Team D – Off Site Risk – of the Risk Management Working Group met on Wednesday, May 12, 1999, 7:00 p.m., at the Aiken Federal Building, Aiken, S.C. The purpose of the meeting was to discuss the Risk Based Correct Action (RBCA) process and determine the path forward. Those in attendance were:

**Stakeholders**
- Lynn Waishwell, CRESP
- Lee Poe
- Jerry Devitt

**DOE/Contractors**
- Curt Walker, WSRC
- Jim Moore, WSRC

Lynn Waishwell, Team D Lead, welcomed those in attendance and reviewed the agenda. She introduced Curt Walker, WSRC.

Lee Poe gave a quick background of why Mr. Walker was invited to the meeting. An article in a magazine resulted in our obtaining information and a document on the American Society for Testing and Materials (ASTM) RBCA process for petroleum in underground tanks. This document resulted in a search for someone at SRS that knew something about the process. This resulted in Mr. Walker's presence.

Mr. Walker explained that he was not an authority on the ASTM RBCA process. However, the South Carolina Department of Health and Environmental Control (DHEC) adopted policies and procedures for underground tanks based on the ASTM RBCA process. Mr. Walker stated that he was knowledgeable about the DHEC process.

Mr. Walker stated the RBCA process focuses on the evaluation of the exposure risk of specific constituents utilizing various methods of assessment, monitoring and when applicable, corrective action. The process utilizes a three-tier approach. The first tier compares the measures of the Constituents of Concern (CoC) levels to the Risk Based Screening Levels (RBSL). The second tier establishes Site Specific Target Levels (SSTLs) and establishes points of compliance. The third tier develops values for direct and indirect exposure pathways against SSTLs.

The RBCA process is not:

- A means of identifying sites requiring no further action.
- A means of identifying sites at which corrective action can be deferred.
- A replacement for regulatory requirements.
- A requirement for multiple studies of specific site.
Steps in the Tier 1 process are assessment, priority classification, evaluation and action. The constituents of concern are screened to see if they are above the RBSL. If not, then no further action is required. If above the RBSL, they proceed to Tier 2.

Steps in Tier 2 are establishing the exposure point(s), establishing the site specific points of compliance, and calculating the corresponding SSTL for each CoC in regards to each compliance point. If the levels of the CoC fall below the SSTL, then a corrective action plan is developed to remediate the site if practicable. If remediation is not practicable, then you proceed to Tier 3.

A Tier 3 assessment is a more sophisticated statistical and CoC fate and transport analysis. Usually involving extensive computer modeling and analytical methods.

The Corrective Action Plan (CAP) proposing a remedial action must address the methodology designed to achieve SSTLs, detailed design specifications and a continued monitoring program. CAPs are placed on public notice to allow potentially affected parties to participate in the corrective action decision making process.

There are two types of No Further Action. No Further Action given for concentrations of CoC below the RBSLs and conditional No Further Action with a monitoring program in effect.

SRS has utilized the state's petroleum RBCA process three times:

- 108-3 Sites - Above ground petroleum tanks
- 618-G - Removal of an underground petroleum storage tank
- Defense Waste Processing Facility (DWPF) – Overfill of a petroleum underground storage tank

Risk based remedial strategies are becoming more apparent, for example:

- EPA's Accelerated Remediation Process
- EPA's Waste Research Strategy (issued 2/99)
- EPA's issuance of Phase IV of the Land Disposal restrictions regarding treatment standards for hazardous soils
- EPA's issuance of the contaminated media portion of the Hazardous Waste Identification Rule (HWIR)
- EPA's guidelines for Ecological Risk Assessments (4/98)

It was mentioned that this process is a more scientific process than previous processes because it requires actual sample data to be collected, evaluated and placed in equations to be compared against proven and accepted values.

Ms. Waishwell complemented and thanked Mr. Walker for his presentation.

On the various options available for the path forward, there was discussion that the team could develop criteria to help find appropriate risk analysis processes off site, or try to find processes on the internet or in periodicals that may be of interest to the group. While some felt developing criteria was the best method, it was decided to try to find processes on the Internet or periodicals of interest to the group. Areas to be looked into were non-SRS processes, risk/hazard processes and those of interest. Ms. Waishwell had compiled a list of areas that could be found on the Internet. The list was reviewed and seven areas of interest were selected.

Some general assignments were given as follows:

Ms. Waishwell:
- Attempt to get a summary of the seven areas on the Internet for review.
- Survey CRESP people to see if they had suggestions on risk processes.

Jim Moore:

- Survey Westinghouse Safety Management Systems (WSMS) to see if they had information on other off site risk processes and areas of SRS risk processes they may have modified to streamline the SRS process but are not utilized at SRS. That is, areas of the SRS risk analysis process that could be streamlined.
- Obtain information on the California Department of Toxic Substances Control new risk-based waste classification system.
- Pursue the NASA risk analysis system via Steve Etheridge.

Lee Poe:

- Develop a strawman of the graphs on hazards initiated by the Center for Risk Excellence.
- Continue to peruse periodicals for information.

Jerry Devitt:

- Continue to peruse periodicals for information.

It was decided that when each of the members had completed part or some of their action items, they would correspond with the others. Once there is enough information to justify a meeting, a meeting would be called based on Lynn Waishwell's travel schedule. The emphasis would be to minimize unnecessary travel for Ms. Waishwell, i.e., schedule a meeting when Ms. Waishwell is in the Aiken area.

With no other comments, Ms. Waishwell adjourned the meeting.

Meeting handouts may be obtained by calling 1-800-249-8155.