

Gary

Lotus cc:Mail For: PAIS Environmental Compliance

Author: Gary Rosenlieb at NP-WASO-WR

Date: 4/18/97 5:14 PM

Subject: Review of South Sprint Gas Collection Facility GRP

----- Message Contents -----

Paul:

I have reviewed the final data set that was submitted by Amoco Oil and have the following analysis and recommendations for you. One problem I would note is that the data tables accompanying the materials that you sent me do not have the units of concentration reported for the TPH and BTEX results. It would appear that they maybe have stayed with parts per billion as depicted on their 1993 map. However, we should confirm this with AMOCO to make sure that there has not been a transition from ppb to ppm or vise-versa.

Based on the sequential sampling results that have been conducted since 1994, it appears the air sparging being used to remove free phase hydrocarbons is working quite nicely. Free-phase hydrocarbon depths have been reduced from their peaks of 2.5 feet in August, 1994 to below 1 foot in September of 1996. It also appears, based on rates of decline of free-phase levels that perhaps another year will be required to reduce the free-phase hydrocarbons to acceptable levels of below 0.03 feet or less. The decision to terminate the remedial ground water activity should be based on the results of monitoring and not on a projected timeframe, however. I note that the last measurements collected in October 29, 1996 most free-phase depths increased from their June 16, 1996 levels. This is most likely because of compression and decompression of the hydrocarbon plume caused by the fluctuation of the phreatic surface, and/or additional hydrocarbons that are being washed from the contaminated sands with each water table rise and fall.

The measures of soluble TPH and BTEX fraction also seem to be declining quite nicely. If the reporting units are in fact in ppbs, then I believe that by the time the free-phase portion of the product is removed, that the soluble fraction should be within levels that are acceptable for natural attenuation. Again, we should confirm the units of reporting, because it appears that a change in units of concentrations may have occurred during the course of the monitoring program.

I note that monitoring in several of the wells have been sporadic, and apparently terminated in some cases. As we approach the point where most of the free-phase product has been removed, I believe that we should request Ensure to sample all of the remaining monitoring wells. I believe that it is particularly important to focus on the wells at the southern perimeter of the plume including OW-13, OW-1, OW-12, OW-11, OW-10, OW-8, and OW-9. In addition to the collection of TPH the following analytical series should be run:

Volatile Organic Compounds, determined by EPA method 8240A. (This would included individual determinations of benzene, toluene, xylene, and ethylbenzene)

Semivolatile Compounds, determined by EPA method 8270B. This would include many polycyclic compounds like naphthalene.

