



File #: 2015-719, Version: 1

Report to Mayor and City Council

Tuesday, October 06, 2015

Discussion

SUBJECT:

CONSIDER STATUS REPORT ON THE REGIONAL WATER QUALITY CONTROL BOARD ENVIRONMENTAL INVESTIGATION AND CARSON DECLARATION OF THE EXISTENCE OF A LOCAL EMERGENCY WITHIN THE CAROUSEL TRACT (CITY COUNCIL)

I. SUMMARY

This item is on the agenda to provide updates at all regularly scheduled City Council meetings related to the environmental investigation of the Carousel Tract. The remediation project is moving into the implementation phase, and the Regional Water Quality Control Board will begin its Outreach Committee meetings later this month. This committee will include staff members of the Board, the City, the County Supervisor's office, and residents of the community. A new schedule and descriptions of the tasks is included in the attachments (Exhibit No. 1).

II. RECOMMENDATION

CONSIDER and DISCUSS.

III. ALTERNATIVES

TAKE such other action the City Council deems appropriate that is consistent with the requirements of law.

IV. BACKGROUND

History

The California Regional Water Quality Control Board, Los Angeles (Regional Board)

is the lead agency overseeing the environmental investigation and cleanup of the Carousel Tract. The Regional Board issued a Cleanup and Abatement Order No. R4-2011-0046 (CAO) on March 11, 2011 requiring Shell Oil Products US to investigate and clean up discharges of waste in soil and groundwater at the Carousel Tract site.

Recent Events

On September 8, 2015 the Los Angeles Regional Water Quality Control Board wrote a letter to Mr. Douglas J. Weimer, Shell Oil Products US (Exhibit No. 2), that identified review of interim soil and soil vapor residential sampling report for 24523 Panama Avenue located within the Carousel Tract. The results of the investigation identified:

- Methane was not detected in sub-slab soil vapor probe samples during the sampling at the subject home.
- Data from 46 previous surface and sub-surface soil samples (0 to 10 feet below ground surface), collected from 11 soil borings in the front/back yards, indicate that the cancer risk index is 4.2 and the non-cancer hazard index is 0.089. The total petroleum hydrocarbon (TPH) non-cancer hazard index is 1.7.
- Sub-slab soil vapor data from one indoor and two outdoor sub-slab soil vapor probe samples indicate that the cancer risk index is 16 and the non-cancer hazard index is 0.034.

Based on the information submitted in the report, Shell is required to provide the following additional information and/or perform the activities listed below at the subject home:

1. Since the cancer risk index is greater than 1 and less than 100 and the TPH non-cancer hazard index is greater than 1 for surface and sub-surface soil samples Shell is directed to:
 - (a) Advise residents to minimize contact with exposed soil in their yards and minimize disturbance of sub-surface soil as a precautionary measure;
 - (b) Conduct a risk assessment based on total petroleum hydrocarbons (THP) fractionation analysis and assessment of background metal and polycyclic aromatic hydrocarbons (PAHs) concentrations; and,
 - (c) Identify what subsequent risk management steps may be appropriate.

2. Since the sub-slab soil vapor samples cancer risk index is greater than 10 for sub-slab vapor probe samples, subsequent risk management steps are required. Therefore, Shell is required to perform a follow-up re-sampling of sub-slab vapor probes to assess the distribution of VOC's beneath the subject home.

A technical report that addresses the above is due to the Regional Board within 45 days of receipt of the analytical data. All analytical data shall be submitted to the Regional Board as soon as the data is validated.

On September 16, 2015, staff received a letter from American Integrated Services Inc. for a haul route permit/approval for the Kast Shell Project/Carousel Tract (Exhibit No. 3). The project includes excavation of up to 208 homes with removal of up to 148,100 cubic yard of Total Petroleum Hydrocarbon (TPH) impacted soil, removal of hardscape and driveways, walkways, patios, fencing and existing landscaping over a five (5) year period.

Starting date will be January 1, 2016 to approximately January 1, 2021. Hours of operation will be from 8:00 a.m. to 4:00 p.m. when driving inside the Carousel Tract. All trucks will be required to use tarps and no trucks will exceed a gross weight of 80,000 lbs. The haul route was reviewed and approved by the City Traffic Engineer.

The LA Regional Water Quality Control Board is establishing a Cleanup Outreach Committee that will play an essential role in helping to make the cleanup process as smooth as possible (Exhibit No. 4). The Outreach Committee will include Carousel Tract residents, Regional Board staff, City/County staff, and Shell Oil Products US representatives. Further information can be found at the following link:

<http://ci.carson.ca.us/departments/communitydevelopment/carouseltract.asp>

Residential Sampling Activity

Testing of property in the Carousel Tract is continuing and the latest reports are posted on the Regional Board's website at:

As of March 10, 2015, the completed Residential Sampling Activity is as follows:

- 272 homes have been screened for Methane. (95%)
- 273 homes have had soils sampled and vapor probes installed. (96%)

- 273 homes have had vapor probes sampled. (95%)
- 261 homes have had indoor air sampled. (91%)
- 244 of 261 homes have had their 2nd round of indoor air sampling. (94%)
- 86% of total homes in the Carousel Community have had second round of Indoor Air conducted

Timeline of Activities

A general timeline that tracks past and current activities of the Carousel Tract environmental investigation is included as (Exhibit No. 5).

V. FISCAL IMPACT

None.

VI. EXHIBITS

1. KAST Update for City of Carson dated September 14, 2015. (pgs. 5-7)
2. Regional Board letter dated September 8, 2015. (pgs. 8-11)
3. American Integrated Services, Inc. dated September 16, 2015. (pgs. 12-14)
4. Rev SS Mitigation Diagnostic Pilot Test Report. (pgs. 15-18)
5. Carousel Tract Environmental Investigation Timeline. (pgs. 19-27)

Prepared by: Zak Gonzalez II, Associate Planner, Planning Division



VIA E-MAIL

Shell Oil Products US
20945 S. Wilmington Avenue
Carson, CA 90810
Tel + 1 310 816 2043
E-mail: douglas.weimer@shell.com

September 14, 2015

Sanaz K. Soltani, Esq.
Aleshire & Wynder LLP
18881 Von Karman Ave., Ste. 1700
Irvine, California 92612
E-mail: ssoltani@awattorneys.com

Dear Ms. Soltani,

Thank you for meeting with us last week to discuss the Carousel neighborhood. As you requested, below is a summary of the status and upcoming activity related to the Remedial Action Plan for the neighborhood. I am also attaching a shorter version of this update, in case it is more convenient to use that format as a handout at Tuesday's City Council meeting.

Summary of Recent and Upcoming RAP-Related Events

- **July 10, 2015**: The Water Board approved the Remedial Action Plan (RAP) and certified the final Environmental Impact Report (EIR). We understand from the Water Board that no one has filed a challenge to the approval of the RAP or the certification of the final EIR.
- **July 27 - August 24, 2015**: Shell and its contractors completed a geotechnical investigation at 73 properties in the Carousel neighborhood. Data from the geotechnical investigation, as well as the topographical surveys, will be used to prepare the grading permits and plan the excavation work at the properties designated in the RAP, and also to prepare the Site-Wide Remedial Design and Implementation Plan.
- **September 14-18, 2015**: Shell is currently conducting topographical surveys of the first set of properties where excavation will occur. This survey work will be ongoing and performed in phases, with each phase involving approximately 10 residences. The survey work will not involve any excavation or borings.
- **October 15, 2015**: Due date for Shell to submit the Site-Wide Remedial Design and Implementation Plan (RDIP), which will provide details regarding implementation of the RAP, including the planned order of work.
- **October-November 2015**: Shell will prepare Property-Specific Remedial Plans (PSRPs) for the initial set of residences where excavation work will take place. Each PSRP will include the detailed plan for performing the remedial work at the designated residence (including landscape restoration), and will be drafted after meeting with the homeowner and residents at that property and discussing how the work will be performed.
- **Early 2016**: After the Water Board reviews and approves the RDIP and first set of PSRPs, and the City of Carson and Los Angeles County issue permits for the work at the initial set of residences, the remedial work at the first block of residences will begin. Shell and its contractors will continue to meet with residents and prepare subsequent sets of PSRPs so that the work can move to the next group of residences as it is completed at the initial set of houses.

Summary of Work Required in the Approved RAP:

The work required by the RAP includes:

- Excavation in the front and/or back yards at 208 residences, as specified in the RAP;
- Installation of a Site-wide soil vapor extraction (SVE) system, with shallow SVE wells located at certain properties and deeper SVE wells located beneath the streets (the SVE treatment system will be located outside of the Carousel neighborhood); and
- Installation of sub-slab depressurization systems to vent the sub-slab area at 29 residences (and upon request at any residence).

The soil and soil vapor sampling work is largely completed. Shell and its contractors continue to perform this work at residences where they previously were not granted access.

Carousel RAP Implementation Committee:

The Water Board and Shell are in the process of forming a RAP Implementation Committee that will include Carousel residents and representatives from the Water Board, the City of Carson and Shell. This Committee will assist in communicating updates to the residents regarding the progress of the RAP work, identifying and addressing issues that arise, and generally facilitating the work under the RAP. The Water Board will issue a notice soon that will provide information about the Implementation Committee. Currently, Shell and the Water Board anticipate that the Implementation Committee will hold its initial meeting in the last half of October 2015 (after the RDIP has been submitted).

Relocation Plan:

Shell and its contractors have located long-term stay apartments in the area for residents to stay while the remedial work is being performed at their residences. Shell is finalizing the list of these apartments and will include additional information regarding the relocation plan in the RDIP.

Real Estate Program:

Individual Carousel homeowners may enroll in the Real Estate Program for the Carousel neighborhood. Qualifying homeowners who have enrolled in the Real Estate Program and wish to sell their property can market their property with a participating broker, and if they receive less than fair market value for their property as determined through an independent appraisal process, Shell will pay the homeowner the difference between the sale price and fair market value. More information regarding the Real Estate Program will be provided in the coming weeks. In the meantime, questions about the program can be directed to the Shell hotline for the Carousel neighborhood: 1-866-467-4775.

Sincerely,



Douglas Weimer
Sr Principle Program Manager
Shell Oil Products US

Attachment



Shell Oil Products US
20945 S. Wilmington Avenue
Carson, CA 90810
Tel + 1 310 816 2043
E-mail: douglas.weimer@shell.com

Carousel Neighborhood Update – September 14, 2015

The Water Board approved the Remedial Action Plan (RAP) and certified the final Environmental Impact Report on July 10th, 2015. The RAP requires the following:

- Excavation in the front and/or back yards at 208 residences, as specified in the RAP;
- Installation of a Site-wide soil vapor extraction system; and
- Installation of sub-slab depressurization systems to vent the sub-slab area at 29 residences.

Completed RAP Activities

Shell and its contractors completed a geotechnical investigation at 73 properties. The data will be used to prepare grading permits and plan the excavation activities in the neighborhood.

RAP Implementation Timeline (approximate timeline)

September 14-18, 2015: Topographical surveys conducted at the first set of properties where excavation will occur. The survey work will not involve any excavation or borings.

October 15, 2015: Site-Wide Remedial Design and Implementation Plan (RDIP) due to Water Board from Shell. The RDIP will include detailed information regarding RAP implementation.

October-November 2015: Preparation of Property-Specific Remedial Plans for the initial set of residences where excavation work will take place.

Early 2016: Start of remediation work; targeting the 1st quarter of 2016. The actual start date will depend on various factors, including City of Carson and LA County permitting approvals.

Implementation Committee

The Regional Board is in the process of forming a RAP Implementation Committee that will include Carousel residents and representatives from the Water Board, the City of Carson and Shell. This Committee will assist in communicating updates to the residents and identifying issues that arise during RAP implementation. The initial meeting is expected to be scheduled for late October 2015.

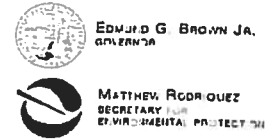
Relocation

Shell and its contractors are researching long-term residential housing options in the area for residents while the remedial work is being performed at their residences. Additional relocation information will be included in the RDIP.

Optional Real Estate Program

Qualifying homeowners in the Carousel neighborhood who have enrolled in the Real Estate Program and wish to sell their property can market their property with a participating broker, and if they receive less than fair market value for their property as determined through an independent appraisal process, Shell will pay the homeowner the difference between the sale price and fair market value.

Sincerely,
Douglas Weimer
Sr Principle Program Manager, Shell Oil Products US



Los Angeles Regional Water Quality Control Board

September 8, 2015

Douglas J. Weimer
Shell Oil Products US
20945 S. Wilmington Ave.
Carson, CA 90810

REVIEW OF INTERIM SOIL AND SOIL VAPOR RESIDENTIAL SAMPLING REPORT FOR 24523 PANAMA AVENUE PURSUANT TO CALIFORNIA WATER CODE SECTION 13304 ORDER - FORMER KAST PROPERTY TANK FARM LOCATED SOUTHEAST OF THE INTERSECTION OF MARBELLA AVENUE AND EAST 244TH STREET, CARSON, CALIFORNIA (SCP NO. 1230, SITE ID 2040330, CAO NO. R4-2011-0046)

Dear Mr. Weimer:

The California Regional Water Quality Control Board, Los Angeles Region (Regional Board) is the state regulatory agency responsible for protecting water quality in Los Angeles and Ventura Counties, including the above referenced site. To accomplish this, the Regional Board issues investigative orders and requirements for submission of technical reports authorized by the Porter-Cologne Water Quality Control Act.

The Regional Board has received and reviewed the document titled Interim Soil and Soil Vapor Residential Sampling Report (Report) for the home located at 24523 Panama Avenue, Carson, California, dated July 20, 2015 and prepared by URS Corporation (URS) on behalf of Shell Oil Products US (Shell). This residential property lies within the footprint of the former Kast Property Tank Farm (KPTF). The Report is prepared subsequent to approval of a soil, sub-slab soil vapor, and indoor air sampling work plan dated September 24, 2009, and a human health screening evaluation (HHSE) work plan dated November 19, 2009 pursuant to the California Water Code (CWC) section 13267 Order to investigate the individual residential properties occupying the former KPTF. The Office of the Environmental Health Hazard Assessment (OEHHA) is assisting the Regional Board in the evaluation of the potential risk to human health. Based on the Work Plan for Phase II Site Characterization dated September 21, 2009, Indoor Air Sampling and Analysis Work Plan dated October 21, 2009, and Addendum Work Plan for Phase II Site Characterization dated April 19, 2010, URS performed during this sampling event consisted of soil sampling, methane screening, installing and sampling sub-slab soil vapor probes. This letter briefly describes the findings and identifies follow-up actions.

The results of the investigation are reported as follows:

- Methane was not detected in sub-slab soil vapor probe samples during this sampling event at this home.
Data from 46 previous surface and sub-surface soil samples (0 to 10 feet below ground surface), collected from 11 soil borings in the front and back yards, indicate that the cancer risk index is 4.2 and the non-cancer hazard index is 0.089. The total petroleum hydrocarbon (TPH) non-cancer hazard index is 1.7.

CHARLES STRINGER, CHAIR | SAMUEL UNGER, EXECUTIVE OFFICER

320 West 4th St., Suite 200, Los Angeles, CA 90013 | www.waterboards.ca.gov/losangeles



- Sub-slab soil vapor data from one indoor and two outdoor sub-slab soil vapor probe samples indicate that the cancer risk index is 16 and the non-cancer hazard index is 0.034.

Based on the information submitted in the Report, you are required to provide the following additional information and/or perform the activities listed below at this home:

1. Since the cancer risk index is greater than 1 and less than 100 and the and the TPH non-cancer hazard index is greater than 1 for surface and sub-surface soil samples, you are directed to: (a) advise residents to minimize contact with exposed soil in their yards and minimize disturbance of sub-surface soil as a precautionary measure, (b) conduct a risk assessment based on total petroleum hydrocarbons (TPH) fractionation analysis and assessment of background metal and polycyclic aromatic hydrocarbons (PAHs) concentrations, and (c) identify what subsequent risk management steps may be appropriate.
2. Since the sub-slab soil vapor samples cancer risk index is greater than 10 for sub-slab vapor probe samples, subsequent risk management steps are required. Therefore, you are required to perform a follow-up re-sampling of sub-slab vapor probes to assess the distribution of VOCs beneath the home.

A technical report that includes items 1 and 2 above is due to the Regional Board **within 45 days** of receipt of the analytical data.

All analytical data shall be submitted to the Regional Board as soon as the data are validated.

Please note that the Regional Board concurs with the comments provided by OEHHA (copy attached).

The due date of the required technical reports constitute an amendment to the requirements of the Order. All other aspects of Order originally dated March 11, 2011, and amendments thereto, remain in full force and effect. Pursuant to section 13350 of the California Water Code, failure to comply with the requirements of the Order, by the specified due date, including dates in this amendment, may result in civil liability administratively imposed by the Regional Board in an amount up to five thousand dollars (\$5000) for each day of failure to comply.

The State Water Resources Control Board (State Water Board) adopted regulations requiring the electronic submittals of information over the Internet using the State Water Board GeoTracker database. You are required not only to submit hard copy reports required in this Order but also to comply by uploading all reports and correspondence prepared to date and additional required data formats to the GeoTracker system. Information about GeoTracker submittals, including links to text of the governing regulations, can be found on the Internet at the following link:


http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal

Please note that, the Regional Board requires you to include a perjury statement in all reports submitted under the 13304 order. The perjury statement shall be signed by a senior authorized Shell Oil Products US representative (and not by a consultant). The statement shall be in the following format:

“ I, [NAME], do hereby declare, under penalty of perjury under the laws of State of California, that I am [JOB TITLE] for Shell Oil Company that I am authorized to attest to the veracity of the information contained in [NAME AND DATE OF REPORT] is true and correct, and that this declaration was executed at [PLACE], [STATE], on DATE.”

If you have any questions, please contact the project manager, Dr. Teklewold Ayalew at (213) 576-6739 (tayalew@waterboards.ca.gov), or Ms. Thizar Tintut-Williams, Site Cleanup Unit III Chief, at (213) 576-6723 (twilliams@waterboards.ca.gov).

Sincerely,


Samuel Unger, PE
Executive Officer

Attachment: OEHHA Memorandum dated August 12, 2015

cc: Janice Hahn, Honorable Congresswoman, US House of Representatives,
California's 44th District
Mark Ridley-Thomas, Supervisor, Second District County of Los Angeles
Isadore Hall, III, Assembly member, 64th Assembly District
Ken Farfsing, Manager, City of Carson
Saied Naaesh, City of Carson
Zak Gonzalez II, City of Carson
Ky Truong, City of Carson
Michael Lauffer, Chief Counsel, State Water Resources Control Board
Frances McChesney, Senior Staff Counsel, State Water Resources Control Board
James Carlisle, Office of Environmental Health Hazard Assessment
Bill Jones, Los Angeles County Fire Department
Barry Nugent, Los Angeles County Fire Department
Scott Mahan, Los Angeles County Fire Department
Michael A. Bravo, Los Angeles County Fire Department
Kim Clark, Los Angeles County Fire Department
Hoang Ly, Los Angeles County Fire Department
Cyrus Rangan, Los Angeles County Department of Health
Angelo Bellomo, Los Angeles County Department of Health
Karen A. Lyons, Shell Oil Products US
Patrick W. Dennis, Gibson, Dunn & Crutcher LLP
Thomas V. Girardi, Girardi and Keese Lawyers
Robert W. Bowcock, Integrated Resources Management, LLC
Gerald D'Souza, Carousel Homes

Office of Environmental Health Hazard Assessment



Matthew Rodriguez
Secretary for
Environmental Protection

Lauren Zeise, Ph.D., Acting Director
Headquarters • 1001 I Street • Sacramento, California 95814
Mailing Address: P.O. Box 4010 • Sacramento, California 95812-4010
Oakland Office • Mailing Address: 1515 Clay Street, 16th Floor • Oakland, California 94612



Edmund G. Brown Jr.
Governor

MEMORANDUM

TO: Teklewold Ayalew, PhD, PG
Engineering Geologist
Regional Water Quality Control Board
320 West 4th Street, Suite 200
Los Angeles, CA 90013

FROM: James C. Carlisle, D.V.M., M.Sc.,
Staff Toxicologist
Integrated Risk Assessment Branch

DATE: August 12, 2015

SUBJECT: INTERIM SOIL AND SUB-SLAB SOIL VAPOR RESIDENTIAL SAMPLING
REPORT FOR 24523 PANAMA AVENUE, CARSON, CALIFORNIA
(R4-09-17) OEHHA #880212-01

Document reviewed

- Interim Soil and Sub-Slab Soil Vapor Residential Sampling Report for 24523 Panama Avenue, Carson, California, dated July 20, 2015

Results of Review

- The assessment followed the September 21, 2009 Work Plan for Phase II Site Characterization and the Addendum Work Plan for Phase II Site Characterization dated April 19, 2010 (URS, 2010), approved by the LARWQCB on September 24, 2009 and April 28, 2010, respectively.
- Based on random checking of the results, OEHHA did not identify any data or calculation errors.

Conclusions

- OEHHA agrees with the conclusions in the report.

California Environmental Protection Agency

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption.

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September 16, 2015

Richard Garland
City of Carson Traffic Engineer
Zack Gonzalez II
City of Carson Associate Planner
701 E. Carson Street
Carson, CA 93745

RE: HAUL ROUTE PERMIT FOR KAST SHELL PROJECT

Dear Richard and Zack,

American Integrated Services is pleased to provide the following requested information for the issuance of a Haul Route Permit for the KAST Shell Project.

Project Details:

- The project is the excavation of up to 208 homes, with the removal of up to 148,100 cubic yards of Total Petroleum Hydrocarbon (TPH) impacted soil. Removal of hardscape and soft scape materials (i.e. driveways, walkways, patios, fencing, existing landscape etc.). Over a projected 5 year duration.
- Start Date: January 1, 2016
- Projected End Date: January 1, 2021
- Transportation Hours: 8:00am to 4:00pm when driving inside the residential area.
- Type of Trucks: End Dumps, Transfers and Roll Off Trucks.
- All dump trucks are required to utilize tarps. Roll Off Bins are to utilize hard covers or tarps.
- Gross Weights: No trucks are to exceed a gross weight of 80,000LB
- SCAQMD Notification: Evidenced in the Environmental Impact Report (EIR), dated November, 2014. Copy available upon request.
- The proposed Haul Route was designed to include mostly right hand turns and reduce left hand turns to only one for both inbound and outbound routes. With the exception of the right hand turn into the neighborhood, all turns are controlled by Traffic Signals. All import and export drivers will be provided a route map indicating the offloading/loading area. Driving rules to be obeyed within the neighborhood, "right hand turn only" rule, 5 minute idle etc. A delivery schedule to be adhered too with contact phone numbers. The truck drivers will be responsible to contact on-site management regarding traffic problems and emergencies that may prevent them from keeping to their appointed schedules.

P.O. Box 92316, Long Beach, CA 90809-2316 • 1502 East Opp Street, Wilmington, CA 90744
Phone: 310.522.1168 • 888.423.6060 • FAX 310.522.0474
www.americanintegrated.com • Contractor Lic. #757133

Attached, please find a copy of the Haul Route showing inbound and outbound routes to be utilized during the project.

Disposal sites have not been chosen at this time. Disposal sites will not be within the City of Carson, as no local disposal facilities are permitted to dispose of the impacted soil.

If you should have any questions or require further information, please do not hesitate to contact me by cell phone at (310) 713-8764 or contact my office at (888) 423-6060.

Sincerely,
American Integrated Services, Inc.

A handwritten signature in cursive script, appearing to read "Ron J. Gentile".

Ron J. Gentile
Senior Project Manager

Haul Route - Shell Kast Proejct



Entrance to Neighborhood

- Harbor Freeway (110) South
- Exit Sepulveda Blvd
- Right on Wilmington Ave (1.9 Miles)
- Left on Lomita Blvd (.65 Miles)
- Right on Lagoon Ave (.58 Miles)

Exit From Neighborhood

- Exit off of either Neptune or Lagoon
- Right on Lomita blvd
- Right on Main St. (.15 Miles)
- Left on Sepulveda Blvd (.64 Miles)
- Enter Harbor Fwy (110 North) (.72 Miles)

Alternate Entrance (Off of Lomita)

- Right on Neptune (.68 Miles)

Los Angeles Regional Water Quality Control Board

September 28, 2015

Douglas J. Weimer
Shell Oil Products US
20945 S. Wilmington Ave.
Carson, CA 90810

SUBJECT: REVIEW OF SUB-SLAB MITIGATION DIAGNOSTIC PILOT TEST REPORT PURSUANT TO CALIFORNIA WATER CODE SECTION 13304 ORDER

SITE: FORMER KAST PROPERTY TANK FARM LOCATED SOUTHEAST OF THE INTERSECTION OF MARBELLA AVENUE AND EAST 244TH STREET, CARSON, CALIFORNIA (SCP NO. 1230, SITE ID 2040330, REVISED CAO NO. R4-2011-0046)

Dear Mr. Weimer:

The California Regional Water Quality Control Board, Los Angeles Region (Regional Board) is the state regulatory agency responsible for protecting water quality in Los Angeles and Ventura Counties, including the above referenced site. To accomplish this, the Regional Board issues investigative orders and requirements for submission of technical reports authorized by the Porter-Cologne Water Quality Control Act.

The Regional Board has received and reviewed the document titled *Sub-Slab Mitigation Diagnostic Pilot Test Report* (Report) for the results of diagnostic pilot testing conducted at a residential structure located at 24628 Marbella Avenue located within the Carousel Tract, Carson, California, dated August 11, 2015 and prepared by Geosyntec consultants (Geosyntec) on behalf of Shell Oil Products US (Shell). The Report is prepared pursuant to the Amended Cleanup and Abatement Order for the Former Kast Property dated July 10, 2015, issued by the Regional Board that requires installation of sub-slab depressurization (SSD) systems at 29 properties. In addition, Shell has offered a sub-slab mitigation system to any of the homeowners in the Carousel neighborhood to alleviate concerns about potential impacts to their indoor air from the Site. SSD systems will be used to actively mitigate the potential vapor intrusion pathway at the Site. This Report has been prepared to summarize the results of the pilot test that includes assessment of air permeability of subsurface materials, and data for SSD system design for single-family residential properties in the Carousel Tract.

The diagnostic pilot testing involved temporary suction point installation, communication test point installation, vacuum field extension testing, and restoration. This diagnostic pilot test was conducted as part of the system design and installation to assess vacuum distribution beneath the building foundation and whether modifications to the system design (e.g., larger fan or additional suction pits) are warranted. Vacuum field extension testing was conducted at four temporary suction points by applying varying vacuum levels [(e.g. by adjusting the bleed air valve for 1, 5, 10, and 15 inches water column (WC)] at the suction points.

The findings of the data evaluation indicate the following:

CHARLES STRINGER, CHAIR | SAMUEL UNGER, EXECUTIVE OFFICER

320 West 4th St., Suite 200, Los Angeles, CA 90013 | www.waterboards.ca.gov/losangeles

1. Sub-slab soils consisted of dense brown medium to fine sand with some silt and trace amounts of organic fibers and are considered low permeability soils for purposes of SSD system design;
2. No detectable volatile organic compounds (VOCs); oxygen concentrations greater than 19.5 percent and no detectable carbon monoxide or methane;
3. Backdraft testing was performed on the hot water heater using a smoke pen and no evidence of a backdraft condition was observed.
4. The vacuum field associated with each suction point at five inches WC appears to nearly reach across the narrow side (north-south) of the building with vacuum levels of at least 0.004 inches WC; and
5. The suction field at the garage does not extend to the main portion of the house i.e., the garage slab was depressurized (at least 0.004 inches WC vacuum) at five inches WC.

Based on the findings of the test, Geosyntec recommended a SSD system general guidance applicable to other houses of the Carousel Tract as follows:

1. Strategic placing of suction points with static vacuums of approximately two to five inches WC on opposite long sides of the building would likely be sufficient to mitigate the potential for subsurface vapors to migrate to indoor air;
2. Install a minimum of two suction points on the main portion of the house. If suction at these two points results in vacuum levels greater than 0.004 inches water column beneath the slab, then these would be sufficient for the SSD design;
3. Separate suction points may be needed for garages and additions; and
4. Install a fan or combination of fans with static vacuum and flow capacity of two to five inches WC and approximately 20 cubic feet per minute, respectively coupled to two to four inch diameter schedule 80 PVC piping;
5. Develop SSD system configuration independently based on installation diagnostic testing at each building during mitigation system design.

The Report concludes that the SSD system has created a vacuum below the slab of the residence using a fan to remove air from one or more suction pits below the slab and exhausting it above the building. Therefore, you are authorized to install SSD systems as one of the remedial technologies at the Carousel Tract with the following additions:

1. SSD system installation, operation and monitoring must be in general accordance with the Department of Toxic Substances Control (DTSC) document titled Vapor Intrusion Mitigation Advisory (October 2011);
2. Install a permanent gauge or manometer or other indicator with clearly marked line(s) showing minimum acceptable vacuum levels (i.e., lower sub-slab air pressure relative to indoor air pressure) so that residents are informed if the system fails;

3. If a back drafting potential is identified, the SSD system should not be installed or operated until drafting problems are corrected;
4. Ensure that homes with a SSD have a carbon monoxide (CO) monitor; and
5. The SSD remedial plan is due to the Regional Board consistent with the schedule outlined in the Cleanup and Abatement Order (CAO) No. R4-2011-0046.

The submittal of the required Site-Wide Remedial Design and Implementation Plan technical reports by October 15, 2015 due date is as stated in the existing California Water Code Section 13304 Order dated July 10, 2015. Pursuant to section 13350 of the California Water Code, failure to submit the required reports by the due dates may result in civil liability penalties administratively imposed upon you by the Regional Board in an amount up to five thousand dollars (\$5,000) for each day the report is not received.

The State Water Resources Control Board (State Water Board) adopted regulations requiring the electronic submittals of information over the Internet using the State Water Board GeoTracker database. You are required not only to submit hard copy reports required in this Order but also to comply by uploading all reports and correspondence prepared to date and additional required data formats to the GeoTracker system. Information about GeoTracker submittals, including links to text of the governing regulations, can be found on the Internet at the following link:

http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal

Please note that, the Regional Board requires you to include a perjury statement in all reports submitted under the 13304 order. The perjury statement shall be signed by a senior authorized Shell Oil Products US representative (and not by a consultant). The statement shall be in the following format:

“ I, [NAME], do hereby declare, under penalty of perjury under the laws of State of California, that I am [JOB TITLE] for Shell Oil Company that I am authorized to attest to the veracity of the information contained in [NAME AND DATE OF REPORT] is true and correct, and that this declaration was executed at [PLACE], [STATE], on DATE.”

If you have any questions, please contact Dr. Teklewold Ayalew, Project Manager, at (213) 576-6739 (tayalew@waterboards.ca.gov), or Ms. Thizar Tintut-Williams, Site Cleanup Unit III Chief, at (213) 576-6723 (twilliams@waterboards.ca.gov).

Sincerely,


Samuel Unger, PE
Executive Officer

cc: Mailing List

Mailing List

Janice Hahn, Honorable Congresswoman, US House of Representatives,
California's 44th District
Mark Ridley-Thomas, Supervisor, Second District County of Los Angeles
Isadore Hall, III, Assembly member, 64th Assembly District
Frances L. McChesney, Office of Chief Counsel, State Water Resources Control Board
Jennifer Fordyce, Office of Chief Counsel, State Water Resources Control Board
James Carlisle, Office of Environmental Health Hazard Assessment
Robert Romero, Department of Toxic Substances Control
Bill Jones, Los Angeles County Fire Department
Barry Nugent, Los Angeles County Fire Department
Scott Mahan, Los Angeles County Fire Department
Michael A. Bravo, Los Angeles County Fire Department
Kim Clark, Los Angeles County Fire Department
Hoang Ly, Los Angeles County Fire Department
Angelo Bellomo, Los Angeles County Department of Health
Cyrus Rangan, Los Angeles County Department of Health
Ken Farfsing, Manager, City of Carson
Saied Naaesh, City of Carson
Zak Gonzalez II, City of Carson
Ky Truong, City of Carson
John Raymond, Community Development Director, City of Carson
Steve Onstot, Aleshire & Wynder, LLP
Alexander Morelam, Los Angeles Unified School District (LAUSD)
Patrick Schanen, LAUSD
Patrick W. Dennis, Gibson, Dunn & Crutcher LLP
Karen A. Lyons, Shell Oil Products US
Alison Abbott Chassin, Shell Oil Products US
Hal Dash, Cerrell Associates
Roy Patterson, AECOM Corporation
Chris Osterberg, AECOM Corporation
Michelle Vega, Edelman
Robert Ettinger, Geosyntec
Thomas V. Girardi, Girardi and Keese Lawyers
Robert W. Bowcock, Integrated Resources Management, LLC

Carousel Tract Environmental Investigation Timeline

Date	Significant Actions/Reports	Notes
March 11, 2008	DTSC informed LARWQCB about former Shell Oil Company Tank Farm	
May 2008	LAWRQCB initiated an environmental investigation	
December 2008	LAWRQCB approved proposed work plan submitted by Shell to investigate contaminants of concern	
December 31, 2008	LARWQCB issued California Water Code § 13267 Investigative Order	
October 15, 2009	Shell submitted Final Phase I Site Characterization Report	
March 2011	LARWQCB issued Cleanup and Abatement Order No. R4-201100046	
February 22, 2013	Shell submitted <i>Site-Specific Cleanup Goal Report</i>	
May 2013	LAWRQCB issued a fact sheet providing information and advising of comment period for <i>Site-Specific Cleanup Goal Report</i>	30-day comment period ending June 24, 2013
June 24, 2013	City submitted comments to <i>Site-Specific Cleanup Goal Report</i>	Forwarded reports by Everett & Associates and Soil/Water/Air Protection Enterprise
July 18, 2013	City Council conducted workshop to allow presentation by Mr. Sam Unger, Executive Director of LARWQCB	Presentation by Dr. Lorene Everett and James T. Wells PhD raising concerns related to environmental conditions
July 29, 2013	City Council adopted Resolution No. 13-081 declaring the existence of an emergency in the Carousel Tract	
July 30, 2013	Letters sent to the Governor, Attorney General, Los Angeles County Board of Supervisors and Mr. Unger	Requested immediate assistance due to emergency conditions in Carousel Tract
July 31, 2013	City staff, Mr. Bob Bowcock, Dr. Everett and Mr. Wells met with representatives of Los Angeles County Fire Department and Los Angeles County Department of Public Health	City Council declaration of emergency conditions discussed and copies of Everett & Associates reports transmitted for review

Carousel Tract Environmental Investigation Timeline

Date	Significant Actions/Reports	Notes
August 21, 2013	LARWQCB sent detailed letter to Shell denying proposed site-specific cleanup goals and requiring revisions to be submitted by October 21, 2013	LARWQCB incorporated OEHHA Memorandum dated July 22, 2013 and UCLA Expert Panel Interim Report dated July 24, 2013
September 11, 2013	City letter to Mr. Sam Unger	Expressing appreciation from City Council and community for response to <i>Site-Specific Cleanup Goal Report</i>
September 24, 2013	LARWQCB community open house CEQA scoping meeting	Request for input from community and public agencies related to evaluation of environmental impacts; comment period ends on October 8, 2013
September 30 – October 10, 2013	LARWQCB Public Participation Specialist to conduct office hours at Carson City Hall	Opportunity for LARWQCB to meet with residents and community stakeholders
October 8, 2013	CEQA scoping comments due to LARWQCB from September 9 through October 8, 2013	Comment letters sent by City of Carson and Bob Bowcock/Barbara Post
October 10, 2013	City staff arranging for a meeting with LARWQCB, LACoFD, Los Angeles County Department of Public Health, OEHHA, Mr. Bowcock, Dr. Everett and Mr. Wells PhD	Review of technical reports and discussion of public agencies responses and actions
October 21, 2013	Shell submitted a <i>Revised Site-Specific Cleanup Goal Report</i> to LARWQCB	Shell proposed to evaluate options that provide excavation in specific areas and does not include any further evaluation associated with the removal of homes
October 24, 2013	Los Angeles County Department of Public Health Letter to City of Carson	Letter states there is not an immediate health threat from site conditions

Carousel Tract Environmental Investigation Timeline

Date	Significant Actions/Reports	Notes
October 30, 2013	LARWQCB letter to Shell for review of <i>Community Outdoor Air Sampling and Analysis Report</i>	Based on statistical tests, LARWQCB concludes that outdoor air concentrations do not differ between the site and surrounding area. Shell is required to address OEHHA comments and to develop a work plan for an additional soil-vapor survey by November 29, 2013. LARWQCB determined on January 13, 2014 that no further evaluation required
October 31, 2013	LARWQCB notice on <i>Proposed Draft Revised Cleanup and Abatement Order No. R4-2011-0046</i>	The proposed draft order names Dole Food Company, Inc. as an additional responsible party. Comments and evidence must be submitted by 12:00 p.m. on December 6, 2013. Dole Food Company has requested an extension to January 2014 to provide comments. LARWQCB approved extension to January 13, 2014. On January 7, 2014, Regional Board approved extension to January 21, 2014
November 12, 2013	Letter to Carousel Tract Owners and Occupants advising of November 19, 2013 City Council Workshop	
November 19, 2013	City Council conducted workshop with Los Angeles County Department of Public Health and Los Angeles County Fire Department	
January 8, 2014	LARWQCB response to <i>Assessment of Environmental Impact and Feasibility of Removal of Residual Concrete Reservoir Slabs</i>	Directs Shell to either remove the residential concrete slabs as appropriate or isolate the residual concrete slabs beneath the foundation of the homes and paved areas using engineering techniques to the extent necessary to address long term health risks or nuisance concerns

Carousel Tract Environmental Investigation Timeline

Date	Significant Actions/Reports	Notes
January 13, 2014	LARWQCB response to <i>Revised Community Outdoor Air Sampling and Analysis Report</i>	LARWQCB concludes that outdoor air concentrations do not differ between the site and surrounding area. No further evaluation required
January 21, 2014	Dole response to <i>Proposed Draft Revised Cleanup and Abatement Order No. R4-2011-0046</i>	Dole requested to not be included in the Draft Order since their subsidiary, Barclay Hollander Corporation, did not discharge any of the contaminants of concern
January 23, 2014	Community meeting organized by Congresswoman Hahn	Meeting to hear from residents and discuss options for obtaining improved levels of response from the Regional Board
January 23, 2014	LARWQCB response to <i>Revised Site-Specific Cleanup Goal Report</i>	LARWQCB identified deficiencies in the Shell Revised Report and directed a remedial action plan, Human Health Risk Assessment and other environmental documents be submitted by March 10, 2014
February 10, 2014	LARWQCB clarification and revision to their January 8, 2014 letter (effective date of January 13, 2014) regarding the Residential Concrete Slab Report	LARWQCB removed reference to regulations for underground storage tanks
February 23, 2014	Shell submitted a Petition for Review and Request for Hearing to the State Water Resources Control Board in the matter of Cleanup and Abatement Order R4-2011-0046 (CAO)	The State Water Resources Control Board has not responded to Shell's petition
March 10, 2014	Shell submitted Remedial Action Plan (RAP), Human Health Risk Assessment (HHRA), and draft environmental documents to LARWQCB	LARWQCB set a tentative period of 30 day to review the documents and provide opportunity for public viewing
March 19, 2014	LARWQCB filed Notice of Preparation (NOP)	Preparation of a draft Environmental Impact Report in accordance to the California Environmental Quality Act (CEQA)
March 25, 2014	LARWQCB and PCR Service Corporation met with City's staff	As part of the draft Environmental Impact Report, staff discussed transportation, noise, and odor concerns with LARWQCB and PCR

Carousel Tract Environmental Investigation Timeline

April 18, 2014	LARWQCB received comments from LAUSD regarding the NOP	LARWQCB is reviewing LAUSD comments and will provide response
April 30, 2014	LARWQCB responded to Shell's RAP, FS, and HHRA	LARWQCB rejected Shell's proposed cleanup plan and revised RAP to be submitted by Shell by June 16, 2014 by 5 p.m.
April 30, 2014	LARWQCB issued notice of violation (NOV) to Shell for failure to submit a RAP based on approved site-specific cleanup goals	LARWQCB directed Shell to comply by June 16, 2014
May 23, 2014	LARWQCB met with Shell regarding the RAP	LARWQCB discussed deficiencies and revisions with Shell
June 3, 2014	LARWQCB issued notice of opportunity for additional public comment	The deadline to submit public comments is 5 p.m. on June 16, 2014
June 4, 2014	LARWQCB granted Shell a two-week extension to submit the revised RAP, FS, and HHRA	The revised documents are due on June 30, 2014
June 16, 2014	Shell submitted additional comments regarding the Proposed Revised Draft Cleanup and Abatement Order No. RB4-2011-0046	The Regional Board is reviewing Shell's comments
June 30, 2014	Shell submitted the revised RAP, FS, and HHRA to the Regional Board	The Regional Board is reviewing the revised documents
July 7, 2014	The City of Carson sent a letter notifying the Carousel Tract residents of the availability of the RAP, FS, and HHRA via the Regional Board	The documents are part of the draft EIR process

Carousel Tract Environmental Investigation Timeline

	website	
July 22, 2014	The Regional Board is reviewing the RAP, FS, HHRA and preparing the draft EIR. Testing of property in the Carousel Tract is ongoing	Testing result and the Regional Board latest activities are available at: http://geotracker.waterboards.ca.gov/
August 25, 2014	The Regional Board is reviewing the RAP, FS, HHRA and preparing the draft EIR.	No new dates set for meeting with the Carousel Tract residents
August 27, 2014	The Regional Board released August 2014 community update for the Carousel Tract	Tentative release of proposed RAP and Draft EIR in mid October 2014
September 19, 2014	Shell submitted the RAP Relocation Plan to the Regional Board	Tentative release of proposed RAP and Draft EIR at end of October 2014, and meeting with the Carousel Tract resident is projected to begin on November 2014
October 8, 2014	The Regional Board continues preparation of Draft EIR and review of the RAP	The Regional Board required the RAP addendums to be submitted by Shell on October 20, 2014. Meeting with the Carousel Tract residents is projected to occur in the middle of November 2014
October 15, 2014	The Regional Board scheduled community meetings	The Regional Board mailed invitations of community meetings to the Carousel Tract residents
October 15, 2014	Shell submitted addendums to the RAP, FS, and HHRA	The documents are posted on the Regional Board website
November 5, 2014	The Regional Board released the draft EIR proposed RAP for public review and comment	The draft EIR, proposed RAP and support documents are available at the Carson Library, the Los Angeles Regional Board Office and website

Carousel Tract Environmental Investigation Timeline

November 12,15,18,20, 2014	The Regional Board held community group meetings with Carousel Tract residents	The discussion was centered on the draft EIR and proposed RAP
November 22, 2014	The Regional Board hosted a public meeting at the Carson Community Center	The discussion centered on the draft EIR and proposed RAP
December 3, 2014	City of Carson Environmental Commission received the draft EIR and proposed RAP for review	City staff will submit the Commission's comments to the Regional Board
December 8, 2014	The Regional Board notified Dole Food Company Inc. (Dole) of its intention to revise the Cleanup and Abatement Order No. R4-2011-0046 CAO)	Barclay Hollander Corporation (Barclay), a wholly-owned subsidiary of Dole, to be named as responsible parties to the Carousel Tract contamination
December 24, 2014	Barclay sent a written request to the Regional Board	Barclay submitted additional written evidence, and schedule a formal evidentiary hearing with the Regional Board
January 6, 2015	Barclay sent a follow up letter to its December 24, 2014 Letter to the Regional Board	Barclay submitted additional documentary evidence to the Regional Board
January 6, 2015	Shell sent a letter to the Regional Board	Shell is opposed to Barclay's requests to submit additional evidence and for a formal evidentiary hearing
January 7, 2015	Integrated Resource Management, Inc. (IRM) responded to Barclay's December 24, 2014 Letter	IRM requested appropriate notice and opportunity to be heard for Carousel Tract residents. IRM also commented on the substance of the revised CAO and attached documentary evidence
January 9, 2015	The Regional Board sent an electronic letter to all interest parties	The Regional Board will consider additional comments on pending procedural request by 5 p.m., January 16, 2015

Carousel Tract Environmental Investigation Timeline

January 15, 2015	Site Cleanup Program Staff (SCP Staff) of the regional Board sent a response letter objecting inclusion of additional evidence into the record as requested by Barclay Hollander Corporation (Barclay)	SPC Staff is requesting opportunity to respond if a hearing for additional evidence is granted by the Chief Deputy Executive Officer of the Regional Board
January 16, 2015	Barclay sent a letter to the Regional Board	Barclay clarified its scope to submit additional evidence, seek clarification from the Regional Board, and request timing of evidential hearing.
February 20, 2015	The Regional Board released a "Notification of Work" to the public	Land (public streets) and aerial photographic survey activities are tentatively scheduled from March 2, 2015 to March 20, 2015 for the Carousel Tract and surrounding area
February 27, 2015	The Regional Board replied to parties and interested persons	The Regional Board accepted Mr. George Bach deposition dated November 19, 2014 into administrative record
March 11, 2015	The SCP Staff provided explanations to assumptions and copies of graphic results	The explanation addressed the three assumptions in memo dated March 20, 2014 from Dr. C.P. Lai to SCP Staff
April 2, 2015	SCP Staff, Barclay, and Shell submitted comments to the Regional Board regarding the revised CAO	Barclay is requesting inclusion of Mr. George Bach deposition dated November 19, 2014 into administrative record. SCP Staff and Shell opposed its inclusion
April 17, 2015	The Regional Board sent letter to all parties and interested persons	Informing all parties and interest persons of the separation of functions between the Advising Team and SCP Staff. The Regional Board intends to issued final action regarding Tentative Revised CAO on or after April 24, 2015
April 22, 2015	Barclay sent a letter to the Regional Board	Barclay is requesting delay of final action regarding the Tentative Revised CAO until depositions of the SCP Staff are completed

Carousel Tract Environmental Investigation Timeline

April 30, 2015	Regional Board sent a letter to Dole and Barclay aka (BHC)	The Regional Board issued the Revised CAO adding Dole and Barclay as responsible parties
May 21, 2015	Barclay sent a letter to the Regional Board	Barclay requests stay and reconsideration of the Revised CAO
June 1, 2015	The Regional Board reported that Barclay filed a petition with State Water Board	Barclay is requesting the State Water Board to Review, petition for stay, and petition to submit supplemental evidence and to conduct a hearing
June 22, 2015	The Regional Board provided a copy of Barclay petition to the State Water Board	The Regional Board and Shell are proceeding with their work in the Carousel Tract regardless of the outcome of Barclay's petition