

10/23/14

A3464



**BAY AREA AIR QUALITY
MANAGEMENT DISTRICT**

939 ELLIS STREET
SAN FRANCISCO, CALIFORNIA 94109
(415) 771-6000

PERMIT TO OPERATE

Plant# 3464

Page: 1

Expires: NOV 1, 2015

This document does not permit the holder to violate any District regulation or other law.

City of Santa Clara
1500 Warburton Avenue
Santa Clara, CA 95050

Location: 5401 Lafayette
Santa Clara, CA 95050

S#	DESCRIPTION	[Schedule]	PAID
2	CHEM> Landfill with gas collection system, Multi-material Municipal Solid Waste Landfill with Gas Collection System Abated by: A2 Flare Emissions at: P1 Stack	[K]	1864

1 Permitted Source

*** See attached Permit Conditions ***

The operating parameters described above are based on information supplied by permit holder and may differ from the limits set forth in the attached conditions of the Permit to Operate. The limits of operation in the permit conditions are not to be exceeded. Exceeding these limits is considered a violation of District regulations subject to enforcement action.

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***** PERMIT CONDITIONS *****

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COND# 2935 applies to S# 2

Condition # 2935
SYNTHETIC MINOR OPERATING PERMIT
City of Santa Clara

Applications #16697
Plant #3464

Sources and Abatement Devices:

S-2, Closed Landfill with Landfill Gas Collection
System

A-2, Landfill Gas Flare

This facility, Site # A3464, has a synthetic minor operating permit. This operating permit covers all equipment existing at this facility as of permit issuance, including exempt sources. The sources and abatement devices are listed above.

The following conditions establish the federally enforceable permit terms to ensure that this plant is classified as a Synthetic Minor Facility under District Regulation 2, Rule 6, Major Facility Review, and ensure that it is not subject to the permitting requirements of Title V of the Federal Clean Air Act as amended in 1990 and 40 CFR Part 70. All applications submitted by the applicant and all modifications to the plant's equipment after issuance of the synthetic minor permit must be evaluated to ensure that the facility will not exceed the synthetic minor general limits below, and that sufficient monitoring, recordkeeping, and reporting requirements are imposed to ensure enforceability of the limits.

Any revision to a condition establishing this plant's status as a Synthetic Minor Facility or any new permit term that would limit emissions of a new or modified source for the purpose of maintaining the facility as a synthetic minor, must undergo the procedures specified by Rule 2-6, section 423. The basis for the synthetic minor conditions is an emission limit for regulated air pollutants of 95 tons per year, an emission limit of 90,000 tons per year for greenhouse gases (on a CO2 equivalent basis), an emission limit for a single hazardous air pollutant of 9 tons per year, and an emission limit for a combination of hazardous

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air pollutants of 23 tons per year.

Any District conditions that do not establish this facility as a synthetic minor are marked with an asterisk. There are no such conditions at this time. The facility must comply with all conditions, regardless of asterisks, and must comply with all District requirements for new and modified sources regardless of its status as a synthetic minor.

1. In no event shall the emissions from this site exceed any of the emission limits listed below. The owner/operator shall demonstrate compliance with the emission limits by complying with all emission limits, monitoring procedures, and record keeping requirements identified in Parts 4-14 below. (Basis: Regulation 2-6-423)

NOx	95 tons/year
CO	95 tons/year
POC	95 tons/year
PM10	95 tons/year
SO2	95 tons/year
Any Single HAP	9 tons/year
Combination of HAPs	23 tons/year
CO2e	90,000 tons/year

2. The landfill at this facility is closed. The owner/operator shall not accept any solid waste at this landfill, shall not dispose of any waste materials at this landfill, and shall not re-use any waste materials in a manner consistent with disposal at the landfill. (Basis: 40 CF Parts 60.752(d) (2) and 60.752(b) (2) (v) (A))
3. NMOC gas emissions from this landfill, as determined in accordance with 40 CFR Part 60.754(b), shall not exceed 50 Mg/year. To demonstrate compliance with this requirement, the owner/operator shall maintain records of the total amount of landfill gas collected from the landfill on an annual basis and shall maintain records of all NMOC concentration measurements made for the landfill gas collected from this site. (Basis: 40 CFR Parts 60.752(d) (2) and 60.752(b) (2) (v) (C))
4. The owner/operator shall ensure that all collected landfill gas is vented to the Landfill Gas Flare, A-2,



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and/or one or more of the 3 Ameresco microturbines, S-1, S-2, and S-3 (Plant #19158). The owner/operator shall ensure that raw landfill gas is not vented to the atmosphere, except for unavoidable landfill gas emissions that occur during collection system installation, maintenance, or repair, which is performed in compliance with Regulation 8, Rule 34, Sections 113, 117, or 118, and for inadvertent component or surface leaks that do not exceed the limits specified in Sections 8-34-301.2 or 8-34.303. (Basis: Regulation 8-34-301)

- 5. The owner/operator shall ensure that the landfill gas collection system, described in subpart 5a below, is operated continuously as defined in Regulation 8-34-219. Wells, collectors, and adjustment valves shall not be shut off, disconnected, or removed from operation without written authorization from the District, unless the owner/operator complies with all applicable requirements of Regulation 8, Rule 34, Sections 113, 117, and 118.

The owner/operator shall apply for and receive a Change of Conditions from the District before altering the landfill gas collection system described in subpart 5a below. Increasing or decreasing the number of wells or collectors, or significantly changing the length of collectors, or the locations of wells or collectors are alterations that are subject to this requirement. Adding or modifying risers, laterals, or header pipes are not subject to this requirement. The authorized number of landfill gas collection system components is the baseline count listed below, plus any components added and minus any components decommissioned pursuant to subpart 5b below, as evidenced by start-up/shut-down notification letters to the District.

- a. The owner/operator has been issued a Permit to Operate for the landfill gas collection system components listed below, which includes all start-up/shut-down notifications submitted through April 20, 2009. Well and collector locations, depths, and lengths are as described in Permit Application 14392. Total Number of Vertical Wells: 78
- b. The owner/operator is authorized to make the



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landfill gas collection system component alterations listed below. Specific details regarding well alterations are described in Permit Application 17787.

	Minimum	Maximum
Install/relocate vertical wells	0	5
Replace Vertical Wells	0	5
Decommission Vertical Wells	0	5

The owner/operator shall maintain records of the decommissioning date for each well that is shutdown and the initial operation date for each new or relocated well.

(Basis: Regulations 2-1-301, 8-34-301.1, 8-34-304, 8-34-305)

6. The owner/operator shall ensure that the heat input to the A-2 Landfill Gas Flare does not exceed 960 million BTU per day and does not exceed 350,400 million BTU per year. In order to demonstrate compliance with this part, the owner/operator shall calculate and record, on a monthly basis, the maximum daily and total monthly heat input to the flare based on the landfill gas flow rate recorded pursuant to subpart 13a below, the average methane concentration in the landfill gas based on the most recent source test, and a high heating value of 1013 BTU per cubic foot of methane at 60 degrees F.
(Basis: Regulation 2-1-301)

7. The minimum combustion zone temperature for the flare shall be equal to the average combustion zone temperature determined during the most recent complying source test minus 50 degrees F, providing that the minimum combustion zone temperature is not less than 1400 degrees F. The owner/operator shall ensure that the combustion zone temperature of the A-2 Landfill Gas Flare is maintained at a minimum of 1400 degrees F, averaged over any three-hour period. If a source test demonstrates compliance with all applicable requirements at a different temperature, the District will, upon request, revise this minimum temperature limit.
(Basis: Regulations 2-5 and 8-34-301.3)

8. The owner/operator shall ensure that the emissions of nitrogen oxides (NOx) from the A-2 Landfill Gas Flare do not exceed 46 ppmv at 3% O2, dry. This limit is


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equivalent to the 0.06 lb/MMBTU NOx emission factor provided by the manufacturer in the initial permit application for the flare. (Basis: Cumulative Increase)

9. The owner/operator shall ensure that the emissions of carbon monoxide (CO) from the A-2 Landfill Gas Flare do not exceed 201 ppmv at 3% O₂, dry. This limit is equivalent to the 0.16 lb/MMBTU CO emission factor provided by the manufacturer in the initial permit application for the flare. (Basis: Cumulative Increase)
10. The owner/operator shall ensure that the total reduced sulfur compounds in the collected landfill gas (measured as hydrogen sulfide) are monitored as a surrogate for monitoring sulfur dioxide in the control system's exhaust. The concentration of total reduced sulfur compounds in the collected landfill gas shall not exceed 800 ppmv (dry), expressed as H₂S. In order to demonstrate compliance with this part, the owner/operator shall measure the total sulfur content (as hydrogen sulfide) in collected landfill gas on an annual basis. Compliance may be established by either measurement of H₂S in landfill gas at the inlet to the flare using a draeger tube, or by laboratory analysis on collected landfill gas for sulfur compounds. The landfill gas sample shall be taken from the main landfill gas header. If using a draeger tube for gas analysis, the owner/operator shall follow the manufacturer's recommended procedures for using the draeger tube and interpreting the results. (Basis: Regulations 9-1-302, 2-6-423)
11. In order to demonstrate compliance with Regulation 2-1-301 and Regulation 8, Rule 34, Sections 301.3 and 412, the owner/operator shall conduct a District-approved source test annually on Landfill Gas Flare A-2. At a minimum, the annual source test shall determine the following:
 - a. landfill gas flow rate to the flare (dry basis);
 - b. concentrations (dry basis) of carbon dioxide (CO₂), nitrogen (N₂), oxygen (O₂), methane (CH₄), and total non-methane organic compounds (NMOC) in the landfill gas;
 - c. concentrations (dry basis) of sulfur compounds in the landfill gas from laboratory analysis, if


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- testing for SO₂ in flare stack gas is not performed;
- d. stack gas flow rate from the flare (dry basis);
 - e. concentrations (dry basis) of NO_x, CO, CH₄, NMOC, and O₂ in the flare stack gas;
 - f. concentration (dry basis) of SO₂ in the flare stack gas, if laboratory analysis for sulfur compounds in landfill gas is not performed;
 - g. the CH₄, and NMOC destruction efficiencies achieved by the flare; and
 - h. the average combustion temperature in the flare during the test period.

Annual source tests shall be conducted no later than twelve months after the previous source test. The owner/operator shall obtain approval from the District's Source Test Section for all source testing procedures at least 14 days in advance of each source test. The Source Test Section shall be notified of the scheduled test date at least 7 days in advance of each source test. Within 45 days of test completion, a comprehensive report of the test results shall be submitted to the Manager of the District's Source Test Section for review and disposition. (Basis: Cumulative Increase, Regulations 2-5, 2-1-301, 8-34-301.3 and 8-34-412)

12. The owner/operator shall conduct a characterization of the landfill gas concurrent with the annual source test required by part 11 above. The landfill gas sample shall be drawn from the main landfill gas header. The owner/operator shall ensure that the landfill gas is analyzed for the following compounds:

1,1-Dichloroethane (Ethylene Chloride),
 Benzene,
 Carbon Tetrachloride,
 Chlorobenzene,
 Chloroethane,
 Dichloromethane (Methylene Chloride)
 Ethanol,
 Ethylbenzene,
 Hexane,
 Methyl Ethyl Ketone,
 Methyl Isobutyl Ketone,
 Perchloroethylene



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(Tetrachloroethylene),
Toluene,
Trichloroethylene
Vinyl Chloride, and
Xylenes

All concentrations shall be reported on a dry basis. The District shall be notified of the scheduled test date at least 7 days in advance of each source test. Within 45 days of test completion a comprehensive report of the test results shall be submitted to the Manager of the District's Source Test Section for review and disposition. After conducting three annual landfill gas characterization tests, the owner/operator may request removal of specific compounds from the list of compounds to be tested for if the compounds have not been detected, have no significant impact on the cancer risk determination for the site, and have no significant impact on the hazard index determination for the site. (Basis: Regulations 2-5, 8-34-412)

- 13. In order to demonstrate compliance with the above conditions, the owner/operator shall maintain the following records in a District-approved logbook: a. Record the operating times and the landfill gas flow rate to the A-2 Landfill Gas Flare on a daily basis. Summarize these records on a monthly basis. Calculate and record the heat input to A-2, pursuant to part 6 above. b. Maintain continuous records of the combustion zone temperature for the A-2 Landfill Gas Flare during all hours of operation. c. Maintain records of all test dates and test results performed to maintain compliance with parts 10, 11, and 12 above, or to maintain compliance with any applicable rule or regulation.

All records shall be maintained on site or shall be made readily available to District staff upon request for a period of at least five years from the date of entry. These recordkeeping requirements do not replace any recordkeeping requirements contained in any other applicable rule or regulation. (Basis; Cumulative Increase, Regulations 2-1-301, 2-6-501, 8-34-301, and 8-34-501)

- 14. The owner/operator shall submit the annual report

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required under Regulation 8-34-411 concurrently with the annual source test required under part 11 above. At a minimum, this annual report must contain all operating records required under Regulation 8-34-501. (Basis: Regulations 8-34-411, 8-34-501, 8-34-503, 8-34-505, 8-34-506, 8-34-507, 8-34-508, 8-34-509)

~~~~~ END OF CONDITIONS ~~~~~

| S#          | Source Description                         | Annual Average lbs/day |     |     |     |    |
|-------------|--------------------------------------------|------------------------|-----|-----|-----|----|
|             |                                            | PART                   | ORG | NOx | SO2 | CO |
| 2           | Municipal Solid Waste Landfill with Gas Co | -                      | 106 | .1  | -   | -  |
| T O T A L S |                                            |                        | 106 | .1  |     |    |

\*\* PLANT TOTALS FOR EACH EMITTED TOXIC POLLUTANT \*\*

| Pollutant Name            | Emissions lbs/day |
|---------------------------|-------------------|
| Benzene                   | .29               |
| Ethylene dichloride       | .08               |
| Hexane                    | 1.10              |
| Methyl ethyl ketone (MEK) | 1.00              |
| Perchloroethylene         | 1.20              |
| Toluene                   | 7.05              |
| Trichloroethylene         | .72               |
| Xylene                    | 2.50              |
| Ethylbenzene              | .95               |
| Vinylidene chloride       | .04               |
| Methylene chloride        | 2.36              |
| Ethyl chloride            | .16               |
| Vinyl chloride            | .90               |
| 1,1,1-Trichloroethane     | .12               |
| Hydrogen Sulfide (H2S)    | 2.36              |

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION**

**ORDER NO. R2-2002-0008**

**UPDATED WASTE DISCHARGE REQUIREMENTS AND  
RESCISSION OF ORDER NO. 94-050 FOR:**

**CITY OF SANTA CLARA  
SANTA CLARA ALL PURPOSE LANDFILL  
SANTA CLARA, SANTA CLARA COUNTY**

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter called the Board), finds that:

**DISCHARGER AND LOCATION**

1. Owner, operator, and discharger named: The City of Santa Clara is the property owner of the Santa Clara All Purpose Landfill (All Purpose Landfill), which is a closed landfill that is no longer accepting waste. Mission Trail Waste Systems was the former operator of the landfill but post-closure maintenance has been conducted by the City of Santa Clara. The City of Santa Clara is hereinafter referred to as the Discharger.
2. Landfill location and description: The 136 acre landfill is located south of State highway 237 between San Tomas Aquinas Creek and the Guadalupe River (refer to Figure 1, Site Location Map). The landfill ceased accepting waste in October 1993 and has been closed and redeveloped. Currently the landfill consists of a golf course and open space. The site is surrounded by commercial and residential areas.

**PURPOSE OF ORDER UPDATE**

3. Update of Waste Discharge Requirements: This order updates Waste Discharge Requirements to include general provisions and tasks necessary to: 1) implement upgrades to the leachate containment and recovery system; 2) insure that future commercial real estate developments at the landfill do not impair water quality; and 3) to bring the landfill into compliance with the appropriate portions of Title 27 of the California Code of Regulations (formerly contained in Chapter 15, Title 23), referred to hereinafter as Title 27.

## **SITE DESCRIPTION**

4. Waste placement: The All Purpose Landfill accepted waste from 1934 to 1993. Municipal waste, construction debris, and non-hazardous industrial and commercial waste were disposed at the site. Relatively smaller quantities of hazardous materials, including solvents, organics compounds, heavy metals, acids, and bases were also disposed at the landfill. The total volume of material placed into the landfill is approximately 11 million cubic yards, including waste, daily cover material, and final cover material. Waste thickness is approximately 60 to 80 feet and extends as much as 25 feet below sea level.
5. Landfill parcels and waste containment controls: The landfill consists of four primary parcels: 1, 2, 3/6, and 4. No bottom liner was installed beneath Parcels 1, 2, and 4, consistent with landfill practices at the time of filling; however, clay cut-off walls were installed surrounding Parcels 1 and 2. Parcel 1-NW, located adjacent to Parcel 1, and Parcel 3/6 were developed with clay base liners and a dendritic leachate collection system. Approximately 120,000 gallons of landfill leachate are removed yearly from the Parcel 1-NW and Parcel 3/6 dendritic leachate system. The landfill leachate is disposed into the sanitary sewer system. No waste was placed in Parcel 5 and Parcel 7.
6. Landfill cap: The landfill has been capped with a minimum four foot thick cover consisting of two feet of foundation layer, one foot of low permeability clay layer, and one foot of vegetative soil. In areas redeveloped as a golf course, the vegetative cap ranges upward to 35 feet thick so that the rooting depth of the trees and shrubs does not impact the low-permeability clay layer. The surface has been graded to prevent ponding and promote runoff. Beneath golf course ponds and areas requiring irrigation, clay liners and drainage systems prevent infiltration of irrigation water into the landfill.

## **REGULATORY HISTORY**

7. Previous Orders: The Regional Board adopted six separate orders for the landfill between 1965 and 1994. The orders included specifications regarding landfill construction, operation, and closure. The orders include:
  - Resolution No. 713 - September 22, 1965, permitted disposal in Parcel 4
  - Order No. 73-77 - December 27, 1977, Waste Discharge Requirements permitting disposal in Parcels 1, 2, 3, 5, and 6 (no waste was placed in Parcel 5).
  - Order No. 85-78 - June 19, 1985, Amendment to Order No. 73-77 specifying closure requirements for Parcels 1 and 2
  - Order No. 86-15 - March 19, 1986, Amendment to Order No. 73-77 specifying construction standards for Parcel 3/6

- Order No. 86-66 - August 20, 1986, Amendment to Order Nos. 86-15 and 73-77 approving a leachate collection and recovery system in Parcel 3/6
- Order No. 94-050 - April 20, 1994, Rescission of Order No. 73-77 specifying additional tasks necessary to close Parcels 2 and 4

## **SITE GEOLOGIC AND HYDROGEOLOGIC SETTING**

8. Regional hydrogeologic conditions: The site is located at the northern end of the Santa Clara Valley groundwater basin. The alluvial fill of the Santa Clara Valley is composed of a heterogeneous mixture of gravel, sand, silt, and clay. Gravel and sand were deposited in meandering stream channels draining into the San Francisco Bay. These coarser deposits are the primary aquifers or water producing zones in the San Jose area. These aquifers are interspersed within thick clay layers deposited by bay waters. Regionally, these channel deposits are grouped into upper and lower aquifer zones. In the vicinity of the Bay, these aquifers are separated from each other by an extensive clay aquitard. The upper aquifer zone generally extends to depths of 150 feet; the lower aquifer zone generally occurs below this depth. The upper aquifer zone along the bay margin in the vicinity of the site has been extensively impacted by salt water intrusion.
9. Local groundwater conditions: Groundwater beneath the landfill flows north-northeast, consistent with the regional northward flow. Shallow groundwater is encountered at depths near mean sea level. The shallow groundwater velocity ranges from 11 feet per year in Parcel 2 to 1190 feet per year in Parcel 4. The site is underlain by low-permeability bay mud. The primary sources of recharge to the shallow groundwater units are through direct infiltration in areas upgradient of the landfill. Runoff from the landfill is channeled to drainage structures surrounding the landfill, to San Tomas Aquino Creek to the southwest, and to Guadalupe River to the east.
10. Geologic structure and faulting: Within the mountain ranges on both sides of the Santa Clara Valley are well defined active earthquake faults. The major active fault zones in the region include the San Andreas, Hayward, and Calaveras fault zones. The site is approximately 12 miles northeast of the San Andreas fault zone, and approximately eight and nine miles southwest of the Hayward and Calaveras fault zones, respectively. The closest fault to the landfill is the Silver Creek Fault 1.5 miles to the east.

## **SITE CONTAMINATION AND WATER QUALITY**

11. Contamination originating at landfill: Groundwater beneath the landfill contains chlorinated solvents at levels up to 250 ppb cis-1,2-DCE, 61 ppb trans-1,2-DCE, and 37 ppb vinyl chloride. The source of the solvents is Parcel 4. The Parcel 4 groundwater

solvent plume is approximately 1000 feet wide and 1500 feet long. However, no groundwater pollution, leachate, or landfill gas is migrating beyond the landfill footprint. Leachate samples collected at the landfill contain VOCs, including benzene, dichlorobenzene, and naphthalene, at levels of less than 1 ppb.

12. Corrective action measures: Extensive groundwater monitoring at the site indicates that groundwater contaminant concentrations are stable or declining. Buildup and migration of leachate is prevented by capping, clay cut-off walls, and operation of a leachate control and removal system. The Discharger also operates a landfill gas collection system.
13. Upgradient monitoring wells and surface water sampling: Sampling in upgradient groundwater monitoring wells suggests that low levels of VOCs are migrating toward the site from off-site upgradient areas. Surface water samples obtained from San Tomas Aquino Creek and Guadalupe Creek indicate that trace levels of VOCs detected in the two creeks originate from upstream sources.
14. Board Resolution No. 89-39: Board Resolution 89-39, "Sources of Drinking Water," defines potential sources of drinking water to include all groundwater in the region, with limited exceptions for areas containing high TDS (greater than 3000 mg/l TDS), high background contaminant levels, or those areas with a low-yield. Some groundwater underlying and adjacent to the site qualifies as a potential source of drinking water, though there is no current use of the site's groundwater, nor any anticipated plans for its use.
15. Potential source of drinking water: Shallow groundwater beneath the southern two thirds of the landfill does not exceed the 3000 mg/l total dissolved solids (TDS) threshold for drinking water. Shallow groundwater beneath the northern one-third of the landfill contains high chloride and total organic carbon levels, and generally exceeds 3000 mg/l TDS. Therefore, the upper aquifer zone in the northern 1/3 of the site meets the exemption criteria of the State Water Resources Control Board's Sources of Drinking Water Policy.

## **BASIN PLAN**

16. The Regional Board adopted a revised Water Quality Plan for the San Francisco Bay Basin (Basin Plan) on June 21, 1995. This updated and consolidated plan represents the Board's master water quality control planning document. The State Water Resource Control Board and the Office of the Administrative Law approved the revised Basin Plan on July 20 and November 13, respectively, of 1995. A summary of regulatory provisions

is contained in Title 23 of the California Code of Regulations at Section 3912. The Basin Plan defines beneficial uses and water quality objectives for waters of the State, including surface waters and groundwaters.

## **BENEFICIAL USES**

17. The beneficial uses of groundwater beneath the landfill include:
  - a. Municipal supply
  - b. Industrial process supply
  - c. Industrial service supply
  
18. The beneficial uses of Guadalupe Creek and San Tomas Aquinas Creek include:
  - a. Wildlife habitat
  - b. Water contact recreation
  - c. Non-contact water recreation
  - d. Commercial and sport fishing
  - e. Fish habitat
  - f. Fish migration

## **MONITORING PROGRAMS**

19. Groundwater Monitoring – Twenty-four groundwater monitoring wells are located at the landfill perimeter and in interior areas (G1-G21 and H5-H7). Wells G2, G15, and G16 are in the upgradient areas of the landfill and provide background water quality data. Wells H5 -H7 are used to monitor the deeper aquifer beneath the landfill. The monitoring wells indicate that groundwater pollution is contained within the footprint of the landfill.
  
20. Leachate Monitoring - Six leachate wells are located within the interior of the landfill (L1-L6). The leachate wells serve to monitor landfill leachate elevations and chemical concentrations and determine whether landfill waste materials are leaching and impacting groundwater. Landfill leachate is also monitored from nine leachate extraction sumps (LR1-LR9) and at the point of leachate discharge to the sanitary sewer.
  
21. Surface Water Monitoring –Surface water monitoring is conducted at four stations in San Tomas Aquino Creek and at Guadalupe River (SW1 - SW4).

## CALIFORNIA ENVIRONMENTAL QUALITY ACT

22. CEQA: This action is an order to enforce the laws and regulations administered by the Board. As such, this action is categorically exempt from the provisions of the California Environmental Quality Act (CEQA) pursuant to Section 15301 of the Resources Agency Guidelines.
23. Public notice: The Board has notified the Discharger and interested agencies and persons of its intent to adopt revised, updated Waste Discharge Requirements for the Discharger and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.
24. Public meeting: The Board, in a public meeting heard and considered all comments pertaining to the discharge.

**IT IS HEREBY ORDERED** that the Discharger, its agents, successors and assigns shall meet the applicable provisions contained in Title 27, Division 2, Subdivision 1 of the California Code of Regulations and Division 7 of the California Water Code and shall comply with the following:

### A. PROHIBITIONS

1. The relocation of wastes to or from waste management units shall not create a condition of pollution or nuisance as defined in Section 13050 (l) and (m) of the California Water Code. Any relocated waste shall not be placed in or allowed to contact ponded water from any source whatsoever. Wastes shall not be relocated to any location where they can be discharged into waters of the State or of the United States.
2. Leachate and ponded water containing leachate or in contact with waste shall not be discharged to waters of the State or of the United States unless specifically authorized under an NPDES permit.
3. Buildup of leachate levels shall be prevented by operation of a leachate extraction system. The depth of leachate shall be kept at levels of one foot or less, or the minimum level necessary to insure efficient operation of the leachate extraction system.
4. The creation of any new waste management units is prohibited without prior Regional Board approval.
5. The Discharger shall not excavate within or reconfigure any existing waste management unit without prior Regional Board approval.



6. No additional waste shall be deposited or stored at this site.
7. The Discharger, or any future owner or operator of the site, shall not cause the following conditions to exist in waters of the State at any place outside the waste management facility:
  - a. Surface Waters
    - Floating, suspended, or deposited macroscopic particulate matter or foam.
    - Bottom deposits or aquatic growths.
    - Alteration of temperature, turbidity, or apparent color beyond natural background levels.
    - Visible, floating, suspended or deposited oil or other products of petroleum origin.
    - Toxic or other deleterious substances to be present in concentrations or quantities which may cause deleterious effects on aquatic biota, wildlife or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentrations.
  - b. Groundwater
    - Further degradation of groundwater quality.
    - Substantial migration of groundwater impacts.
8. The Discharger shall not disc the landfill cap. Alternate methods of controlling vegetative growth, which do not affect the integrity of the landfill cap, shall be utilized.

**B. SPECIFICATIONS**

1. All reports pursuant to this order shall be prepared under the supervision of a California registered civil engineer, California registered geologist or certified engineering geologist.
2. The site shall be protected from any washout or erosion of wastes or cover material and from inundation that could occur as a result of a 100-year, 24-hour precipitation event, or as the result of flooding with a return frequency of 100 years.
3. Surface drainage from tributary areas and internal site drainage from surface or subsurface sources shall not contact or percolate through wastes during the life of the site.

4. The existing containment, drainage, and monitoring systems at the facility, shall be maintained as long as leachate is present and poses a threat to water quality.
5. The Discharger shall assure that the structures, which control leachate, surface drainage, erosion and gas are constructed and maintained to withstand conditions generated during the maximum probable earthquake.
6. The final cap system shall be graded and maintained to promote lateral runoff and prevent ponding and infiltration of water.
7. The Discharger shall analyze the samples from any groundwater or leachate wells as outlined in the Discharge Monitoring Program (Attachment A).
8. In the event of a release of a constituent of concern beyond the Point of Compliance (Section 20405, Title 27), the site begins a Compliance Period (Section 20410, Title 27). During the Compliance Period, the Discharger shall perform an Evaluation Monitoring Program and a Corrective Action Program.
9. The Discharger shall install any reasonable additional groundwater and leachate monitoring devices required to fulfill the terms of any future Discharge Monitoring Program issued by the Executive Officer.
10. Landfill gases shall be adequately vented, removed from the landfill, or otherwise controlled to minimize the danger of explosion, adverse health effects, nuisance conditions, or the impairment of beneficial uses of water.
11. The Discharger shall maintain all devices or designed features installed in accordance with this Order, such that they continue to operate as intended without interruption.
12. The Discharger shall provide a minimum of two surveyed permanent monuments near the landfill from which the location and elevation of wastes, containment structures, and monitoring facilities can be determined throughout the operation and post-closure maintenance period. A licensed land surveyor or registered civil engineer shall install these monuments.
13. The Regional Board shall be notified immediately of any failure occurring in the waste management unit. Any failure that threatens the integrity of containment features or the landfill shall be promptly corrected after approval of the method and schedule by the Executive Officer.
14. The Discharger shall comply with all applicable provisions of Title 27 that are not specifically referred to in this Order.

15. The Discharger shall maintain the facility so as to prevent a statistically significant increase in water quality parameters at points of compliance as provided in Section 20420 of Title 27.

## **C. PROVISIONS**

1. The Discharger shall comply immediately, or as prescribed by the time schedule below, with all Prohibitions, Specifications and Provisions of this Order. All required submittals must be acceptable to the Executive Officer. The Discharger must also comply with all conditions of these Waste Discharge Requirements. Violations may result in enforcement actions, including Regional Board orders or court orders requiring corrective action or imposing civil monetary liability, or in modification or revocation of these waste discharge requirements by the Regional Board. [CWC Section 13261, 13263, 13265, 13267, 13268, 13300, 13301, 13304, 13340, 13350].
2. All technical and monitoring reports required pursuant to this Order are being requested pursuant to Section 13267 of the California Water Code. Failure to submit reports in accordance with schedules established by this Order or failure to submit a report of sufficient technical quality to be acceptable to the Executive Officer may subject the Discharger to enforcement action pursuant to Section 13268 of the California Water Code.

### **3. UPGRADES TO LEACHATE REMOVAL AND CONTROL SYSTEM**

COMPLIANCE DATE: March 31, 2002

The Discharger shall submit a technical report, acceptable to the Executive Officer, documenting upgrade of the leachate removal and control system from intermittent extraction to continuous extraction. The extraction system upgrade shall be sufficient to maintain minimal leachate levels in the landfill and prevent off-site migration.

### **4. ANNUAL MONITORING REPORT**

COMPLIANCE DATE: January 31 of each year

The Discharger shall submit an Annual Monitoring Report, acceptable to the Executive Officer, by January 31 of each year in accordance with the attached Discharge Monitoring Program (Attachment A). The annual report to the Board shall cover the previous calendar year as described in Part A of the Monitoring Program. In addition to the requirements outlined in Attachment A, this report shall also include the following: location and operational condition of all leachate and groundwater monitoring wells; and a site map delineating groundwater and leachate contours for each monitoring event.

5. **SEMI-ANNUAL MONITORING REPORT**

COMPLIANCE DATE: July 31 and January 31 of each year

The Discharger shall submit semi-annual monitoring reports, no later than July 31 and January 31 of each year in accordance with the attached Discharge Monitoring Program (Attachment A). The January 31 semi-annual report may be combined with the annual report.

6. **ANNUAL MAINTENANCE REPORT**

COMPLIANCE DATE: July 31 of each year

The Discharger shall submit a technical report to the Board, acceptable to the Executive Officer, detailing the repair and maintenance activities that need to be completed prior to the commencement of the next rainy season (starting October 15 of each year). This letter report shall also include a schedule for repair and maintenance activities, and a cost analysis detailing the anticipated expense for all repairs, maintenance and monitoring during the next 12 months. Repair and maintenance estimates shall be based on rainy season inspections conducted throughout the winter as required in the Discharge Monitoring Program.

7. **CHANGES TO POST-CLOSURE DEVELOPMENT DESIGN**

COMPLIANCE DATE: 120 days prior to any material change in site operations or features

The Discharger shall prepare and submit a technical report, acceptable to the Executive Officer, describing any material proposed changes to site development, redevelopment projects, site features, or site operations for the landfill. The technical report shall describe the project, identify key changes to the design which may impact the landfill, and specify components of the design necessary to maintain integrity of the landfill cap and prevent water quality impacts. No material changes to the site shall be made without approval by the Executive Officer.

8. **CHANGE IN SITE CONDITIONS**

NOTIFICATION DUE DATE: Immediately upon occurrence  
REPORTING DUE DATE: 30 days after initial notification

The Discharger shall immediately notify the Board of any flooding, ponding, settlement, equipment failure, slope failure, exposure of waste, or other change in site conditions that could impair the integrity of the landfill cap, waste or leachate containment facilities, and/or drainage control structures and shall immediately

make repairs. Within 30 days, the Discharger shall prepare and submit a technical report, acceptable to the Executive Officer, documenting the corrective measures taken.

**9. STORMWATER CONTROL PLANS**

COMPLIANCE DATE: October 15 of the year of construction or prior to construction if commencing between October 15 and May 15

For each proposed development greater than 5 acres in size, the Discharger shall submit a Notice of Intent to the State Water Resources Control Board, prepare and submit a Storm Water Pollution Prevention Plan acceptable to the Executive Officer, and implement Best Management Practices (BMPs) for the control of storm water, in accordance with requirements specified in the State Water Resources Control Board General Permit for Storm Water Discharges Associated with Construction Activities (NPDES Permit No. CAS000002).

**10. WELL INSTALLATION REPORT**

COMPLIANCE DATE: 45 days following completion of well installation activities

The Discharger shall submit a technical report, acceptable to the Executive Officer, that provides well construction details, geologic boring logs, and well development logs for all new wells installed as part of the present or future Discharge Monitoring Program (Attachment A).

11. The Discharger shall maintain a copy of these waste discharge requirements and these requirements shall be available to operating personnel at the facility at all times [CWC Section 13263].
12. This Board considers the property owner(s) and site operator(s) to have responsibility for correcting any problems that arise in the future as a result of the waste discharged or related operations on their respective parcels which each owns or controls.
13. In the event that the property adjacent to the landfill is developed into residential dwellings, the Discharger will notify prospective home purchasers of the presence of the landfill.
14. The Discharger shall permit the Regional Board or its authorized representative, upon presentation of credentials:

- a. Immediate entry upon the premises on which wastes are located or in which any required records are kept.
  - b. Access to copy any records required under the terms and conditions of this order.
  - c. Inspection of any treatment equipment, monitoring equipment, or monitoring methods required by this order or by any other California State Agency.
  - d. Sampling of any discharge or groundwater governed by this order.
15. These requirements do not authorize commission of any act causing injury to the property of another or of the public; do not convey any property rights; do not remove liability under federal, state or local laws; and do not authorize the discharge of wastes.
16. In the event of any change in control/operator or ownership of land or parcel of land, or waste discharge facilities presently owned or controlled by the Discharger, the Discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to this office. The Discharger must notify the Executive Officer, in writing at least 30 days in advance of any proposed transfer of this Order's responsibility and coverage to a new discharger. The notice must include a written agreement between the existing and new discharger containing a specific date for the transfer of this order's responsibility and coverage between the current discharger and the new discharger. This agreement shall include an acknowledgment that the existing discharger is liable for violations up to the transfer date and that the new discharger is liable from the transfer date on. [CWC Sections 13267 and 13263]. The request must contain the requesting entity's full legal name, the address and telephone number of the persons responsible for contact with the Board and statement. Failure to submit the request shall be considered a discharge without requirements, a violation of the California Water Code.
17. This Order is subject to Board review and updating, as necessary, to comply with changing State and Federal laws, regulations, policies, or guidelines; changes in the Board's Basin Plan; or changes in the discharge characteristics [CWC Section 13263].
18. Where the Discharger becomes aware that it failed to submit any relevant facts in a Report of Waste Discharge or submitted incorrect information in a Report of Waste Discharge or in any report to the Regional Board, it shall promptly submit such facts or information [CWC Sections 13260 and 13267].
19. This Order does not convey any property rights of any sort or any exclusive privileges. The requirements prescribed herein do not authorize the commission of any act causing injury to persons or property, do not protect the Discharger from his liability under Federal, State or local laws, nor do they create a vested right for the Discharger to continue the waste discharge [CWC Section 13263(g)].

20. Provisions of these waste discharge requirements are severable. If any provision of these requirements is found invalid, the remainder of these requirements shall not be affected.
21. The Discharger shall, at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Discharger to achieve compliance with conditions of this Order. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this order [CWC Section 13263(f)].
22. Except for a discharge which is in compliance with these waste discharge requirements, any person who, without regard to intent or negligence, causes or permits any hazardous substance or sewage to be discharged in or on any waters of the State, or discharged or deposited where it is, or probably will be, discharged in or on any waters of the State, shall, as soon as (a) that person has knowledge of the discharge, (b) notification is possible, and (c) notification can be provided without substantially impeding cleanup or other emergency measures, immediately notify the office of Emergency Services of the discharge in accordance with the spill reporting provision of the state toxic disaster contingency plan adopted pursuant to Article 3.7 (commencing with Section 8574.7) of Chapter 7 of Division 1 of Title 2 of the Government Code, and immediately notify the State Board or the appropriate Regional Board of the discharge. This provision does not require reporting of any discharge of less than a reportable quantity as provided for under subdivisions (f) and (g) of Section 13271 of the Water Code unless the Discharger is in violation of a prohibition in the applicable water Quality Control Plan [CWC Section 13271(a)].
23. The Discharger shall report any noncompliance that may endanger public health or the environment. Any such information shall be provided orally to the Executive Officer within 24 hours from the time the Discharger becomes aware of the circumstances. A written submission shall also be provided within five days of the time the Discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected; the anticipated time it is expected to continue and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The Executive Officer, or an authorized representative, may waive the written report on a case-by-case basis if the oral report has been received within 24 hours [CWC Sections 13263 and 13267].

24. All monitoring instruments and devices used by the Discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy.
  
25. This Board's Order No. 94-050 is hereby rescinded.

I, Loretta K. Barsamian, Executive Officer, do hereby certify that the foregoing is a full, complete, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on January 23, 2002.

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Loretta K. Barsamian  
Executive Officer

Figures: Figure 1 - Site Location Map

Attachment: Attachment A - Discharge Monitoring Program



**ATTACHMENT A**

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION**

**DISCHARGE MONITORING PROGRAM**

**FOR**

**SANTA CLARA ALL PURPOSE LANDFILL  
SANTA CLARA, SANTA CLARA COUNTY**

**ORDER NO. R2-2002-0008**

**CONSISTS OF**

**PART A**

**AND**

**PART B**

## **PART A**

### **A. GENERAL**

Reporting responsibilities of waste dischargers are specified in Sections 13225(a), 13267(b), 13383, and 13387(b) of the California Water Code and this Regional Board's Resolution No. 73-16. This Discharge Monitoring Program is issued in accordance with Title 27 of the California Code of Regulations.

The principal purposes of a discharge monitoring program are: (1) to document compliance with waste discharge requirements and prohibitions established by the Board, (2) to facilitate self-policing by the waste dischargers in the prevention and abatement of pollution arising from waste discharge, (3) to develop or assist in the development of standards of performance, and toxicity standards, (4) to assist the dischargers in complying with the requirements of Title 27.

### **B. SAMPLING AND ANALYTICAL METHODS**

Sample collection, storage, and analyses shall be performed according to the most recent version of EPA Standard Methods and in accordance with an approved sampling and analysis plan.

Water and waste analysis shall be performed by a laboratory approved for these analyses by the State of California. The director of the laboratory whose name appears on the certification shall supervise all analytical work in his/her laboratory and all reports of such work submitted to the Regional Board shall be signed by a duly authorized representative of the laboratory.

All monitoring instruments and equipment shall be properly calibrated and maintained to ensure accuracy of measurements.

### **C. DEFINITION OF TERMS**

1. A grab sample is a discrete sample collected at any time.
2. Receiving waters refers to any surface that actually or potentially receives surface or groundwaters that pass over, through, or under waste materials or contaminated soils. In this case the groundwater beneath and adjacent to the landfill areas, the surface runoff from the site, and the San Francisco Bay are considered receiving waters.

3. Standard observations refer to:
  - a. Receiving Waters
    - 1) Floating and suspended materials of waste origin: presence or absence, source, and size of affected area.
    - 2) Discoloration and turbidity: description of color, source, and size of affected area.
    - 3) Evidence of odors, presence or absence, characterization, source, and distance of travel from source.
    - 4) Evidence of beneficial use: presence of water associated wildlife.
    - 5) Flow rate
    - 6) Weather conditions: wind direction and estimated velocity, total precipitation during the previous five days and on the day of observation.
  - b. Perimeter of the waste management unit.
    - 1) Evidence of liquid leaving or entering the waste management unit, estimated size of affected area and flow rate. (Show affected area on map)
    - 2) Evidence of odors, presence or absence, characterization, source, and distance of travel from source.
    - 3) Evidence of erosion and/or daylighted refuse.
  - c. The waste management unit.
    - 1) Evidence of ponded water at any point on the waste management facility.
    - 2) Evidence of odors, presence or absence, characterization, source, and distance of travel from source.
    - 3) Evidence of erosion, slope or ground movement, and/or daylighted refuse.
    - 4) Adequacy of access road
    - 5) Condition of site drains, silt basin capacity
    - 6) Standard Analysis and measurements are listed on Table A (attached)

#### **D. SAMPLING, ANALYSIS, AND OBSERVATIONS**

The Discharger is required to perform sampling, analyses, and observations in the following media:

1. Storm drain discharges per Section 20415
2. Groundwater and leachate per Section 20415

and per the general requirements specified in Section 20415(e) of Title 27.

**E. RECORDS TO BE MAINTAINED**

Written reports shall be maintained by the Discharger or laboratory, and shall be retained for a minimum of five years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge or when requested by the Board. Such records shall show the following for each sample:

1. Identity of sample and sample station number.
2. Date and time of sampling.
3. Date and time that analyses are started and completed, and name of the personnel performing the analyses.
4. Complete procedure used, including method of preserving the sample, and the identity and volumes of reagents used.
5. Calculation of results.
6. Results of analyses, and detection limits for each analysis.

**F. REPORTS TO BE FILED WITH THE BOARD**

1. Written detection monitoring reports shall be filed by January 31 and July 31 of each year. In addition an annual report shall be filed by January 31 of each year. The reports shall be comprised of the following:

- a. Letter of Transmittal

A letter transmitting the essential points in each report should accompany each report. Such a letter shall include a discussion of any requirement violations found during the last report period, and actions taken or planned for correcting the violations. If the Discharger has previously submitted a detailed time schedule for correcting requirement violations, a reference to the correspondence transmitting such schedule will be satisfactory. If no violations have occurred in the last report period this shall be stated in the letter of transmittal. Monitoring reports and the letter transmitting the monitoring reports shall be signed by a principal executive officer at the level of vice president or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge originates. The letter shall contain a statement by the official, under penalty of perjury, that to the best of the signer's knowledge the report is true, complete, and correct.

- b. Each monitoring report shall include a compliance evaluation summary. The summary shall contain:
  - 1) A graphic description of the velocity and direction of groundwater flow under/around the waste management unit, based upon the past and present water level elevations and pertinent visual observations.
  - 2) The method and time of water level measurement, the type of pump used for purging, pump placement in the well; method of purging, pumping rate, equipment and methods used to monitor field pH, temperature, and conductivity during purging, calibration of the field equipment, results of the pH, temperature conductivity and turbidity testing, well recovery time, and method of disposing of the purge water.
  - 3) Type of pump used, pump placement for sampling, a detailed description of the sampling procedure; number and description of equipment, field and travel blanks; number and description of duplicate samples; type of sample containers and preservatives used, the date and time of sampling, the name and qualifications of the person actually taking the samples, and any other observations.
- c. A map or aerial photograph shall accompany each report showing observation and monitoring station locations.
- d. Laboratory statements with the results of analyses specified in Part B must be included in each report. The director of the laboratory whose name appears on the laboratory certification shall supervise all analytical work in his/her laboratory and all reports of such work submitted to the Board shall be signed by a duly authorized representative of the laboratory.
  - 1) The methods of analyses and detection limits must be appropriate for the expected concentrations. Specific methods of analyses must be identified. If methods other than EPA approved methods or Standard Methods are used, the exact methodology must be submitted for review and approved by the Executive Officer prior to use.
  - 2) In addition to the results of the analyses, laboratory quality assurance/quality control (QA/QC) information must be included in the monitoring report. The laboratory QA/QC information should include the method, equipment and analytical detection limits; the recovery rates; an explanation for any recovery rate that are outside laboratory control limits; the results of equipment and

method blanks; the results of spiked and surrogate samples; the frequency of quality control analysis; and the name and qualifications of the person(s) performing the analyses.

- e. An evaluation of the effectiveness of the leachate monitoring facilities, which includes an evaluation of leachate buildup within the disposal units.
- f. A summary and certification of completion of all standard observations for the waste management unit, the perimeter of the waste management unit, and the receiving waters.

## **2. CONTINGENCY REPORTING**

A report shall be made by telephone of any seepage from the disposal area immediately after it is discovered. A written report shall be filed with the Board within five days thereafter. This report shall contain the following information:

- 1) a map showing the location(s) of discharge if any;
- 2) approximate flow rate;
- 3) nature of effects; i.e. all pertinent observations and analyses; and
- 4) corrective measures underway, proposed, or as specified in the Waste Discharge Requirements.

## **3. REPORTING**

By January 31 of each year the Discharger shall submit an annual report to the Board covering the previous calendar year. The annual report may incorporate the second semi-annual report of the previous year. The annual report shall contain:

- a. Tabular and graphical summaries of the monitoring data obtained during the previous year; the report should be accompanied by a computer data disk, tabulating the year's data in Microsoft Excel.
- b. A comprehensive discussion of the compliance record, and the corrective actions taken or planned which may be needed to bring the Discharger into full compliance with the waste discharge requirements.
- c. A written summary of the groundwater analyses indicating any change in the quality of the groundwater.
- d. An evaluation of the effectiveness of the leachate monitoring/control facilities, which includes an evaluation of leachate buildup within the disposal units.

#### **4. WELL LOGS**

A boring log and a monitoring well construction log shall be submitted for each new sampling well established for this monitoring program, as well as a report of inspection or certification that each well has been constructed in accordance with the construction standards of the Department of Water Resources. These shall be submitted within 45 days after well installation.

**Part B**

**1. DESCRIPTION OF OBSERVATION STATIONS AND SCHEDULE OF OBSERVATIONS**

**A. ON-SITE OBSERVATIONS – Observe quarterly, Report Semi-annually**

| <b><u>STATION</u></b> | <b><u>DESCRIPTION</u></b>                                                                                   | <b><u>OBSERVATIONS</u></b>                                             | <b><u>FREQUENCY</u></b>                                  |
|-----------------------|-------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|----------------------------------------------------------|
| <b>A-1 to A-'n'</b>   | Located on the area as delineated by a 500 foot grid network.                                               | Standard observations for the waste management unit.                   | Quarterly                                                |
| <b>P-1 thru P-'n'</b> | Located at equidistant intervals not exceeding 1000 feet around the perimeter of the waste management unit. | Standard observations for the perimeter.                               | Quarterly                                                |
| <b>S-1 thru S-'n'</b> | At any point(s) at which seepage is found occurring from the disposal area                                  | Standard test as outlined in Table A (perform analysis) once per seep) | Daily until remedial action is taken and seepage ceases. |

**B. SURFACE, GROUNDWATER AND LEACHATE MONITORING -**

Report Semi-annually

- i. Surface and Stormwater: Surface water shall be monitored as outlined below and in Table A (Attached). These monitoring points are also shown on Figure 2 (Attached). The results of the additional monitoring conducted as part of the General Permit for stormwater discharge shall be submitted as part of the annual report.

**Monitoring Points:**

|                                                            |            |
|------------------------------------------------------------|------------|
| Surface Water - Guadalupe Creek and San Tomas Aquina Creek | SW1 - SW-4 |
|------------------------------------------------------------|------------|



- ii. Groundwater: Groundwater samples shall be analyzed as outlined below and in Table A (Attached).

**Monitoring Points:**

|             |                            |
|-------------|----------------------------|
| Groundwater | G1 - G21 and any new wells |
|-------------|----------------------------|

- iii. Leachate: Leachate samples shall be analyzed as outlined below and in Table A (Attached).

**Monitoring Points:**

|          |                             |
|----------|-----------------------------|
| Leachate | LR1 - LR9 and any new wells |
|----------|-----------------------------|

**C. FACILITIES MONITORING**

The Discharger shall inspect all facilities to ensure proper and safe operation once per quarter and report semi-annually.

**D. Reports shall be due on the following schedule:**

|                                   |                                                                                 |
|-----------------------------------|---------------------------------------------------------------------------------|
| <b>First semi-annual report:</b>  | <b>July 31 of each year</b>                                                     |
| <b>Second semi-annual Report:</b> | <b>January 31 of each year</b>                                                  |
| <b>Annual Report:</b>             | <b>Combined with the second semi-annual report, due January 31 of each year</b> |

I, Loretta K. Barsamian, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedures set forth in this Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in this Board's Order No. R2-2002-0008.
2. Is effective on the date shown below.
3. May be reviewed or modified at any time subsequent to the effective date, upon written notice from the Executive Officer.

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Loretta K. Barsamian  
Executive Officer

Date Ordered: January 23, 2002

Attachment: Table A - Schedule for Sampling, Measurement, and Analysis

Figure 2 - Monitoring Locations

**Table A - Discharge Monitoring Plan, List of Analytical Parameters, Surface, Stormwater, Leachate and Groundwater**

| <b>Parameters</b>                      | <b>Method*</b> | <b>Frequency</b> |
|----------------------------------------|----------------|------------------|
| pH                                     | Field          | semi-annually    |
| pH                                     | 150.1          | semi-annually    |
| Chloride                               | 300.0          | semi-annually    |
| Ammonia (un-ionized)                   | 350.3          | semi-annually    |
| Nitrate as Nitrogen                    | 353.2          | semi-annually    |
| COD                                    | 410.1          | semi-annually    |
| Electrical conductivity                | Field          | semi-annually    |
| Electrical conductivity                | 120.1          | semi-annually    |
| Volatile Organic Compounds (8010 list) | 8260           | semi-annually    |
| BTXE/MTBE                              | 8021           | semi-annually    |
| MTBE                                   | 8021           | semi-annually    |
| Leachate Elevation                     | Field          | semi-annually    |
| Groundwater Elevation                  | Field          | semi-annually    |
| Arsenic                                | 7060           | semi-annually    |
| Chromium                               | 6010           | semi-annually    |
| Copper                                 | 6010           | semi-annually    |
| Lead                                   | 7421           | semi-annually    |
| Nickel                                 | 6010           | semi-annually    |
| Zinc                                   | 6010           | semi-annually    |
| Iron                                   | 6010           | semi-annually    |
| Phenols, total                         | 420.1          | semi-annually    |
| Total Kjeldahl Nitrogen                | 351.4          | semi-annually    |
| Turbidity                              | Field          | semi-annually    |

Notes:

- \* Test methods per Methods for Chemical Analysis of Water and Waste, USEPA 600/4/79/029, revised March 1983, or Test Methods for Evaluating Solid Wastes: Physical/Chemical Methods, USEPA SW-846, 3<sup>rd</sup> edition, November 1986 and revisions.