# Comments to the Tentative Cleanup and Abatement Order No. R4-2010-00XX Former Kast Property Tank Farm, Carson, California

The Regional Water Quality Control Board ("Regional Board") is the lead public agency in charge of the environmental investigation at the former Kast property (the "Kast Site"), which Shell Oil Products US ("SOPUS") is currently performing on behalf of Shell Oil Company ("SOC"). In preparation for the issuance of a cleanup and abatement order for the Kast Site, the Regional Board issued a Tentative Cleanup and Abatement Order ("CAO") on June 28, 2010, and invited SOPUS, the residents of the Carousel neighborhood, and other stakeholders to submit comments and evidence regarding the Tentative CAO. As one of the former owners of the Kast Site, SOC hereby submits these comments for the Regional Board's consideration.

For ease of reference, our comments track the organization of the Tentative CAO.[1] Given the length and complexity of the Tentative CAO, we are limiting these comments to the sections that are the most immediately relevant to the issuance of a Final CAO. Any absence of comments to any section of the Tentative CAO, particularly those containing legal conclusions, should not be interpreted as an admission or agreement by SOC or SOPUS with respect to any statements or conclusions by the Regional Board in those sections.

## I. COMMENTS TO THE REGIONAL BOARD'S FINDINGS IN THE TENTATIVE CAO

### Background

Paragraphs 1 through 4 of the Findings section, which present a general background of the Kast Site, contain certain statements that are not supported by the known facts regarding the Kast Site. Also, this section omits highly relevant facts relating to the purchase of the Kast Site in 1966 by Richard Barclay (a principal of Barclay-Hollander-Curci, Inc. ("BHC"), an experienced developer) and Barclay's nominee, Lomita Development Company ("Lomita Development"). This section also omits relevant facts concerning the demolition of the reservoirs and grading of the Kast Site by Lomita Development's contractors in preparation for the development of the Kast Site by Lomita Development and BHC into the Carousel neighborhood, and their sale of the individual lots to homeowners. We respectfully request that this section be modified in the Final CAO, as explained below and in the attached Table 1.

#### 1. Discharger

The Tentative CAO identifies the wrong Shell entity as the owner of the KAST Site: It states that SOPUS owned the Kast Site and the petroleum reservoirs. In fact, SOPUS, which was not formed until 1998, never owned or operated the Kast Site. Shell Company of California, and subsequently SOC, owned the Kast Site from 1923 until 1966, when SOC sold it to Lomita

[1] In addition to these narrative comments, for the Regional Board's convenience, SOC is attaching Table 1, which supplements these comments by providing suggested revisions to the language in certain sections of the Tentative CAO. These narrative comments should be read in conjunction with Table 1 and the attached exhibits and technical memoranda.

Development (through Richard Barclay and BHC) with the reservoirs in place. This should be corrected in the Final CAO.

We also request that the second sentence in paragraph 1 be clarified. While some of the contamination at depth may be related to SOC's historical use of the reservoirs on the Kast Site, the contamination and the concrete in the shallow soil (from 0 to 10 feet below ground surface ("bgs"), and perhaps deeper) is directly related to the demolition of the reservoirs and the grading of the Kast Site, which were performed by, and were the sole responsibility of, Lomita Development and its affiliate, BHC—not SOC or SOPUS.[2] SOC is concurrently submitting a second letter and additional documents explaining the role played by Lomita Development and its affiliates in creating the current environmental impacts at the Kast Site, and providing information regarding their affiliates and successors.

**2. Location**

Based on documents relating to the sale of the Kast Site, the correct acreage of the Kast Site is approximately 44 acres, not 50 acres as stated in the Tentative CAO. We request that the Site acreage be corrected in paragraph 2 and wherever it is referenced in the Final CAO.

**3. Groundwater Basin**

We request that the hydrogeological description in paragraph 3 be revised to omit the reference to the Gaspur aquifer. The Gaspur aquifer does not occur beneath or near the Kast Site. Also, the reference to the Central Basin should be changed to the West Coast Basin. To SOC's knowledge, the Gage aquifer, which is the regional aquifer nearest to the surface of the Kast Site, is not used for drinking water in the West Coast Basin. Nor is the first-encountered groundwater at 54 feet bgs used for drinking water. To avoid potential confusion by the public and Carousel residents, these facts should be included in the Final CAO.

**Kast Site History**

**5. Property Ownership and Leasehold Information**

Paragraph 5 omits the fact that SOC sold the Kast Site to Lomita Development in 1966 with the out-of-service reservoirs in place. As shown both by the documents relating to the sale of the Kast Site to Richard Barclay of BHC and Lomita Development, which SOC is submitting under separate cover, and the historical grading and engineering documents attached hereto (all of which were obtained from the City of Carson), Lomita Development assumed sole responsibility for emptying and demolishing the reservoirs and for the grading of the Site. Because the Tentative CAO omits these facts, it creates a misimpression that SOC was responsible for the

[2] SOC also notes that, although the Tentative Order refers to the creation of a "condition of pollution or nuisance," it is premature to make this finding at this time due to the incomplete nature of the data gathered at the Kast Site to date, the variable lateral and vertical distribution of compounds of concern at the Site in soil and soil vapor, and the administrative basis needed for such a finding. Further, the statutory definition for nuisance in the Civil Code is not the relevant standard for an administrative action such as the CAO.

emptying and demolition of the reservoirs and the grading, which is not correct. We request that paragraph 5 be amended to clearly state these facts in order to make the Site History section complete.

The statement in paragraph 5.b. that "the demolition of the tank farm reservoirs left the concrete liners or slabs of the walls and floors of the reservoirs buried in-situ" is also inaccurate and incomplete. For instance, the June 11, 1968 final report for Tract 24836, prepared by Pacific Soils Engineering (the contractor hired by Lomita Development) states that "[t]he concrete in the portion of the central reservoir located on this tract was entirely removed from the site."[3] (Exhibit 1.) The fact that part of the reservoir bottoms were removed is supported by the fact that URS has not encountered resistance at numerous locations where it has performed drilling investigations to 15 feet bgs and deeper. A map prepared by URS showing the locations where no concrete liner was encountered is attached as Exhibit 2.

Lomita Development was responsible for emptying the reservoirs, and documents suggest that this was done. (Exhibits 3, 4 and 5.) Where concrete from the reservoirs was not removed, the records obtained from the City of Carson indicate that Lomita Development's contractor removed residual oil, water, and other materials from the reservoirs and then cut trenches into the reservoir floors to facilitate water drainage so that the remaining concrete would not "pond" water and potentially compromise the soil compaction of the subsequent residential lots on the site. (Exhibit 6.) According to the Pacific Soils Engineering reports, these trenches were approximately 8 inches wide and formed concentric rings radiating from the center at 15-foot intervals. (*Id.*) An aerial photograph located in the City of Carson's files shows the radial cuts in the southernmost reservoir. The engineering reports state that concrete from the reservoir sides was then broken up by Lomita Development's contractor, mixed with soil and water, and placed in a one-foot-thick layer on the prepared concrete floor areas and compacted in place. (Exhibit 6 at ¶ 2.) Lomita Development's contractor then placed approximately 4 to 9 feet of soil over the concrete, depending on the site location. (*Id*.)

SOC requests that the Regional Board amend the Site History section to describe the demolition of the reservoirs as described in the attached historical documents and specified above.

The Regional Board should also correct the date given in Section 5.c. for completion of the development of the Kast Site. The Tentative CAO states that development of the Kast Site was completed by 1967; however, according to Los Angeles County Assessor records, residential construction at the Site occurred between 1967 and 1969. This is consistent with the dates of the Pacific Soils Engineering documents and the fact that the Kast Site was developed in phases. Also, while SOC is still researching exactly when it ceased active use of the reservoirs for oil storage, it appears that this was several years prior to the sale of the Kast Site to Lomita Development Company.

[3] According to the grading documents, the Kast Site was divided into four tracts, which Lomita Development developed sequentially: Tract Nos. 24836, 28564, 28441, and 28086. (*See*, e.g., Exhibit 7.)

**Evidence of Contamination and Basis for Order**

**8. Waste Releases**

Paragraph 8 provides the Regional Board's overview of the environmental conditions at the Kast Site. This section fails to address important facts necessary to put the Kast Site in the proper environmental context, and the Tentative CAO should be revised accordingly.

Paragraph 8.a. discusses benzene in the groundwater beneath the Turco Products Facility ("Turco"). However, this section omits the fact that the Turco is located *upgradient* from the Kast Site. As currently written, this paragraph gives the misleading impression that the environmental conditions at the former Kast property are a potential cause of the groundwater contamination at the Turco site. As stated in the June 30, 2006 RCRA Facility Assessment for the Turco site, authored by the Department of Toxic Substances Control, groundwater flow at the Turco site is to the northeast at a gradient of approximately 0.002 ft/ft. (Exhibit 8 at p. 7.) Accordingly, we request that this text be revised to specify that the level of benzene detected in the Turco monitoring well (1,800 µg/L) occurs upgradient of the Kast Site. We also request that the Final CAO note that both the Turco site and the former Fletcher Oil Refinery (located west of the Turco site) have ongoing environmental investigations and cleanups and are potential sources of groundwater contamination both at the Turco site and the Kast Site. We are continuing our investigation of the chemicals and processes used at the Turco site.

Paragraph 8.b. describes the results from the "Final Phase I Site Characterization Report, Former Kast Property, Carson, California," dated October 15, 2009 (the "Final Phase I Site Characterization Report").[4] As a general point, providing only the maximum levels of detection from the numerous samples taken on the former Kast Site presents an incomplete and potentially misleading picture of the extent and severity of the conditions throughout the whole Site. To address this issue, and to avoid potential confusion by the public and Carousel residents, we recommend that the Regional Board include additional details regarding the analytical results in the Final CAO to provide a more representative summary of conditions at the Kast Site.

We have included some proposed modifications to paragraph 8 in the attached Table 1, and request that the Regional Board consider including these changes in the Final CAO. In addition, we have attached as Exhibit 9 a technical memorandum prepared by Geosyntec that contains a more extensive analysis of the data at the Kast Site and paragraph 8 of the Tentative CAO.

In particular, it is important to note that the maximum levels of benzene and methane cited in paragraph 8.b.III were reported in the Final Phase I Site Characterization Report and were detected in soil vapor at depths of 5 feet and greater below the public streets in the Carousel neighborhood, <u>not</u> in the open air, on residential properties, or at the surface of the soil. To avoid confusion, these values should be placed in their proper context. For instance, although benzene

[4] SOC recommends that the Regional Board amend Section 8.b. to reference the *Final* Phase I Site Characterization Report, rather than the August 20, 2009 Interim Report. Also, we recommend citing the entire report title to avoid confusion with the Phase I Environmental Site Assessment report dated July 14, 2008.

was initially detected in soil vapor at 5 feet bgs in one location beneath the street at a concentration of 3,800 µg/L, the highest benzene concentration detected in sub-slab probes installed at residential properties in the Carousel neighborhood was 6.5 µg/L in one outdoor sub-slab probe. This is a factor of 585 times less than the maximum concentration detected at 5 feet beneath the street. Moreover, it was discovered that there was a natural gas pipeline leak in the yard where this probe was installed, and it is likely that benzene in the natural gas contributed to the benzene detected at this residence. The highest sub-slab benzene concentration detected at a residence where a natural gas leak was not observed was 4.5 µg/L, also in an outdoor sub-slab probe. This concentration is a factor of 844 times less than the maximum concentration detected at 5 feet beneath the street. Moreover, a subsequent re-sampling of that probe was non-detect for benzene.

In addition, as of July 19, 2010, approximately 217 sub-slab soil vapor samples for methane were taken at 83 residences (29% of the homes in the Carousel neighborhood), and all but one were either non-detect for methane or showed results less than 2% of LEL, far below any potential threat to safety. At one home, the exceedance was found to be due to natural gas leaks from pipes in the yard.

Similarly, methane has not been detected at concentrations that would pose any "potential safety hazard" inside the 151 homes screened as of July 19, 2010. Methane detected in indoor air was associated with leaking natural gas lines (gas lines/connections to a stove, clothes dryers, a furnace, and a fireplace) and the recommendation was made to the residents to have the leaks repaired. In none of these instances was the methane linked to subsurface hydrocarbon impacts.

**9. Source Elimination and Remediation Status at the Kast Site**

We request that paragraph 9.a. be modified to clarify (as noted above) that, although methane has been detected above the Lower Explosive Limit (LEL) in vapor probe samples collected beneath the streets at 5 feet bgs, methane has not been detected inside any of the 151 homes screened as of July 19, 2010 at concentrations that would pose a potential safety hazard.

**10. Summary of Findings from Subsurface Investigations**

We request that paragraph 10.a. be amended to clarify that neither benzene nor methane was stored, used, and/or released as a product at the Kast Site. Benzene is a component in crude oil, which was stored at the former Kast property reservoirs. Methane may be formed from anaerobic biodegradation of hydrocarbons.

**11. Summary of Current Conditions Requiring Cleanup and Abatement**

With respect to paragraph 11.a., SOC incorporates its comments to paragraph 5.b. in the Site History section, above, and asks that the Regional Board amend paragraph 11.a. to reflect the facts as shown in the historical documents submitted with these comments: Namely, that (1) SOC sold the Kast Site to Lomita Development Company (through Richard Barclay of BHC) in 1966 with the reservoirs in place; (2) Lomita Development was responsible for emptying and demolishing the reservoirs, and for grading the Kast Site prior to its development by Lomita Development for use as residential housing; (3) part of the concrete floor of the central reservoir

was purportedly removed by Lomita Development's contractor; (4) where the reservoir bottoms were left in place, the Pacific Soils Engineering records produced by the City of Carson state that Lomita Development's contractor made 8-inch-wide circular trenches in concentric circles approximately 15 feet apart to permit water drainage.

Contrary to the statement in paragraph 11.b. that "no consistent trend in the vertical distribution of detected concentrations of petroleum hydrocarbon compounds… can be discerned," it appears there is a discernible spatial distribution of petroleum hydrocarbons based on a review of the data set including the more recent soil samples. Figures prepared by Geosyntec (*see* Figures 1-8 attached to Exhibit 9) show the distribution of concentrations of total petroleum hydrocarbons (TPH) as gasoline, diesel and motor oil, benzene, and naphthalene, and a comparison of benzo(a)pyrene concentrations to background at various depths. These maps indicate (1) that concentrations in soil samples collected from 0 to 2 feet bgs generally appear to be lower than those collected from deeper soils; and (2) that concentrations for samples collected outside of the footprint of the former reservoirs tend to have lower concentrations than those within the former reservoir footprint.

The above-described pattern to the distribution of concentrations across the Kast Site supports the final sentence in paragraph 11.b. However, this sentence should be modified to include the fact that Lomita Development was the responsible party for the grading and development activities, not SOC or SOPUS. Thus, we request that this sentence be modified to state:

> This may be due to the nature of previous development activities *by Lomita Development Company* at the Site (i.e., the construction and demolition of the former reservoirs and site grading *by contractors hired by Lomita Development Company* in preparation for development of the residential tract).

We note that the description in paragraph 11.c. of "an approximately 8-inch thick concrete slab" is not consistent with the January 7, 1966 Preliminary Soils Investigation Report by Pacific Soils Engineering, which states that the bottom and sides were lined with a "four inch blanket of reinforced concrete." (Exhibit 4.)

With respect to paragraph 11.d., SOPUS recommends that ranges of risk estimates and the depth of the maximum values be presented for the Kast Site to provide a more complete and accurate characterization of the data collected to date. (*See* the Geosyntec technical memorandum attached as Exhibit 9.) We also suggest updating the data to include additional sampling results provided to the Regional Board through July 19, 2010. We suggest that this paragraph be modified in the Final CAO as follows:

> Results from the 83 Interim Reports submitted to the Regional Board through July 19, 2010 indicate that for surface and subsurface soil sampling (0 to 10 feet bgs), the cancer risk index estimate was less than 1 for 11 properties, between 1 and 10 for 39 properties, between 10 and 100 for 31 properties, and greater than 100 for 2 properties. The highest cancer risk index is estimated at 200. In the two areas where the highest cancer index is estimated, PAHs (i.e., benzo(a)pyrene, benzo(a)anthracene, benzo(b)fluoranthene, chrysene, naphthalene, 1-

> methylnaphthalene), benzene, and ethylbenzene detected at depths of greater than or equal to 5 feet bgs were the primary chemicals of potential concern (COPCs) contributing to the cancer risk index estimate.

With respect to paragraph 11.d., we provide the following comments regarding the establishment and use of risk-based screening levels. Based upon the comments made by residents of the Carousel and neighboring communities during the July 19, 2010 public meeting held by the Regional Board, references to California Human Health Screening Levels (CHHSLs) and the target risk level of one in one million ($1 \times 10^{-6}$) require further clarification. The California EPA document regarding the development of the CHHSLs states: "[t]he presence of a chemical at concentrations in excess of a CHHSL does not indicate that adverse impacts to human health are occurring or will occur, but suggests that further evaluation of potential human health concerns is warranted" (Cal-EPA, 2005). This statement is applicable to the screening level developed during the investigation conducted to date. Additionally, it is important to note that the Cal-EPA document also states that CHHSLs are not intended to "set … final cleanup or action levels to be applied at contaminated sites" (Cal-EPA, 2005). Background concentrations and the full risk management range (i.e., excess upper bound lifetime cancer risk between $1 \times 10^{-4}$ to $1 \times 10^{-6}$) should be considered.

While the Regional Board proposes using $1 \times 10^{-6}$ as the screening level for cancer risk for the Kast Site, we note that the U.S. Environmental Protection Agency ("EPA") and other agencies generally consider concentrations for carcinogenic chemicals that represent an excess upper bound lifetime cancer risk to an individual of between $1 \times 10^{-4}$ to $1 \times 10^{-6}$ to be acceptable. The EPA generally sets site-specific remediation levels for carcinogens such that the cumulative risks from exposure will not result in adverse effects to human populations (including sensitive subpopulations) that may be exposed during a lifetime or part of a lifetime, incorporating an adequate margin of safety. *See* U.S. National Contingency Plan ("NCP"), 40 Code Fed. Regs. § 300.430(e)(2)(i)(A)(2).

EPA guidance, "The Role of the Baseline Risk Assessment in the Superfund Remedy Process" (USEPA, 1991), states that sites posing a cumulative cancer risk of less than $1 \times 10^{-4}$ and hazard indices less than unity (1.0) for non-cancer endpoints are generally not considered to pose a significant risk warranting remediation. The California Hazardous Substances Account Act (HSAA) incorporates the NCP by reference, and thus also incorporates the risk range set forth in the NCP. In addition the State of California has utilized the risk level of $1 \times 10^{-5}$ for Proposition 65.

Accordingly, we believe that the Final CAO should reference the $1 \times 10^{-4}$ to $1 \times 10^{-6}$ range of risk estimates in accordance with agency guidance.

We recommend the following text for the revised paragraph 11.e.:

> Results from the 83 Interim Reports submitted to the Regional Board through July 19, 2010 indicate that for the sub-slab soil vapor data, the cancer risk index estimate was less than 1 for 31 properties, between 1 and 10 for 41 properties, between 10 and 100 for 7 properties and greater than or equal to 100 for 1

property. The highest cancer risk index is estimated at 560 from a sample collected from a backyard sub-slab probe. Benzene was the primary contributor to the cancer risk index estimate. When this location was re-sampled, however, benzene was not detected. Chlorinated compounds including tetrachloroethene, chloroform, and bromodichloromethane (which are not associated with SOC's historical use of the Kast Site) contributed to the risk estimate in 27 of 46 properties with cancer risk index estimates greater than 1.

With respect to the discussion of "soil nuisance and odor concerns" in paragraph 11.g., we believe that a blanket application of the odor-based Environmental Screening Levels (ESLs) prepared by the San Francisco Bay Regional Board referenced in this paragraph would not be justified at the Kast Site. We also note that there are other guidance documents that should be considered when setting odor-based ESLs, including guidance issued by the Massachusetts Department of Environmental Protection[5] ("MADEP"), which the San Francisco Bay Regional Board relied on in setting its ESLs. We note that the latest MADEP guidance requires a site-specific application that considers numerous factors, including exposure potential, the location where the odors are encountered, and the duration of the odors.[6]

**As Currently Drafted, the CAO Requires CEQA Review**

**14. CEQA Compliance**

In paragraph 14 of the Findings section, the Regional Board states that issuance of the Final CAO will be "exempt from the provisions of the California Environmental Quality Act (Public Resources Code section 21000 et seq.) in accordance with California Code of Regulations, title 14, section 15308." In fact, an analysis of whether or not issuance of the Final CAO will be exempt from environmental review under the California Environmental Quality Act ("CEQA") will depend on the specific provisions of the Final CAO and the activities they require. If there is a reasonable possibility that the activity required by the Final CAO will cause a significant environmental impact, then the Regional Board *is required* to conduct the appropriate CEQA review prior to its issuance of the Final CAO.

As the CAO is currently written, a CEQA review is not only required, it is also an important step in the cleanup and abatement process. The purpose of undertaking such a review is not only to assess the potential environmental impacts caused by the actions required by the Final CAO, but also to identify potential alternative approaches that would minimize or avoid such impacts while

[5] Characterizing Risks Posed by Petroleum Contaminated Sites: Implementation of the MADEP VPH/EPH Approach. Massachusetts Department of Environmental Protection Final Policy. October 31, 2002. Policy #WSC-02-411.

[6] SOC also notes that, although the Tentative Order refers to the creation of a "condition of pollution or nuisance," it is premature to make this finding at this time due to the incomplete nature of the data gathered at the Kast Site to date, the variable lateral and vertical distribution of compounds of concern at the Site in soil and soil vapor, and the administrative basis needed for such a finding. Further, the statutory definition for nuisance in the Civil Code is not the relevant standard for an administrative action such as the CAO.

still achieving the desired outcomes. For instance, SOPUS is currently conducting a pilot study at the Kast Site to evaluate the effectiveness of soil vapor extraction ("SVE"). By specifying that certain actions be implemented (such as paragraph 3.b.'s apparent requirement that the remaining concrete floors of the former reservoirs be removed from beneath unpaved areas), the Regional Board is inappropriately eliminating the possibility that a less environmentally harmful alternative can be identified and utilized.[7]

The regulation cited by the Regional Board, California Code of Regulations, title 14, section 15308, defines "Class 8" of the thirty-three classes of projects that are exempt from CEQA review. This class "consists of actions taken by regulatory agencies, as authorized by state or local ordinance, to assure the maintenance, restoration, enhancement, or protection of the environment where the regulatory process involves procedures for protection of the environment." However, "[t]he categorical exemptions are not absolute." *Save Our Camel River v. Monterey Peninsula Water Mgmt. Dist.*, 141 Cal.App.4th 677, 689 (2006). As the California Supreme Court held, "where there is any reasonable possibility that a project or activity may have a significant effect on the environment, an exemption would be improper." *Wildlife Alive v. Chickering*, 18 Cal.3d 190, 205-06 (1976); *see also California Unions for Reliable Energy v. Mojave Desert Air Quality Mgmt. Dist.*, 178 Cal.App.4th 1225 (2009) (agency's use of Class 8 exemption improper where administrative record contained comments that project might cause adverse environmental effects); *Dunn-Edwards Corp. v. Bay Area Air Quality Mgmt. Dist.*, 9 Cal.App.4th 644 (1992), disapproved on another ground in *Western States Petroleum Ass'n v. Superior Court*, 9 Cal.4th 559, 570, and fn. 2 (1995) (agency's use of Class 7 and Class 8 exemptions to avoid CEQA review improper even where agency was enacting a more environmentally-friendly rule).

In fact, the CEQA Guidelines, which the Regional Board cites in support of its assertion that issuance of a Final CAO is exempt from CEQA review, strictly limit the use of categorical exemptions by a public agency. For instance, the CEQA Guidelines provide that "[a] categorical exemption shall not be used for an activity where there is a reasonable possibility that the activity will have a significant effect on the environment due to unusual circumstances." 14 Cal. Code Regs. § 15300.2(c). Similarly, the Guidelines state that, "if a lead agency is presented with a fair argument that a project may have a significant effect on the environment, the lead agency shall prepare an EIR even though it may also be presented with other substantial evidence that the project will not have a significant effect." 14 Cal. Code Regs. § 15064(f)(1).

As discussed in more detail below, the requirement in para. 3.b. of the Tentative CAO to "[r]estore the impacted shallow soil [defined as soils to 10 feet bgs] and remove the entire reservoir concrete slab buried beneath the unpaved soil" would require excavation down to 10 feet across substantial portions of the Kast Site. Neither SOC, SOPUS, nor their contractors, URS and Geosyntec, are aware of any other site where such removal of buried concrete was required across such a large site. There is a significant possibility that the only feasible way to

[7] As discussed in more detail below, in addition to failing to comply with CEQA, the CAO as it is currently written would violate the State Water Board's requirement for a Feasibility Study of remedial alternatives as part of a phased approach to the Site.

remove concrete from beneath the unpaved areas is to also remove it from beneath the paved areas and residential structures, which, in turn would require removal of the structures and excavation to 10 feet across one-half of the Kast Site or more. (*See* Exhibit 10: *Summary of Potential Permitting/CEQA Issues Related to Possible Large-Scale Excavation, Former Kast Property, Carson California,* Geosyntec, July 28, 2010.) No matter how it is specifically described, requiring removal of the remaining concrete floors of the former reservoirs would trigger significant excavation at the Kast Site.

According to the exemption cited by the Regional Board, 14 Cal. Code Regs. § 15308, "Construction activities … are not included in this exemption." As discussed below, there is no question that such an extensive excavation and demolition of the concrete floors of the former reservoirs would require substantial use of heavy construction and excavation equipment and numerous truck trips, not to mention extensive shoring, fill, and soil compaction activities.

By way of example, if compliance with the Final CAO required excavation down to 10 feet across a substantial portion of the Kast Site, there are numerous potential environmental impacts that would have to be evaluated by the Regional Board through a full CEQA review process. For instance, Geosyntec estimates that removal of 10 feet of impacted soil across one-half of the 44-acre site would require the removal of 532,500 tons (or 355,000 cubic yards) of soil, and replacement with a similar amount of clean fill. (Exhibit 15.) Such a project would require an estimated 44,500 truck trips into and out of the area, as well as the use of a fleet of heavy machinery to perform the excavation. (*Id.*)

Although it is questionable whether the South Coast Air Quality Management District would issue a permit for such a project, even if such a permit were issued, the diesel and gasoline emissions from the construction equipment and numerous truck trips resulting from a site-wide excavation and removal of the concrete floors of the former reservoirs would have the potential to create a significant environmental impact in the City of Carson. (*Id.*) The exhaust from the trucks conveying the removed soil and the new fill, and the on-site construction machinery performing the excavation and demolition of the concrete, would also result in potentially significant new emissions of greenhouse gases, which would also require consideration under CEQA. (*Id.*) Such a project at the 44-acre Kast Site would also create the potential for dust, particulate emissions, and odors that might pose a potentially significant environmental impact. (*Id.*) The noise from the trucks and on-site machinery might also present potential environmental issues that would have to be analyzed under CEQA. (*Id.*) All of these potentially significant environmental impacts are the type of *direct* changes to the environment that the Regional Board *must* consider when undertaking CEQA review. 14 Cal. Code Regs. § 15064(d)(1).

Disposal of greater than 500,000 tons (or greater than 333,000 cubic yards) of impacted soil and concrete is another potentially adverse environmental impact that would have to be considered in deciding whether to require the type of substantial excavation necessary to remove the concrete floor of the former reservoirs. The Regional Board must consider such direct and indirect changes to the environment caused by activities required by the Final CAO. 14 Cal. Code Regs. §§ 15064(d)(1), 15064(d)(2).

When confronted with similar projects, other agencies have undertaken CEQA review in order to comply with their statutory obligations. For instance, the California Department of Toxic Substances Control recently completed a CEQA review that resulted in a Mitigated Negative Declaration for excavation and hauling of approximately 70,000 cubic yards of stabilized lagoon sludge, and is in the midst of a full CEQA review of the remaining remedial action proposed for the Ascon Landfill in Huntington Beach.[8]

Similarly, the San Diego Regional Board region recently announced, in conjunction with the release of a tentative CAO for the Shipyard Sediment Site, that it would conduct an environmental review under CEQA and prepare an Environmental Impact Report ("EIR"). The project involves the dredging of 140,000 cubic yards of sediment from a 15.2-acre site in the San Diego Bay. Among the potential environmental effects that the EIR would consider are "the potential for release of contaminants into the water and air as a result of the sediment management activities, air quality impacts from the equipment emissions and vehicular trips associated with the dredge activity, and short-term noise from truck trips traveling to and from the project site/shore to the freeway."[9]

Based on the numerous, potentially significant environmental impacts that would be a direct result of a CAO requiring the excavation and removal of the remaining concrete floors of the reservoirs at the Kast Site, the issuance of a Final CAO containing such a requirement would *not* be exempted from CEQA review under the cases and regulations cited above. Instead, the Regional Board would first have to complete the appropriate CEQA review prior to issuing such an order or requiring such extensive excavation and demolition activities.

## II. COMMENTS TO THE PROPOSED ORDERED ACTIONS IN THE TENTATIVE CAO

The Tentative CAO requires four principal activities: (1) vertical and lateral delineation of the contamination in soil, soil vapor, and groundwater caused by release of contaminants of concern at the Kast Site; (2) continued groundwater monitoring; (3) remedial action; and (4) public participation. The following comments address the scope and sequence of those ordered actions, as well as specific issues.

As a general matter, we ask that the Final CAO be modified to state that it is intended to address "total petroleum hydrocarbons (TPH) and other TPH-related contaminants of concern discharged to soil and groundwater at the [Kast] Site *that are related to Shell Oil Company's ownership and use of the Site*." To the extent that contamination at the Kast Site is not related to SOC's historical operations (such as, *e.g.*, groundwater and soil contamination emanating from other upgradient sources) or that site concentrations are in excess of background levels for the contaminants, the Regional Board should not require SOC or SOPUS to clean up and abate such contamination. Rather, the Regional Board should identify the responsible party or parties in the Final CAO or in a future amendment.

[8] For information on the CEQA review carried out for the Ascon Landfill, *see* http://www.ascon-hb.com/downloads/IS_MND/IS-MND_IRM.pdf.

[9] *See* http://www.swrcb.ca.gov/rwqcb9/water_issues/programs/shipyards_sediment/.

### 1. Complete Delineation of Contamination

We believe delineation of contamination at the site is important, indeed critical, to understanding site conditions and developing an effective Remedial Action Plan ("RAP"). We are concerned with the Tentative Order's structure, which appears to have the RAP submitted before this task is completed. Rather than amending plans to reflect subsequent data, SOC believes a proper sequence of site characterization with respect to surface conditions, followed by feasibility studies and development of the RAP, is most protective of the community, particularly where interim measures will be implemented to address risk pending approval of the RAP. Therefore, the last sentence in this paragraph is not necessary.

We also note that SOPUS and its contractors have completed much of the work outlined in the January 12, 2010 Plume Delineation Work Plan. SOPUS will continue to work with the Regional Board to complete the investigation of the railroad right-of-way and the southern border of the former Kast property, as well as to take further steps to delineate the contamination at the Kast Site (such as the ongoing Cone Penetrometer Testing that URS is undertaking beginning in August).

### 2. Conduct Groundwater Monitoring

SOPUS will continue the existing quarterly groundwater monitoring program and will incorporate new wells into this program as they are installed, as required in paragraph 2.

While SOPUS has been conducting its investigation of the Kast Site to include contaminants of concern at the Site other than those related to SOC's historical use of the Kast Site, any cleanup and abatement that SOC is required to perform at the Site should be limited to TPH and TPH-related contaminants of concern discharged to soil and groundwater at the Site that are related to SOC's ownership and use of the Kast Site.

### 3. Conduct Remedial Action

Paragraph 3 of the draft Order identifies numerous actions relating to the cleanup and abatement of the Kast Site. In addition to the comments we make below to the specific provisions of paragraph 3, we respectfully provide the following general comments to this section.

As noted in section 12.b. of the Tentative Order, the Regional Board's oversight of the cleanup and abatement of the Kast Site must comply with the policies and procedures contained in State Water Board Resolution No. 92-49 ("SWB Res. No. 92-49"). This resolution requires a phased approach to investigating and remediating impacted sites. SWB Res. No. 92-49 specifies that the Regional Board "*shall* … [r]equire the discharger to conduct investigation, and cleanup and abatement, *in a progressive sequence*[.]" SWB Res. No. 92-49 II.A.1 (emphases added). The Resolution requires the following sequence: (1) preliminary site assessment; (2) soil and groundwater investigation; (3) proposal of cleanup and abatement alternatives with an evaluation of the feasibility and effectiveness of these alternatives; (4) the implementation of the chosen cleanup and abatement alternative; and (5) monitoring. *Id.* As discussed in detail below, the Tentative CAO appears to skip or re-order many of these steps and appears to require widespread

removal of the buried concrete slabs before an evaluation can be made of the effect (if any) that the concrete might have on the environmental conditions at the Kast Site, and the feasibility and adverse consequences of such an action. Moreover, SOPUS's investigation of the soil, soil vapor, and residential indoor air is still ongoing, and the Regional Board has not yet requested a formal review of remedial alternatives and a Feasibility Study. Thus, as a general matter, in order to comply with SWB Res. No. 92-49, we request that this section be modified to: (1) replace the requirement that concrete and impacted soils down to 10 feet be removed with a requirement that an assessment of the environmental impacts of the concrete floors of the former reservoirs be performed; and (2) require that the final Remedial Action Plan be submitted 60 days after the Regional Board approves SOPUS's report on the pilot test required by paragraph 3.c.

We also propose to conduct the following short-term, targeted pilot studies, in addition to the ongoing Phase II Site Characterization, in order to complete the characterization of the environmental conditions in the upper 10 feet of soil across the Kast Site and evaluate the feasibility and efficacy of various remedial options: (1) a study of the effects that the buried concrete floors have on the environmental conditions at the Kast Site (if any); (2) the work plan required in paragraph 3.c. for a study to evaluate the feasibility of removing impacted soils to 10 feet and demolition and removal of the buried concrete floors of the former reservoirs from beneath both unpaved and paved areas at the Kast Site; (3) a pilot study of remedial options that can be carried out at a limited number of houses where characterization (including indoor air testing) is completed; and (4) a study of leachability of COCs from impacted soils. In addition, we note that the SVE Pilot Test Report, Plume Delineation Report, and Background Soils Investigation Report will be submitted in the coming months. The information from these reports, and other ongoing investigations, can then be used to prepare a Feasibility Study and final RAP for the Regional Board's review, input, and approval. In the meantime, characterization of the soil, soil vapor, and indoor air at all of the residences at the Kast Site will continue, and remediation at a number of houses will have been started as part of the remediation pilot study proposed above. While the short-term pilot studies are being completed and further data are collected, we will continue to implement the interim mitigation measures approved by the Regional Board in SOPUS's November 4, 2009 Interim Remedial Action Plan and referenced in SOPUS's April 6, 2010 Data Evaluation and Decision Matrix.

Given the variability of the testing results across the Site, although one RAP can be drafted for the Kast Site incorporating various remedial strategies at various locations depending on the environmental conditions at those locations, the implementation of the RAP will likely be on a residence-by-residence or group-of-residences basis based on site-specific data,[10] with separate remedial options included for the different areas of the public streets that are impacted by the compounds at issue in the CAO. Such an approach is critical because, based on the data obtained to date, it appears that a number of residences likely will require very little or no remedial activity, while others will require more significant remediation. (*See* Exhibits 8-14.)

[10] We recognize that the data may show similar impacts involving two or more adjacent residences. In such an instance, we would work with the residents and the Regional Board to address multi-property impacts in a coordinated fashion across the affected properties, where warranted and feasible.

With these general comments in mind, we now turn to the specific provisions of this section.

### (i) Paragraph 3.b.

Paragraph 3.b. requires: (1) that impacted soil in unpaved areas be "restored"; and (2) that "the entire reservoir concrete slab" and "associated sludge" beneath the unpaved soil be removed. We believe that these requirements are not warranted based on the current known conditions at the Site, and that they would be infeasible from a permitting, environmental, and practical standpoint. First, there have been no data so far evidencing "sludge" at the Site. In fact, historical documents indicate that the developers agreed to remove the liquid and petroleum residues as part of their site preparation work. (*See* Exhibits 3-5.) Before the Regional Board orders the removal of the concrete floors of the former reservoirs, it should first assess the ongoing role (if any) that the buried concrete floors may have on the environmental conditions at the Kast Site. Ordering "removal" of the remaining concrete floors of the former reservoirs violates the limits on the Regional Board's ability to order the method of remediation under Water Code § 13360(a) and SWB Res. No. 92-49 (*see* discussion in Section 3.(iv), below). Further, paragraph 3.b. is both in conflict with, and redundant of, the requirement in paragraph 3.c. that SOPUS prepare a work plan to study the feasibility and necessity for the very actions required in paragraph 3.b. Thus, we respectfully request that paragraph 3.b. be deleted or, at a minimum, be rewritten to require an environmental assessment and Feasibility Study to assess: (1) the impact of the remaining concrete floors on contaminant migration where the concrete floors might still be present; (2) the need for the removal of the concrete; and (3) the feasibility of removal of the concrete floors beneath (i) unpaved areas, (ii) paved areas, and (iii) homes at the Kast Site.

In support of this request, we offer the following additional comments concerning paragraph 3.b.

### (ii) Further Assessment Is Necessary Before It Can Be Determined Whether the Concrete Is a "Primary Source" of Hydrocarbon Releases

Paragraph 3.b. states that "[t]he reservoir concrete slabs are considered part of the primary sources of petroleum hydrocarbon releases into the shallow soil." As discussed in SOC's comments to the Site History section in paragraph 5.b., the historical documents show that Lomita Development was responsible for emptying the remaining oil, water, and solids from the reservoirs, demolishing the reservoirs, and grading the Site. Pacific Soils Engineering's reports indicate that Lomita Development's contractor removed at least part of the central reservoir and perforated the remaining reservoir bottoms with circular trenches. (*See* Exhibits 3-5.) In many locations across the footprints of the former reservoirs, URS has not encountered refusal by concrete during drilling investigations to 15 feet or more. (*See* Exhibit 2.) Given the lack of information regarding the present state and extent of the buried concrete, SOC proposes to undertake a study to assess what effect, if any, the concrete is having on the present Kast Site conditions and whether it is a "primary source." Requiring such characterization work first would better accord with SWB Res. No. 92-49's requirement for a phased approach, and would avoid the Regional Board improperly mandating a specific remedial approach before having sufficient information upon which to base such a choice.

### (iii) Paragraph 3.b. Is Not Required to Address Known Site Conditions

The requirements contained in paragraph 3.b. are not required by any of the known Site conditions. The data obtained so far have not shown an imminent risk from impacts present in the soils or the presence of the remaining concrete. In their responses to the Interim Residential Reports submitted by SOPUS, the Regional Board and the Office of Environmental Health Hazard Assessment have concurred that there is no imminent health risk to the public at the Kast Site.

As noted above, SOPUS is prepared to implement interim measures as warranted in order to address specific conditions at any of the residences where findings indicate such measures are necessary. The Regional Board has already approved SOPUS's November 4, 2009 Interim Remedial Action Plan, which provides a list of such short-term mitigation measures if necessary. These measures include institutional and engineering controls to address soil impacts (such as installation of pavers or other landscaping), and measures such as sub-slab venting and utility trenching to address any significant soil vapor impacts. These measures will continue to protect the safety of the Carousel residents while SOPUS and the Regional Board are working to complete a RAP for the Kast Site. SOPUS stands ready to propose site-specific interim measures for homes where testing results trigger actions under SOPUS's April 6, 2010 Data Evaluation and Decision Matrix.

There is also no evidence that restoring impacted soils to 10 feet and removal of the concrete from the unpaved areas is necessary to protect the long-term health of the residents. While excavation of impacted soil may be necessary at some residences, we believe that an assessment regarding the depth of a given excavation should be based on the specific data from the residence in question and an evaluation of all practicable remedial alternatives. Also, there is insufficient evidence that the "entire reservoir concrete slab buried beneath the unpaved soil and associated sludge" is causing a release of petroleum hydrocarbons "into the shallow soil," as stated in paragraph 3.b. of the Tentative Order. It is also unknown whether impacts in the upper 10 feet of soil or the presence of concrete are contributing to groundwater contamination. Performance of leachability tests on representative samples from soil borings and a further study of the concrete are necessary to provide relevant additional information on this subject.

In short, excavation of the soil to 10 feet and demolition and removal of the entire reservoir concrete slab cannot and should not be assumed *a priori* in the final CAO.

### (iv) Inclusion of Paragraph 3.b. Would Violate Water Code § 13360 and SWB Res. No. 92-49

Requiring the removal of the remaining concrete floors of the former reservoirs together with impacted soils down to 10 feet would also violate the express statutory limitation that prohibits the Regional Board from prescribing the manner in which compliance with a cleanup order may be achieved. The Water Code states that "[n]o waste discharge requirement or other order of a regional board … shall specify the design, location, type of construction, or particular manner in which compliance may be had with that requirement, order, or decree." Water Code § 13360(a). This principle is also incorporated into SWB Res. No. 92-49, which specifies the policies and

procedures that Regional Water Boards must employ when overseeing a cleanup and abatement. In SWB Res. 92-49, the State Water Board states:

> [Water Code] Section 13360 prohibits the Regional Water Boards from specifying, but not from suggesting, methods that a discharger may use to achieve compliance with requirements or orders. It is the responsibility of the discharger to propose methods for Regional Water Board review and concurrence to achieve compliance with requirements or orders[.]

As the Regional Board acknowledged at the July 19, 2010 public meeting, Section 13360 permits the Regional Board to tell dischargers "what to do" but not "how to do it." 2 Manaster & Selmi, Cal. Envtl. Law & Land Use Practice § 32.39[2] (Matthew Bender 2010); *see also Tahoe-Sierra Pres. Council v. State Water Res. Control Bd.*, 210 Cal.App.3d 1421, 1438 (1989) ("Section 13360 is a shield against unwarranted interference with the ingenuity of the party subject to a waste discharge requirement …. It preserves the freedom of persons who are subject to a discharge standard to elect between available strategies to comply with that standard."). By requiring SOC to "[r]estore the impacted shallow soil and remove the entire reservoir concrete slab" beneath unpaved areas, the Final CAO clearly would be beyond the boundaries of the Regional Board's statutory authority.

Even if the Regional Board were permitted to specify the removal of concrete and restoration of impacted soils down to 10 feet, such an order would be premature under SWB Res. No. 92-49's mandate that a phased approach be used. As it is currently written, paragraph 3.b. skips several important steps in the environmental investigation (including a Feasibility Study), and requires the implementation of a particular remedial alternative—removal of impacted soils and concrete from unpaved areas—before the necessary and important intervening steps have been completed.

### (v) Inclusion of Paragraph 3.b. Would Require CEQA Review

Including paragraph 3.b. in the Final CAO would mean that the Regional Board would need to complete a CEQA review to consider the environmental impacts that would be created by requiring the excavation and removal of the entire remaining concrete floors of the former reservoirs, together with the soils from the unpaved areas across the entire Kast Site. (*See* Exhibit 10 and SOC's Comments to paragraph 14 of the Findings section, above.) Requiring the removal of "the entire reservoir concrete slab" and soil from beneath the unpaved areas across the Site would create a reasonable possibility of significant effects on the environment arising from: (1) diesel and gasoline emissions from the heavy excavation equipment and numerous trucks that would have to be used to excavate and remove the impacted soil and concrete from the Kast Site, as well as to import, grade, and compact clean fill at the Site; (2) greenhouse gas emissions from the trucks and heavy machinery; (3) dust, noise, and vibration from the excavations, trucks, and construction machinery; and (4) disposal of the impacted soils and concrete and the acquisition of clean fill. (*See* Exhibit 10.) Based on these potential environmental impacts, the Final CAO would not qualify for the Class 8 CEQA exemption cited by the Regional Board in the Tentative CAO. "[W]here there is any reasonable possibility that a project or activity may have a significant effect on the environment, an exemption would be improper." *Wildlife Alive v. Chickering*, 18 Cal.3d 190, 205-06 (1976).

For all the reasons stated above, we ask that paragraph 3.b. in the draft Order be replaced with a requirement in 3.b. and 3.c. for an evaluation of: (1) the impact of the remaining concrete on contaminant migration; and (2) the need for, and feasibility of, removal of all or any portion of the concrete.[11]

**(vi) Paragraph 3.c.**

With respect to paragraph 3.c., we request that the requested Pilot Test Work Plan be due to the Regional Board on October 15, 2010, or sixty days after issuance of the Final CAO, whichever is later. We currently anticipate that the Pilot Test Report will be completed for submittal approximately 4 to 6 months following Regional Board approval of the Pilot Test Work Plan. This timeframe is a very rough estimate, given the probable need to conduct several test excavations which will require AQMD permitting and access agreements for excavation.

**(vii) Paragraph 3.d.**

With respect to paragraph 3.d., SOC incorporates the comment to paragraph 3.b., above, regarding SWB Res. No. 92-49's requirement for a phased approach. In particular, we note that the sequence required by the State Water Board is to complete a Feasibility Study of remedial alternatives *prior* to requiring a Remedial Action Plan ("RAP"). We believe that this approach should be used here.

Moreover, the requested RAP cannot be prepared until the Pilot Test described above in Paragraph 3.c. is complete and the Regional Board has reviewed and approved the report. We request that the RAP be submitted to the Regional Board 60 days following approval of the Pilot Test Report and the Feasibility Study. By that time, we expect that the other studies listed on page 18, below, will also be complete.

We also provide the following additional comments to this section.

As currently written, the statement in paragraph 3.d.I.i. contains an inaccurate assumption. The SVE pilot test is a short-duration test that will last approximately 4 weeks; it will not be a system capable of continued operation and will not be an "ongoing soil vapor extraction system." The SVE pilot test uses a portable SVE system working under a "Various Locations Permit" issued by the SCAQMD. The system does not have the capability of continued operation under this permit, and it would be necessary to design and construct an SVE system for long-term operation, and then obtain a permit for the system from the SCAQMD. While preliminary field data are promising, the CAO cannot presume continued operation until the pilot test study has been submitted, and a Feasibility Study and RAP have been completed.

With respect to paragraph 3.d.I.ii., the proposed language is not clear regarding the definition of contingency or when the contingency is warranted. In this context, we suggest that this

[11] In making this alternative proposal, SOC and SOPUS do not waive their rights with respect to the statutory limitations and requirements imposed on the Regional Board by the Water Code and CEQA.

paragraph be amended to read: "A plan to address impacted areas beneath existing paved areas and concrete foundations of the homes, as warranted."

With respect to paragraph 3.d.II., cleanup levels for a site typically consider site-specific conditions, as well as background or ambient conditions of chemicals of potential concern. As stated in agency guidance documents for the screening levels mentioned in the Tentative CAO (USEPA Regional Screening Levels ("RSL") guidance and Cal-EPA California Human Health Screening Levels ("CHHSL") guidance), RSLs and CHHSLs should not be considered final cleanup levels for a Site. Each of these documents, along with EPA guidance for risk assessment, acknowledges that these levels are one part of a stepwise, tiered approach used to evaluate impacted properties. The screening levels referenced in the Tentative CAO are considered Tier 1 values and do not reflect site-specific conditions or the consideration of the background levels of the contaminants of concern.

It is generally recognized that metals and PAHs occur in the environment due to natural or anthropogenic sources (termed "ambient or background") and may not be related to site impacts. According to DTSC and USEPA, for these types of constituents an evaluation of background concentrations is important to evaluate whether the chemical concentrations on the property are consistent with background levels. If concentrations are within background, the chemical is typically not evaluated further. If concentrations are above background, then the background concentration is used as the cleanup goal, since it is infeasible to clean up to concentrations below background.

Therefore, we recommend that the language be revised to include the following additional guidance documents pertaining to site-specific risk assessments and background evaluation:

1. USEPA Risk Assessment Guidance for Superfund, Parts A through F.
2. USEPA User's Guide for Evaluating Subsurface Vapor Intrusion into Buildings. 2003.
3. USEPA Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. 2002.
4. USEPA Guidance for Comparing Background and Chemical Concentrations in Soil for CERCLA Sites. 2002.
5. Cal-EPA Selecting Inorganic Constituents as Chemicals of Potential Concern at Risk Assessments at Hazardous Waste Sites and Permitted Facilities. Cal EPA Department of Toxic Substances Control. February 1997.
6. Cal-EPA Arsenic Strategies. Determination of Arsenic Remediation, Development of Arsenic Cleanup Goals for Proposed and Existing School Sites. Cal-EPA Department of Toxic Substances Control. 2007.
7. Cal-EPA Use of the Northern and Southern California Polynuclear Aromatic Hydrocarbon (PAH) Studies in the Manufactured Gas Plant Site Cleanup Process. Cal-EPA Department of Toxic Substances Control. July 2009.

### (viii) Paragraph 3.e.

As noted above in Paragraph 3.d., the requested RAP cannot be prepared until the Pilot Test described above in Paragraph 3.c. and a Feasibility Study are complete. We request that the RAP be due to the Regional Board 60 days following Regional Board approval of the Pilot Test Report and the Feasibility Study.

## 4. Involvement of the Public

We agree with the Regional Board's assessment that public participation is an important part of the process, and agree with: (1) the assessment in paragraph 4.a. that information be targeted to the literacy and translation needs of the public; and (2) the assessment in paragraph 4.b. that the public have meaningful opportunities to comment on and influence investigation and cleanup activities.

In fact, SOC and SOPUS have been, and will continue, reporting the results of this sampling to the Regional Board, and posting reports and sampling data for public access and review. We also have provided the results of all testing and risk evaluations for the individual residences to the homeowners, either directly or, where they have legal representation, through their counsel. We have attended public meetings with the community and the agencies overseeing the environmental investigation at the Kast Site, and have established a Carousel information phone line so residents could continue to ask questions and receive information about activities in their community.

However, as the Regional Board is aware, SOC and SOPUS are engaged in active litigation with a number of residents in the Carousel, Monterey Pines, and Island-Fries neighborhoods. Even access for sampling and transmission of sampling results is, at their counsel's insistence, arranged through the plaintiffs' law firm. Thus, future public participation will be facilitated through the Regional Board in order to ensure compliance with the legal restrictions that apply when parties are engaged in litigation.

Accordingly, we request that the second sentence of Section 4 be amended to provide: "The Discharger is required to prepare and submit for review a Public Participation Plan, with the goal of having the Regional Board provide stakeholders with: …."

Consistent with SOC's comments to paragraph 3 of the draft Order, above, we request that Table 4 be revised as follows:

A. Pilot Test Work Plan – due October 15, 2010 or 60 days after the Final CAO is issued, whichever is later.
B. RAP – due 60 days following RWQCB approval of the Pilot Test Report and Feasibility Study.

We also remind the Regional Board that SOPUS will be submitting the following additional reports and work plans in the coming months:

- Wilmington Middle School Follow-up Sampling Report – August 31, 2010

- Plume Delineation Report – September 15, 2010
- Sub-Slab Purge Test Sampling Report – September 15, 2010
- Background Soil Evaluation Report – September 15, 2010
- Soil Vapor Extraction Pilot Test Report – September 30, 2010
- Background Air Quality Investigation Report – November 5, 2010.

Finally, we request that the Regional Board omit the deadline for addenda to the September 21, 2009 Work Plan for Phase II Site Characterization. Instead, we suggest that such addenda be prepared and submitted to the Regional Board as they are required.

**Conclusion**

Our commitment to investigating and addressing the environmental impacts related to SOC's ownership of the Kast Site should be judged by what we have accomplished in the relatively short time since the environmental conditions first came to light. Under the supervision of the Regional Board, and pursuant to approved work plans, we have performed extensive soil, soil vapor, and groundwater sampling throughout the Kast Site, in the adjacent Monterey Pines and Island-Fries neighborhoods, and at the Wilmington Middle School. Multiple teams of environmental specialists are working in the neighborhood on a daily basis to expedite completion of the site characterization.

SOC and SOPUS are committed to working with the Regional Board to complete the investigation of the Kast Site, develop and implement appropriate measures in order to continue protecting the health of the residents of the Carousel neighborhood, and address the potential long-term environmental issues relating to SOC's historical operations. Based on the data obtained thus far, it is our belief that these goals can be accomplished while preserving the integrity of the Carousel neighborhood, but the Tentative CAO contains provisions that could undermine these goals and cause potentially significant adverse impacts on the community and the environment.

We appreciate the opportunity to provide these comments to the Regional Board, and would be happy to answer any questions the Regional Board might have regarding these comments (and those in the attached Table and Exhibits).

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