CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 85-47

WASTE DISCHARGE REQUIREMENTS FOR:

WASTE MANAGEMENT OF CALIFORNIA, INC.
OCEANIC CALIFORNIA, INC.
SAN JOSE, SANTA CLARA COUNTY

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

1. Waste Management of California Inc. by application dated August 15, 1984 has applied for a permit to operate a Class III landfill on 760 acres leased from Oceanic California Inc. (These Corporations are herein referred to as the discharger.) The project site, as shown on Attachment A, which is incorporated herein and made a part of this Order, is located to the east of U.S. Highway 101 between the currently incomplete Scheller Avenue interchange with Highway 101 and the Burnett Avenue/Highway 101 interchange. The Scheller Avenue interchange is approximately 15 miles to the south of San Jose Civic Center.

2. The sanitary landfill will eventually occupy 326 acres of the leased 760 acres. The project has an approximate lifetime of 55 years, at a disposal rate of about 1500 tons of refuse per day. The area will be filled in five consecutive stages, pursuant to submitted plans.

3. The discharger proposes to accept for disposal non-hazardous solid wastes, dewatered water treatment and sewage sludges, construction debris and other inert materials, and agricultural/forestry wastes excluding manures and other high-moisture content materials.

4. An additional 50 acres at the northwestern perimeter of the leased 760 acre parcel has been secured under a license agreement with OCI for access to the Scheller Avenue interchange and as a source of clay soils to be used during construction and operation. An additional 17 acre drainage control and construction easement has been secured along the eastern boundary. Attachment B which is incorporated herein and made a part of this Order, delineates these areas.

5. The proposed landfill will be located in a massive extrusion of Serpentine rock which protrudes upward from deeper geologic strata and extends horizontally at least 1500 feet to the east and 600 feet to the west of the fill area boundaries. Measured in-place permeability of this serpentine material varies from $2x10^{-4}$ cm./sec. to $6x10^{-8}$ cm./sec. This variation reflects the extent of weathering which has occurred. Localized fractures may exist in the serpentine which could provide direct paths of migration of leachate from the disposal site. These fractures must be identified during site construction activities, and monitored or sealed where appropriate in order to provide containment. In general, serpentine deeper than 50 feet below the surface exhibits a permeability less than $1x10^{-6}$ cm./sec.

6. The serpentine formation is bounded on the west by the Coyote Creek fault and on the east by the Silver Creek fault. Additionally, an unnamed fault crosses the center of the site. Independent previous investigations of this unnamed fault (Woodward-Lundgren & Associates, 1973 and 1975) concluded that their excavations show no evidence that this fault is active or potentially active. This fault is not a known Holocene fault.

7. Limited quantities of shallow groundwater are found in the weathered zone in the serpentine formation underlying the site. This shallow groundwater is of generally good quality for most uses; however, the high total dissolved solids content makes the groundwater unacceptable as a drinking water supply.

8. Background water qaulity levels for many indicator parameters have been established from analysis of water samples taken quarterly for the past year from the shallow weathered zone in the serpentine formation. The data used to establish these background levels is not exactly as specified in the newly adopted regulations, and should be reviewed after one year of additional data is collected.

9. Shallow groundwater in the weathered serpentine is hydraulically separated from the heavily used water bearing Santa Clara Valley Alluvium by 300 to 1300 feet of sedimentary deposits of the Santa Clara Formation, a geologic material exihibiting in-place permeability ranging from $6x10^{-5}$ cm./sec. to $3x10^{-8}$ cm./sec. A ground

water divide presently exists in the valley alluvium south west of the proposed landfill. Any ground water flow from the serpentine materials beneath the proposed landfill would intersect the valley alluvium north of this divide.

10. The water supply wells nearest to the site are located in valley alluvium southerly of the ground water divide described in Finding 9 and approximately 1500 ft. south of the proposed landfill. These wells are presently inactive. The nearest active wells are approximately 3500 feet south of the proposed landfill. The City of Morgan Hill has municipal supply wells approximately 4,000 feet to the south of the site. In the valley alluvium northerly of the ground water divide are the municipal and private wells serving San Jose. The closest wells are approximately 1 mile northerly of the site.

11. Runoff from the proposed landfill site currently flows into the Santa Clara Valley Water District's Coyote Canal. Both this canal, and nearby Coyote Creek, serve as recharge zones for the Santa Clara Valley Alluvium.

12. Beneficial uses of ground waters in the Southern Santa Clara Valley and the Coyote Creek and Canal are:

    a. Municipal and domestic water supply
    b. Industrial process water supply
    c. Industrial service supply
    d. Agricultural supply
    e. Water contact recreation
    f. Non-contact water recreation
    g. Warm fresh water habitat
    h. Cold fresh water habitat
    i. Wildlife habitat
    j. Preservation of rare and endangered species
    k. Fish migration
    l. Fish spawning

13. The discharger submitted, with their Report on Waste Discharge, a report entitled "Design, Construction, and Operating Provisions -- Kirby Canyon Sanitary Landfill" prepared by Emcon Associates in July, 1983 and revised in July 1984. This report, as amended by additional submittals of September 20, 1984, November 20, 1984, February 25, 1985 and April 1, 1985 proposes to construct and operate the landfill in accordance with the requirements of Subchapter 15 of Chapter 3, Title 23, California Administrative Code (hereinafter referred to as Subchapter 15.).

14. The dendritic leachate collection system proposed entails an alternative contruction practice which meets the conditions specified for alternative construction practices in Section 2510 of Subchapter 15.

15. Based on the limited poor quality water in the weathered serpentine and the permeabilities and separation of the site from usable ground water deposits in the Santa Clara Valley Alluvium as described in Findings 5, 6, 7, 9 and 10 this landfill meets the geologic siting standards of Subchapter 15.

16. The Regional Board adopted a revised Water Quality Plan for the San Francisco Bay Basin on July 1, 1982 and this Order implements the water quality objectives stated in that plan.

17. The City of San Jose, as lead agency, adopted a Final Environmental Impact Report on January 3, 1984 entitled "Final Environmental Impact Report on Kirby Canyon Landfill", as required under the California Environmental Quality Act. This Report identifies the following adverse impact relative to water quality:

    - Possible degradation of groundwater
    - Possible contamination of stormwater runoff due to contact with refuse during landfill operations.
    - Increased erosion during heavy rainfall on active excavation and fill areas, or in completd areas that have not yet been revegetated.

The following measures will mitigate the identified adverse impacts

- Design and operation of the sanitary landfill based on the natural geologic conditions and in accordance with Subchapter 15, Title 23, California Administrative Code to ensure containment of landfill waste, minimize leachate production, and prevent adverse impacts on the ground water resources of the Valley alluvium.

- Grading of the landfill surface and installation of drainage facilities to rapidly remove surface water flow from the landfill, thereby minimizing percolation and resulting leachate production.

- Construction of hydraulic barriers and leachate monitoring and control facilities at the lower end of the canyons as a contingency measure.

- Monitoring and removal of leachate, should any be produced.

- Monitoring of downstream ground water with wells to insure the integrity of the hydraulic barriers and leachate monitoring and control facilities.

- Installation of underdrains to drain any spring not removed by soil cover excavation.

- Construction of drainage improvements to direct surface waters away from refuse disposal operations.

- Revegetation of landfill and excavation areas, as soon as feasible.

- Construction of sedimentation basins at the lower end of the drainage courses to remove sediment from the storm runoff prior to discharge from the project site.

- Compliance with the regulations and standards contained in Subchapter 15 and waste discharge requirements adopted by the Board.

18. The Board notified the discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity for a public hearing and to submit their written views and reccommendations.

19. The Board, in a public hearing held on April 17, 1985, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED THAT WASTE MANAGEMENT OF CALIFORNIA ,INC. AND ANY OTHER PERSONS THAT CURRENTLY OR IN THE FUTURE OWN THIS LAND OR OPERATE THIS FACILITY SHALL MEET THE PROVISIONS CONTAINED IN DIVISION 7 OF THE CALIFORNIA WATER CODE AND REGULATIONS ADOPTED THEREUNDER AND SHALL ALSO COMPLY WITH THE FOLLOWING.

PROHIBITIONS

1. The disposal of wastes shall not create a pollution or nuisance as defined in Section 13050(1) (m) of the California Water Code.

2. Wastes shall not be placed in or allowed to contact ponded water from any source whatsoever.

3. Wastes shall not be disposed of in any position where they can be carried from the disposal site and discharged into waters of the State or the United States.

4. Hazardous and designated wastes as defined in Sections 2521 and 2522 of Subchapter 15, shall not be deposited or stored at this site.

5. High-moisture-content wastes (those containing less than 50% solids) other than water supply and waste-water treatment sludges shall not be discharged into the disposal area without prior written approval by the Executive Officer. Such approval shall be granted only if there is adequate moisture holding capacity in the landfill based upon mass balances and previous monitoring of the relevant leachate control facility. A minimum solids-to-liquids ratio of 5:1 by weight must be maintained for the disposal operation overall. Furthermore, sludges shall not be discharged into the disposal area unless they contain at least 20% solids if primary sludge, or at least 15% solids if secondary sludge, mixtures of primary and secondary sludges, or water treatment sludge.

6. The discharger, or any future 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

      1. Floating suspended, or deposited macroscopic particulate matter or foam.

      2. Bottom deposits or aquatic growths.

      3. Alteration of temperature, turbidity or apparent color beyond present natural background levels.

      4. Visible, floating, suspended or deposited oil or other products of petroleum origin.

      5. 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

      1. The groundwater shall not be degraded as a result of the solids waste disposal operation.

7. Leachate from wastes and ponded water containing leachate or in contact with refuse shall not be discharged to waters of the State or the United States.

B. SPECIFICATIONS

1. Water used during disposal site operations shall be limited to a minimal amount necessary for dust control and fire suppresion.

2. The site shall be protected from any washout or erosion of wastes or covering material and from inundation which could occur as a result of a 100 year 24 hour precipitation event.

3. Surface drainage from tributary areas, and internal site drainage from surface or subsurface sources, shall not contact or percolate through wastes during disposal operation or during the life of the site. Drainage ditches constructed over refuse fill areas will be underlain with a minimum 5-foot thickness of earthfill, as described on pages 8-10 of the report, "Design, Construction and Operating Provisions -- Kirby Canyon Sanitary Landfill", cited previously.

4. Fill area one shall be underlain by a dendritic leachate collection system as described in the discharger's submittal of April 1, 1985. Plans for leachate collection systems for fill areas 2-5 shall be submited at least 90 days prior to the date on which the discharger intends to place wastes in those areas. The placement of wastes in those areas shall not commence until the plan is approved in writing by the Executive Officer. Approval of this plan shall be based on a demonstration submitted by the discharger that the system proposed will comply with Section 2510 or Section 2543, Title 23, California Administrative Code.

5. Permanent leachate control facilities shall be constructed on the canyon floor at the toe of fill areas 2, 4, and 5. Temporary leachate control facilities shall be constructed at the toe of fill areas 1 and 3. These facilities are temporary in that groundwater monitoring wells at these facilities will be abandoned when the permanent

facilities at the toes of fill areas 2 and 4 are installed. Measures will be taken to ensure that leachate in the leachate collection systems in fill areas 1 and 3 can pass freely into fill areas 2 and 4, respectively. Measures shall also be taken to assure that the leachate extraction wells for fill areas 1 and 3 will remain operational permanently. All control facilities shall be constructed as described on pages 12-13 of the aforementioned "Design, Construction, and Operating Provisions" document, as well as in accordance with Section 2545 of Subchapter 15, and shall be completed prior to the placement of any refuse in the specified fill area.

6. The leachate collection and removal system shall be maintained and operated to prevent the buildup of hydraulic head against the grout curtain. This system shall be inspected monthly, and any accumulated fluid shall be removed.

7. The site shall be operated to ensure that wastes will be a minimum of 5 feet above the highest anticipated elevation of underlying ground water. In the event that near-surface springs in the fill areas continue to discharge water or remain wet up to the time when refuse filling is to commence an underdrain system will be installed, consisting of a gravel pack, pertinent piping, and a complete clay seal at least 5 feet thick between the gravel pack and the refuse.

8. A geologic map of the base of the excavation shall be continuously updated as excavation proceeds. All fractures or fracture zones or veins of magnesium carbonate which might allow leachate to migrate into deeper geologic strata shall be clearly marked. Any such fracture zones or veins which require artificial sealing shall be sealed with 2 foot of clay materials that have an in-place permeability of no greater than $1X10^{-6}$ cm/sec.

9. The discharger shall assure that the foundation of the site, the refuse fill, and the structures which control leachate, surface drainage, erosion and gas for this site are constructed and maintained to withstand conditions generated during the maximum probable earthquake.

10. As portions of the Class III landfill are closed, the exterior surfaces shall be graded to a minimum slope of three percent in order to promote lateral runoff of precipitation. In addition, all completed disposal

areas shall be covered with a minimum of 4 feet of cover and other applicable requirements as described in Article 8 of Subchapter 15.

11. The discharger shall implement all mitigating measures cited in Finding 15.

12. The discharger shall operate the waste management facility so as not to cause a statistically significant difference to exist between water quality at the compliance points and the following Water Quality Protection Standards (WQPS). The compliance points are identified as wells G-1 through G-5 in the attached self-monitoring program.

    a. pH = 10.25
    b. Specific Conductivity = 1135 mg/l.
    c. Chloride = 151 mg/l
    d. Total Organic Carbon = 8.5 mg/l
    e. Nitrate Nitrogen = 10.8 mg/l
    f. Phenol = 6 micrograms/l
    g. Total Kjeldahl Nitrogen = a value to be determined
    h. Total Dissolved Solids = a value to be determined.

    These WQPS may be revised after an additional year of background data is gathered in accordance with the procedure specified in Subchapter 15.

PROVISIONS

1. The discharger shall comply with all Prohibitions, Specifications, and Provision of this Order upon commencement of operations at the landfill. At least 30 days prior to commencement of filling of a specific are of the site the discharger shall submit a report indicating compliance with all Prohibitions, Specifications, and Provisions of this Order. This shall include as-built construction diagrams. Filling of the area described in the report shall not commence until the Executive Officer approves this report based on its demonstration of compliance with this Order.

2. The discharger shall submit a proposal by July 15, 1985 for a periodic load checking program which will discover and discourage attempts to place hazardous or designated wastes in the landfill disposal areas. This proposal must be approved by the Executive Officer before refuse can be accepted for disposal at the site.

3. The discharger shall submit quarterly reports in accordance with attached self-monitoring program, beginning three months after the first refuse is placed in the disposal area.

4. The discharger shall periodically submit an updated geologic map as described in Specification B.8. Prior to the placement of refuse a detailed written description of the mapping procedure must be submitted and approved by the Executive Officer. The discharger shall evaluate each fracture zone or vein so identified and recommend one or more of the following: 1) the potential for leachate migration is small and no further action is necessary, 2) the potential for leachate migration is significant and unsaturated zone monitoring devices should be installed to monitor this possibility, or 3) significant leachate migration appears likely and therefore an artificial seal should be placed over the fracture of fracture zone. If the discharger recommends 2) or 3), no refuse shall be placed on the newly mapped excavation base until the recommendation has been reviewed and written authorization to proceed has been granted by the Executive Officer. If the discharger recommends 1), no refuse shall be placed on the newly mapped excavation base until the map and recommendation have been in the possession of Regional Board staff for at least 10 working days. The Executive Officer, may, at his discretion, extend this period of review by so informing the discharger. The Executive Officer's authorization shall be based on the discharger's demonstration that the identified zone or vein will not provide a direct path for leachate migration.

5. The discharger shall submit a dynamic or psuedo-static analysis which, within the limits of engineering analysis, shows that Specification B.9 will be complied with. No refuse shall be placed until this analysis has been approved by the Executive Officer.

6. The discharger shall submit by April 15, 1986 a closure plan which satisfies the regulation referenced in Specification B.10. This closure plan shall attempt to minimize the period of time between placement of refuse and the placement of final cover.

7. All reports pursuant to these Provisions shall be prepared under the supervision of a registered engineer or certified engineering geologist.

8. The discharger shall remove and relocate any wastes which are discharged at this site in violation of these requirements.

9. The discharger shall file with this Board a report of any material change or proposed change in the character, location, or quantity of this waste discharge. For the purpose of these requirements, this includes any proposed change in the boundaries of the disposal area or the ownership of the disposal site.

10. The discharger shall maintain a copy of this Order at the site so as to be available at all times to site operating personnel.

11. This Board considers the property owner and site operator to have a continuing responsibility for correcting any problems which arise in the future as a result of this waste discharge or related operations.

12. The discharger shall permit the Regional Board:

    a) Entry upon premises on which wastes are located or in which any required records are kept.

    b) Access to copy any records required to be kept under terms and conditions of this Order.

    c) Inspection of monitoring equipment or records, and

    d) Sampling of any discharge.

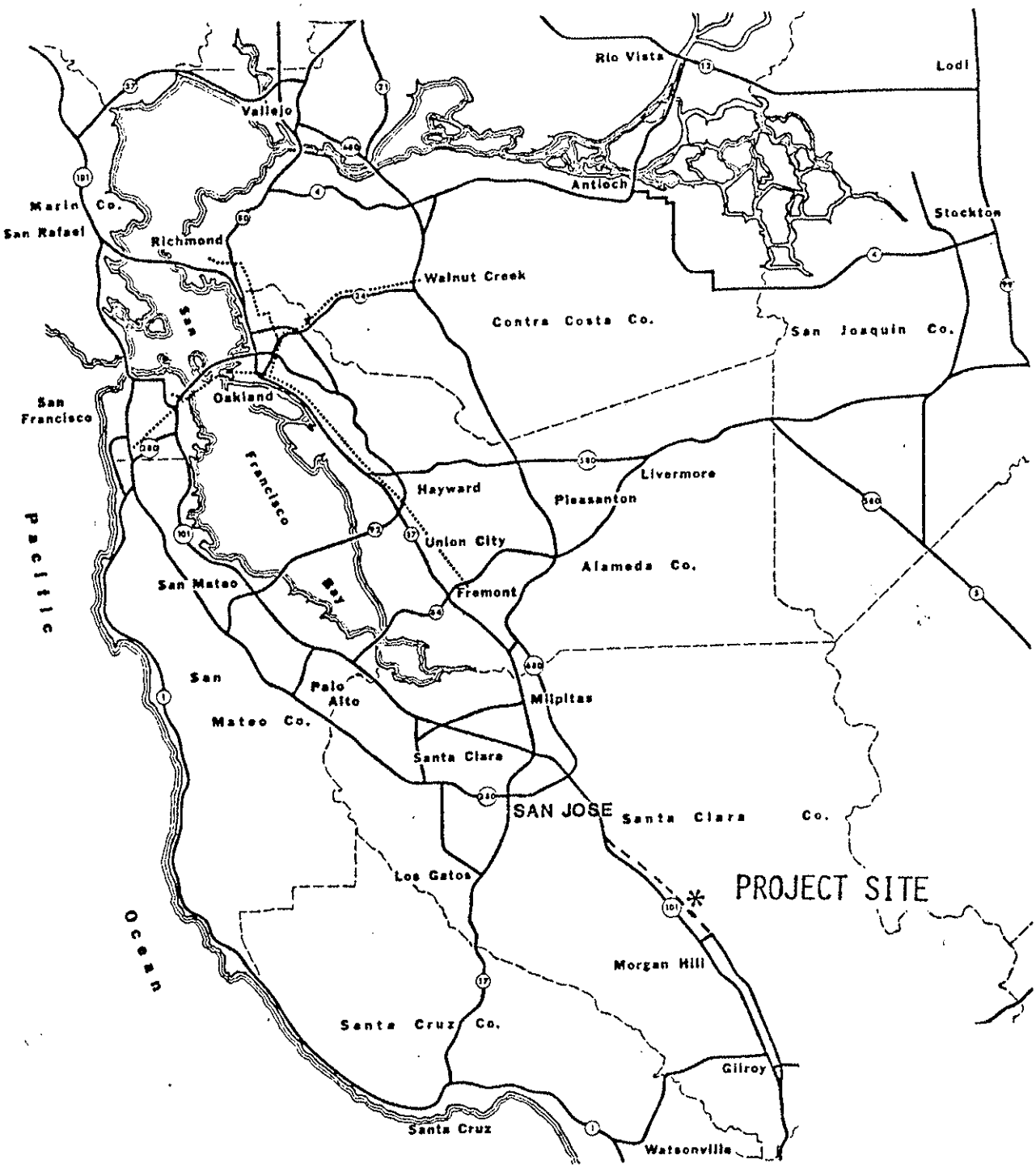
13. These requirements do not authorize commission of any act causing injury to the property of another or of the public; do not convey any property rights; do not remove liability under federal, state or local laws; and do not authorize the discharge of wastes without appropriate permits from other agencies or organizations.

I, Roger B. James, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on April 30, 1985.

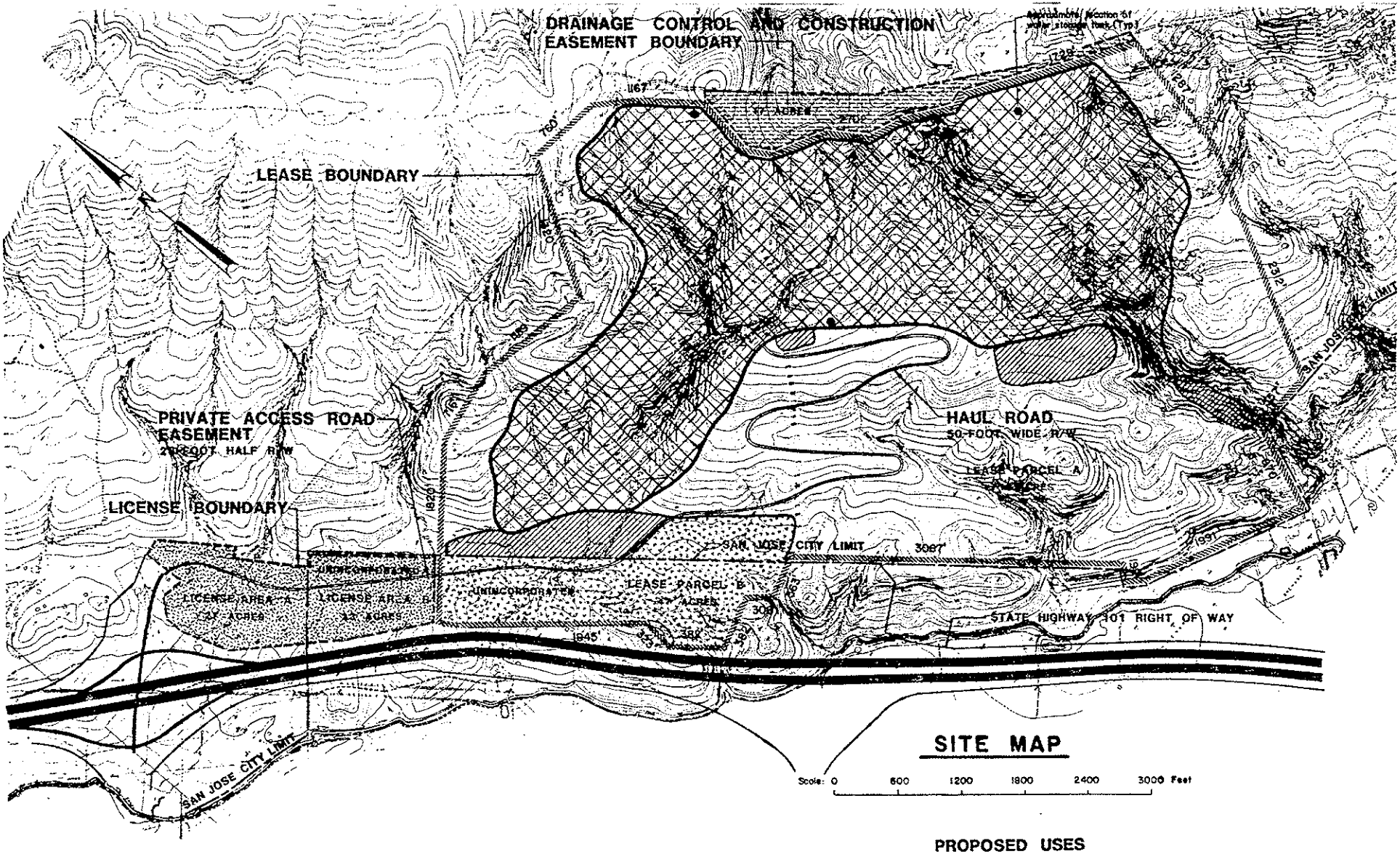
ROGER B. JAMES
Executive Officer

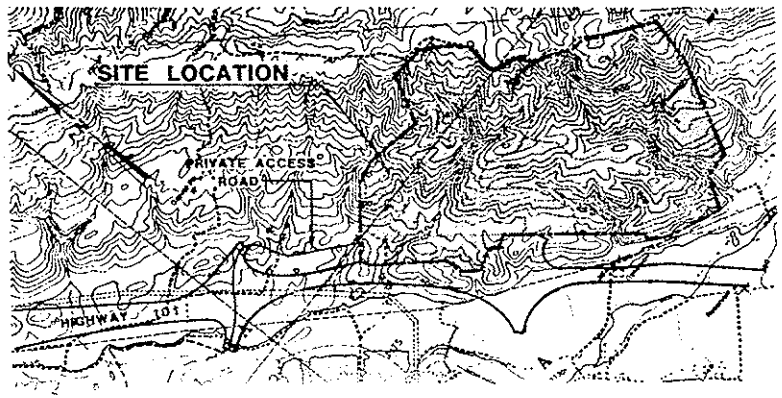
Attachments
A. Site location map
B. Site description
C. Self-Monitoring Program

Attachment A.



San Francisco Bay Area Map





PROPOSED USES

USE	AREA (acres)	% COVERAGE of PARCEL A	PARKING SPACES
SANITARY LANDFILL	326	46	N/A
SUPPORT FACILITIES:			
Sedimentation basins	31	4	N/A
Entrance facility[1], equipment maintenance facility[2], public refuse drop-off facility[3] soil borrow, stockpile, etc.			
Incorporated area	13	2	
Unincorporated area (LEASE PARCEL B)	47	N/A	12-15[4]
Drainage control and constructruction easement	17	N/A	N/A
Soil borrow & access road easement on license area			
Incorporated area (LICENSE AREA A)	27	N/A	N/A
Unincorporated area (LICENSE AREA B)	23	N/A	N/A

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM

FOR

WASTE MANAGEMENT OF CALIFORNIA, INC.
KIRBY CANYON CLASS III LANDFILL
SAN JOSE, SANTA CLARA COUNTY

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 self-monitoring program is issued in accordance with Section C.8. of Regional Board Order No.

The principal purposes of a monitoring program by a waste discharger, also referred to as a self-monitoring program, are: (1) to document compliance with waste discharge requirements and prohibitions established by this Regional Board, and (2) to facilitate self-policing by the waste discharger in the prevention and abatement of pollution arising from waste discharge, (3) to develop or assist in the development of effluent standards or other limitations, discharge prohibitions, national standard of performance, pretreatment and toxicity standards, and other standards, and (4) to prepare water and wastewater quality inventories.

B. SAMPLING AND ANALYTICAL METHODS

Sample collection, storage, and analyses shall be performed according to the latest edition of Standard Methods for the Examination of Water and Wastewater prepared and published jointly by the American Public Health Association, American Water Works Association, and Water Pollution Control Federation, or other methods approved by the Executive Officer of this Regional Board.

Water and waste analyses shall be performed by a laboratory previously approved for these analyses by the State Department of Health. The director of the laboratory whose name appears on the certification shall supervise all analytical work in his laboratory and shall sign all reports of such work submitted to the Regional Board.

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

C. DEFINITIONS OF TERMS

1. A Grab Sample is a discrete water sample collected at any time.

2. Receiving Water(s) refers to any surface water which actually or potentially receives surface or groundwaters which pass over, through, or under waste materials. In this case the receiving waters are Coyote Creek, and the Santa Clara Valley Water District's Coyote Canal.

3. Standard Observations refer to the following:

   a. Receiving Waters.

      (1) Discoloration and turbidity: description of color, source, and size of affected area.

      (2) Evidence of odors, presence or absence, characterization, source, and distance of travel from source.

      (3) Evidence of beneficial water use: presence of water-associated wildlife, fishermen, and other recreational activities in the vicinity of the sampling station.

      (4) Hydrographic conditions, such as water level, high and low tides, or floods.

      (5) Weather conditions:

         (a) Wind direction and estimated velocity.
         (b) Precipitation -- total during the previous five days and on the day of the observation.

   b. Perimeter of the waste management unit.

      (1) Evidence of liquid leaving or entering the waste, estimated size of affected area and flow rate. (Show affected area on a sketch.)

      (2) Evidence of odors, presence or absence, the characteristic, intensity, source, and distance of travel from the source.

      (3) Evidence of erosion and/or 'day-lighted' 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, the characteristic, intensity. source, and distance of travel from the source.

(3) Evidence of erosion and/or 'day-lighted' refuse.

4. Standard analyses and measurements refer to:

a. pH.
b. Specific conductivity in micromhos/cm
c. Chloride in mg/l
d. Total dissolved solids in mg/l
e. Total organic carbon in mg/l
f. Nitrate nitrogen in mg/l
g. Total kjeldahl nitrogen in mg/l
h. Phenol in micrograms/l
i. Water elevation in feet above mean sea level
j. Settleable solids in ml/l/hr.
k. EPA Method 601, identifying all peaks greater than 1 microgram/l.

D. SCHEDULE OF SAMPLING, ANALYSES AND OBSERVATIONS

The discharger is required to perform observations, sampling and analyses according to the schedule specified in Part B, and the requirements of Article 5 of Subchapter 15, Chapter 3, Title 23, California Administrative Code. All samples shall be split at the laboratory into at least 4 portions, and analyzed for the relevant parameters by identical analytical procedures.

E. RECORDS TO MAINTAINED

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

1. Identity of sampling and observations station by number.

2. Date and time of sampling and/or observations.

3. Date and time that analyses are started and completed, and name of personnel performing the analyses.

4. Complete procedure used, including method of preserving the sample, and the identity and volumes of reagents used. A reference to a specific section of Standard Methods is satisfactory.

5. Calculation of results.

6. Results of analysis and/or observations.

F. REPORTS TO BE FILED WITH THE REGIONAL BOARD

Written self-monitoring reports shall be filed each quarter (unless specified otherwise in Part B) by the 15th day of the following month. In addition, an annual report shall be filed as indicated in F.5. The reports shall be comprised of the following.

1. Letter of Transmittal:

A letter transmitting the essential points in each self-monitoring report should accompany each report. Such a letter shall include a discussion of any requirement violations found during the past quarter and actions taken or planned for correcting violations, such as operation modifications and/or facilities expansion. 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 quarter this shall be stated in the letter of transmittal. Monitoring reports and the letter transmitting 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.

2. Each report shall include a compliance evaluation summary sheet. This sheet shall contain:

   a. The sample mean and sample variance for all sample sets taken from all compliance points, and shall determine if the difference between the mean of each sample set and the water quality protection standard is statistically significant at the 0.05 level using Cochran's Approximation to the Behrens-Fisher Student's t-test as described in Appendix II of Subchapter 15, Chapter 3, Title 23, CAC. The discharger may propose an alternative statistical procedure to be used in making this determination pursuant to Section 2555 h) 3) of Subchapter 15. If a statistically significant difference is found this shall be reported as a suspected requirement violation in the letter of transmittal.

   b. A description of the velocity(s) and direction(s) of groundwater flow under/around the waste management unit, based upon the past and present water level elevations and pertinent visual observations.

3. A map or aerial photograph shall accompany each report showing sampling and observations station locations.

4. Results of analyses and observations specified in Part B must be included with each report. The laboratory director shall sign the laboratory statement of analytical results.

5. By January 15 of each year the discharger shall submit an annual report to the Regional Board covering the previous calendar year. The report shall contain:

   (a) Tabular and graphical summaries of the monitoring data obtained during the previous year.

   (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 map showing the area, if any, in which filling has been completed during the previous calendar year.

   (d) A written summary of the ground water analyses indicating any change in the quality of the ground water.

6. A well drilling log shall be submitted for each sampling well established per 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 Santa Clara Valley Water District. These shall be filed within 30 days after well installation.

PART B

I. DESCRIPTION OF OBSERVATION STATIONS AND SCHEDULE OF OBSERVATIONS, SAMPLING AND ANALYSES.

A. Waste monitoring.

1. Record the total volume and weight of refuse in cubic yards and tons disposed of at the site during the month. Report this information quarterly.

2. Record the total volume and weight of sludges in cubic yards and tons disposed of at the site during the month. An average solids content should also be reported for each sludge. Report this information quarterly.

3. Record the volume of fill completed, in cubic yards, showing the location(s) and dimensions on a sketch or map. Report this information quarterly.

B. On-site observations.

Station	Description	Observations	Frequency
V-1 thru V-'n'	Located on the waste disposal area as delineated by a 500 foot grid network.	Standard observations for the waste management unit.	Weekly
P-1 thru P-'n' (perimeter)	Located at equidistant intervals not exceeding 1000 feet around the perimeter of the disposal area.	Standard observations for the perimeter.	Weekly

A map showing visual and perimeter compliance points (V and P stations) shall be submitted by the discharger in the first quarterly monitoring report.

C. Seepage monitoring

Station	Description	Observations	Frequency
S-1 thru S-'n' (Seepage)	At any point(s) at which seepage is found occurring from the disposal area	Standard observations for the perimeter Standard analyses other than i.	Daily until remedial action is taken and seepage ceases
CU-1 and CU-2 (Receiving waters, upstream)	Located in the receiving water 200 ft. upstream from the uppermost point of seepage discharge(s)	Standard observations for receiving waters	Daily, during a seepage event.
		Standard analyses other than i.	Daily, during a seepage event
CD-1 and CD-2 (Receiving waters, downstream.)	Located in the receiving water(s) 200 ft. downstream from the lowest point of seepage discharge(s).	Same as Receiving waters, upstream.	Same as Receiving waters, upstream.

D. Ground Water Monitoring

Station	Description	Observations /Analyses	Frequency
B-1 (groundwater background)	Located as shown on the map attached.	Standard Analyses other than j.	Once each quarter.
G-1 thru G-5 (Groundwater)	Located as shown on the map attached.	Standard Analyses other than j.	Once each quarter, commencing one quarter in advance of placement of refuse in the fill area to be monitored.

Station	Description	Observations /Analyses	Frequency
GD-1 thru GD-5 (Deep groundwater)	Located as shown on the map attached; if installation is required.	All standard analyses other than j.	Once each quarter, after installation

E. Stormwater Runoff monitoring

Station	Description	Observations /Analyses	Frequency
R-1 thru R-3 (runoff)	Located as shown on the map attached	All standard analyses other than b,c, and i.	Monthly during the period Nov 1, thru May 1*

*Take a minimum of 3 grab samples on the day of sampling. The first sample for each day shall be taken during the first hour of discharge, and the others at equal time intervals thereafter. The three samples shall be combined and analyzed.

F. Leachate Monitoring

Station	Description	Observation	Frequency
L-1 thru L-5	Leachate control facilities - both sumps and wells	Volume of Leachate removed	Observe at time of removal, report quarterly

II. CONTINGENCY REPORTING

A. A report shall be made in writing to the Regional Board within seven days if a statistically significant difference is found between a self-monitoring sample set and a WQPS. Notification shall indicate what WQPS(s) have been exceeded. The discharger shall immediately resample at the compliance point(s) (monitoring point) where this difference has been found and analyze another sample set of at least four portions split in the laboratory from the source sample.

B. If the resampling and analysis confirms the earlier finding of a statistically significant difference between self-monitoring results and WQPS(s) the discharger must submit to the Regional Board within 90 days an amended Report of Waste Discharge for establishment of a verification monitoring program meeting the requirements of Section 2557 of Subchapter 15, Chapter 3, Title 23, CAC. This submittal shall include the information required in Section 2556 b) 2) of Subchapter 15.

C. The discharger must notify the Regional Board within seven days if the verification monitoring program finds a statistically significant difference between samples from any verification monitoring program point of compliance and the WQPS(s).

D. If such a difference or differences are found by the verification monitoring program it will be concluded that the landfill is out of compliance with Order No. 85-47. In this event the discharger shall submit to the Regional Boatd within 180 days an amended Report of Waste Discharge requesting authorization to establish a corrective action program meeting the requirements of Section 2558 of Subchapter 15. This submittal shall include the information required in Section 2557 g) 3) of Subchapter 15.

E. 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 this Board within five days. It shall contain the following information: (1) a map showing the location(s) of discharge, (2) approximate flow rate, (3) nature of the effect; i.e., all pertinent observations and/or analyses, and (4) corrective measures underway or proposed.

III. CONTINGENCY MONITORING

A. Deep groundwater monitoring well(s) (sampling in the 50-80 foot interval, approximately) shall be installed in the event that excessive leachate is being formed in any fill area on a regular basis. A deep well shall be installed adjacent to the shallow monitoring well downgradient of each leachate control facility at which

which excessive leachate has been found. The determination of what constitutes 'excessive' leachate formation is wholly within the discretion of the Regional Board.

B. Methane gas monitoring probes shall be installed at the site boundary nearest any structure that is constructed within 1000 feet of the Waste Management Facility boundary. These probes shall be at least once quarterly and more frequently as determined at the time of installation, and results of such monitoring reported in the quarterly self-monitoring reports.

I, Roger B. James, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in this Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board Order No. 85-47.

2. Is effective on the date shown below.

3. May be reviewed at any time subsequent to the effective date. upon written notice from the Executive Officer or request from the discharger.

ROGER B. JAMES
Executive Officer

Date Ordered

Attachment: Map

MONITORING PROGRAM COMPLIANCE POINTS --
KIRBY CANYON SANITARY LANDFILL