

San Diego Bay Environmental Restoration Fund – South

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August 6, 2013

Mr. Fred Hays
Special Waste Director
Republic Services
8360 Clairemont Mesa Boulevard
San Diego, California 92111

Subject: Summary Report for April 2013 Sediment Waste Stream Data, South Trust Site

Dear Mr. Hays:

This summary letter report is being submitted as an effort to obtain landfill acceptance for a waste stream generated by the San Diego Bay Environmental Restoration Fund – South (South Trust) in the vicinity of the General Dynamics National Steel and Shipbuilding Company (NASSCO) Shipyard (South Trust Site) with in-situ sediment chemistry data collected in April 2013. The April 2013 sediment samples were collected pursuant to the approved SAP and submitted to the chemistry lab for a limited range of analyte testing which included analyzing 30 samples for an extended range of total petroleum hydrocarbons (C4-C40 [TPH]), a full list of Title 22/CAM 17 metals, and polychlorinated biphenyls (PCB) Aroclors and five composite samples analyzed for semivolatile organic compounds (SVOCs), chlorinated pesticides, and herbicides. Although specified in special waste approval guidelines for dredged material disposal at the Otay Landfill, volatile organic compounds (VOCs) were not tested for this waste stream with approval from the landfill (B. Snyder communication with F. Hayes May 30, 2013), because they are not a constituent of concern.

The South Trust Site is included by the San Diego Regional Water Quality Control Board (RWQCB) in Cleanup and Abatement Order (CAO) R9-2012-0024. Prior landfill approval processing has been conducted for other locations in San Diego Bay included in this CAO. The contaminants of concern (COCs) listed within the CAO are based on historical data collected across the project site and several other locations in San Diego Bay with historically impacted waste streams.

The COCs in CAO R9-2012-0024 are limited to copper, mercury, six high molecular weight polycyclic aromatic hydrocarbons (PAHs) (including fluoranthene, perylene, benzo(a)anthracene, chrysene, benzo(a)pyrene, and dibenz(a,h)anthracene), polychlorinated biphenyls (PCBs), and tributyltin.

RESULTS

Enclosed with this letter is the April 2013 vibracore data for the South Trust Site site-wide sediment quality survey. Vibracore sampling was conducted to obtain subsurface samples to adequately characterize the entire waste stream. This data represents proposed dredged material estimated at approximately 52,600 cubic yards. Sampling locations for this study are illustrated in Figure 1.

Sediment Chemistry Analytical Results

Several Title 22 metals were detected at concentrations which exceeded Soluble Threshold Limit Concentration (STLC) trigger levels (10X the regulatory STLC value) including: chromium, copper, lead, and mercury. Statistical analysis was performed on Title 22 metals to determine the significance of the COCs that exceeded STLC trigger levels. All but one of the of the metals in the data set with STLC trigger level exceedances (including chromium, copper, lead, and mercury) met the upper 80% confidence interval requirements as identified by the landfill for waste stream disposal. Lead was the only metal which did not meet the upper 80% confidence interval requirements; therefore, an STLC test was initiated on the 13 samples with concentrations of lead above the STLC trigger level for lead (50 milligrams per kilogram [mg/kg]), and a Toxicity Characteristic Leaching Procedure (TCLP) was conducted on samples COMP-C6-BOTTOM and COMP-C4-TOP which contained lead concentrations greater than the TCLP trigger level of 100 mg/kg (discussed in Section 1.2).

No other analytes were above STLC trigger levels and none of the analytes were detected at concentrations above Total Threshold Limit Concentrations (TTLC).

Analytical results of the April 2013 collection effort indicated that there were very few detectable results for the gasoline range organics (GRO C4-C12). Higher concentrations of C8-C22 were detected, but most were J flagged values indicating that the analyte concentration is an estimated value between the method detection limit and the reporting limit. For the full range of C8-C40, values ranged from 2.9 to 570 mg/kg with an average of 90.2 mg/kg. This is far less than the TTLC for C8-C40 of 3,000 mg/kg. In addition, concentrations of PCB Aroclors in sediments collected at the South Trust Site were all well below the TTLC of 50,000 micrograms per kilogram ($\mu\text{g}/\text{kg}$) and ranged between non-detect and 5,600 $\mu\text{g}/\text{kg}$. However, because detections of PCB Aroclors in dredged sediment have historically been a concern for reviewers during the landfill approval process, a discussion of sources of PCB Aroclors in San Diego Bay is included in this submittal as Attachment D.

With regard to chlorinated pesticides and chlorinated herbicides, all tested analytes were below the method detection limit (non-detect). SVOC values also showed few concentrations above the laboratory reporting limits and most were J-flagged estimated values reported between the method detection limit and the reporting limit.

STLC and TCLP Analytical Results

Based on the results of statistical analysis for Title 22 metals, thirteen samples were subjected to a TCLP test for lead only (listed in Attachment B). The results of both the STLC and TCLP tests verified that concentrations of lead across the project site, are all below the STLC and TCLP threshold concentrations of 5.0 milligrams per liter (mg/L). STLC results ranged between 0.057 mg/L and 4.91 mg/L, and TCLP results ranged between 0.321 mg/L and 0.422 mg/L. In addition, lead was also detected in the method blank included in the analysis for the sample with the highest STLC result, COMP-C6-BOTTOM, at a concentration of 0.0437 mg/L.

ADDITIONAL INFORMATION AND DATA ACCEPTANCE EXTENSION REQUEST

To satisfy landfill waste stream requirements, the selected dredging contractor will be required to perform a paint filter test on dredged material prior to its being removed from the South Trust Site and transferred to the landfill.

Overall, the analytical testing results indicate that this waste stream is non-hazardous by both California Title 22 and federal RCRA hazardous waste criteria and is acceptable for disposal at the Republic Services landfill facility in Otay.

In addition to Republic Services consideration of the data for this waste stream, the South Trust is requesting that the landfill extend the approval of the waste stream for disposal until April 2014.

If you have any questions regarding this report, please contact me at the below referenced address and telephone number.

Regards,
San Diego Bay Environmental Restoration Fund – South

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San Diego, CA 92106

cc: T. Michael Chee, NASSCO
David Templeton, Anchor QEA

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Enclosures

Figure 1 – South Trust Site Sediment Vibracore Sampling Locations Map (April 2013)

Attachment A – Republic Services Special Waste Profile

Attachment B – List of Analytes to be considered for Waste Stream Profile

Attachment C – Cover letter and extension request

Attachment D – Discussion of Historic PCB Contamination in San Diego Bay

Attachment E – Statistical analysis for applicable analytical data

Attachment F – Analytical Packets