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Via Email and Overnight Service

March 10, 2014

Samuel Unger
Executive Officer
California Regional Water Quality Control Board –
Los Angeles Region
320 W. Fourth Street, Suite 200
Los Angeles, California 90013

Re: *Former Kast Property, Case No. SCP 1230 – Submission of Remedial Action Plan and Associated Documents*

Dear Executive Officer Unger:

On behalf of Shell Oil Company and Shell Oil Products US (collectively “Shell”), the Remedial Action Plan, Human Health Risk Assessment (“HHRA”) Report, Feasibility Study, and certain draft environmental documents are being submitted to the Regional Water Quality Control Board – Los Angeles Region (“Regional Board”) today. Taken together, these documents represent a significant step toward implementing a remedial strategy that fully addresses the environmental conditions in the Carousel neighborhood.

These documents were prepared using well-accepted and established scientific guidance and protocols, including the guidance documents specified by the Regional Board in the Cleanup and Abatement Order for this site. The analyses contained in these documents are based on the extensive testing data from the residential properties and public rights-of-way in and adjacent to the Carousel neighborhood (including over 10,700 soil samples, 2,700 soil vapor samples, and 2,400 indoor and outdoor air samples). Testing has been performed at 95% of the Carousel homes and has been completed at nearly 80% of the homes. While Shell continues to conduct outreach to schedule testing at the remaining homes, the extensive and robust data obtained so far provide a solid foundation upon which to base the selected remedial approach.

To summarize the findings from Shell's investigation of the conditions in the Carousel neighborhood:

- Based on the testing data, the Los Angeles County Health Department and the Regional Board have concluded that there is no exposure in the neighborhood that poses an imminent health risk or explosion hazard.
- Results from sampling of indoor and outdoor air and sub-slab soil vapor have shown that vapor intrusion from sub-slab soil vapor to indoor air is not occurring to any measurable extent in homes.
- Groundwater monitoring has revealed the presence of groundwater impacts beneath the site that are generally limited to the shallow zone. The groundwater plume is stable and/or decreasing and has not migrated offsite to any significant extent. The drinking water in the Carousel neighborhood, which does not come from groundwater in the shallow zone, is safe. California Water Service Company regularly tests community drinking water, and has confirmed that the water meets the applicable drinking water quality standards.
- Soil impacts exist at many of the properties in the Carousel neighborhood. These impacts do not pose an imminent health risk. Using very conservative, health-protective standards, the remedial approach proposed in the Remedial Action Plan fully addresses the potential for exposure to impacted shallow soils at residential properties.

In light of these findings and based on the data and the applicable scientific guidance and protocols, the **Remedial Action Plan** ("RAP") proposes the following steps:

- Excavation of shallow soils from the yards at residential properties will be conducted at properties based on findings from the HHRA, including consideration of potential for leaching of constituents of concern (COCs) to groundwater. Excavation will be conducted in both landscaped and hardscaped areas of residential yards, excluding beneath City sidewalks, to a depth of 3 feet below ground surface ("bgs"). The excavation will also remove residual concrete reservoir slabs if encountered within the depth and lateral limits excavated.
- Because residents may not excavate below 3 feet without obtaining a permit from the City of Carson, the possibility of exposure to soils remaining below 3 feet bgs is currently controlled by existing ordinances. Therefore, impacted soils below 3 feet and also beneath City streets and sidewalks will be addressed through other cleanup measures (described below) and the Surface Containment and Soil Management Plan that is submitted as part of the RAP. This document explains how notifications, management, and handling of residual soils that are impacted by COCs will limit exposures to deeper soils.

- Soil vapor extraction (“SVE”) and bioventing will be used to address petroleum hydrocarbons and VOCs in residual soils and soil vapor below homes, soils and soil vapor at greater depths, and methane in soil vapor, by extraction and treatment of volatile components and by promoting degradation of residual hydrocarbon concentrations. SVE wells will be installed in City streets and on certain residential properties, as appropriate to ensure adequate coverage.
- Bioventing will be conducted via cyclical operation of SVE wells to increase oxygen levels in subsurface soils and promote microbial activity and degradation of longer-chain petroleum hydrocarbons.
- Although vapor intrusion does not appear to be impacting indoor air, as an additional protective measure, sub-slab mitigation will be implemented at some properties based on sub-slab soil vapor data.
- LNAPL will continue to be recovered where it has accumulated in monitoring wells to the extent technologically and economically feasible, and where a significant reduction in current and future risk to groundwater will result.
- Compounds in groundwater will be reduced to the extent technologically and economically feasible via source reduction and monitored natural attenuation. Groundwater monitoring will continue as part of remedial actions. If, based on a 5-year review following initiation of SVE system operation, groundwater plumes are not stable or declining and Site COCs in groundwater do not show a reduction in concentration, an evaluation of additional groundwater treatment technologies will be conducted and implemented as needed.

Shell believes that this approach best accomplishes the remedial objectives set forth in the Revised Site-Specific Cleanup Goals Report, protects the health and safety of the Carousel residents, minimizes the inconvenience to the residents, sets in place a long-term groundwater protection plan, and, importantly, preserves the integrity of the neighborhood.

Along with the RAP, Shell is submitting a Feasibility Study and an HHRA Report. The **Feasibility Study** analyzes and compares in detail the selected approach along with a number of possible alternative approaches, and weighs each alternative against the goals of reducing potential exposures by residents, protecting groundwater quality, preserving the neighborhood and the other factors set forth in the Cleanup and Abatement Order for the Carousel neighborhood, State Water Board Resolution No. 92-49, and other applicable regulations.

The **HHRA Report** applies the site-specific cleanup goals to the extensive testing data that Shell has obtained from the Carousel residences, and the results of this analysis will be used to determine what specific work needs to be done at each of the Carousel residences.

In addition, drafts of a Notice of Preparation and an Initial Study in connection with the environmental review for the project are being submitted to the Regional Board and also are

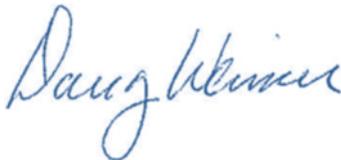
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included in an appendix to the RAP. Shell previously provided a draft schedule for the environmental review, which is currently under review and discussion.

The next step is for the Regional Board and the other involved agencies to review the Remedial Action Plan and make it available for public comment. At the same time, an environmental review will be conducted, as required by the California Environmental Quality Act, and Shell will continue to support that process. Once the Remedial Action Plan is approved by the Regional Board, a Final Environmental Impact Report is issued, the necessary permits for the work have been issued, and access is granted, the remedial work in the Carousel neighborhood will begin. Shell plans to meet with the homeowners and residents at individual properties (and their legal representative) where work will be performed to explain the property-specific remedial plan, answer questions, gather information that will be used in arranging alternative accommodations during the work, and schedule the work.

Shell looks forward to continuing to work with the Regional Board and is committed to moving forward with implementing this Remedial Action Plan as soon as possible.

Sincerely,



Douglas Weimer
Sr. Principle Program Manager
Shell Oil Products US

Enclosures