EPA Region 5 Records Ctr.
229694

Comments Regarding Spoils Sampling Approach at Site R, Sauget Area 2

TO: Nabil Fayoumi/USEPA

FROM: CH2M HILL

DATE: February 28, 2005

CH2M HILL has reviewed a letter, dated February 25, 2005, from Solutia to USEPA that presents a management proposal for spoils at Sauget Area 2 (SA2), Site R. The following comments pertain solely to the environmental sampling approach proposed by Solutia in the February 25 letter. CH2M HILL will provide technical comments regarding the management of spoils following receipt of analytical data from the spoils samples.

1. Solutia is proposing to analyze spoils samples for volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs) via Methods 8260 and 8270, respectively. In addition, leachable concentrations of VOCs and SVOCs will be assessed according to the Toxicity Characteristic Leaching Procedure (TCLP). This selection was based on constituents of concern that have been found in groundwater beneath Site R.

   Based on a cursory review of groundwater data presented in a SA2 deliverable entitled "Supplemental Investigation" (URS, December 2004), we recommend that total and TCLP metals be added to the parameter suite, as elevated arsenic concentrations (greater than 100 mg/L) have been observed in groundwater beneath Site R. Further, based on historical information related to Site R, we recommend that total and TCLP polychlorinated biphenyls (PCBs) be analyzed on the soil samples.

2. Solutia is proposing to collect four soil samples "at random locations and depths", which would correspond roughly to one sample per 5,000 cubic yards (cy) of spoils, after 4,000 cy of additional spoils are moved to the stockpile, leaving 20,000 cy of spoils along the barrier wall. Figure 1 in the February 25 letter shows spoils that lie along a 1,800-foot stretch of the barrier wall (from station 12+00 to station 30+00). We recommend that Solutia divide this 1,800-foot stretch into six 300-foot segments and collect one spoils sample at a randomly-selected location and depth along each segment, for a total of six samples. This approach would provide some indication of spatial variability in the spoils properties. Results from these samples may also prove useful in deciding which spoils should be transported to the top of the stockpile.

3. Regarding the depth of sampling, the sample should be collected at least six inches below ground surface or six inches into the pile because VOCs at the surface would have already volatilized. Samples collected from areas that have already been covered should be collected from at least 12 inches below ground surface to ensure that the spoils, rather than the overlying topsoil cover material, are being sampled.