Industrial Compliance
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April 28, 1995

IC Project No. 05100680

Mr. Randall Smith
Senior Environmental Manager
Environmental Affairs Group
Southern Pacific Transportation Company
One Market Plaza
San Francisco, California 94105

Re: Monitoring Well Installation
Southern Pacific Transportation Company
1450 Sherwin Avenue
Emeryville, California

Dear Mr. Smith:

Industrial Compliance (IC) has prepared this letter/workplan in response to the February 28, 1995 Alameda County Health Care Services' (County) letter regarding the four bunker C fuel underground storage tanks (USTs) that were removed from the subject site (see Figure 1) in July of 1994. Due to physical constraints which limited site excavation, some residual bunker C impacted soil remains at the site. The County has requested Southern Pacific Transportation Company (SPTCo) submit a workplan to assess the lateral and vertical extent of soil and ground water impact associated with the former USTs. In the letter, it appears that the County understands that the physical site constraints will at least partially dictate the location of soil borings and monitoring wells. Based upon a recent site reconnaissance and discussions with a representative for The Sherwin-Williams Company, IC recommends the following site investigation actions.

Proposed Site Investigation

Based on data reported by Levine-Fricke, a consultant to The Sherwin-Williams Company, in their December 20, 1991 *Evaluation of Interim Remedial Measures at the Sherwin-Williams Facility*, the direction of ground water flow is west-northwest in the area of the former USTs. Several physical constraints exist at the site which impede drilling of subsurface borings. These constraints are a soil-bentonite slurry wall located approximately 20 feet east of the former USTs and a series of six active railroad tracks adjacent to the west of the former USTs excavation (see Figure 2). The slurry wall and the railroad tracks pinch together at a point 60 feet north of the former USTs excavation.

In an October 26, 1993 workplan, Levine-Fricke proposed installation of two ground water monitoring wells (LF-21 and LF-23) that are ideally located, considering the physical site constraints, for assessing the extent of ground water impact from the USTs (see Figure 2). LF-21 is 30 feet north and LF-23 is 140 feet west of the former USTs excavation. Since submittal of this workplan, wells LF-14 and LF-15 have been damaged and replacement of the wells is proposed by Levine-Fricke. The replacement wells are anticipated to be numbered LF-24 and LF-25 and will be located approximately 240 feet and 400 feet northwest of the former USTs excavation, respectively. Since it is physically impractical to locate soil borings/monitoring wells north, east, or west of the former USTs excavation, other than the locations proposed by Levine-Fricke, IC/SPTCo have initiated negotiations with Sherwin-Williams to retrieve soil samples during drilling of well LF-21 and to obtain ground water samples from wells LF-21, and LF-23 through LF-25.

The extent of soil impact south of the former USTs is characterized by excavation sidewall sample T1T2-SW in which only 40 milligrams per kilogram (mg/kg) of total petroleum hydrocarbons (TPH) as bunker C fuel and 13 mg/kg of TPH as oil was detected. Therefore, no boring/well is proposed to be installed south of the former USTs.

Procedures for well installation and development are presented in Levine-Fricke's October 26, 1993 workplan. The conceptual procedures for soil and ground water sample collection are described below. More detailed monitoring well purging and sampling procedures may be presented in a future Levine-Fricke workplan.

Soil Sample Collection Procedures and Analysis

During drilling of LF-21, a continuous soil core will be retrieved from which representative samples will be collected and troweled into glass jars sealed with Teflon lined screw caps. Samples will be collected based on the presence of soil staining but at least one sample will be collected from every 5 foot depth interval. It is anticipated that the soil core will be collected using either a 5 foot long core barrel attached inside a hollow-stem auger or by repeatedly driving an 18 inch long unlined split-spoon sampler in advance of the auger bit.

Based on the analytical results from samples collected on sidewalls of the former USTs excavation, the soil samples will be analyzed for extractable TPH as diesel and bunker C fuel by Environmental Protection Agency (EPA) Method 8015.

Ground Water Collection Procedures and Analysis

After well development, the static water level will be measured to the nearest 0.01 feet with an electric water level probe. Each well will then be purged and sampled using a bottom-filling disposable or Teflon bailer.

Samples will be placed in laboratory supplied containers with the appropriate preservative, if applicable. All samples collected will be labeled with a unique sample number, location designation, date and time of collection, initials of the sampler, project number, and any other pertinent information. The samples will then be placed in an cooled ice chest for transport, under chain-of-custody protocol, to an analytical laboratory for analysis of extractable TPH as diesel and bunker C fuel by EPA Method 8015.

The ground water monitoring wells will be sampled quarterly for one year; after which the monitoring program will be reevaluated and any recommended changes will be made, in writing, for the County's review.

Implementation of the above scope of work is being scheduled by Levine-Fricke. If you have any questions please contact the undersigned at (916) 369-8971.

Sincerely,

INDUSTRIAL COMPLIANCE

Ronald J. Derrick, P.E.
Project Manager

RJD/dao

cc: Larry Mencin, The Sherwin-Williams Company
Mark Knox, Levine-Fricke

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