Department of Energy
Savannah River Operations Office
P.O. Box A
Aiken, South Carolina 29802

AUG 1 5 2006

Ms. Karen Patterson, Chair
Savannah River Site Citizens Advisory Board
1103 Conger Drive
Aiken, South Carolina 29803

Dear Ms. Patterson:

SUBJECT: Savannah River Site (SRS) Citizens Advisory Board (CAB) Recommendation 236 - Soil Vapor Extraction (SVE) with Soil Fracturing (Your letter, 7/26/06)

Thank you for the subject recommendation supporting the use of phased SVE enhanced with soil fracturing and institutional controls at the M-Area Inactive Process Sewer Lines (MIPSL) Operable Unit (OU). The following is my response to each component of the recommendation.

1. **The Department of Energy (DOE) provide annual updates on the potential spread of contaminants from the MIPSL OU and the amount of volatile organic compound (VOC) mass removed by the remedial alternative.**

DOE will provide annual updates; however, the construction start for the remedial action at the MIPSL OU is not scheduled until July 2007. Monitoring data from the action is not anticipated to be available until after December 2008. An annual update of VOC mass removed by the SVE and fracturing should be available about January 2009.

The chlorinated solvents released from the MIPSL OU have been present for many years and are trapped in a low permeability silt and clay layer. Contaminants from this source are unlikely to spread during the remedial action because the mode of transport in the environment is through volatilization. SVE coupled with fracturing will remove volatilized contaminants and reduce the potential for contaminants to migrate. Further characterization of the source is not likely to yield new knowledge on the migration of the contaminants because they have been present for many years and are in relative equilibrium with the environment.

SRS has observed changes in the groundwater concentration due to the operation of SVE and removal of significant quantities of VOCs in the vadose zone. Because groundwater protection is the goal of the remedial action, DOE believes that reporting changes in the groundwater concentration below the source would be a better measure of the effects of the remedial action.

2. **DOE conduct an investigation into the likelihood that pockets of low permeability soils with contamination may exist after the remedial technology is deployed and report the finding to the SRS CAB during the annual updates.**

Pockets of contaminated soil are expected to be present between fractures after SVE operations are complete. To manage this condition, lower cost systems (such as microblowers and baroballs) will be implemented over an estimated 15 years to facilitate the gradual release of all remaining VOCs. The source area will be sampled to demonstrate that remedial goals have been achieved after the system operations are complete. Annual updates will be provided after January 2009, after the system is fully operational.

If you have any questions, please call me or Mr. Wade Whitaker, of my staff, at (803) 952-7760.

Sincerely,

Jeffrey M. Allison
Manager

SGP-06-014