

MEMORANDUM

TO : File no. 105.0296 Utility Trailer Manufacturing Co.
FROM : Ruen-Fang Wang
RE : Meeting with UT and HLA at the subject site
DATE : June 29, 1994

Attendees: Robert Griffis of Utility Trailer, Bred Eismen, Kurt Wiebe, and Ted Koelsch of Harding Lawson Associates, (HLA), and Eric Nupen and Ruen-Fang Wang of Board Staff

1. UTM and HLA consider the SVE system proposed in "the Interim Remedial Action Plan (IRAP)" is an extended pilot test. They adopt a phase approach: starting the system at one area to see the response and modify the system as needed. Since modification of the SVE system is expected, there is no final design at this moment. Board staff agree on this approach and told them Board staff have to be informed in advance for all the field work.
2. Board staff told UTM and HLA that they can go ahead to install the system according to their plan, however, starting the SVE system at the southeast and southwest corners has to wait until Somitex finish its site assessment. In the mean time, Board staff will review Somitex file and determine whether its site assessment is completed. UTM and HLA agreed and will keep Board staff informed about their implementation schedule.
3. Regarding the ground water issue, there are more than one way for data interpretation and different way may lead to different conclusions. Board staff explained to UTM and HLA about ground water data interpretation done by staff. Two groups of wells, MW-3 (upgradient) and MW-2 (downgradient) as well as MW-4 (upgradient) and MW-5 (downgradient), are identified based on the ground-water flow direction. Analysis results show the following:
MW-3 vs MW-2:
Conc._{up} > Conc._{down} : Freon-11
Conc._{up} < Conc._{down} : 1,1,1-TCA, 1,1-DCA, 1,1-DCE, PCE
MW-4 vs MW-5:
~~Conc._{up} > Conc._{down} : 1,1-DCE, PCE~~
~~Conc._{up} < Conc._{down} : 1,1,1-TCA, 1,1-DCA~~
5. UTM suggested that Board staff can coordinate a simultaneous ground water sampling event for all sites in this general area and they will not mind taking groundwater samples for other sites. Board staff agree to do so after review of necessary case files.
6. Soil cleanup level is not proposed at the moment. HLA claimed that they need more data from field testing to judge the feasible soil cleanup level. HLA will follow the performance measures set by this regional board.

HLA will finalize the IRAP and submit to RWQCB-LA. They need a approval letter from this regional board to proceed with this plan.

UTM 004990

SOIL VAPOR EXTRACTION CLEANUP PERFORMANCE CRITERIA

- 1. Reduction or constriction of VOC spatial distribution (compared to the baseline VOC spatial distribution) based on monitoring data collected at stratigraphically located discrete monitoring probes;**
- 2. Reduction in VOC concentration amplitude at all monitoring points;**
- 3. Rebound monitoring to evaluate asymptotic level of VOCs;**
- 4. Soil-matrix sampling at hot spots within any remaining isocons targeted to fine-grained horizons in the vadose zone;**
- 5. A valid risk assessment/chemical transport modeling to demonstrate that any remaining contaminants left in place does not pose further threat to groundwater; and**
- 6. Groundwater monitoring, if necessary.**

Summary of meeting with RWQCB, UTM, and HLA at UTM on June 29, 1994 at 13:30

ATTENDED BY: Ruen-Fang Wang (RWQCB); Eric Nupen (RWQCB); Robert Griffis (UTM); Brad Eismen (HLA); Ted Koelsch (HLA); Kurt Wiebe (HLA)

The following items were discussed at the meeting:

SOIL GAS SURVEYS

Both soil gas surveys (1991 and 1993) and the differences between the two, including techniques and results were discussed. It was agreed that the technique (minimal dead purge volume) used in the 1993 survey is the RWQCB-accepted method, although some surveys are still performed using the large purge volume method employed during the 1991 survey. Mr. Nupen and Ms. Fang Wang indicated that the Somitex survey may have been conducted with the large purge volume method.

HLA then discussed the soil partitioning calculations and comparison to the soil gas surveys indicating soil gas concentrations reported from the 1993 survey were generally within one order of magnitude of the calculated values, whereas the concentrations reported from the 1991 survey were up to two orders of magnitude higher. Ms. Fang Wang discussed a recent presentation she attended regarding partition calculations which had a case study where observed soil gas concentrations in a granular soil were higher than values calculated from soil matrix data. She cautioned that partitioning calculations using soil matrix concentrations may underestimate vapor-phase concentrations. HLA suggested that the collection and analysis of soil matrix samples using short holding times of typically less than one hour, a minimal purge-volume soil-gas technique during the 1993 survey, and the similarity between calculated vapor-phase concentrations and the 1993 soil gas data indicate the data from the 1993 soil gas survey were more reasonable estimates of in-situ concentrations.

RWQCB staff concurred that soil gas concentrations reported during the 1993 survey were more representative of in-situ concentrations than those reported in the 1991 survey.

GROUNDWATER CONCENTRATIONS AND SAMPLING

Ms. Fang Wang presented data plots of UTM upgradient/downgradient well pairs MW-3/MW-2 and MW-4/MW-5. She believed the data indicate increasing concentrations in some compounds in the downgradient wells. The data also showed decreasing concentrations in other compounds in the downgradient wells. Mr. Koelsch indicated that biodegradation of the chlorinated compounds may be an issue and that the groundwater data are inconclusive to indicate an onsite source.

Mr. Griffis discussed the problem of characterizing upgradient and off-site sources due to the difficulty of data comparability with neighboring properties. A discussion then took

place that a unified sampling event by UTM, Somitex, and L.A. Water with samples analyzed at the same laboratory and with RWQCB oversight would allow for a snapshot in time of groundwater conditions in the area. Mr. Nupen indicated he would like to have all wells sampled by the same sampling crew for collection methodology consistency, and analyzed by the same laboratory under similar conditions. Mr. Nupen indicated that the RWQCB would write a letter to the neighboring facilities requesting the unified sampling event, and that the RWQCB may order such a unified sampling event.

INTERIM REMEDIAL ACTION PLAN

HLA indicated that the IRAP would be an extended pilot test to evaluate the effectiveness of vapor extraction at the site, particularly with trenches in the upper clay zone. Ms. Fang Wang asked if cleanup levels are determined as part of the design. HLA explained that vapor extraction would be used to the limit of the technology to see what concentrations would be left in place after reaching the asymptote on the concentration decline curve. At that time an analysis of the risk and potential for leaching to groundwater of the concentrations left in place would be developed to establish closure criteria. It is not known at this time how low the concentrations will go with vapor extraction, so establishing cleanup levels as part of the design phase is not technically feasible.

Mr. Nupen wanted clarification on the issue of collecting additional soil matrix samples in areas with limited data. He also wanted to know about monitoring the satellite areas and how vapor monitoring probes would be installed. HLA indicated that soil matrix samples would be collected as appropriate to determine subsurface conditions as remediation of the site progressed. Vapor probes in the main and satellite areas would be installed with the same technique used for the piezometers installed to monitor the vapor extraction pilot test in October 1993.

A discussion of the RWQCB statement regarding cleanup levels of 5 times the MCLs in soil provided clarification on this arbitrary cleanup level. Mr. Nupen indicated that soil with concentrations below 5 times the groundwater MCLs for the compounds of concern would not need to be remediated. He said that the RWQCB uses this arbitrary number as a starting point to determine if a site needs to be remediated and it is not site specific. HLA indicated that specific site conditions such as high organic carbon content in the upper clay zone, low infiltration (the site is mostly covered with concrete or asphalt), and low rain fall, may lead to remaining concentrations higher than a cleanup level of 5 times the MCLs. HLA suggested that a risk analysis with fate and transport modeling should be used to determine the possible impact to groundwater from concentrations left in place. Ms. Fang Wang indicated that she is on a committee studying the use of fate and transport modeling in support of risk assessments. HLA indicated they could help her if needed. Mr. Nupen indicated that the vapor extraction system could be shut off when the influent concentrations reached 5 times the MCLs instead of continuing long into the asymptote, although it was suggested that it may be wise to continue if the concentration decline curve was still steep.

All parties agreed that the IRAP, as proposed, was an interim measure to fully evaluate vapor extraction as a remedial technology to attain site closure. Cleanup criteria would be based on system performance, where the concentration decline curve approaches the asymptote indicating the VES is incapable of removing additional significant amounts of mass, and on an analysis of the risk of the concentration left in place after completion of vapor extraction.

Mr. Nupen indicated that UTM should proceed with remediation of the site, as required by the RWQCB, on a "self directed" basis. RWQCB would have limited operational involvement but would like copies of final design plans and timely notification of field activities. UTM and HLA agreed to provide the RWQCB with design plans prior to system installation and as-built plans following system installation in the North area. RWQCB requested that startup in the southern areas occur after the RWQCB has completed further investigation at Somitex. HLA indicated that the North area trenches and wells would be targeted initially and that during North area rebound periods, the system would be moved to the Southeast and Southwest area wells.

Letter received on 7/26/94

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