shall it grant any rights in inventions made by employees of WSRC or other DOE National Laboratories.

Conclusions/Recommendations

It is believed that granting of the class waiver of the scope described herein would provide Project Subcontractors, other than small business and nonprofit organization Project Subcontractor covered by Public Law 96-517, and lower tier subcontractors, other than small business and nonprofit organization lower tier subcontractors, with the necessary incentive to invest their resources in the commercialization of the results of the MNA/EPR Alternative Project and will make the Project's benefits available to the public in the shortest practicable time. 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 be granted.

Michael P. Hoffman

for Emily G. Schneider
Assistant Chief Counsel for Intellectual Property
Oak Ridge Operations Office

Date: 1/29/04

Based on the foregoing Statement of Considerations, it is determined that the interest 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 that substantially alters the purpose or scope of the Project described herein.

CONCURRENCE:

Mark W. Frei
Director
Office of Cleanup Technologies
Office of Environmental Management

Date: 2/5/04

APPROVAL:

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

Date: 2-9-04

Attachment A

Savannah River Site Field Test Beds

1. C-Area Reactor Groundwater Operable Unit

    - TCE 9,600,000 ug/L

2. Chemicals, Metals, Pesticides Pits

    - PCE 18,800 ug/L
    - TCE 4,200 ug/L

3. L-Area Southern Groundwater

    - PCE 165 ug/L
    - TCE 55 ug/L

4. P-Area Reactor Groundwater

    - PCE 365 ug/L
    - TCE 21,000 ug/L