PORT OF OAKLAND

October 8, 1999

Mr. Barney Chan
Hazardous Materials Specialist
Alameda County Health Care Services Agency
Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Subject: Response to Comments on Work Plan for Pacific Dry Dock, Yard II, 321 Embarcadero, Oakland (StID # 1222)

Dear Mr. Chan:

We are in receipt of your letter, dated 16 September 1999 with comments on our work plan for the underground storage tank (UST) sites at the subject property. In your letter, you have six comments, which are responded to, below:

1. *Provide a work plan for closure of the piping and appropriate sampling.*

On 12 August 1999, we met with you regarding our proposed change in approach to remediation of the UST sites at Pacific Dry Dock. We discussed the difficulty of removing the pipelines at that time because, it is unknown where they may connect to, and they are below concrete foundations. We indicated that at the time of UST removals, the pipelines were drained (and that some petroleum was contained in the pipelines), suggesting that the pipelines were of sufficient integrity to contain liquids. We further suggested that it would be preferable to wait to remove the pipelines until the foundations were removed. Therefore, the following work plan for pipeline removal is proposed:

> At such time that the foundations are removed, the pipelines will also be removed. We propose that at the time of foundation removal, soil samples be collected every 20 feet along the pipeline alignment(s) and that these soil samples be analyzed for total petroleum hydrocarbons (TPH) as gasoline, diesel, and motor oil (with silica gel cleanup). Further analyses will include benzene, toluene, ethylbenzene, and xylenes (BTEX). The data obtained from the collected soil samples will be evaluated to determine compliance with risk-based remediation goals for the site. If the concentration of contaminants of concern indicate a potential health risk to future users, remediation of the soil will be recommended.

Please advise us whether it would be acceptable to the County to defer pipeline removal until the site will be developed. For your information, a "flag" will be placed in the site file alerting future development proposals that additional remedial activities are needed prior to site development.

2. *Stockpiled soils from the UST removal activities should be removed from the former excavations, where they were reintroduced and if free product were identified during soils removal, the groundwater should be pumped out of the excavation.*

Soil samples were collected from the stockpiled soils after removal from around the tanks. The TPH concentrations from the stockpiled soils were less than the concentrations of the in-place samples

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collected from the tank excavations and the concentrations are also below threshold in RWQCB orders for the protection of human health; therefore, the work plan did not propose to excavate the soils that were used to fill the UST excavations. If the proposed groundwater sampling activity should indicate that the groundwater quality has been affected by the contaminants of concern at the site, then, removal of the soils placed in the excavations may be one of the remediation options to be recommended. Until such time that the groundwater investigation results have been obtained, and it has been determined if the groundwater discharging into the Estuary poses an ecological risk, the Port proposes that the soils remain in-place.

3. *Determine whether additional site characterization activities are necessary for a risk-based remedial approach.*

As indicated in the work plan, no additional characterization of the UST sites are proposed. The rationale for no further site characterization activities is that soil samples were collected at the source of releases (i.e., the USTs). The concentrations of contaminants would therefore be expected to be the highest at the locations sampled. Since the concentrations of contaminants at these locations do not exceed RWQCB thresholds for the protection of human health, no further characterization activities are proposed, except for the groundwater investigation proposed in the work plan.

4. *The use of RWQCB Orders 99-045 and 98-072 thresholds appear appropriate for the site and indicate that the on-site contamination does not present a human health risk under current site conditions.*

Comment noted.

5. *Grab groundwater samples can be used to estimate ecological risks. The grab groundwater samples from the site indicate that TPHd, PAHs, and oil and grease may be above clean-up levels for protection of ecological receptors.*

The work plan proposes to install three groundwater monitoring wells near the UST sites to determine potential ecological risks to receiving waters. The purpose of installation of the groundwater monitoring wells is to determine actual groundwater quality at the site and whether the contaminants of concern from the UST sites may present a risk to ecological receptors.

6. *The locations of the proposed monitoring well by UST GF-12 is appropriate. The northeast well by UST GF-11 should be moved to the south and the existing MW-1 should be used for monitoring and gradient determination. In addition, one soil sample should be collected from each monitoring well borehole and the sample should be analyzed for the same constituents as the groundwater samples. Well installations can proceed, if the suggested changes are acceptable.*

The Port has not proposed to use the on-site monitoring well MW-1 as part of the monitoring network for the UST sites because the well is owned by Crowley. Coordination with a third party for groundwater monitoring may prove to be complex and time consuming. Therefore, the Port is proposing to install a nearby well for groundwater monitoring purposes. If the County should wish to have a well in the apparent upgradient location from GF-11, we propose to move the southwestern well near GF-11 to the southern location.

We are not proposing to collect soil samples from the monitoring well boreholes. The entire Pacific Dry Dock Yard II has been investigated and determined by the County to have been sufficiently characterized

and not to present an ecological or health risk, even though residual contaminants are present at the site. We do not believe that collection of additional soil samples away from the UST locations would add useful data to the site evaluation, because the maximum concentrations of contaminants of concern have already been identified and because contaminants of concern away from the USTs may be attributable to historic site activities unrelated to the operation of the USTs. Please advise us whether it would be acceptable to the County not to collect the soil samples from the monitoring well boreholes.

We have appreciated your prompt attention and advice on remediation of this site. We will be awaiting further direction from you regarding:

- Delay of pipeline removal until site development. OK / interim
- Excavated soils will remain in the former tank excavations until the ecological risk evaluation has been completed to determine whether the soil presents an ecological risk. If the soil present an ecological risk, it will be removed.
- The southwest monitoring well by UST GF-11 will either be moved to the south or remain in place rather than moving the northeastern monitoring well and using the existing MW-1 for monitoring. need addnl well near MW-1.
- Soil samples will not be collected from the monitoring well boreholes. – nope - must document [illegible] HC cont.

We will look forward to receiving your concurrence or suggestions at your earliest convenience. Please feel free to call me at 510-272-1184 if you have any questions.

Sincerely,

Douglas P. Herman
Assistant Port Environmental Scientist

Cc: Neil Werner
Yane Nordhav, Baseline Environmental Consultants