May 1, 2018

Mr. Mark McCulloch
Patterson Kahle LLC
450 Catalina Drive
Newport Beach, CA, 92663-4129

DIRECTIVE TO CONDUCT GROUNDWATER AND SOIL INVESTIGATION AT FORMER NEWPORT PLATING, 2810 VILLA WAY, NEWPORT BEACH, CALIFORNIA 92663 – PURSUANT TO CALIFORNIA WATER CODE SECTION 13267

Dear Mr. McCulloch:

The California Regional Water Quality Control Board, Santa Ana Region (Regional Board), is the public agency with primary responsibility for the protection of the beneficial uses of surface waters and groundwater within major portions of Orange County, including the property at 2810 Villa Way in the city of Newport Beach, California (Site). Our records indicate that historical discharges of waste at the Site have impacted the underlying soil and the tidally influenced groundwater beneath the Site. If the contamination is not addressed, it may impact the beneficial uses of the Rhine Channel, which is a part of the Lower Newport Bay.

This Order pursuant to California Water Code Section 13267 requires you to conduct a soil and groundwater investigation and to submit the necessary technical reports described herein.

Background

The Site was used as a plating shop between the early 1950s and 1988. The plating activities included brass, cadmium (Cd), copper (Cu), chromium (Cr) or “chrome,” gold, nickel (Ni) and silver plating; chrome and paint stripping; and steel passivity. The majority of the plating lines were located inside the central portion of the Site building. Chrome stripping and alkali degreasing tanks and other process equipment were located on a concrete patio, south of the Site building. Cyanide drums were stored on the west side of the patio. A floor drain in the concrete patio reportedly drained to the underlying soil. After the plating operations ceased, the subsequent utilization of the building has been general office and business activities.
Previous Investigation Activities

The existing records for the Site include technical reports that provide evidence that heavy metals and Cyanide are present in the subsurface at your property:

- In 1987, a preliminary environmental assessment was conducted at the Site. Soil samples contained Cd, hexavalent chromium (Cr\([\text{VI}]\)), Cu, Ni, and zinc (Zn); soil pH ranged from 5.4-9.0. Groundwater samples contained Cd, Cr, Cu, Ni and Zn, and groundwater pH ranged from 7.3-8.6.

- In 1988, Remedial Action Corporation (RAC) conducted an investigation and prepared a “Subsurface Investigation Report.” The investigation consisted of drilling and sampling three shallow hand-auger soil borings and drilling four deep soil borings. The report concluded that migration of heavy metals may have occurred from the Site; however, because the Rhine Channel already contained elevated levels of heavy metals and Cyanide, impairment of groundwater may be attributed to tidal influences.

- The most recent soil samples were collected at the Site in 2005. Soil analytical results indicate that the residential Environmental Screening Levels (ESLs), as set forth by the San Francisco Bay Regional Water Quality Control Board, were exceeded for soil concentrations of each of the following contaminants:
  - Cd – 413 milligrams per kilogram (mg/kg),
  - Cr\([\text{VI}]\) – 251 mg/kg,
  - Cu – 4,320 mg/kg,
  - Pb – 4,920 mg/kg,
  - Cyanide – 279 mg/kg.

- In 2006, Frey Environmental, Inc. (FREY) conducted an investigation and prepared a “Subsurface Investigation Report.” 20 soil borings were advanced at 0.5, 2.5, and 5.0 feet below ground surface (bgs). Soil sample results indicated that the U.S. EPA preliminary remediation goals (PRGs) were exceeded for Cd and Cr\([\text{VI}]\) Pb. Cd, Cu, Pb, and Cr were also detected in groundwater at concentrations above their respective California maximum contaminant levels (MCLs) and action levels (ALs) for drinking water. Because the Site is adjacent to, and tidally influenced by the Rhine Channel, the groundwater beneath the Site is not considered a source of potable water. On May 24, 2006, the Regional Board issued a no further action (NFA) letter for groundwater at the Site, and requested a work plan to remediate soil at the Site.

- In 2008, FREY performed off-Site soil sampling according to a work plan that was not reviewed or approved by Regional Board staff. Two hand-auger soil boring samples were collected at 0.5, 2.5, and 5.0 feet bgs. FREY concluded that Pb is elevated regionally, and is not a primary constituent of concern (COC) for Site remediation.
• In 2009, FREY submitted a Remedial Action Plan (RAP) that identified Cd as the primary COC at the Site. The report recommended excavation of 3 feet of material from areas exceeding residential PRGs for Cd, and 1 foot of material for all other areas outside of the building. Regional Board staff did not approve the RAP.

Based on the available data for the Site, further investigation is necessary to define the vertical and lateral extent of contaminants in soil, and the potential impact to the tidally influenced groundwater. To date, no remedial activities have been performed at the Site.

The Need for the Investigation and Report

The Regional Board is charged with the protection of the beneficial uses of water in the Lower Newport Bay. These beneficial uses include: navigation waters, primary/secondary contact recreation, commercial and sport fishing, wildlife habitat, rare, threatened or endangered species, spawning, marine habitat, and shellfish harvesting. Therefore, in order to protect the beneficial uses of the Lower Newport Bay, and the tidally influenced groundwater beneath the Site, it is necessary that you: (1) define the extent of metals (pursuant to California Code of Regulations [CCR], Title 22) and Cyanide in the soil and groundwater beneath the Site; (2) select and propose an appropriate remedy for the protection of water quality, subject to Regional Board staff approval; and (3) implement the approved remedy.

Based on previous assessment activities conducted, Cd, Cu, Pb, and Cr have been detected in groundwater beneath the Site above their respective MCLs/ALs. Additionally, Cd, Cr[VI], Cu, Pb and Cyanide were detected in soil above their respective residential ESLs during the last sampling event. Despite our efforts to make contact with your attorney to request finalization of the proposed scope of work, the RAP was never approved, and the remedial excavation was never performed. Regional Board staff believes that a complete assessment of all COCs in soil and groundwater beneath the Site is imperative for the protection of human health and the beneficial uses of the groundwater and the Rhine Channel. The evidence provided herein supports the requirement for an investigation, as defined in section 13267, subdivision (b)(1) of the California Water Code. The required report is needed to enable the Regional Board to effectively evaluate the remedial actions needed. The burden of providing the required report bears a reasonable relationship to the need for the report and the benefits to be obtained from the report.

State Water Resources Control Board Resolution No. 92-49 requires proof that plans and reports are prepared by professionals qualified to prepare such reports, and that each component of investigative and cleanup and abatement actions is conducted under the direction of appropriately qualified professionals. A statement of qualifications of the responsible lead professionals shall be included in all plans and reports submitted pursuant to this Order. California Business and Professions Code Sections 6735, 7835, and 7835.1 require that engineering and geologic evaluations and judgements be performed by or under the direction of California registered professionals.
Required Report

By July 1, 2018 submit to the Regional Board staff, a report under penalty of perjury, containing the following information:

1) A work plan, with a proposed implementation schedule, to assess the extent of contaminants in soil and groundwater at the Site. At a minimum, the work plan should include the following:
   a) A proposal for quarterly sampling of monitoring wells MW-1 through MW-4, to update groundwater data.
   b) A proposal for advancing soil borings, at appropriate locations based on historical data, to delineate the horizontal and vertical extent of contaminants in soil that exceed residential ESLs.
   c) A sampling and analysis plan, with appropriate quality assurance and quality control measures, describing the procedures for collection, storage, transport, and analysis of samples. At a minimum, all soil and groundwater samples should be analyzed for Title 22 metals, Cyanide, and pH.
   d) Appropriate Health and Safety Plans related to the work to be performed.

2) An updated RAP contingent upon results from the above sampling event must be prepared at a later date. At a minimum, the RAP should include the scope of work for all proposed remedies, rationale for remedial strategy, confirmation sampling, and implementation schedule.

Failure to submit the required information by the specified deadline will subject you to administrative civil liability in the amount of up to $1,000 per day pursuant to section 13268, subdivisions (a) and (b) of the California Water Code. The Santa Ana Regional Board reserves its right to take any enforcement action authorized by law for violations of the terms and conditions of this Order.

Any person affected by this action of the Santa Ana Water Board may petition the State Water Board to review the action in accordance with section 13320 of the Water Code and CCR Title 23 section 2050. The petition must be received by the SWRCB (Office of Chief Counsel, P.O. Box 100, Sacramento, California 95812 within 30 days of the date of this Order. Copies of the law and regulations applicable to filing petitions will be provided upon request.
If you have any questions about this letter, please contact Chad Nishida, at (951) 782-3252, or by email at: chad.nishida@waterboards.ca.gov or you may call Nick Amini, Chief of Site Cleanup Section, at (951) 782-7958 or by email at nick.amini@waterboards.ca.gov.

Sincerely,

Hope A. Smythe
Executive Officer

cc: Julie Macedo – State Water Resources Control Board Office of Enforcement (Julie.Macedo@waterboards.ca.gov)
Ronald Ballard – Ballard Law Office (Ronald.ballard@ballardlaw.com)
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