Office of the City Manager

April 18, 2024

To: Honorable Mayor and Members of the City Council

From: Dee Williams-Ridley, City Manager

Re: History and update on former Berkeley landfill environmental compliance

History

From the mid-1950's to 1983, the City of Berkeley ("City") operated an approximately 90-acre landfill ("Berkeley Landfill") in the area that is now Cesar Chavez Park. The landfill was sealed with a clay cap. Six years after the closure in 1989, the City installed an underground gas collection and control system (GCCS) to manage gases emanating from natural biodegradation of landfill matter. As that landfill matter has continued to biodegrade over the past 41 years, the gasses have continued to diminish. This reduction in gasses has, with regulatory approval, allowed for periodic shutdowns of the flare as well permission to use a flare that's smaller in size to burn off excess gas.

The gas control system – which complies with landfill closure regulations and allowed redevelopment of the area into Cesar Chavez Park – is comprised of underground wells that extract landfill gas generated from the decomposition of organic material in the refuse buried at the Berkeley Landfill, lateral lines that deliver the gas to a flare station, and a flare that burns the landfill gas to control methane emissions. Since 1999, the GCCS has been maintained and operated by SCS Engineers ("SCS") on behalf of and under contract with the City, pursuant to a permit issued by the Bay Area Air Quality Management District ("BAAQMD"). We are working closely with regulators to ensure that any errors in operations do not recur. This includes regular testing, sampling, and stringent safety protocols to ensure the system's integrity.

Cesar Chavez Park continues to be a thriving, safe area for dog walkers, kite fliers, and those bringing family for walks. City staff also use the area regularly, reflecting regulator guidance as well as the City's engineering expertise that there are no additional limits that need to be placed on activity in the park.

Current Situation

City staff is working with SCS to comply with recent orders and requests from BAAQMD, the California Department of Resources, Recycling, and Recovery ("CalRecycle"), and the San Francisco Regional Water Quality Control Board ("RWQCB"). The City is on track to substantially comply with the requirements and

requests, except as otherwise agreed to between the City and the three regulatory agencies.

Inspections of the landfill occur on a regular basis by the three regulatory agencies. The RWQCB inspects generally once per year based on staff availability. The BAAQMD inspects once per year, also based on staff availability. The agency has increased inspectors in recent years, and due to the Notice of Violations (NOVs), they have been inspecting the landfill more frequently. CalRecycle inspects the landfill on a quarterly basis.

The City, its contractors, and the regulatory agencies periodically measure surface emissions of methane and have found levels consistently far below the regulatory maximums deeming the area secure from health or safety threats. The City will perform additional monitoring for methane as set forth in the abatement order.

To ensure compliance with all environmental regulations in the future, the City has taken the following steps:

- Reviewed the organizational structure and staffing levels of the Environmental Compliance unit within the Engineering and Transportation Division of the Public Works Department and is proposing additional City staff positions for this unit;
- Engaged consultants to support City staff in complying with the Berkeley Landfill-related requirements;
- Engaged a consultant to assess whether the City's current arrangement for management of the Berkeley Landfill, including the GCCS and division of responsibilities between City staff and contractors, is appropriate or should be revised; and
- Created new procedures through which environmental compliance matters that involve potential noncompliance or noncompliance be elevated in the organization to staff with appropriate authority and resources to successfully resolve the compliance issues and new procedures through which the City Attorney's Office will be involved in resolving all matters that involve potential noncompliance or noncompliance.
- Started an ongoing process of trenching and repair work guided by the abatement order.

City staff will update the City Council and community on the status of compliance issues with another off-agenda memo in the next few months.

Landfill and Compliance History

GCCSs require regular monitoring and maintenance and have a limited lifespan. The City made numerous repairs to the GCCS in 2015, 2016, and 2017. In early 2000, the City addressed system challenges with air intrusion and vacuum. In 2011, the

GCCS experienced challenges related to liquid and from that point, SCS recommended that the City evaluate the replacement of the GCCS.

As noted above, the closed Berkeley Landfill is regulated by the BAAQMD, CalRecycle, and the RWQCB. BAAQMD regulates the emission of landfill gases and the byproduct of the GCCS. BAAQMD standards regarding the operation of the GCCS include permissible downtime and temperature of the GCCS's flare. BAAQMD allows 240 hours per year of downtime for inspection and maintenance.

The amount of landfill gas naturally diminishes over time as more landfill matter decomposes. From 2009 to 2016 the BAAQMD approved intermittent operation of the GCCS flare. This allowed the flare to have a longer downtime than the allotted 240 hours per year.

As a result, the City, with BAAQMD's authorization, installed a new, smaller flare in 2016 as part of upgrades to the GCCS. BAAQMD then rescinded the intermittent operation of the flare once the smaller flare was installed.

In 2017, the flare was out of operation for 24 straight days due to a lack of power from the normal Pacific Gas and Electric (PG&E) connection. The flare did not have a backup power supply at that time.

In 2018, SCS provided the City with an evaluation of various potential upgrades to the GCCS that included a complete replacement estimated to cost $2M. SCS advised that a replacement would not be cost effective: naturally declining amounts of gas meant that a new gas collection and control system would have a relatively short lifespan.

In 2019, a significant buildup of liquid in the GCCS impeded the flow of gases to the flare. The consensus between the City and SCS was that the liquid buildup was a result of particularly wet weather during the winter of 2019-2020. The liquid caused the longest non-continuous flare operation since the PG&E power disruption in 2017 and exceeded the allowable downtime hours allotted by the BAAQMD.

Between August 2019 and June 2022, BAAQMD issued the City seven notices of violation ("NOVs") for non-continuous flare operations. Since June 2022, BAAQMD has issued the City 16 additional NOVs, largely for non-continuous flare operations. These NOVs are accusations, not findings of non-compliance, and the City has requested that BAAQMD reconsider or rescind two that are not related to non-continuous flare operations.

In May 2022, SCS and City staff engaged with BAAQMD to address operational challenges, particularly the inability to operate the methane flare continuously. SCS and BAAQMD have different theories related to the non-continuous operation of the flare. SCS contends that the Berkeley Landfill's gas production is decreasing as the landfill

ages. As a result, if underground gas is not generated in sufficient quantities, it cannot be pumped to the surface in sufficient concentrations to operate the flare. Alternatively, BAAQMD believes that high oxygen content measured in the wells is proof that portions of the gas collection system are not effectively collecting the landfill gas that is present underground.

SCS applied for another approval of intermittent operation in May 2022. After months of information exchange with BAAQMD, SCS rescinded the application in March 2023 because BAAQMD stated it would not approve the intermittent operation unless the GCCS met certain oxygen content criteria. SCS believed those levels were not achievable. At that point, the only viable option for compliance was to file an application for permit variance with the BAAQMD Hearing Board since SCS predicted the 240-hour downtown allotment for 2023 would be utilized before year-end. This quasi-judicial proceeding was initiated on behalf of the City without City Attorney's Office consultation or approval. In addition to opposing the variance application, BAAQMD also subsequently filed an "Accusation" alleging permit violations and seeking an Abatement Order requiring the City to perform a number of steps to remediate them.

In January and February 2024, the BAAQMD Hearing Board rejected the City's request for a permit variance for downtime and entered an Abatement Order substantially along the lines requested by BAAQMD. Abatement Order that was issued (Attachment 1) directs the City to take 11 steps to remediate the inability to operate the flare continuously.

The City and BAAQMD separately reached a negotiated agreement to resolve the 7 NOVs issued between August 2019 and June 2022 in the amount of $130,000. The more recently issued NOVs remain pending, as BAAQMD has not yet taken any action to enforce them. The remaining alleged violations are subject to a three-year statute of limitations for enforcement by BAAQMD.

As a result of the dialog between the City and BAAQMD, CalRecycle and the RWQCB also reviewed their monitoring and compliance records regarding the Berkeley Landfill. In July 2023, CalRecycle issued a letter requesting that the City conduct a subsurface combustible gas speciation assessment of the landfill and near the DoubleTree Hotel (Attachment 2). The Waterfront, including the Double Tree Hotel and Cesar Chavez Park, is on State Tidelands granted in trust to the City in 1913. The property where the DoubleTree Hotel exists, is beyond the boundaries of the Berkeley Landfill. There are indications that refuse exists below the hotel from possible illegal dumping that was combined with fill soil when the hotel was constructed. The City has submitted a workplan regarding methane assessment in the area of the hotel and CalRecycle has indicated that they will respond to the workplan by the end of March 2024. Staff are coordinating with DoubleTree Hotel.

In January 2024, the RWQCB issued a letter (Attachment 3) requiring the City to submit a workplan to conduct testing of hazardous waste that may have been deposited at the Berkeley Landfill. Specifically, the RWQCB is seeking information regarding the landfill receiving waste containing heavy metals and radionuclides in the 1960's, and the City is performing an investigation into this matter. There is no allegation of non-compliance by the RWQCB.

We will continue to diligently manage our relationships with regulators as we maintain the breadth of safe, activities throughout Cesar Chavez Park and adjacent areas of the Marina.

Attachments:

1. BAAQMD Finding and Decision for Order of Abatement
2. CalRecycle Letter Regarding Landfill Gas Monitoring and Control at Berkeley Landfill, Virginia St and Marina Blvd, Berkeley, Alameda County (SWIS #01-AC-0001)
3. RWQCB Letter Regarding Berkeley Landfill, Berkeley, Alameda County – Requirement for Technical Reports Pursuant to Water Code Section 13267

cc: LaTanya Bellow, Deputy City Manager
Anne Cardwell, Deputy City Manager
Terrance Davis, Public Works Director
Wahid Amiri, Deputy Director Public Works, Engineering and Transportation
Farimah Brown, City Attorney
Scott Ferris, Parks, Recreation, and Waterfront Director
Matthai Chakko, Communications Director/Assistant to the City Manager
Mark Numainville, City Clerk
Jenny Wong, City Auditor

BEFORE THE HEARING BOARD OF THE

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

STATE OF CALIFORNIA

In the Matter of the AIR POLLUTION CONTROL OFFICER of the BAY AREA AIR QUALITY MANAGEMENT DISTRICT Complainant, vs. BERKELEY LANDFILL Respondent.	Docket No. 3747 **FINDINGS AND DECISION FOR ORDER OF ABATEMENT** **DISTRICT REGULATION 8-34-301.1** Hearing Date: January 23, 2024 and February 6, 2024 Time: 9:30 am Place: Hearing Board Bay Area Air Quality Mgt Dist 375 Beale Street San Francisco, CA 94105

The Request of Complainant the Air Pollution Control Officer (hereinafter, the "APCO") of the Bay Area Air Quality Management District (the "Air District") for an Order of Abatement was heard on January 23 and February 6, 2024, in accordance with the provisions of California Health and Safety Code ("HSC") § 40823 and Air District Hearing Board Rule § 6.2. The following Members of the Hearing Board were present: Chair Valerie Armento and Members Amelia Timbers, Danny Cullenward, and Rajiv Dabir. Respondent Berkeley Landfill was represented by Marc Shapp, Deputy City Attorney, City of Berkeley. Complainant APCO of the Air District was represented by Joel Freid, Assistant Counsel II, Air District. The public was given the opportunity to testify, evidence was received, and the matter was submitted.

Testimony from the hearing on Respondent's application for a regular variance, Case No. 3741, was incorporated, without objection, into the record.

The Hearing Board finds and decides as follows:

FINDINGS OF FACT

1. The Air District is the governmental agency charged with the primary responsibility in the San Francisco Bay Area for controlling air pollution from all sources other than motor vehicles, for enforcing laws relating to air pollution, and for maintaining healthy air quality. The Air District is organized pursuant to the HSC Division 26, Part 3, Chapter 11.

2. The Complainant Air Pollution Control Officer ("APCO") is appointed by the Bay Area Air Quality Management District Board of Directors to enforce all orders, rules and regulations prescribed by the Air District Board. (HSC § 40750 *et seq.*) The APCO is authorized to request that the Hearing Board issue an Order of Abatement in accordance with HSC Section 42451(a).

3. Respondent Berkeley Landfill ("Landfill" or "Facility") is owned by the City of Berkeley (the "City"), operated by SCS Engineers ("SCS"), and subject to the jurisdiction of the Air District. Respondent owns the Landfill located at Cesar Chavez Park, at 11 Spinnaker Way, Berkeley, Alameda County, California.

4. Air District Regulation ("Reg.") 8-34-301.1, California Code of Regulations ("CCR") Title 17, Section 95464(b)(1)(A), a part of 17 CCR Sections 95460-94476, the State Landfill Methane Rule ("State LMR"), and the Landfill's Permit Condition ("P/C") 1826, Part 3, each require continuous operation of the Landfill's landfill Gas Collection and Control System ("GCCS").

5. The Facility is located within the Air District's jurisdiction and subject to the Air District's regulations. The Landfill is a closed landfill owned by the City and currently

developed as Cesar Chavez Park. The City also owns the land in the Berkeley Marina adjacent to Cesar Chavez Park, including the site of an operating hotel, collects gases including Methane offsite, meaning off of Cesar Chavez Park, and feeds those gases to the City's flare in the Park for abatement.

6. The Landfill has been closed, i.e. not accepting any new solid waste, since 1983. As part of required post-closure operations, the Landfill operates a GCCS, which collects landfill gas from the decomposing material in the Landfill and combusts it in an enclosed flare. The Landfill has contracted with SCS for the operation and maintenance of the Landfill and its GCCS and for compliance monitoring and measures necessary to comply with Air District and CA State Regulations.

7. Landfill Gas ("LFG") is comprised of Methane which is a potent greenhouse gas, Carbon Dioxide ("CO_2"), Carbon Monoxide ("CO"), Non-methane Organic Compounds ("NMOCs"), Toxic Air Contaminants ("TACs"), and other compounds which can be emitted when the Gas Collection System ("GCS") and flare are not operated continuously and when there are leaks of landfill gas from the landfill surface and/or from GCCS components.

8. Methane is a potent greenhouse gas more effective than CO2 at trapping heat in the atmosphere.

9. LFG is extracted from the Landfill using a series of vertical landfill gas collection wells, lateral piping, and a vacuum system that comprise the GCS which feeds the collected LFG to a flare where the landfill gas is burned and thereby abated, as required by Regulation 8, Rule 34 ("Reg. 8-34") and the State LMR. The Landfill is required by its Air District permit to operate a GCS consisting of 42 vertical wells, 2 horizontal collectors, and 14 trench collectors.

10. A landfill subject to Reg. 8-34 is required to continuously operate a Gas Collection System and flare (or other abatement or control system) unless Less Than Continuous Operation ("LTCO") is approved by the Air District. The state LMR also requires continuous operation of the GCS unless the Air District approves an alternative compliance option. Landfills that are granted approval for LTCO are required to request approval of the LTCO allowance from the Air District every 3 years, and the Air District has the authority to approve, reject, or modify terms of LTCO.

11. The Air District has issued 15 Notices of Violation ("NOVs") to the Landfill since November 22, 2021 for noncontinuous operation of its GCCS, in violation of Reg. 8-34-301.1, the State Landfill Methane Rule CCR Title 17 Section 95464(b)(1)(A), and the Landfill's P/C 1826, Part 3, among 5 other violations. Berkeley Landfill is not operating its GCCS continuously.

12. The Air District issued 14 NOVs to the Landfill over the past year, and 21 NOVs since 2019, including the 10 NOVs issued for noncontinuous operation of the GCCS in 2023. The cited violations include not operating required landfill gas collection wells, leaks of landfill gas in violation of applicable regulations, improper maintenance of the flare, the flare exceeding its 57.6 MMBTU/day limit in violation of Reg. 2-1-307 and P/C 1826, Part 2, late source test report submittal, and noncontinuous operation of its GCCS.

13. As part of its application for a Regular Variance, Respondent acknowledged and presented evidence to support a finding that the Landfill is operating in violation of Reg. 8-34-301.1 and P/C 1826, Part 3.

14. Because the Landfill closed before 1987 it is exempt under Reg. 8-34-119 from the 5% oxygen content limit of Reg. 8-34-305.4. Whether or not this limit applies, high oxygen readings indicate ambient air is being drawn into the GCS. In this case, oxygen readings of 20%

have been recorded, indicating that ambient air is being drawn into the GCS. The Air District believes that this oxygen intrusion is due to poor maintenance and disrepair of the Landfill's GCS.

15. When LFG is not collected adequately, it builds up pressure within the Landfill and can move offsite, outside the Landfill boundary, where the LFG can become a safety hazard, as well as eventually being emitted to the atmosphere. Monitoring probes offsite near Cesar Chavez Park now situated upon the former the Landfill have detected methane. The Air District and CalRecycle, the Landfill's Local Enforcement Agency ("LEA") have met to discuss and develop the chemical fingerprinting methodology in Sections 4, 4.1, and 4.2 of the Order of Abatement below aimed to determine whether the methane measured offsite of Cesar Chavez Park is originating from the Landfill.

16. On May 18, 2022, the Landfill petitioned the Air District for approval of an LTCO allowance for the Landfill's new smaller flare under Reg. 8-34-404. The Landfill claimed that it was not producing enough LFG to operate even the new smaller flare on a continuous basis.

17. At the end of 2022, Air District Engineering Staff met with CalRecycle, Berkeley LEA, SCS, and the City staff to discuss investigation into the offsite methane detections, and SCS/the City agreed to investigate. The City has been requested by CalRecycle to submit a work plan to conduct the investigation into the offsite methane detections by February 23, 2024.

18. On March 21, 2023, the City's Landfill and its consultant, SCS, withdrew the application seeking LTCO for the new flare after the Air District expressed concerns about poor landfill gas collection, ambient levels of oxygen being captured by the GCS, and possible offsite landfill gas migration, and stated that if system adjustments and repairs could not be

completed within 60 days to ensure that all vertical extraction wells reported oxygen concentrations below 5% then the LTCO petition would be denied..

19. The Landfill is in a well-populated area. Cesar Chavez Park, which is used by the public, is located on top of the Landfill and with an adjacent hotel. Accordingly, there is a strong public interest in bringing the Landfill into compliance with continuous operation requirements and in determining whether or not landfill gas is migrating off of the Landfill site.

CONCLUSION

20. The Landfill is in violation of Reg.8-34-301.1, 2-1-307, State LMR Section 95464(b)(1)(A), and its P/C 1826, Part 3.

21. It is reasonable to require the Landfill to comply with District rules and its permit. Reg. 8-34 that applies in this case is a federally enforceable requirement.

22. The issuance of this Order of Abatement upon a noticed hearing does not constitute a taking of property without due process of law.

23. The Order of Abatement is not intended to act as a variance.

ORDER OF ABATEMENT

Based on the aforesaid statements and good cause appearing, the Hearing Board hereby orders Respondent to immediately cease and desist from operating Respondent's closed Landfill in a manner that violates Air District Reg. 8-34-301.1 or that violates the Landfill's P/C 1826, which require both the continuous operation of its landfill gas (LFG) collection system, consisting of 42 vertical wells, 2 horizontal collectors, 14 trench collectors, and the proper maintenance of and continuous operation of Flare A-4 combusting the collected LFG at a temperature of at least 1,400 degrees Fahrenheit, unless and until the Air District determines that all of the following compliance action conditions and increments of progress 1 through 11

have been met.

COMPLIANCE ACTION CONDITIONS AND INCREMENTS OF PROGRESS:

1. Subject to Section 2 of this Abatement Order, locate all required vertical LFG collection wells pursuant to the BAAQMD Permit to Operate, Permit Condition 1826, Part 4 and on the attached Landfill Gas System Plan topographical site map. (Reg. 8-34-301). Complete within 30 business days of issuance of this Abatement Order.

2. Once Wells 14, 29, 33, 34, and 35 are located, immediately monitor each located well to confirm operation, measure well gas in accordance with Regulation 8-34-604, and measure pressure in accordance with Regulation 8-34-608. Adjust each well as needed to collect LFG. Submit the monitoring results and description of adjustments to the Air District within 5 business days. If any of these wells cannot be located, repaired, or brought into compliance with section 3, then submit an application to the Air District proposing an alteration to the LFG collection system to address the missing, unrepairable, or non-compliant wells. (Reg. 8-34-301, Permit Condition 1826). Complete within 30 business days of completion of the requirements of Section 1.

3. To the extent necessary to achieve the performance criteria herein, repair the LFG collection system such that, subsequent to inspection, repairs, or modifications as described in subsections 3.1, 3.2, 3.3, 3.4, and 3.5, all vertical LFG extraction wells, horizontal collectors, and trench collectors are optimally collecting LFG and limiting air intrusion to 5 percent oxygen by volume, except as otherwise provided in subsections 3.4 and 3.5, and ensure that each wellhead operates under a vacuum/negative pressure and LFG in each wellhead less than 55° C (131° F), and ensure all system components comply with all applicable requirements in Reg. 8-34-301.2, and ensure the gas collection system and landfill gas flare operate continuously as specified in Reg. 8-34-301.1 and meet the destruction efficiency requirement in Reg. 8-34-301.3. Complete the actions set forth in subsections 3.3, 3.4, and 3.5 on an as-needed basis. (Reg. 8-34-301, Permit Condition 1826).

3.1 Within 90 business days of issuance of this Abatement Order, complete an inspection of the integrity of each vertical LFG extraction well, LFG horizontal collector, LFG trench collector, LFG collection system lateral, and piping, including physical inspection, total depth and liquid level sounding, video camera inspection, and any other method(s) necessary to demonstrate that there are no blockages due to damage or from liquid. Submit inspection results to the Air District within 30 business days of the completion of the inspection, including a timeline for any repairs that are necessary based on the inspection. If LFG collection system component replacements are needed, an application to the Air District proposing an alteration to the LFG collection system to replace unrepairable LFG collection system components shall also be submitted with the inspection results. (Reg. 8-34-301, Permit Condition 1826).

3.2 Within 90 business days of issuance of this Abatement Order, at all vertical LFG extraction wells, replace existing near surface bentonite well bore seal and install additional well bore HDPE liner boot seals. (Reg. 8-34-301, Permit Condition 1826).

3.3 As needed, install additional supplemental LFG collection system below grade pipelines to maintain vacuum distribution in the wellfield. Submit an application to the Air District if the installation(s) are not allowed by the current permit to operate. If any additional supplemental LFG collection system below grade pipelines are needed under this subsection 3.3, the City of Berkeley shall install those pipelines within 120 business days of issuance of this Abatement Order or any approvals required from the District, whichever is later. (Reg. 8-34-301, Permit Condition 1826).

3.4 After measures set forth in subsections 3.1, 3.2, and 3.3 have been completed, if any well gas data from vertical wells, horizontal collectors, and trench wells (collectively and individually, the Well Gas Data) show oxygen concentrations greater than 5 percent by volume, submit to the Air District for approval a proposed Work Plan (WP) within 60 business days of the last GCS repair done under subsections 3.2 or 3.3 for a site-wide drone survey across the landfill and nearby areas that could be pathways of LFG migration to the offsite probes with methane detections per EPA approved Other Test Method 51 (OTM-51) – Unmanned Aerial Systems (UAS) Application for Surface Emissions Monitoring of Landfills. City of Berkeley staff shall seek approval from the Berkeley City Council for any drone survey under this subsection 3.4, if Council approval be needed under the Acquisition and Use of Surveillance Technology Ordinance, Berkeley Municipal Code Ch. 2.99. Upon the Air District's approval of the drone survey WP, which shall not be unreasonably withheld, within 30 business days complete the drone survey. At any identified location(s) of landfill gas leak(s), locate the GCS damage causing the leak(s) and identify new GCS component(s) needed to eliminate the leak(s). Submit an application to the Air District proposing an alteration to the LFG collection system to replace piping, replace landfill gas wells, horizontal collectors, trench wells, and/or install new landfill gas collection system components within 60 business days of completing the survey. (Reg. 8-34-301, Permit Condition 1826).

3.5 If, after repairs of the GCS, the Well Gas Data at any well or collector continue to show an oxygen concentration greater than 5 percent by volume, develop a probe monitoring plan to measure LFG content in the area surrounding such well(s) or collector(s). Submit the probe monitoring plan, which shall include notice to the Air District to allow Air District personnel to attend the probe monitoring activity, to the Air District within 60 business days of the last GCS repair done under subsections 3.2, 3.3, or 3.4, for review, comment, and approval by the Air District. Complete the probe monitoring survey within 30business days of Air District approval of the probe monitoring plan, which shall not be unreasonably withheld, and submit the probe monitoring survey results report to the Air District within 7 business days of Berkeley Landfill's receipt of the report and no later than 60 business days of District approval of the probe monitoring plan. If any such well(s) or collector(s) are determined by the Air District to be collecting gas that is not representative of the LFG in the surrounding waste mass, locate the GCS damage causing the leak(s) and identify new GCS component(s) needed to eliminate the leak(s). Submit an application to the Air District proposing an alteration to the LFG collection system to replace piping, replace landfill gas wells, replace collectors, and/or install new landfill gas components, in accordance with direction by the Air District, within 60 business days of receiving such direction by the Air District. (Reg. 8-34-301, Permit Condition 1826).

4. Within 60 business days of issuance of this Abatement Order submit to the Air District for approval, which shall not be unreasonably withheld, a proposed Work Plan (WP) for the collection of gas and laboratory analysis meeting all requirements of, and containing all, the information specified in subsections 4.1 and 4.2 below. (Reg. 8-34-301, Permit Condition 1826). The WP will include details for:

4.1 Screening, collection, and testing gas at all existing permanent monitoring probes offsite of Cesar Chavez Park: Screening method to determine if methane is present and measure methane content. For locations at which methane is detected, a collection and test plan, including the number and size of representative gas samples collected and test methods to establish the source of the methane. The WP shall include at a minimum: collection protocols, advance notice to Air District of sampling to allow for Air District staff being present, type of approved-container, chain of custody, and deadlines for laboratory submittal; analysis of gas content, including methane, other gas fractions, and specific volatile organic compound (VOC) and toxic air contaminant (TAC) compounds by Methods ASTM D1946 and TO-15, and any other methods necessary to identify indicators of the source of methane gas. For locations at which methane is not detected, a follow up monitoring schedule, including frequency and duration; methane-containing gas from follow up monitoring shall be collected and submitted for testing. Deadlines for submittal of the initial field investigation report, results of ongoing monitoring, and laboratory analysis to the Air District. (Reg. 8-34-301, Permit Condition 1826).

4.2 Collection and testing of LFG from the Berkeley Landfill: Collection and test plan, including the number and size of representative LFG samples collected and well locations in proximity to each offsite probe. The plan shall include at a minimum: collection protocols, advance notice to the Air District of sampling to allow for Air District staff to be present, type of approved container, chain of custody, and deadlines for laboratory submittal; analysis of gas content, including methane, other gas fractions, and specific VOC and TAC compounds by Methods ASTM D1946 and TO-15, and any other methods necessary to establish a fingerprint of the landfill gas. Deadlines for submittal of the field investigation report and laboratory analysis to the Air District. (Reg. 8-34-301, Permit Condition 1826).

5. Perform the sampling and collection of gas and initiate laboratory analysis in accordance with the approved WP. (Reg. 8-34-301, Permit Condition 1826). Complete within 60 business days of receiving Air District approval of the WP.

6. Submit laboratory analyses and field investigation report(s) to the Air District for the gases collected from the offsite monitoring probes and from the Berkeley Landfill by the deadlines specified within the approved WP. The field investigation report(s) shall contain all the information required in the approved WP. (Reg. 8-34-301, Permit Condition 1826).

7. Schedule a full inspection and servicing of the onsite flare by the flare manufacturer. (Reg. 8-34-301, Permit Condition 1826). Complete within 60 business days of issuance of this Abatement Order.

8. Submit results of flare inspection and details of the servicing to the Air District within 30 business days of the inspection and servicing, including all details of the flare's

compliance and/or non-compliance with regulatory requirements. (Reg. 8-34-301, Permit Condition 1826). Complete within 90 business days of issuance of this Abatement Order.

9. For a period of at least 3 months following any repair or replacement of any component of the LFG collection system required under subsections 2, 3, 3.1, 3.2, and 3.3 and until the Well Gas Data oxygen content at every well and collector has remained no more than 5 percent by volume for at least 3 months, and for a period of at least 3 months following installation of all GCS components required by subsections 3.4 and 3.5, perform weekly monitoring of well gas at all vertical wells, horizontal collectors, and trench wells in accordance with Regulation 8-34-604, determine wellhead pressure in accordance with Regulation 8-34-608, and adjust or repair the wells and collectors as necessary to optimize gas recovery and minimize air intrusion. For a period of at least 6 months after weekly monitoring has ceased, perform monthly wellhead monitoring and continue to adjust wells and collectors to optimize gas recovery and minimize air intrusion. If the oxygen content exceeds 5 percent by volume at any well or collector, perform repairs and maintenance at those components to reduce oxygen content and revert to the weekly monitoring schedule. When all of Berkeley Landfill's Well Gas Data demonstrate 6 months of continuous oxygen concentrations that do not exceed 5 percent by volume, Berkeley Landfill may revert to the monitoring requirements in Regulation 8-34. Submit the monitoring results to the Air District within 5 business days following each monitoring event. (Regs. 8-34-301 and 8-34-303).

10. For the duration of the activities required under Section 9, perform monthly monitoring for landfill gas leaks at all components containing landfill gas and for landfill surface leaks in accordance with the procedures in Regulation 8-34-602 and 8-34-607. Immediately address and repair any leaks in excess of 8-34-301.2 and 8-34-303 standards and submit the results of the monitoring and repairs to the Air District within 2 weeks of the monitoring event. (Regs. 8-34-301 and 8-34-303).

11. Any downtime of the LFG collection and control system that is reasonable in the determination of the Air District and required to conduct the actions specified under this Abatement Order shall not constitute a violation of Reg. 8-34-301.1, provided the City of Berkeley provides documentation, if feasible in advance of the downtime events, including start and stop time, reason, and actions taken. Submit such documentation to the Air District, in compliance with Regulation 8-34-118 and no later than 5 business days following each downtime event if advance notice is not feasible. Nothing in this Section 11 exempts Permittee Berkeley Landfill from the requirements of Regs. 2-1-301 and 2-1-302.

A. The Hearing Board shall retain jurisdiction over this matter until February 5, 2025 or until Respondent Berkeley Landfill has met all the Compliance Action Conditions and Increments of Progress set forth in Sections 1 through 11, whichever occurs first, unless this Order is amended or modified.

B. The Hearing Board may modify this Order without the stipulation of the parties

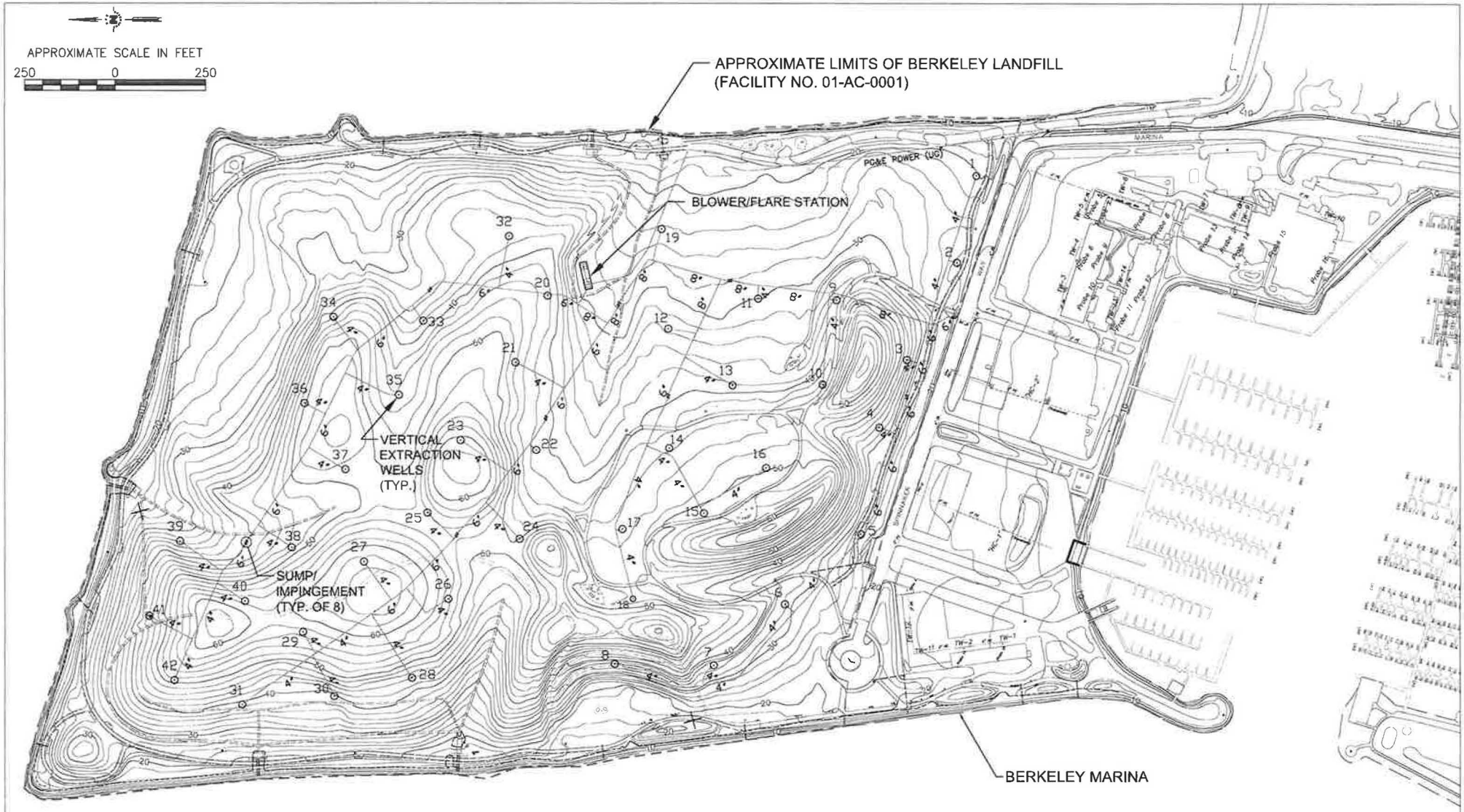
upon a showing of good cause, and upon making the findings required by HSC § 42451(a) and Hearing Board Rule § 4.13.

C. This Order is not and does not act as a variance. Respondent Berkeley Landfill is subject to all applicable rules and regulations of the Air District, and to all applicable California law. Nothing herein shall be deemed or construed to limit the authority of the Air District to issue Notices of Violation nor to seek civil or criminal penalties, or injunctive relief, or to seek further orders of abatement or other administrative or legal relief.

Dated: February 16, 2024

By: Valerie J. Armento

Valerie J. Armento, Esq.
Hearing Board Chair
Bay Area Air Quality Management District



LEGEND

- GAS COLLECTION HEADER/LATERALS (BELOW GRADE)
- 40 ⊙ VERTICAL LFG GAS EXTRACTION WELL
- TW-4 HORIZONTAL TRENCH WELL (MARINA PROPERTY)
- HC-1 HORIZONTAL COLLECTOR PIPE (MARINA PROPERTY)
- ⊙ Probe 5 LFG MONITORING WELL (MARINA PROPERTY)

SCS ENGINEERS
Environmental Consultants and Contractors
7041 Koll Center Parkway, Suite 135
Pleasanton, California 94566
(925) 426-0080 FAX: (925) 426-0707

PROJ. NO. 01210112.02 T12 | DWN. BY: HLG/MJE | ACAD FILE: BD-1 LFG PLAN_081116
DSN. BY: JJM/MJE | CHK. BY: MJE | APP. BY: J. MILLER

NOTE:
ORIGINAL TOPOGRAPHY BY AERIAL METHODS 1992. BASE MAP PROVIDED BY CITY OF BERKELEY.

SHEET TITLE: LANDFILL GAS SYSTEM PLAN

PROJECT TITLE: BERKELEY LANDFILL CITY OF BERKELEY

NO.	REVISION	DATE
1		
2		
3		
4		
5		
6		

DATE: 6/11/18
SCALE: AS SHOWN
FIGURE NO. 1

BEFORE THE HEARING BOARD
OF THE
BAY AREA AIR QUALITY MANAGEMENT DISTRICT
STATE OF CALIFORNIA

In the Matter of the AIR POLLUTION CONTROL OFFICER of the BAY AREA AIR QUALITY MANAGEMENT DISTRICT vs. BERKELEY LANDFILL	Docket No: 3747 CERTIFICATE OF SERVICE

FILED
FEB 16 2024
HEARING BOARD
BAY AREA AIR QUALITY
MANAGEMENT DISTRICT

STATE OF CALIFORNIA)
) ss.
City and County of San Francisco)

I, Marcy Hiratzka, do hereby certify under penalty of perjury as follows:
That I am a citizen of the United States, over the age of 18 years and not a party to the above-entitled action; that I served a true copy of the attached **Findings and Decision for Order of Abatement** on:

Marc Shapp, Deputy City Attorney
City of Berkeley
2180 Milvia St., Ste. 4
Berkeley, CA, 94704
mshapp@berkeleyca.gov

via email and USPS Certified Mail on February 16, 2024, and on:

Joel Freid, Esq., Assistant Counsel
Bay Area Air Quality Management District
375 Beale Street, 6th Floor
San Francisco, California 94105
jfreid@baaqmd.gov

via email on February 16, 2024

DATED: February 16, 2024

Marcy Hiratzka
Clerk of the Boards

California Environmental Protection Agency

Gavin Newsom
California Governor

Jared Blumenfeld
Secretary for Environmental Protection

Department of Resources Recycling and Recovery

Rachel Machi Wagoner
CalRecycle Director

Via Email

December 22, 2023

Ms. Mary Skramstad
MSkramstad@berkeleyca.gov
City of Berkeley
Engineering Division Department of Public Works
1947 Center Street, 4th Floor
Berkeley, California 94704

SUBJECT: Landfill Gas Monitoring and Control at Berkeley Landfill, Virginia St and Marina Blvd, Berkeley, Alameda County (SWIS #01-AC-0001)

Dear Ms. Skramstad:

CalRecycle is in receipt of your consultant SCS Engineers' letter dated October 12, 2023, in response to our letter dated July 14, 2023. In the letter we requested four action items from the City of Berkeley (City). Our current understanding of each action item is presented below:

1) **Gas Speciation** - The City agreed to perform additional sample collection and analysis to evaluate the source of the gas. The City reported that the details of this testing would be provided to CalRecycle and the City proposed to submit a work plan to CalRecycle by November 21, 2023.

   CalRecycle expected to receive the proposed work plan from the City by November 21, 2023. On December 8, 2023, CalRecycle emailed the City requesting a status update of the work plan because it had not been received. In a December 13, 2023 email, the City stated they were waiting for a response from CalRecycle prior to initiating the work plan and proposed a new submittal date of February 23, 2024. **Submit a work plan to CalRecycle by February 23, 2024 to evaluate the source of the combustible gas.**

2) **Additional Gas Monitoring Probes** - The City stated that the current network of probes sufficiently monitors the subsurface around the Double Tree for potential combustible gas. **CalRecycle will consider the results of the gas speciation project prior to making a determination of probe adequacy.**

3) **Boring Logs & As-Built Diagrams** - Provide all available boring logs and as-built diagrams of landfill gas (LFG) monitoring probes.

   The City indicated that to the best of their knowledge, they do not have boring logs. The City stated that the 1989 engineering drawing in Appendix B of SCS Engineers' October 12, 2023 letter is the as-built diagram. California Water Code section 13751 requires well completion logs to be filed with the Department of Water Resources within 60 days of completion of the work. While these probes may not be subject to that requirement, it is still a common business practice for drillers and environmental consultants to file well completion logs with the Department of Water Resources. **The City may wish to check with the Department of Water Resources or the local city or county office responsible for drilling permits to determine if well completion logs for this site are on file.**

4) **Trench Collector Gas Data** - Provide all trench collector gas data consistent with the 2009 approved LFG monitoring and reporting procedures.

   The City agreed to add the monthly trench data to the monitoring reports submitted quarterly to CalRecycle. **CalRecycle concurs with this approach.**

If you have questions, please do not hesitate to contact me at (916) 341-6804 or catherine.blair@calrecycle.ca.gov.

Sincerely,

Catherine Blair, Manager
Solid Waste Enforcement Section
CalRecycle

cc:
Joel Freid, Bay Area Air Quality Management District: JFreid@baaqmd.gov

Tamiko Endow, BAAQMD: TEndow@baaqmd.gov

Daniel Oliver, BAAQMD: DOliver@baaqmd.gov

Rebecca Lucero, SCS Engineers: RLucero@scsengineers.com

Stephen Harquail, SCS Engineers: SHarquail@scsengineers.com

Srinivas Muktevi, City of Berkeley: SMuktevi@berkeleyca.gov

Marc Shapp, City of Berkeley: MShapp@berkeleyca.gov

San Francisco Bay Regional Water Quality Control Board

January 18, 2024
GeoTracker ID: L10006224883 (FY)

City of Berkeley
Department of Public Works, Engineering Division
Attn: Mary Skramstad
1947 Center St., 4th Floor
Berkeley, CA 94704
Sent via email only: mskramstad@berkeleyca.gov

Subject: Berkeley Landfill, Berkeley, Alameda County – Requirement for Technical Reports Pursuant to Water Code Section 13267

Dear Mary Skramstad:

This letter requires the City of Berkeley to submit technical reports regarding the Berkeley Landfill (Landfill) due to our recent discovery of information suggesting the Landfill may have accepted industrial waste materials that could present a risk to human health and/or the environment. **Pursuant to Water Code section 13267, this letter requires the City of Berkeley to submit a Work Plan by April 1, 2024, and a Completion Report within 90 days of implementation of an approved Work Plan**. The requirements and basis for them are explained below.

Background

The Landfill is an approximately 90-acre site located in the City of Berkeley, California. The Landfill began accepting non-hazardous municipal solid waste in 1961 and continued operations until 1983. The Landfill was closed in phases between 1981 and 1990. The Landfill is regulated by the Regional Water Board under Waste Discharge Requirements Order R2-2010-0064.

Recently, the Department of Toxic Substances Control (DTSC) provided us information indicating that industrial waste materials were deposited at the Berkeley Landfill (see attached letter from Stauffer Chemical Company). Table 1 contains a summary of industrial wastes generated by the Stauffer Chemical Company at its plant in Richmond (later known as Zeneca) and disposed at nearby landfills, including the Berkeley Landfill. This summary indicates that 11,100 tons of industrial waste from the Zeneca Richmond plant were disposed of at the Berkeley Landfill.

The letter from Stauffer Chemical indicates that this waste from the Zeneca Richmond plant contained a substantial amount of “alum mud,” which is a sludge left over from the

processing of aluminum from bauxite ore. The primary waste constituents in alum mud include heavy metals and trace metals including iron, manganese, magnesium, zinc, cadmium, copper, trivalent chromium, and lead.

Alum mud also typically contains certain radionuclides that are naturally present in bauxite. During aluminum processing, these radionuclides become concentrated and are known as “technologically enhanced naturally occurring radioactive material” or TENORM. Some of these radionuclides, especially thorium-232, uranium-238, and uranium-235, and their breakdown products, have been detected at the Blair Southern Pacific Landfill in Richmond, which also received alum mud from the Zeneca plant in Richmond. Pesticides were also produced at the Zeneca Richmond plant and have been detected at the Blair Landfill. As shown in Table 1, the Berkeley Landfill also accepted a significant volume of wastes from the Zeneca plant, so it is reasonable to suspect that the chemicals that have been detected at the Blair Landfill may also be present at the Berkeley Landfill.

Table 1. Wastes Generated at Zeneca Plant in Richmond

Locations of Alum Mud Disposal	**Total Waste Disposal Timeframe**	**Total Waste Disposal Weight**
South End of Richmond Plant (Richmond, CA)	1900 to 1958	18,700 tons
Albany Landfill Co. (Albany, CA)	1960 to 1971	11,100 tons
Berkeley Landfill Co. (Berkeley, CA)	1960 to 1971	11,100 tons
Blair Southern Pacific Landfill (Richmond, CA)	1971	6,200 tons (all alum mud)
IT Environmental (Benicia, CA)	1975 to 1979	3,700 tons

The documented disposal of 11,100 tons of industrial waste (presumably including alum mud) from the Zeneca Richmond plant was not known at the time the WDRs were adopted for the Berkeley Landfill. Nor was the presence of radionuclides in alum mud understood by the Water Board at that time. The documentation of alum mud disposal at the Landfill, and the confirmation of radionuclides and pesticides present at the Blair

Southern Pacific Landfill, suggest that the wastes contained within the Berkeley Landfill have not been thoroughly characterized for all potential contaminants that may be present.

Requirement for Work Plan and Completion Report

By April 1, 2024, the City of Berkeley is required to submit a Work Plan that proposes to perform an initial, one-time representative sampling of soil and water from within the Landfill. The collected samples should be analyzed for the following because these are chemicals present in the alum mud disposed at the Blair Landfill: radionuclides (including, but not limited to, thorium-232, uranium-238, and uranium-235); and pesticides (including, but not limited to, 4-4'-DDT and dieldrin). Metals analysis is not necessary due to the minimal concentrations of metals in groundwater and the absence of an increasing trend in metals concentrations. This conclusion is based on a multi-year trend analysis of metals the City of Berkeley completed in 2018.

Within 90 days of implementation of an approved Work Plan, the City of Berkeley is required to submit a Completion Report that summarizes the results of the sampling and analysis. Depending upon the results of the soil and groundwater characterization, additional work may be required.

Basis for Requirement

This requirement for reports is made pursuant to Water Code section 13267, which allows the Water Board to require technical or monitoring program reports from any person who has discharged, discharges, proposes to discharge, or is suspected of discharging waste that could affect water quality. The attachment provides additional information about Section 13267 requirements.

The reports required by this letter are necessary to assess the presence of suspected contaminants at the Landfill and to assess any immediate threats to water quality, human health, and the environment. The City of Berkeley is required to submit the reports because information recently received indicates that it may have accepted hazardous or toxic materials at the Landfill that could discharge into waters of the state. The burden, including costs, of the reports bears a reasonable relationship to the need for the reports and the benefits to be obtained from the reports. The estimated cost of preparing the reports is from $100,000 to $200,000. Given the potential threats to waters of the state, human health, and the environment, the need for these reports is high. The benefits to be obtained from the reports include understanding the potential threats to human health, water quality, and the environment so that any unacceptable threats can be appropriately addressed. The evidence that supports requiring the reports is contained in the file for this matter.

Electronic Reporting

The City of Berkeley is required to submit all reports and data in electronic format to the State Water Resources Control Board's GeoTracker database, pursuant to California

Code of Regulations, title 23, sections 3890–3895. See Electronic Submittal of Information for guidance on submitting documents to GeoTracker. This requirement includes all analytical data, monitoring well information (latitudes, longitudes, elevations, depth and length of screened interval, and water depth), site maps, and boring logs. Analytical data must be submitted in Electronic Deliverable Format (EDF) and be in accordance with the GeoTracker Guidance Letter on Reporting of Estimated Results in EDF.

If you have any questions, please contact Fangli Yin of my staff at (510) 622-2406 or fangli.yin@waterboards.ca.gov.

Sincerely,

Eileen M. White

Eileen M. White, P.E.
Executive Officer

Attachments:
Stauffer Chemical Company letter dated March 20, 1980
Water Code Section 13267 Fact Sheet

4-9-80 FB

AGRICULTURAL
CHEMICAL DIVISION

Stauffer Chemical Company
1415 South 47th Street / Richmond, California 94804 / Tel. (415) 233-9361

March 28, 1980

Department of Health Services
Hazardous Materials Management Section
714/744 "P" Street
Sacramento CA 95814

Gentlemen:

This is in response to your March 4 request for information on hazardous waste disposals. We are enclosing the information supplied to the House Subcommittee on Oversight and Investigations for the Stauffer Chemical Company plant located at 1415 South 47th Street, Richmond California.

Very Truly Yours,

Elwood G. Trimpey

Enclosure as stated

EGT:st

(DO NOT USE)

FORM A: GENERAL FACILITY INFORMATION

Company Name: Stauffer Chemical Company

Facility Name: Richmond Ag

Address: 1415 South 47th Street
No. Street

Richmond CA 94804
City State Zip Code

Name of Person Completing Form: Lee E. Erickson

Position: Plant Manager

Phone Number: (415) 231-1392

1. Year Facility Opened ..... 19 [0|0] (10-11)

2. Primary SIC Code ..... [2|8|7|9] (12-15)

3. Estimate the total amounts of process wastes (excluding wastes sold for use) generated by this facility during 1978:

   thousand gallons ..... [| | | | | | |] (16-24)

   hundred tons ..... [| | | | | 1|9] (25-32)

   thousand cubic yards ..... [| | | | | | |] (33-41)

4. Estimate (in whole percents) how these process wastes generated in 1978 were disposed of:

   in landfill ..... [|0|5] (42-44)

   in pit/pond/lagoon ..... [|1|5] (45-47)

   in deep well ..... [| |0] (48-50)

   incinerated ..... [| |0] (51-53)

   reprocessed/recycled ..... [| |0] (54-56)

   evaporated ..... [|8|0] (57-59)

   unknown ..... [| |0] (60-62)

   other (Specify _____) ..... [| |0] (63-65)

5. What is the total number of known sites (including disposal on the property where this facility is located as one site) that have been used for the disposal of process wastes from this facility since 1950? ..... [|1|1] (66-68)

   COMPLETE ONE FORM "B" FOR EACH OF THE SITES

6. Have any of the process wastes generated at this facility been hauled (removed) from this facility for disposal? (Yes=1; no=2) ..... [1] (69)

   IF YES, COMPLETE FORM "C"

7. Do you know the disposal site locations of all of the process waste hauled from your facility since 1950? (Yes=1; no=2) ..... [1] (70)

   IF NO, COMPLETE ONE FORM "D" FOR EACH FIRM OR CONTRACTOR WHO TOOK WASTE TO AN UNKNOWN LOCATION

8. Specify the earliest year represented by information from company or facility records supplied on this and other forms ..... 19[5|6] (71-72)

9. Specify the earliest year represented by information from employee knowledge supplied on this and other forms ..... 19[4|1] (73-74)

FORM B: DISPOSAL SITE INFORMATION

							(1-8)

(DO NOT USE)

COMPLETE THIS FORM FOR EVERY SITE (INCLUDING THE LOCATION OF THIS FACILITY AS ONE SITE) USED FOR THE DISPOSAL OF PROCESS WASTES GENERATED BY THIS FACILITY SINCE 1950.

Company Name: Stauffer Chemical Co.
Facility Name: Richmond Ag.
Name of Site: Albany Landfill Co.
Address of Site: Foot of Buchanan Street
no. street

Albany CA
city state zip code

Name of Owner (while used by facility): Santa Fe Land & Improvement Co.
Address: 114 Sansome St.
no. street

San Francisco CA
city state zip code

Current Owner (if different from above):
Address:
no. street

city state zip code

1. Location (1= the property on which facility is located; 2= off-site) ..... [2] (10)
2. Ownership at time of use (1= company ownership; 2=private but not company ownership) 3=public ownership) ..... [2] (11)
3. Current status (1= closed; 2= still in use; 9=don't know) ..... [2] (12)
   IF CLOSED, specify year closed ..... 19[ ] (13-14)
4. Year first used for process waste from this facility ..... 19[6][0] (15-16)
5. Year last used for process waste from this facility (enter "79" if still in use) ..... 19[7][1] (17-18)
6. Total amount of process waste from this facility disposed at site:
   thousand gallons ..... [ ] (19-26)
   hundred tons ..... [1][1] (27-33)
   thousand cubic yards ..... [ ] (34-41)
7. Specify type(s) of disposal method(s) used at site and whether method is still in use (1=currently in use; 2=no longer in use; 3=never used; 9=don't know)

landfill, mono industrial waste	[9]	(42)
landfill, mixed industrial waste	[2]	(43)
landfill, drummed waste	[9]	(44)
landfill, municipal refuse co-disposed	[9]	(45)
pits/ponds/lagoons	[9]	(46)
deep well injection	[9]	(47)
land farming	[9]	(48)
incineration	[9]	(49)
treatment (eg. neutralizing)	[9]	(50)
reprocessing/recycling	[9]	(51)
other (specify)	[9]	(52)

8. Users of this site (1=this facility; 2=this facility and other company facilities only; 3=this company and others; 9=don't know) ..... [9] (53)

LIST NAMES AND ADDRESSES OF OTHER KNOWN USERS BELOW

FORM B CONTINUED ON SECOND PAGE

[ ] (80)

(1-8) (DO NOT USE)

Company Name: Stauffer Chemical Co.

Facility Name: Richmond Ag Plant

Site Name: Albany City Dump

9. Components (or characteristics) of process waste from this facility disposed at site: (1=present in waste; 2=not present in waste; 9=don't know)

FILL IN EVERY BLOCK SPACE

Acid solutions, with pH<3	9	(10)
pickling liquor	2	(11)
metal plating waste	2	(12)
circuit etchings	2	(13)
inorganic acid manufacture	2	(14)
organic acid manufacture	2	(15)
Base solutions, with pH> 12	2	(16)
caustic soda manufacture	2	(17)
nylon and similar polymer generation	2	(18)
scrubber residual	2	(19)
Heavy metals & trace metals (bonded organically & inorganically)	1	(20)*
arsenic, selenium, antimony	2	(21)
mercury	2	(22)
iron, manganese, magnesium	1	(23)*
zinc, cadmium, copper, chromium (trivalent)	1	(24)*
chromium (hexavalent)	2	(25)*
lead	1	(26)*
Radioactive residues, >3 pico curies/liter	2	(27)
uranium residuals & residuals for UF_6 recycling	2	(28)
lathanide series elements and rare earth salts	2	(29)
phosphate slag	2	(30)
thorium	2	(31)
radium	2	(32)
other alpha, beta & gamma emitters	2	(33)
Organics	2	(34)
insectides & intermediates	2	(35)
herbicides & intermediates	2	(36)
fungicides & intermediates	2	(37)
rodenticides & intermediates	2	(38)
halogenated aliphatics	2	(39)
halogenated aromatics	2	(40)
acrylates & latex emulsions	2	(41)
PCB/PBB's	2	(42)
amides, amines, imides	2	(43)
plastizers	2	(44)
resins	2	(45)
elastomers	2	(46)
solvents polar (except water)	2	(47)
carbontetrachloride	2	(48)
trichloroethylene	2	(49)
other solvents nonpolar	2	(50)
solvents halogenated aliphatic	2	(51)
solvents halogenated aromatic	2	(52)
oils and oil sludges	2	(53)
esters and ethers	2	(54)
alcohols	2	(55)
ketones & aldehydes	2	(56)
dioxins	2	(57)
Inorganics	1	(58)
salts	1	(59)
mercaptans	2	(60)
Misc.	2	(61)
pharmaceutical wastes	2	(62)
paints & pigments	2	(63)
catalysts (eg. vanadium, platinum, palladium)	2	(64)
asbestos	1	(65)*
shock sensitive wastes (eg. nitrated toluenes)	2	(66)
air water reactive wastes (eg. P_4, aluminum chloride)	2	(67)
wastes with flash point below 100° F.	2	(68)

* Dry Alum Mud. Insolubles

Iron	1%	Manganese	200 ppm
Copper	30 ppm	Chromium +6	<0.1 ppm
Lead	100-200 ppm	Chromium +3	14.5 ppm
Asbestos	40 ppm		

2 (69)

02724 00095 AA 11787 STARBAR DELNAV EXTRA LIVESTOCK SPRAY AND DIP
00201 00310 ZB 11787 STARBAR FEEDLOT FOG
02724 00201 AA 11787 STARBAR FOGASECT 2-HOUR FOGGER
02724 00082 ZA 11787 STARBAR GOLDEN MALRIN FLY SPRAY
02724 00140 AA 11787 STARBAR GOLDEN MALRIN LIQUID EMULSIFIABLE CONCENTRATE
02724 00162 AA 11787 STARBAR GOLDEN MALRIN SUGAR BAIT
00476 02043 AA 11787 STARBAR GX-118
[illegible] GX-130 CATTLE INSECTICIDE POUR ON

Taken from:
State of California
Dept of Food & Agriculture
Pesticide Regis. # Book.
1978

OIP
IP

NG ACTING
REFILL

WITH MUSCAMON

ED FORMULA)

VEGETATION KILL

01685 STATE CHEMICAL MFG. COMPANY, THE
01685 00043 AA FORMULA 190 NON SELECTIVE WEED AND BRUSH KILLER
01685 00049 AA FORMULA 238 SYS-TEM - SYSTEMIC GRANULAR INSECTICIDE
01685 00045 AA FORMULA 271 SE-LECT
01685 00075 AA FORMULA 300 SWIMMING POOL ALGAECIDE
01685 00080 AA RMK-308 RODENTICIDE
01685 00063 AA SOK MULTI-PURPOSE INSECT KILLER
01685 00073 AA STATE BRAND FORMULA 267-8 PARCH NON-SELECTIVE HERBICIDE
01685 00040 AA STATE FIX
01685 00052 AA STATE FORMULA 236 TERG-O-CIDE
01685 00072 AA STATE FORMULA 254 IRS - INSECT REPELLENT SPRAY
01685 00069 AA STATE FORMULA 296 STATE ROACH AND ANT KILLER
01685 00071 AA STATE FORMULA 298 RAS
10900 00019 AA 01685 STATE FORMULA 319 WAS WASP KILLER
01685 00065 AA STATEBRAND FORMULA 289 KURE FUNGICIDE
00655 00476 AA 01685 STATEBRAND FORMULA 324 DZ-125

04704 STATE COLLEGE LABORATORIES
04704 00003 AA MAGIC CIRCLE DEER REPELLENT
04704 00002 AA MAGIC CIRCLE RABBIT REPELLENT

38659 STATE SURGICAL SUPPLY CO.
00283 00004 AA 38659 GERMICIDAL SOLUTION

33402 STAUFFER CHEMICAL COMPANY ATTN M. S. O,CONNOR
00052 00219 AA 33402 CLENESCO NOVADINE +

00476 STAUFFER CHEMICAL COMPANY LABELING & REGISTRATION DEPT.
00476 00254 AA ALFA BRAND WETTABLE SULFUR
00476 02106 AA BETASAN TECHNICAL
00476 01956 AA BETASAN 12.5 G
00476 01817 ZA BETASAN 4-E
00476 02122 AA BIO-STAT
00476 01867 AA CAPTAN SP 4 FLOWABLE SEED PROTECTANT
00476 00655 AA CAPTAN 10 DUST
00476 01839 AA CAPTAN 4 FLOWABLE
00476 00581 AA CAPTAN 50 WP
00476 00676 AA CAPTAN 75 SEED PROTECTANT
00476 02041 AA CAPTAN 80 SEED PROTECTANT
00476 50020 AA CAPTAN-SIGNAL SULFUR 15-35 DUST
00476 50021 AA CAPTAN-SIGNAL SULFUR 15-50 DUST
00476 01286 AA CAPTAN-SULFUR 10-50 DUST
00476 00001 AA CARBON DISULPHIDE REFINED
00476 02128 AA CLENESCO A-Q
00476 02145 AA CLENESCO CHLORINATED CLEANER
00476 02149 AA CLENESCO CLEAR
00476 02126 AA CLENESCO DAIRYMAN'S CHLORINE
00476 02129 AA CLENESCO SANIDINE
00476 02124 AA CLENESCO SANITIZER
00476 50194 AA DEVRINOL 10G
00476 50196 AA DEVRINOL 2-E ORNAMENTAL
00476 02150 AA DEVRINOL 2E
00476 02108 AA DEVRINOL 50-WP
00476 50195 AA DEVRINOL 50-WP ORNAMENTAL
00476 01995 ZA DYFONATE 10.G
00476 02056 ZA DYFONATE 4-E
00476 01307 AA EPTAM 5 G
00476 01198 AA EPTAM 6-E
00476 02154 AA EPTAM 7-E
00476 02165 AA EPTAM 87.8 / MANUFACTURING CONCENTRATE
00476 02157 AA ERADICANE 6.7-E
00476 01609 AA FOLPET PHALTAN 50-WP
00476 02153 AA FYBRFLUF GT
00476 01917 AA IMIDAN 50-WP
00476 01054 AA MAGNETIC 6 FLOWABLE SULFUR
00476 02127 AA MILDUPRUF
00476 01932 AA ORDRAM 10.G
00476 02107 AA ORDRAM 6-E
00476 02004 AA PREFAR 4-E
00476 01979 AA RO.NEET 6-E
00476 00199 AA SIGNAL BRAND DUSTING SULFUR
00476 00197 AA SPECIAL ELECTRIC BRAND REFINED SUPER-ADHESIVE DUSTING SULFUR
00476 02156 AA SUTAN + 6.7-E
00476 01615 AA TILLAM 6-E
00476 02162 AA TRITHION TECHNICAL
00476 01633 AA TRITHION 8-E
00476 00859 AA VAPAM
00476 02155 AA VERNAM 7-E

Stauffer

FORM B: DISPOSAL SITE INFORMATION

[ ][ ][ ][ ][ ][ ] (1-8)
(DO NOT USE)

COMPLETE THIS FORM FOR EVERY SITE (INCLUDING THE LOCATION OF THIS FACILITY AS ONE SITE) USED FOR THE DISPOSAL OF PROCESS WASTES GENERATED BY THIS FACILITY SINCE 1950.

Company Name: Stauffer Chemical Co.
Facility Name: Richmond Ag Plant
Name of Site: CS_2 Retort and Slag Disposal
Address of Site: 1415 South 47th Street
no. street

Richmond CA 94804
city state zip code

Name of Owner (while used by facility): Stauffer Chemical Co.
Address: 1415 South 47th
no. street

Richmond CA 94804
city state zip code

Current Owner (if different from above):
Address:
no. street

city state zip code

1. Location (1= the property on which facility is located; 2= off-site) ..... [1] (10)
2. Ownership at time of use (1= company ownership; 2=private but not company ownership) 3=public ownership) ..... [1] (11)
3. Current status (1= closed; 2= still in use; 9=don't know) ..... [1] (12)
   IF CLOSED, specify year closed ..... 19[5][9] (13-14)
4. Year first used for process waste from this facility ..... 19[5][0] (15-16)
5. Year last used for process waste from this facility (enter "79" if still in use) ..... 19[5][9] (17-18)
6. Total amount of process waste from this facility disposed at site:
   thousand gallons ..... [ ][ ][ ][ ][ ][ ][ ] (19-26)
   hundred tons ..... [ ][ ][ ][ ][ ][1][4] (27-33)
   thousand cubic yards ..... [ ][ ][ ][ ][ ][ ][ ] (34-41)
7. Specify type(s) of disposal method(s) used at site and whether method is still in use (1=currently in use; 2=no longer in use; 3=never used; 9=don't know)

landfill, mono industrial waste	[3]	(42)
landfill, mixed industrial waste	[2]	(43)
landfill, drummed waste	[3]	(44)
landfill, municipal refuse co-disposed	[3]	(45)
pits/ponds/lagoons	[3]	(46)
deep well injection	[3]	(47)
land farming	[3]	(48)
incineration	[3]	(49)
treatment (eg. neutralizing)	[3]	(50)
reprocessing/recycling	[3]	(51)
other (specify) _____	[3]	(52)

8. Users of this site (1=this facility; 2=this facility and other company facilities only; 3=this company and others; 9=don't know) ..... [1] (53)

LIST NAMES AND ADDRESSES OF OTHER KNOWN USERS BELOW

FORM B CONTINUED ON SECOND PAGE

[1] (80)

(1-8) (DO NOT USE)

Company Name: Stauffer Chemical Co.

Facility Name: Richmond Ag Plant

Site Name: CS_2 Retort and Slag Disposal

9. Components (or characteristics) of process waste from this facility disposed at site: (1=present in waste; 2=not present in waste; 9=don't know)

FILL IN EVERY BLOCK SPACE

Acid solutions, with pH<3	2	(10)
pickling liquor	2	(11)
metal plating waste	2	(12)
circuit etchings	2	(13)
inorganic acid manufacture	2	(14)
organic acid manufacture	2	(15)
Base solutions, with pH> 12	2	(16)
caustic soda manufacture	2	(17)
nylon and similar polymer generation	2	(18)
scrubber residual	2	(19)
Heavy metals & trace metals (bonded organically & inorganically)	1	(20)
arsenic, selenium, antimony	9	(21)
mercury	9	(22)
iron, manganese, magnesium	1	(23)
zinc, cadmium, copper, chromium (trivalent)	9	(24)
chromium (hexavalent)	9	(25)
lead	9	(26)
Radioactive residues, >3 pico curies/liter	2	(27)
uranium residuals & residuals for UF_6 recycling	2	(28)
lathanide series elements and rare earth salts	2	(29)
phosphate slag	2	(30)
thorium	2	(31)
radium	2	(32)
other alpha, beta & gamma emitters	2	(33)
Organics	2	(34)
insectides & intermediates	2	(35)
herbicides & intermediates	2	(36)
fungicides & intermediates	2	(37)
rodenticides & intermediates	2	(38)
halogenated aliphatics	2	(39)
halogenated aromatics	2	(40)
acrylates & latex emulsions	2	(41)
PCB/PBB's	2	(42)
amides, amines, imides	2	(43)
plastizers	2	(44)
resins	2	(45)
elastomers	2	(46)
solvents polar (except water)	2	(47)
carbontetrachloride	2	(48)
trichloroethylene	2	(49)
other solvents nonpolar	2	(50)
solvents halogenated aliphatic	2	(51)
solvents halogenated aromatic	2	(52)
oils and oil sludges	2	(53)
esters and others	2	(54)
alcohols	2	(55)
ketones & aldehydes	2	(56)
dioxins	2	(57)
Inorganics	1	(58)
salts	1	(59)
mercaptans	2	(60)
Misc.	2	(61)
pharmaceutical wastes	2	(62)
paints & pigments	2	(63)
catalysts (eg. vanadium, platinum, palladium)	2	(64)
asbestos	2	(65)
shock sensitive wastes (eg. nitrated toluenes)	2	(66)
air water reactive wastes (eg. P_4, aluminum chloric	2	(67)
wastes with flash point below 100° F.	2	(68)

(DO NOT USE) (1-8)

FORM B: DISPOSAL SITE INFORMATION

COMPLETE THIS FORM FOR EVERY SITE (INCLUDING THE LOCATION OF THIS FACILITY AS ONE SITE) USED FOR THE DISPOSAL OF PROCESS WASTES GENERATED BY THIS FACILITY SINCE 1950.

Company Name: Stauffer Chemical Co.
Facility Name: Richmond Ag Plant
Name of Site: Evaporation Ponds
Address of Site: 1415 South 47th St.
no. street

Richmond | CA | 94804
city | state | zip code

Name of Owner (while used by facility): Stauffer Chemical Co.
Address: 1415 South 47th Street
no. street

Richmond | CA | 94804
city | state | zip code

Current Owner (if different from above): _____
Address: _____
no. street

_____
city | state | zip code

1. Location (1= the property on which facility is located; 2= off-site) 1 (10)
2. Ownership at time of use (1= company ownership; 2=private but not company ownership) 3=public ownership) 1 (11)
3. Current status (1= closed; 2= still in use; 9=don't know) 2 (12)
   IF CLOSED, specify year closed ..... 19 6 6 (13-14)*
4. Year first used for process waste from this facility 19 6 0 (15-16)
5. Year last used for process waste from this facility (enter "79" if still in use) 19 7 9 (17-18)
6. Total amount of process waste from this facility disposed at site:
   thousand gallons ..... | | | | | | | (19-26)
   hundred tons ..... | | | | 5 1 (27-33)
   thousand cubic yards ..... | | | | | | | (34-41)
7. Specify type(s) of disposal method(s) used at site and whether method is still in use (1=currently in use; 2=no longer in use; 3=never used; 9=don't know)

landfill, mono industrial waste	3	(42)
landfill, mixed industrial waste	2	(43)
landfill, drummed waste	3	(44)
landfill, municipal refuse co-disposed	3	(45)
pits/ponds/lagoons	2	(46)
deep well injection	3	(47)
land farming	3	(48)
incineration	3	(49)
treatment (eg. neutralizing)	3	(50)
reprocessing/recycling	3	(51)
other (specify) _____	3	(52)

8. Users of this site (1=this facility; 2=this facility and other company facilities only; 3=this company and others; 9=don't know) 1 (53)

LIST NAMES AND ADDRESSES OF OTHER KNOWN USERS BELOW

* Used as evaporation ponds only since 1966.

FORM B CONTINUED ON SECOND PAGE

1 (80)

(DO NOT USE) (1-8)

Company Name: Stauffer Chemical Co.

Facility Name: Richmond Ag Plant

Site Name: Evaporation Ponds

9. Components (or characteristics) of process waste from this facility disposed at site: (1=present in waste; 2=not present in waste; 9=don't know)

FILL IN EVERY BLOCK SPACE

Acid solutions, with pH<3	2	(10)
pickling liquor	2	(11)
metal plating waste	2	(12)
circuit etchings	2	(13)
inorganic acid manufacture	1	(14)
organic acid manufacture	2	(15)
Base solutions, with pH> 12	2	(16)
caustic soda manufacture	2	(17)
nylon and similar polymer generation	2	(18)
scrubber residual	1	(19)
Heavy metals & trace metals (bonded organically & inorganically)	1	(20)
arsenic, selenium, antimony	2	(21)
mercury	2	(22)
iron, manganese, magnesium	1	(23)
zinc, cadmium, copper, chromium (trivalent)	9	(24)
chromium (hexavalent)	9	(25)
lead	9	(26)
Radioactive residues, >3 pico curies/liter	2	(27)
uranium residuals & residuals for UF_6 recycling	2	(28)
lathanide series elements and rare earth salts	2	(29)
phosphate slag	2	(30)
thorium	2	(31)
radium	2	(32)
other alpha, beta & gamma emitters	2	(33)
Organics	2	(34)
insectides & intermediates	2	(35)
herbicides & intermediates	2	(36)
fungicides & intermediates	2	(37)
rodenticides & intermediates	2	(38)
halogenated aliphatics	2	(39)
halogenated aromatics	2	(40)
acrylates & latex emulsions	2	(41)
PCB/PBB's	2	(42)
amides, amines, imides	2	(43)
plastizers	2	(44)
resins	2	(45)
elastomers	2	(46)
solvents polar (except water)	2	(47)
carbontetrachloride	2	(48)
trichloroethylene	2	(49)
other solvents nonpolar	2	(50)
solvents halogenated aliphatic	2	(51)
solvents halogenated aromatic	2	(52)
oils and oil sludges	2	(53)
esters and ethers	2	(54)
alcohols	2	(55)
ketones & aldehydes	2	(56)
dioxins	2	(57)
Inorganics	1	(58)
salts	1	(59)
mercaptans	2	(60)
Misc.	2	(61)
pharmaceutical wastes	2	(62)
paints & pigments	2	(63)
catalysts (eg. vanadium, platinum, palladium)	2	(64)
asbestos	2	(65)
shock sensitive wastes (eg. nitrated toluenes)	2	(66)
air water reactive wastes (eg. P_4, aluminum chloride)	2	(67)
wastes with flash point below 100° F	2	(68)

FORM B: DISPOSAL SITE INFORMATION

							(1-8)

(DO NOT USE)

COMPLETE THIS FORM FOR EVERY SITE (INCLUDING THE LOCATION OF THIS FACILITY AS ONE SITE) USED FOR THE DISPOSAL OF PROCESS WASTES GENERATED BY THIS FACILITY SINCE 1950.

Company Name: Stauffer Chemical Company
Facility Name: Richmond Ag Plant
Name of Site: Filled Settling Ponds
Address of Site: 1415 South 47th Street
no. street

Richmond CA 94804
city state zip code

Name of Owner (while used by facility): Stauffer Chemical Co.
Address: 1415 South 47th Street
no. street

Richmond CA 94804
city state zip code

Current Owner (if different from above): _____
Address: _____
no. street

_____
city state zip code

1. Location (1= the property on which facility is located; 2= off-site) ..... [1] (10)
2. Ownership at time of use (1= company ownership; 2=private but not company ownership) 3=public ownership) ..... [1] (11)
3. Current status (1= closed; 2= still in use; 9=don't know) ..... [1] (12)
   IF CLOSED, specify year closed ..... 19[7][3] (13-14)
4. Year first used for process waste from this facility ..... 19[6][6] (15-16)
5. Year last used for process waste from this facility (enter "79" if still in use) ..... 19[7][3] (17-18)
6. Total amount of process waste from this facility disposed at site:
   thousand gallons ..... [ ][ ][ ][ ][ ][ ][ ] (19-26)
   hundred tons ..... [ ][ ][ ][ ][5][1] (27-33)
   thousand cubic yards ..... [ ][ ][ ][ ][ ][ ][ ] (34-41)
7. Specify type(s) of disposal method(s) used at site and whether method is still in use (1=currently in use; 2=no longer in use; 3=never used; 9=don't know)
   landfill, mono industrial waste ..... [3] (42)
   landfill, mixed industrial waste ..... [2] (43)
   landfill, drummed waste ..... [3] (44)
   landfill, municipal refuse co-disposed ... [3] (45)
   pits/ponds/lagoons ..... [2] (46)
   deep well injection ..... [3] (47)
   land farming ..... [3] (48)
   incineration ..... [3] (49)
   treatment (eg. neutralizing) ..... [2] (50)
   reprocessing/recycling ..... [3] (51)
   other (specify) _____ .... [3] (52)
8. Users of this site (1=this facility; 2=this facility and other company facilities only; 3=this company and others; 9=don't know) ..... [1] (53)

LIST NAMES AND ADDRESSES OF OTHER KNOWN USERS BELOW

FORM B CONTINUED ON SECOND PAGE

[1] (80)

(DO NOT USE) (1-8)

Company Name: Stauffer Chemical Company

Facility Name: Richmond Ag Plant

Site Name: Filled Settling Ponds

9. Components (or characteristics) of process waste from this facility disposed at site: (1=present in waste; 2=not present in waste; 9=don't know)

FILL IN EVERY BLOCK SPACE

Acid solutions, with pH<3	2	(10)
pickling liquor	2	(11)
metal plating waste	2	(12)
circuit etchings	2	(13)
inorganic acid manufacture	1	(14)
organic acid manufacture	2	(15)
Base solutions, with pH>12	2	(16)
caustic soda manufacture	2	(17)
nylon and similar polymer generation	2	(18)
scrubber residual	1	(19)
Heavy metals & trace metals (bonded organically & inorganically)	1	(20)
arsenic, selenium, antimony	2	(21)
mercury	2	(22)
iron, manganese, magnesium	1	(23)
zinc, cadmium, copper, chromium (trivalent)	9	(24)
chromium (hexavalent)	9	(25)
lead	9	(26)
Radioactive residues, >3 pico curies/liter	2	(27)
uranium residuals & residuals for UF_6 recycling	2	(28)
lathanide series elements and rare earth salts	2	(29)
phosphate slag	2	(30)
thorium	2	(31)
radium	2	(32)
other alpha, beta & gamma emitters	2	(33)
Organics	2	(34)
insectides & intermediates	2	(35)
herbicides & intermediates	2	(36)
fungicides & intermediates	2	(37)
rodenticides & intermediates	2	(38)
halogenated aliphatics	2	(39)
halogenated aromatics	2	(40)
acrylates & latex emulsions	2	(41)
PCB/PBB's	2	(42)
amides, amines, imides	2	(43)
plastizers	2	(44)
resins	2	(45)
elastomers	2	(46)
solvents polar (except water)	2	(47)
carbontetrachloride	2	(48)
trichloroethylene	2	(49)
other solvents nonpolar	2	(50)
solvents halogenated aliphatic	2	(51)
solvents halogenated aromatic	2	(52)
oils and oil sludges	2	(53)
esters and ethers	2	(54)
alcohols	2	(55)
ketones & aldehydes	2	(56)
dioxins	2	(57)
Inorganics	1	(58)
salts	1	(59)
mercaptans	2	(60)
Misc.	2	(61)
pharmaceutical wastes	2	(62)
paints & pigments	2	(63)
catalysts (eg. vanadium, platinum, palladium)	2	(64)
asbestos	2	(65)
shock sensitive wastes (eg. nitrated toluenes)	2	(66)
air water reactive wastes (eg. P_4, aluminum chloride)	2	(67)
wastes with flash point below 100° F	2	(68)

(DO NOT USE) (1-8)

FORM B: DISPOSAL SITE INFORMATION

COMPLETE THIS FORM FOR EVERY SITE (INCLUDING THE LOCATION OF THIS FACILITY AS ONE SITE) USED FOR THE DISPOSAL OF PROCESS WASTES GENERATED BY THIS FACILITY SINCE 1950.

Company Name: Stauffer Chemical Company
Facility Name: Richmond Ag Plant
Name of Site: South End of Plant at San Francisco Bay Edge
Address of Site: 1415 South 47th Street
no. street

Richmond CA 94804
city state zip code

Name of Owner (while used by facility): Stauffer Chemical Co.
Address: 1415 South 47th Street
no. street

Richmond CA 94804
city state zip code

Current Owner (if different from above): _____
Address: _____
no. street

_____
city state zip code

1. Location (1= the property on which facility is located; 2= off-site) ..... [1] (10)
2. Ownership at time of use (1= company ownership; 2=private but not company ownership) 3=public ownership) ..... [1] (11)
3. Current status (1= closed; 2= still in use; 9=don't know) ..... [1] (12)
   IF CLOSED, specify year closed ..... 19[5][8] (13-14)
4. Year first used for process waste from this facility ..... 19[0][0] (15-16)
5. Year last used for process waste from this facility (enter "79" if still in use) ..... 19[5][8] (17-18)
6. Total amount of process waste from this facility disposed at site:
   thousand gallons ..... [ ][ ][ ][ ][ ][ ][ ] (19-26)
   hundred tons ..... [ ][ ][ ][ ][1][8][7] (27-33)
   thousand cubic yards ..... [ ][ ][ ][ ][ ][ ][ ] (34-41)
7. Specify type(s) of disposal method(s) used at site and whether method is still in use (1=currently in use; 2=no longer in use; 3=never used; 9=don't know)

landfill, mono industrial waste	[3]	(42)
landfill, mixed industrial waste	[2]	(43)
landfill, drummed waste	[3]	(44)
landfill, municipal refuse co-disposed	[3]	(45)
pits/ponds/lagoons	[3]	(46)
deep well injection	[3]	(47)
land farming	[3]	(48)
incineration	[3]	(49)
treatment (eg. neutralizing)	[3]	(50)
reprocessing/recycling	[3]	(51)
other (specify) _____	[9]	(52)

8. Users of this site (1=this facility; 2=this facility and other company facilities only; 3=this company and others; 9=don't know) ..... [1] (53)

LIST NAMES AND ADDRESSES OF OTHER KNOWN USERS BELOW

FORM B CONTINUED ON SECOND PAGE

[1] (80)

(1-8)
(DO NOT USE)

Company Name: Stauffer Chemical Co.

Facility Name: Richmond Ag Plant

Site Name: South End of Plant at San Francisco Bay Edge

9. Components (or characteristics) of process waste from this facility disposed at site: (1=present in waste; 2=not present in waste; 9=don't know)

FILL IN EVERY BLOCK SPACE

Acid solutions, with pH<3	1	(10)	
pickling liquor	2	(11)	
metal plating waste	2	(12)	
circuit etchings	2	(13)	
inorganic acid manufacture	1	(14)	
organic acid manufacture	2	(15)	
Base solutions, with pH> 12	2	(16)	
caustic soda manufacture	2	(17)	
nylon and similar polymer generation	2	(18)	
scrubber residual	1	(19)	
Heavy metals & trace metals (bonded organically & inorganically)	1	(20)	*
arsenic, selenium, antimony	1	(21)	*
mercury	2	(22)	
iron, manganese, magnesium	1	(23)	*
zinc, cadmium, copper, chromium (trivalent)	1	(24)	*
chromium (hexavalent)	2	(25)	*
lead	1	(26)	*
Radioactive residues, >3 pico curies/liter	2	(27)	
uranium residuals & residuals for UF_6 recycling	2	(28)	
lathanide series elements and rare earth salts	2	(29)	
phosphate slag	2	(30)	
thorium	2	(31)	
radium	2	(32)	
other alpha, beta & gamma emitters	2	(33)	
Organics	2	(34)	
insectides & intermediates	2	(35)	
herbicides & intermediates	2	(36)	
fungicides & intermediates	2	(37)	
rodenticides & intermediates	2	(38)	
halogenated aliphatics	2	(39)	
halogenated aromatics	2	(40)	
acrylates & latex emulsions	2	(41)	
PCB/PBB's	2	(42)	
amides, amines, imides	2	(43)	
plastizers	2	(44)	
resins	2	(45)	
elastomers	2	(46)	
solvents polar (except water)	2	(47)	
carbontetrachloride	2	(48)	
trichloroethylene	2	(49)	
other solvents nonpolar	2	(50)	
solvents halogenated aliphatic	2	(51)	
solvents halogenated aromatic	2	(52)	
oils and oil sludges	2	(53)	
esters and ethers	2	(54)	
alcohols	2	(55)	
ketones & aldehydes	2	(56)	
dioxins	2	(57)	
Inorganics	1	(58)	
salts	1	(59)	
mercaptans	2	(60)	
Misc	1	(61)	*
pharmaceutical wastes	2	(62)	
paints & pigments	2	(63)	
catalysts (eg. vanadium, platinum, palladium)	9	(64)	
asbestos	1	(65)	*
shock sensitive wastes (eg. nitrated toluenes)	2	(66)	
air water reactive wastes (eg. P_4, aluminum chloride)	2	(67)	
wastes with flash point below 100° F	2	(69)	

* Cinders and Insoluble Dry Alum Mud Mixture (Alum Mud 98.5%, Cinders 1.5%)

Iron	1% - 2%	Manganese	200ppm
Copper	30 ppm	Zinc	170 ppm
Arsenic	5 - 10 ppm	Asbestos	40 ppm

FORM B: DISPOSAL SITE INFORMATION

(DO NOT USE) (1-8)

COMPLETE THIS FORM FOR EVERY SITE (INCLUDING THE LOCATION OF THIS FACILITY AS ONE SITE) USED FOR THE DISPOSAL OF PROCESS WASTES GENERATED BY THIS FACILITY SINCE 1950.

Company Name: Stauffer Chemical Co.
Facility Name: Richmond Ag Plant
Name of Site: Blair Southern Pacific Landfill
Address of Site: Foot of South 51st Street
no. street

Richmond CA 94804
city state zip code

Name of Owner (while used by facility): Southern Pacific Land & Improvement Co.
Address: 1 Market Street
no. street

San Francisco CA
city state zip code

Current Owner (if different from above):
Address:
no. street

city state zip code

1. Location (1= the property on which facility is located; 2= off-site) 2 (10)
2. Ownership at time of use (1= company ownership; 2=private but not company ownership) 3=public ownership) 2 (11)
3. Current status (1= closed; 2= still in use; 9=don't know) 2 (12)
   IF CLOSED, specify year closed 19 (13-14)
4. Year first used for process waste from this facility 19 71 (15-16)
5. Year last used for process waste from this facility (enter "79" if still in use) 19 71 (17-18)
6. Total amount of process waste from this facility disposed at site:
   thousand gallons ..... (19-26)
   hundred tons 62 (27-33)
   thousand cubic yards ..... (34-41)
7. Specify type(s) of disposal method(s) used at site and whether method is still in use (1=currently in use; 2=no longer in use; 3=never used; 9=don't know)

landfill, mono industrial waste	9	(42)
landfill, mixed industrial waste	9	(43)
landfill, drummed waste	3	(44)
landfill, municipal refuse co-disposed	9	(45)
pits/ponds/lagoons	3	(46)
deep well injection	3	(47)
land farming	3	(48)
incineration	3	(49)
treatment (eg. neutralizing)	9	(50)
reprocessing/recycling	9	(51)
other (specify) Class 2 Landfill	2	(52)

8. Users of this site (1=this facility; 2=this facility and other company facilities only; 3=this company and others; 9=don't know) 3 (53)

LIST NAMES AND ADDRESSES OF OTHER KNOWN USERS BELOW

FORM B CONTINUED ON SECOND PAGE

1 (80)

(1-8)
(DO NOT USE)

Company Name: Stauffer Chemical Co.

Facility Name: Richmond Ag Plant

Site Name: Blair Southern Pacific Landfill

9. Components (or characteristics) of process waste from this facility disposed at site: (1=present in waste; 2=not present in waste; 9=don't know)

FILL IN EVERY BLOCK SPACE

Acid solutions, with pH<3	[9]	(10)
pickling liquor	[2]	(11)
metal plating waste	[2]	(12)
circuit etchings	[2]	(13)
inorganic acid manufacture	[2]	(14)
organic acid manufacture	[2]	(15)
Base solutions, with pH>12	[2]	(16)
caustic soda manufacture	[2]	(17)
nylon and similar polymer generation	[2]	(18)
scrubber residual	[2]	(19)
Heavy metals & trace metals (bonded organically & inorganically)	[1]	(20) *
arsenic, selenium, antimony	[2]	(21)
mercury	[2]	(22)
iron, manganese, magnesium	[1]	(23) *
zinc, cadmium, copper, chromium (trivalent)	[1]	(24) *
chromium (hexavalent)	[2]	(25) *
lead	[1]	(26) *
Radioactive residues, >3 pico curies/liter	[2]	(27)
uranium residuals & residuals for UF_6 recycling	[2]	(28)
lathanide series elements and rare earth salts	[2]	(29)
phosphate slag	[2]	(30)
thorium	[2]	(31)
radium	[2]	(32)
other alpha, beta & gamma emitters	[2]	(33)
Organics	[2]	(34)
insectides & intermediates	[2]	(35)
herbicides & intermediates	[2]	(36)
fungicides & intermediates	[2]	(37)
rodenticides & intermediates	[2]	(38)
halogenated aliphatics	[2]	(39)
halogenated aromatics	[2]	(40)
acrylates & latex emulsions	[2]	(41)
PCB/PBB's	[2]	(42)
amides, amines, imides	[2]	(43)
plastizers	[2]	(44)
resins	[2]	(45)
elastomers	[2]	(46)
solvents polar (except water)	[2]	(47)
carbontetrachloride	[2]	(48)
trichloroethylene	[2]	(49)
other solvents nonpolar	[2]	(50)
solvents halogenated aliphatic	[2]	(51)
solvents halogenated aromatic	[2]	(52)
oils and oil sludges	[2]	(53)
esters and ethers	[2]	(54)
alcohols	[2]	(55)
ketones & aldehydes	[2]	(56)
dioxins	[2]	(57)
Inorganics	[1]	(58)
salts	[1]	(59)
mercaptans	[2]	(60)
Misc	[1]	(61)
pharmaceutical wastes	[2]	(62)
paints & pigments	[2]	(63)
catalysts (eg. vanadium, platinum, palladium)	[2]	(64)
asbestos	[1]	(65) *
shock sensitive wastes (eg. nitrated toluenes)	[2]	(66)
air water reactive wastes (eg. P_4, aluminum chloride)	[2]	(67)
wastes with flash point below 100° F.	[2]	(68)

* Dry Alum Mud Insolubles

Iron	1%	Manganese	200 ppm
Copper	30 ppm	Chromium +3	14.5 ppm
Lead	100-200 ppm	Chromium +6	< 0.1 ppm
Asbestos (prior to 8/76)	40 ppm		

12 (86)

) . B: DISPOSAL SITE INFORMATION

| | | | | | | | (1-8)
(DO NOT USE)

COMPLETE THIS FORM FOR EVERY SITE (INCLUDING THE LOCATION OF THIS FACILITY AS ONE SITE) USED FOR THE DISPOSAL OF PROCESS WASTES GENERATED BY THIS FACILITY SINCE 1950.

Company Name: Stauffer Chemical Co.
Facility Name: Richmond Ag Plant
Name of Site: I.T. Environmental of Contra Costa County
Address of Site: East End Arthur Road
no. street

Martinez CA 94553
city state zip code

Name of Owner (while used by facility): I.T. Corporation
Address: 4575 Pacheco Blvd.
no. street

Martinez CA 94553
city state zip code

Current Owner (if different from above):
Address:
no. street

city state zip code

1. Location (1= the property on which facility is located; 2= off-site) ..... [2] (10)
2. Ownership at time of use (1= company ownership; 2=private but not company ownership) 3=public ownership) ..... [2] (11)
3. Current status (1= closed; 2= still in use; 9=don't know) ..... [2] (12)
   IF CLOSED, specify year closed ..... 19[ ][ ] (13-14)
4. Year first used for process waste from this facility ..... 19[7][6] (15-16)
5. Year last used for process waste from this facility (enter "79" if still in use) ..... 19[7][9] (17-18)
6. Total amount of process waste from this facility disposed at site:
   thousand gallons ..... [ ][ ][ ][ ][ ][ ][ ] (19-26)
   hundred tons ..... [ ][ ][ ][ ][ ][ ][7] (27-33)
   thousand cubic yards ..... [ ][ ][ ][ ][ ][ ][ ] (34-41)
7. Specify type(s) of disposal method(s) used at site and whether method is still in use (1=currently in use; 2=no longer in use; 3=never used; 9=don't know)

landfill, mono industrial waste	[9]	(42)
landfill, mixed industrial waste	[1]	(43)
landfill, drummed waste	[9]	(44)
landfill, municipal refuse co-disposed	[9]	(45)
pits/ponds/lagoons	[1]	(46)
deep well injection	[9]	(47)
land farming	[9]	(48)
incineration	[9]	(49)
treatment (eg. neutralizing)	[1]	(50)
reprocessing/recycling	[9]	(51)
other (specify) ____	[9]	(52)

8. Users of this site (1=this facility; 2=this facility and other company facilities only; 3=this company and others; 9=don't know) ..... [3] (53)

LIST NAMES AND ADDRESSES OF OTHER KNOWN USERS BELOW

FORM B CONTINUED ON SECOND PAGE

[1] (80)

(1-8)
(DO NOT USE)

Company Name: Stauffer Chemical Co.

Facility Name: Richmond Ag Plant
I.T. Environmental
Site Name: of Contra Costa County

9. Components (or characteristics) of process waste from this facility disposed at site: (1=present in waste; 2=not present in waste; 9=don't know)

FILL IN EVERY BLOCK SPACE

Acid solutions, with pH<3	1	(10)
pickling liquor	2	(11)
metal plating waste	2	(12)
circuit etchings	2	(13)
inorganic acid manufacture	2	(14)
organic acid manufacture	1	(15)
Base solutions, with pH>12	1	(16)
caustic soda manufacture	2	(17)
nylon and similar polymer generation	2	(18)
scrubber residual	1	(19)
Heavy metals & trace metals (bonded organically & inorganically)	2	(20)
arsenic, selenium, antimony	2	(21)
mercury	2	(22)
iron, manganese, magnesium	2	(23)
zinc, cadmium, copper, chromium (trivalent)	2	(24)
chromium (hexavalent)	2	(25)
lead	2	(26)
Radioactive residues, >3 pico curies/liter	2	(27)
uranium residuals & residuals for UF_6 recycling	2	(28)
lathanide series elements and rare earth salts	2	(29)
phosphate slag	2	(30)
thorium	2	(31)
radium	2	(32)
other alpha, beta & gamma emitters	2	(33)
Organics	1	(34)
insectides & intermediates	2	(35)
herbicides & intermediates	1	(36)
fungicides & intermediates	2	(37)
rodenticides & intermediates	2	(38)
halogenated aliphatics	2	(39)
halogenated aromatics	2	(40)
acrylates & latex emulsions	2	(41)
PCB/PBB's	2	(42)
amides, amines, imides	1	(43)
plastizers	2	(44)
resins	2	(45)
elastomers	2	(46)
solvents polar (except water)	2	(47)
carbontetrachloride	2	(48)
trichloroethylene	2	(49)
other solvents nonpolar	1	(50)
solvents halogenated aliphatic	2	(51)
solvents halogenated aromatic	2	(52)
oils and oil sludges	2	(53)
esters and ethers	2	(54)
alcohols	2	(55)
ketones & aldehydes	2	(56)
dioxins	2	(57)
Inorganics	1	(58)
salts	2	(59)
mercaptans	2	(60)
Misc	1	(61)
pharmaceutical wastes	2	(62)
paints & pigments	2	(63)
catalysts (eg. vanadium, platinum, palladium)	2	(64)
asbestos	2	(65)
shock sensitive wastes (eg. nitrated toluenes)	2	(66)
air water reactive wastes (eg. P_4, aluminum chloride)	2	(67)
wastes with flash point below 100° F	1	(68)

2 (69)

Form B: DISPOSAL SITE INFORMATION

(DO NOT USE) (1-8)

COMPLETE THIS FORM FOR EVERY SITE (INCLUDING THE LOCATION OF THIS FACILITY AS ONE SITE) USED FOR THE DISPOSAL OF PROCESS WASTES GENERATED BY THIS FACILITY SINCE 1950.

Company Name: Stauffer Chemical Co.
Facility Name: Richmond Ag Plant
Name of Site: I.T. Environmental, Solano County
Address of Site: Lake Herman Road
no. street

Benicia CA 94510
city state zip code

Name of Owner (while used by facility): I.T. Corporation
Address: 4575 Pacheco Blvd.
no. street

Martinez CA 94553
city state zip code

Current Owner (if different from above):
Address:
no. street

city state zip code

1. Location (1= the property on which facility is located; 2= off-site) 2 (10)
2. Ownership at time of use (1= company ownership; 2=private but not company ownership) 3=public ownership) 2 (11)
3. Current status (1= closed; 2= still in use; 9=don't know) 2 (12)
   IF CLOSED, specify year closed 19 (13-14)
4. Year first used for process waste from this facility 19 75 (15-16)
5. Year last used for process waste from this facility (enter "79" if still in use) 19 79 (17-18)
6. Total amount of process waste from this facility disposed at site:
   thousand gallons ..... (19-26)
   hundred tons 37 (27-33)
   thousand cubic yards ..... (34-41)
7. Specify type(s) of disposal method(s) used at site and whether method is still in use (1=currently in use; 2=no longer in use; 3=never used; 9=don't know)

landfill, mono industrial waste	9	(42)
landfill, mixed industrial waste	1	(43)
landfill, drummed waste	9	(44)
landfill, municipal refuse co-disposed	9	(45)
pits/ponds/lagoons	1	(46)
deep well injection	9	(47)
land farming	9	(48)
incineration	9	(49)
treatment (eg. neutralizing)	9	(50)
reprocessing/recycling	9	(51)
other (specify)	9	(52)

8. Users of this site (1=this facility; 2=this facility and other company facilities only; 3=this company and others; 9=don't know) 3 (53)

LIST NAMES AND ADDRESSES OF OTHER KNOWN USERS BELOW

FORM IS CONTINUED ON SECOND PAGE

1 (80)

(DO NOT USE) (1-8)

Company Name: Stauffer Chemical Co.

Facility Name: Richmond Ag Plant

Site Name: I.T. Environmental, Solano County

9. Components (or characteristics) of process waste from this facility disposed at site: (1=present in waste; 2=not present in waste; 9=don't know)

FILL IN EVERY BLOCK SPACE

Acid solutions, with pH<3	1	(10)	
pickling liquor	2	(11)	
metal plating waste	2	(12)	
circuit etchings	2	(13)	
inorganic acid manufacture	2	(14)	
organic acid manufacture	2	(15)	
Base solutions, with pH> 12	2	(16)	
caustic soda manufacture	2	(17)	
nylon and similar polymer generation	2	(18)	
scrubber residual	2	(19)	
Heavy metals & trace metals (bonded organically & inorganically)	1	(20)	*
arsenic, selenium, antimony	2	(21)	
mercury	2	(22)	
iron, manganese, magnesium	1	(23)	*
zinc, cadmium, copper, chromium (trivalent)	1	(24)	*
chromium (hexavalent)	2	(25)	*
lead	1	(26)	*
Radioactive residues, >3 pico curies/liter	2	(27)	
uranium residuals & residuals for UF_6 recycling	2	(28)	
lathanide series elements and rare earth salts	2	(29)	
phosphate slag	2	(30)	
thorium	2	(31)	
radium	2	(32)	
other alpha, beta & gamma emitters	2	(33)	
Organics	1	(34)	
insectides & intermediates	2	(35)	
herbicides & intermediates	1	(36)	
fungicides & intermediates	2	(37)	
rodonticides & intermediates	2	(38)	
halogenated aliphatics	2	(39)	
halogenated aromatics	2	(40)	
acrylates & latex emulsions	2	(41)	
PCB/PBB's	2	(42)	
amides, amines, imides	1	(43)	
plastizers	2	(44)	
resins	2	(45)	
elastomers	2	(46)	
solvents polar (except water)	2	(47)	
carbontetrachloride	2	(48)	
trichloroethylene	2	(49)	
other solvents nonpolar	1	(50)	
solvents halogenated aliphatic	2	(51)	
solvents halogenated aromatic	2	(52)	
oils and oil sludges	2	(53)	
esters and ethers	2	(54)	
alcohols	2	(55)	
ketones & aldehydes	2	(56)	
dioxins	2	(57)	
Inorganics	1	(58)	
salts	1	(59)	
mercaptans	2	(60)	
Misc	1	(61)	
pharmaceutical wastes	2	(62)	
paints & pigments	2	(63)	
catalysts (eg. vanadium, platinum, palladium)	2	(64)	
asbestos	1	(65)	*
shock sensitive wastes (eg. nitrated toluenes)	2	(66)	
air water reactive wastes (eg. P_4, aluminum chloride)	2	(67)	
wastes with flash point below 100° F	1	(68)	

* Dry Alum Mud Insoluble

Iron	1%	Manganese	200 ppm
Copper	30 ppm	Chromium +3	14.5 ppm
Lead	100-200 ppm	Chromium +6	< 0.1 ppm
Asbestos (prior to 8/76)	40 ppm		

	(1-8)
	(DO NOT USE)

PART B: DISPOSAL SITE INFORMATION

COMPLETE THIS FORM FOR EVERY SITE (INCLUDING THE LOCATION OF THIS FACILITY AS ONE SITE) USED FOR THE DISPOSAL OF PROCESS WASTES GENERATED BY THIS FACILITY SINCE 1950.

Company Name: Stauffer Chemical Co.
Facility Name: Richmond Ag Plant
Name of Site: Berkeley Landfill Co.
Address of Site: Foot of University Avenue
no. street

Berkeley CA
city state zip code

Name of Owner (while used by facility): City of Berkeley
Address: 2180 Milvia Street
no. street

Berkeley CA
city state zip code

Current Owner (if different from above):
Address:
no. street

city state zip code

1. Location (1= the property on which facility is located; 2= off-site) 2 (10)
2. Ownership at time of use (1= company ownership; 2=private but not company ownership) 3=public ownership) 3 (11)
3. Current status (1= closed; 2= still in use; 9=don't know) 2 (12)
   IF CLOSED, specify year closed 19 (13-14)
4. Year first used for process waste from this facility 19 60 (15-16)
5. Year last used for process waste from this facility (enter "79" if still in use) 19 71 (17-18)
6. Total amount of process waste from this facility disposed at site:
   thousand gallons ..... (19-26)
   hundred tons 1 1 1 (27-33)
   thousand cubic yards ..... (34-41)
7. Specify type(s) of disposal method(s) used at site and whether method is still in use (1=currently in use; 2=no longer in use; 3=never used; 9=don't know)
   landfill, mono industrial waste 9 (42)
   landfill, mixed industrial waste 2 (43)
   landfill, drummed waste 9 (44)
   landfill, municipal refuse co-disposed ... 9 (45)
   pits/ponds/lagoons 9 (46)
   deep well injection 9 (47)
   land farming 9 (48)
   incineration 9 (49)
   treatment (eg. neutralizing) 9 (50)
   reprocessing/recycling 9 (51)
   other (specify) Class 2 Landfill 2 (52)
8. Users of this site (1=this facility; 2=this facility and other company facilities only; 3=this company and others; 9=don't know) 3 (53)

LIST NAMES AND ADDRESSES OF OTHER KNOWN USERS BELOW

FORM IS CONTINUED ON SECOND PAGE

1 (80)

(1-8) (DO NOT USE)

Company Name: Stauffer Chemical Co.

Facility Name: Richmond Ag Plant

Site Name: Berkeley City Dump

9. Components (or characteristics) of process waste from this facility disposed at site: (1=present in waste; 2=not present in waste; 9=don't know)

FILL IN EVERY BLOCK SPACE

Acid solutions, with pH<3	9	(10)	
pickling liquor	2	(11)	
metal plating waste	2	(12)	
circuit etchings	2	(13)	
inorganic acid manufacture	2	(14)	
organic acid manufacture	2	(15)	
Base solutions, with pH> 12	2	(16)	
caustic soda manufacture	2	(17)	
nylon and similar polymer generation	2	(18)	
scrubber residual	2	(19)	
Heavy metals & trace metals (bonded organically & inorganically)	1	(20)	*
arsenic, selenium, antimony	2	(21)	
mercury	2	(22)	
iron, manganese, magnesium	1	(23)	*
zinc, cadmium, copper, chromium (trivalent)	1	(24)	*
chromium (hexavalent)	2	(25)	*
lead	1	(26)	*
Radioactive residues, >3 pico curies/liter	2	(27)	
uranium residuals & residuals for UF_6 recycling	2	(28)	
lathanide series elements and rare earth salts	2	(29)	
phosphate slag	2	(30)	
thorium	2	(31)	
radium	2	(32)	
other alpha, beta & gamma emitters	2	(33)	
Organics	2	(34)	
insectides & intermediates	2	(35)	
herbicides & intermediates	2	(36)	
fungicides & intermediates	2	(37)	
rodenticides & intermediates	2	(38)	
halogenated aliphatics	2	(39)	
halogenated aromatics	2	(40)	
acrylates & latex emulsions	2	(41)	
PCB/PBB's	2	(42)	
amides, amines, imides	2	(43)	
plastizers	2	(44)	
resins	2	(45)	
elastomers	2	(46)	
solvents polar (except water)	2	(47)	
carbontetrachloride	2	(48)	
trichloroethylene	2	(49)	
other solvents nonpolar	2	(50)	
solvents halogenated aliphatic	2	(51)	
solvents halogenated aromatic	2	(52)	
oils and oil sludges	2	(53)	
esters and ethers	2	(54)	
alcohols	2	(55)	
ketones & aldehydes	2	(56)	
dioxins	2	(57)	
Inorganics	1	(58)	
salts	1	(59)	
mercaptans	2	(60)	
Misc.	1	(61)	*
pharmaceutical wastes	2	(62)	
paints & pigments	2	(63)	
catalysts (eg. vanadium, platinum, palladium)	2	(64)	
asbestos	1	(65)	*
shock sensitive wastes (eg. nitrated toluenes)	2	(66)	
air water reactive wastes (eg. P_4, aluminum chloride)	2	(67)	
wastes with flash point below 100° F	2	(68)	

*

Dry Alum Mud Insolubles

Iron	1%	Manganese	200 ppm
Copper	30 ppm	Chromium +6	< 0.1 ppm
Lead	100-200 ppm	Chromium +3	14.5 ppm
Asbestos	40 ppm		

							(1-8)

(DO NOT USE)

FORM B: DISPOSAL SITE INFORMATION

COMPLETE THIS FORM FOR EVERY SITE (INCLUDING THE LOCATION OF THIS FACILITY AS ONE SITE) USED FOR THE DISPOSAL OF PROCESS WASTES GENERATED BY THIS FACILITY SINCE 1950.

Company Name: Stauffer Chemical Co.
Facility Name: Richmond Ag Plant
Name of Site: Environmental Disposal Services
Address of Site: _____
no. street

Kettleman City CA _____
city state zip code

Name of Owner (while used by facility): Waste Management, Inc.
Address: 900 Jorie Blvd.
no. street

Oakbrook IL 60521
city state zip code

Current Owner (if different from above): _____
Address: _____
no. street

_____
city state zip code

1. Location (1= the property on which facility is located; 2= off-site) ..... [2] (10)
2. Ownership at time of use (1= company ownership; 2=private but not company ownership) 3=public ownership) ..... [2] (11)
3. Current status (1= closed; 2= still in use; 9=don't know) ..... [2] (12)
   IF CLOSED, specify year closed ..... 19[ ] (13-14)
4. Year first used for process waste from this facility ..... 19[78] (15-16)
5. Year last used for process waste from this facility (enter "79" if still in use) ..... 19[79] (17-18)
6. Total amount of process waste from this facility disposed at site:
   thousand gallons ..... [ ] (19-26)
   hundred tons ..... [ ] (27-33)
   thousand cubic yards ..... [ ] (34-41)
7. Specify type(s) of disposal method(s) used at site and whether method is still in use (1=currently in use; 2=no longer in use; 3=never used; 9=don't know)
   landfill, mono industrial waste ..... [9] (42)
   landfill, mixed industrial waste ..... [1] (43)
   landfill, drummed waste ..... [9] (44)
   landfill, municipal refuse co-disposed ... [9] (45)
   pits/ponds/lagoons ..... [9] (46)
   deep well injection ..... [9] (47)
   land farming ..... [9] (48)
   incineration ..... [9] (49)
   treatment (eg. neutralizing) ..... [9] (50)
   reprocessing/recycling ..... [9] (51)
   other (specify) _____ .... [9] (52)
8. Users of this site (1=this facility; 2=this facility and other company facilities only; 3=this company and others; 9=don't know) ..... [3] (53)

LIST NAMES AND ADDRESSES OF OTHER KNOWN USERS BELOW

* 9 Tons

FORM B CONTINUED ON SECOND PAGE

[1] (80)

(DO NOT USE) (1-8)

Company Name: Stauffer Chemical Co.

Facility Name: Richmond Ag Plant

Site Name: Environmental Disposal Services

9. Components (or characteristics) of process waste from this facility disposed at site: (1=present in waste; 2=not present in waste; 9=don't know)

FILL IN EVERY BLOCK SPACE

Acid solutions, with pH<3	1	(10)
pickling liquor	2	(11)
metal plating waste	2	(12)
circuit etchings	2	(13)
inorganic acid manufacture	2	(14)
organic acid manufacture	1	(15)
Base solutions, with pH> 12	1	(16)
caustic soda manufacture	2	(17)
nylon and similar polymer generation	2	(18)
scrubber residual	1	(19)
Heavy metals & trace metals (bonded organically & inorganically)	2	(20)
arsenic, selenium, antimony	2	(21)
mercury	2	(22)
iron, manganese, magnesium	2	(23)
zinc, cadmium, copper, chromium (trivalent)	2	(24)
chromium (hexavalent)	2	(25)
lead	2	(26)
Radioactive residues, >3 pico curies/liter	2	(27)
uranium residuals & residuals for UF_6 recycling	2	(28)
lathanide series elements and rare earth salts	2	(29)
phosphate slag	2	(30)
thorium	2	(31)
radium	2	(32)
other alpha, beta & gamma emitters	2	(33)
Organics	1	(34)
insectides & intermediates	2	(35)
herbicides & intermediates	1	(36)
fungicides & intermediates	2	(37)
rodenticides & intermediates	2	(38)
halogenated aliphatics	2	(39)
halogenated aromatics	2	(40)
acrylates & latex emulsions	2	(41)
PCB/PBB's	2	(42)
amides, amines, imides	1	(43)
plastizers	2	(44)
resins	2	(45)
elastomers	2	(46)
solvents polar (except water)	2	(47)
carbontetrachloride	2	(48)
trichloroethylene	2	(49)
other solvents nonpolar	1	(50)
solvents halogenated aliphatic	2	(51)
solvents halogenated aromatic	2	(52)
oils and oil sludges	2	(53)
esters and ethers	2	(54)
alcohols	2	(55)
ketones & aldehydes	2	(56)
dioxins	2	(57)
Inorganics	1	(58)
salts	1	(59)
mercaptans	2	(60)
Misc	1	(61)
pharmaceutical wastes	2	(62)
paints & pigments	2	(63)
catalysts (eg. vanadium, platinum, palladium)	2	(64)
asbestos	2	(65)
shock sensitive wastes (eg. nitrated toluenes)	2	(66)
air water reactive wastes (eg. P_4, aluminum chloride)	2	(67)
wastes with flash point below 100° F	1	(68)

| | | | | | | | (1-8)
(DO NOT USE)

FORM B: DISPOSAL SITE INFORMATION

COMPLETE THIS FORM FOR EVERY SITE (INCLUDING THE LOCATION OF THIS FACILITY AS ONE SITE) USED FOR THE DISPOSAL OF PROCESS WASTES GENERATED BY THIS FACILITY SINCE 1950.

Company Name: Stauffer Chemical Co.
Facility Name: Richmond Ag Plant
Name of Site: Western Contra Costa County Sanitary Landfill
Address of Site: Foot of Paar Blvd.
no. street

Richmond CA 94805
city state zip code

Name of Owner (while used by facility): Richmond Sanitary Service
Address: 205 41st Street
no. street

Richmond CA 94805
city state zip code

Current Owner (if different from above): _____
Address: _____
no. street

_____
city state zip code

1. Location (1= the property on which facility is located; 2= off-site) 2 (10)
2. Ownership at time of use (1= company ownership; 2=private but not company ownership) 3=public ownership) 2 (11)
3. Current status (1= closed; 2= still in use; 9=don't know) 2 (12)
   IF CLOSED, specify year closed ..... 19 | | (13-14)
4. Year first used for process waste from this facility 19 6 0 (15-16)
5. Year last used for process waste from this facility (enter "79" if still in use) 19 7 9 (17-18)
6. Total amount of process waste from this facility disposed at site:
   thousand gallons ..... | | | | | | | (19-26)
   hundred tons ..... | | | | 1 6 (27-33)
   thousand cubic yards ..... | | | | | | | (34-41)
7. Specify type(s) of disposal method(s) used at site and whether method is still in use (1=currently in use; 2=no longer in use; 3=never used; 9=don't know)
   landfill, mono industrial waste 9 (42)
   landfill, mixed industrial waste 1 (43)
   landfill, drummed waste 1 (44)
   landfill, municipal refuse co-disposed ... 9 (45)
   pits/ponds/lagoons 9 (46)
   deep well injection 9 (47)
   land farming 9 (48)
   incineration 9 (49)
   treatment (eg. neutralizing) 9 (50)
   reprocessing/recycling 9 (51)
   other (specify) _____ 9 (52)
8. Users of this site (1=this facility; 2=this facility and other company facilities only; 3=this company and others; 9=don't know) 3 (53)

LIST NAMES AND ADDRESSES OF OTHER KNOWN USERS BELOW

FORM B CONTINUED ON SECOND PAGE

1 (80)

(1-8) (DO NOT USE)

Company Name: Stauffer Chemical Co.

Facility Name: Richmond Ag Plant
Western Contra Costa County

Site Name: Sanitary Landfill

9. Components (or characteristics) of process waste from this facility disposed at site: (1=present in waste; 2=not present in waste; 9=don't know)

FILL IN EVERY BLOCK SPACE

Acid solutions, with pH<3	1	(10)
pickling liquor	2	(11)
metal plating waste	2	(12)
circuit etchings	2	(13)
inorganic acid manufacture	1	(14)
organic acid manufacture	2	(15)
Base solutions, with pH>12	1	(16)
caustic soda manufacture	2	(17)
nylon and similar polymer generation	2	(18)
scrubber residual	1	(19)
Heavy metals & trace metals (bonded organically & inorganically)	2	(20)
arsenic, selenium, antimony	2	(21)
mercury	2	(22)
iron, manganese, magnesium	2	(23)
zinc, cadmium, copper, chromium (trivalent)	2	(24)
chromium (hexavalent)	2	(25)
lead	2	(26)
Radioactive residues, >3 pico curies/liter	2	(27)
uranium residuals & residuals for UF_6 recycling	2	(28)
lathanide series elements and rare earth salts	2	(29)
phosphate slag	2	(30)
thorium	2	(31)
radium	2	(32)
other alpha, beta & gamma emitters	2	(33)
Organics	1	(34)
insecticides & intermediates	1	(35)
herbicides & intermediates	1	(36)
fungicides & intermediates	1	(37)
rodenticides & intermediates	2	(38)
halogenated aliphatics	9	(39)
halogenated aromatics	9	(40)
acrylates & latex emulsions	2	(41)
PCB/PBB's	2	(42)
amides, amines, imides	1	(43)
plastizers	2	(44)
resins	2	(45)
elastomers	2	(46)
solvents polar (except water)	1	(47)
carbontetrachloride	9	(48)
trichloroethylene	2	(49)
other solvents nonpolar	9	(50)
solvents halogenated aliphatic	9	(51)
solvents halogenated aromatic	9	(52)
oils and oil sludges	1	(53)
esters and ethers	9	(54)
alcohols	9	(55)
ketones & aldehydes	9	(56)
dioxins	2	(57)
Inorganics	1	(58)
salts	1	(59)
mercaptans	9	(60)
Misc.	1	(61)
pharmaceutical wastes	2	(62)
paints & pigments	2	(63)
catalysts (eg. vanadium, platinum, palladium)	1	(64)
asbestos	2	(65)
shock sensitive wastes (eg, nitrated toluenes)	2	(66)
air water reactive wastes (eg. P_4, aluminum chloride)	9	(67)
wastes with flash point below 100° F	1	(68)

2 (80)

FORM C: HAULER INFORMATION

(1-5) (DO NOT USE)

PROVIDE A COMPLETE LIST OF ALL FIRMS AND INDEPENDENT CONTRACTORS, INCLUDING THE COMPANY AND ITS AFFILIATES AND SUBSIDIARIES, USED TO REMOVE PROCESS WASTES FROM THIS FACILITY SINCE 1950.

Company Name: Stauffer Chemical Co.

Facility Name: Richmond Ag Plant

	Name of Firm or Contractor	Address	ICC # (If Known)	Years Used
1.	E. L. Bibb, Inc. General Contractor	4030 Wesley Way El Sobrante, CA 94803		3
2.	Blair Excavators, Inc.	1360 So. 51st St. Richmond CA 94804		29
3.	Erickson Trucking, Inc. State Liquid Waste Hauler's Registration No. 19	249 Tewksbury Ave. Richmond CA 94801		3
4.	I.T. Transportation, Inc. State Liquid Waste Hauler's Reg. # 88	4501 Pacheco Blvd. Martinez, CA 94553		4
5.	Knapp Excavators, Inc. State License No. 188777	63 Parr Blvd. Richmond CA		29
6.	Richmond Sanitary Service State Liquid Waste Hauler's Reg. #92	205 41st St. Richmond CA 94805		29

M D: SUPPLEMENTAL HAULER INFORMATION

ETE THIS FORM FOR EACH FIRM OR INDEPEN CONTRACTOR (IN-
NG YOUR OWN COMPANY, ITS AFFILIATES & SU DIARIES) WHO
REMOVED PROCESS WASTE FROM THIS FACILITY SINCE 1950 AND TOOK IT
TO AN UNKNOWN LOCATION

(1-
(DO NOT USE)

Company Name: Stauffer Chemical Co.
Facility Name: Richmond Ag Plant
Name of Hauling Firm/Contractor:
Address: (no.) (street)
(city) (state) (zip code)

**NOT APPLICABLE

1. Year first used 19 (10-11)
2. Year last used (enter "79" if still in use) 19 (12-13)
3. Total amount of process waste hauled from this facility:
   thousand gallons ..... (14-21)
   hundred tons ..... (22-28)
   thousand cubic yards ..... (29-36)
4. Components (or characteristics) of process waste from this facility disposed at site: (1=present in waste; 2=not present in waste; 9=don't know):
   FILL IN EVERY BLOCK SPACE

Acid solutions, with pH<3	(37)
pickling liquor	(38)
metal plating waste	(39)
circuit etchings	(40)
inorganic acid manufacture	(41)
organic acid manufacture	(42)
Base solutions, with pH>10	(43)
caustic soda manufacture	(44)
nylon and similar polymer generation	(45)
scrubber residual	(46)
Heavy metals & trace metals (bonded organically & inorganically)	(47)
arsenic, selenium, antimony	(48)
mercury	(49)
iron, manganese, magnesium	(50)
zinc, cadmium, copper, chromium (trivalent)	(51)
chromium (hexavalent)	(52)
lead	(53)
Radioactive residues, >3 pico curies/liter	(54)
uranium residuals & residuals for UF_6 recycling	(55)
lathanide series elements and rare earth salts	(56)
phosphate slag	(57)
thorium	(58)
radium	(59)
other alpha, beta & gamma emitters	(60)
Organics	(61)
pesticides & intermediates	(62)
herbicides & intermediates	(63)
fungicides & intermediates	(64)
rodenticides & intermediates	(65)
halogenated aliphatics	(66)
halogenated aromatics	(67)
acrylates & latex emulsions	(68)
PCB/PBB's	(69)
amides, amines, imides	(70)
plastizers	(71)
resins	(72)
elastomers	(73)
solvents polar (except water)	(74)
carbontetrachloride	(75)
trichloroethylene	(76)
other solvents nonpolar	(77)
solvents halogenated aliphatic	(78)
solvents halogenated aromatic	(79) 1 (80
oils and oil sludges	(10)
esters and ethers	(11)
alcohols	(12)
ketones & aldehydes	(13)
dioxins	(14)
Inorganics	(15)
salts	(16)
mercaptans	(17)
Misc	(18)
pharmaceutical wastes	(19)
paints & pigments	(20)
catalysts (eg. vanadium, platinum, palladium)	(21)
asbestos	(22)
shock sensitive wastes (eg. nitrated toluenes)	(23)
air water reactive wastes (eg. P_4, aluminum chloride)	(24)
wastes with flash point below 100° F	(25) 2 (80

San Francisco Bay Regional Water Quality Control Board

Fact Sheet – Requirements for Submitting Technical Reports Under Section 13267 of the California Water Code

What does it mean when the Regional Water Board requires a technical report?

Section 13267[1] of the California Water Code provides that "…the regional board may require that any person who has discharged, discharges, or who is suspected of having discharged or discharging, or who proposes to discharge waste...that could affect the quality of waters...shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires."

This requirement for a technical report seems to mean that I am guilty of something, or at least responsible for cleaning something up. What if that is not so?

The requirement for a technical report is a tool the Regional Water Board uses to investigate water quality issues or problems. The information provided can be used by the Regional Water Board to clarify whether a given party has responsibility.

Are there limits to what the Regional Water Board can ask for?

Yes. The information required must relate to an actual or suspected or proposed discharge of waste (including discharges of waste where the initial discharge occurred many years ago), and the burden of compliance must bear a reasonable relationship to the need for the report and the benefits obtained. The Regional Water Board is required to explain the reasons for its requirement.

What if I can provide the information, but not by the date specified?

A time extension may be given for good cause. Your request should be promptly submitted in writing, giving reasons.

Are there penalties if I don't comply?

Depending on the situation, the Regional Water Board can impose a fine of up to $5,000 per day, and a court can impose fines of up to $25,000 per day as well as criminal penalties. A person who submits false information or fails to comply with a requirement to submit a technical report may be found guilty of a misdemeanor. For some reports, submission of false information may be a felony.

Do I have to use a consultant or attorney to comply?

There is no legal requirement for this, but as a practical matter, in most cases the specialized nature of the information required makes use of a consultant and/or attorney advisable.

What if I disagree with the 13267 requirements and the Regional Water Board staff will not change the requirement and/or date to comply?

You may ask that the Regional Water Board reconsider the requirement, and/or submit a petition to the State Water Resources Control Board. See California Water Code sections 13320 and 13321 for details. A request for reconsideration to the Regional Water Board does not affect the 30-day deadline within which to file a petition to the State Water Resources Control Board.

If I have more questions, whom do I ask?

Requirements for technical reports include the name, telephone number, and email address of the Regional Water Board staff contact.

[1] Code sections can be found by searching the California Legislative Code Section search at http://leginfo.legislature.ca.gov/faces/codes.xhtml

rev: March 2014