STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
Northwest Regional Office, 3190 - 160th Ave S.E. • Bellevue, Washington 98008-5452 • (425) 649-7000

October 7, 2003

RE: Unocal Edmonds Bulk Fuel Terminal Site – Public comments and Washington State Department of Ecology (Ecology) responses regarding the *Upper Yard Interim Action As-Built Report*, dated August 25, 2003.

A public comment period on the subject document was held from September 5 through October 4, 2003. Three comments were received. This letter presents the comments and Ecology's responses.

Two of the comments expressed concern about protection of ground water contamination from past petroleum contamination in the Upper Yard. Ecology is aware of these concerns and will be discussing them with Unocal as cleanup plans for the Lower Yard are developed.

Whitman Environmental Services submitted comments on behalf of the Edmonds Citizens Awareness Committee. These comments and Ecology's responses are listed below:

1. As noted in our preliminary comments on an earlier draft of this report, Tank 3716/3717 basin was used to stockpile excavated soils prior to shipment offsite. (Stockpile locations for contaminated soil in this basin should be mapped). As shown in Drawing No. 1, however, no grid samples were collected and analyzed for TPH despite this stockpiling of contaminated soils.

   These large capacity tanks were reportedly constructed in 1954 (see Background History Report, Table 3-1), and therefore were used for 37 years through shutdown of the facility in 1991. Given this long period of use and the relatively sparse sampling data, this tank basin raises the most questions about the adequacy of documentation as clean. Other storage tanks installed at about the same time, or later, were found to have releases requiring soil excavation. Given the fact that "Total Petroleum Hydrocarbon (TPH) results from the RI and post-RI sampling results routinely varied from what was encountered in the excavations", this area warrants a more detailed compliance demonstration.

   Ecology Response: The ultimate location of performance sampling points was not based on a requirement to have a uniform distribution of sampling points across the upper yard, but rather reflected the results of comprehensive, basin-by-basin assessment work. The basis for the soil removal in the 3716/3717 basin was described in the Work Plan approved by Ecology prior to the start of the Upper Yard Interim Action (UYIA). The excavation work was proposed based on historical information about the basin (such as whether any releases were known to occur), knowledge of the types of problems typically encountered at sites such as this one (for example, contamination at piping elbows and junctions), and field data.

Field information collected prior to the start of the UYIA included soil data from seven test pits, two soil borings, and two 50-foot-long test trenches. Additional soil samples were collected from 12 test pits *during* UYIA activities to help direct construction activities and confirm that soil removal estimates were accurate. Consequently, a total of 77 soil samples from 23 locations were analyzed in a basin approximately 80,000 square feet in size. These data points are illustrated in Figure B-1 of the As-Built Report.

Review of the historical and recent information regarding the basin did not indicate any documented evidence of a significant release in the basin. In addition, assessment performed during the excavation of the 12 test pits indicated that soil surrounding the catch basins in basin 3716/3717 was clean. This implies that significant amounts of product (such as product draining as the result of a release) were not directed to the catch basin system.

The lack of any documented evidence of a release, the results of assessment work prior to the UYIA, and field observations and data collected during the UYIA all indicate that the level of TPH soil removal and performance sampling in the tank 3716/3717 basin was appropriate.

2. The unexpected findings of significant TPH contamination along the asphalt swale provide an example of how subsurface structures and stratigraphic conditions can affect the distribution of petroleum hydrocarbons once released. What other subsurface structures exist in the Upper Yard (storm drains, water supply lines, utility lines and vaults, etc.)? Have they all been specifically checked for migration of TPH?

Ecology Response: Subsurface structures in the Upper Yard consist of electrical lines, water lines, foam lines (for fire suppression), storm drain lines, and catch basins. The storm drain system consists of a series of catch basins connected by underground concrete pipes. These underground structures are typically located within approximately 3 feet of the ground surface. In addition, a French drain exists along the southern boundary of the upper yard from the Tank 63 basin to the Tank 3717 basin (construction drawings are not available); a branch of the French drain extending downhill between the Tank 2605 and Tank 2911 basins was over-excavated during the UYIA.

When a subsurface structure was encountered, the soil near the structure was screened for the presence of petroleum-impacted soil. If screening indicated the presence of petroleum-impacted soil, the impacted soil was over-excavated until clean soil was encountered. Catch basins and the associated outflow piping, in particular, were evaluated in each tank basin as the excavations typically incorporated the catch basin vicinity. Where catch basins were not over-excavated, a test pit was advanced adjacent to the catch basin to evaluate soil quality. If the soil sample analytical results from a test pit indicated the presence of contaminant concentrations above Model Toxics Control Act (MTCA) Method B cleanup levels, the catch

basin and the impacted soil were removed. As noted above, the lower branch of the French drain was over-excavated as part of TPH Area K. The uphill portion of the French drain is reportedly located upgradient of any known contamination sources.

3. The actual extent of the contamination found in the exclusion areas along Pine Street seems to be poorly defined by the sampling that has been conducted. These areas may represent a larger zone of contamination in the right-of-way or to the south of Pine Street that has not been investigated or cleaned up. It may be prudent to define a single larger exclusion area encompassing all three of these zones. If future work in this area finds that the contaminated areas are larger than expected, cleanup might be needed in an area that Ecology has already certified as clean.

   Ecology Response: Cleanup of the exclusion areas will include performance monitoring. If performance monitoring results indicate contamination extends beyond the exclusion area being addressed, the contamination will be addressed at that time.

4. Relatively extensive grading will be conducted in the Upper Yard as part of the redevelopment of the site. Has Unocal or Ecology established a process to monitor the grading and conduct any further cleanup, should additional contaminated areas be encountered? Since so much unanticipated contamination was encountered during the cleanup it seems important that there should be a set procedure to deal with any other areas that might be found, short of Ecology rescinding their certification. Shouldn't this type of monitoring be required as a condition of the certification?

   Ecology Response: The purpose of cleaning up the site to Unocal's action levels was to achieve a clean closure of the site so that future activities will not have to involve contamination issues or require additional Ecology resources. The purpose of certification is to certify completion, not impose additional conditions beyond those agreed to as being sufficient when planning the cleanup. As with all cleaned sites, if additional contamination is discovered during subsequent site activities, it is dealt with at that time in an appropriate manner.

   It is Ecology's understanding that Unocal has an agreement with the developer which provides for addressing any contamination found during re-grading of the Upper Yard.

David L. South

David L. South
Senior Engineer
Toxics Cleanup Program