

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

ORDER NO. 95-058

UPDATED WASTE DISCHARGE REQUIREMENTS FOR:

**OWENS-CORNING FIBERGLAS CORPORATION
OWENS-CORNING SOLID WASTE DISPOSAL SITE
SAN JOSE, SANTA CLARA COUNTY**

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

SITE DESCRIPTION:

1. The Owens-Corning Fiberglas Corporation (hereinafter called the discharger), owns and operates the Owens-Corning Solid Waste Disposal Site in Santa Clara County.
2. The Owens-Corning Disposal Site (OCDS), is located at 675 Los Esterros Road in San Jose, California and bounded by the San Jose/ Santa Clara Water Pollution Control Plant (WPCP) to the east, agricultural open space to the south and east and the San Francisco National Wildlife Refuge to the north and west, as shown in Figure 1, which is incorporated herein and made part of this Order.

PURPOSE OF ORDER UPDATE:

3. The primary objectives of this order are to revise the site groundwater, surface water and leachate monitoring programs, and to incorporate the requirements of the General Industrial Storm Water Runoff program. Additionally, this Order requires the discharger to monitor the leachate in the waste unit over time and to install additional leachate and groundwater wells. This Order also requires the discharger to bring the site into full compliance with the current requirements of Chapter 15 of the California Code of Regulations.

SITE HISTORY:

4. The site has been in operation since 1956. The total property owned by the Owens-Corning Fiberglas Company (OCFC) is 80.94 acres. Of this total acreage, 9.2 acres are dedicated easement, 25.64 acres are dedicated open space, most of which is under the jurisdiction of the U. S Army of Corps of Engineers, and 46.1 acres comprise the waster management unit (WMU). Within the WMU, 30.8 acres have been filled with wastes, while 9.2 acres remained unfilled. The current waste stream consists only of culled fiberglas products, including composite asphalt-coated paper and foil and refractory wastes. Recyclable like paper, foil, polyethylene, pallets, asphalt concrete,

and such, are sent to processing facilities and are not landfilled. In addition no. putrescible, hazardous, or liquid wastes are disposed of at the OCDS.

5. The Board on September 20, 1977, adopted Order No. 77-127 prescribing waste discharge requirements and compliance schedules for the Owens-Corning Fiberglass Corporation Class II solid waste disposal site.
6. On August 15, 1978 the Board adopted Order No. 78-67. This order revised the compliance time schedule for the facility, but not the monitoring and reporting requirements.
7. The Owens-Corning Disposal Facility has operated under WDR Order No 77-127 and 78-67 since 1978. The OCDS is also included in Order No. 92-011, NPDES General Permit No. CAG612001.

GEOLOGIC SETTING:

8. The site is located in the northern part of the Santa Clara Valley adjacent to the southern end of San Francisco Bay (Figures 2 & 3). The San Francisco Bay is located in a structural depression that slowly subsided along several parallel northwest-trending faults. The structural depression gradually filled with alluvial stream and estuarine deposits to form a thick sequence of interbedded alluvium and Bay Mud.
9. Holocene Bay Mud underlies the facility and is exposed in the northwestern part of the landfill. The Bay Mud consists of unconsolidated clays and silty clays interbedded with thin lenses and stringers of silt and sand. Fine-grained Holocene alluvium is exposed southeast of the waste management unit in the southern and southeastern part of the of the disposal facility.

HYDROGEOLOGIC SETTING:

10. The site lies within the northern part of the Santa Clara Valley groundwater basin, which contains over 1,000 feet of unconsolidated to semi-consolidated clay, silts, sands, and gravel. Regional groundwater studies indicate that the primary freshwater aquifers of the northern Santa Clara Valley are restricted to buried channel deposits with the Pleistocene alluvium. The buried channel deposits are regionally grouped into "upper" and "lower" aquifers. Near the bay, these aquifers are separated from each other by the Pleistocene Bay Mud, which forms an extensive clay aquitard. Regional groundwater flow within the aquifer system is toward San Francisco Bay and is recharged by runoff from the Santa Cruz Mountains and the Diablo Range
11. Hydrogeological investigations which were conducted in 1980 and in 1985, indicated that two aquifer zones, the upper and lower water bearing zones, are located beneath the

waste management unit. Elevation wise, the top of the upper aquifer zone is 45 feet below Mean Sea Level (MSL), and overlain by the Bay Mud. The upper aquifer is underlain by a laterally extensive clay aquitard that extends 200 feet below MSL. The lower aquifer zone occurs below this aquitard and forms an extensive drinking water aquifer in the Santa Clara Valley. Flowing artesian conditions from this aquifer have been reported near this facility.

12. In addition to the upper and lower regional aquifers, there are shallow water bearing zones within the Holocene Bay Mud. These water bearing zones are separated from the upper aquifer by the regionally extensive Bay Mud aquitard. The quality of groundwater in the shallow aquifer is generally poor because of extensive salt water intrusion. Groundwater in the shallow aquifer is recharged from local runoff and percolation, including percolation from the San Jose/Santa Clara Water Pollution Control Plant outfall channel.
13. The upper most water-bearing unit beneath the landfill is a 2 to 5 foot thick sand zone approximately 12 to 15 feet below MSL. The sand zone is laterally continuous beneath most of the facility and forms isolated lenses beneath the southwestern part of the waste management unit.
14. The groundwater in both the upper and lower aquifers is confined. The shallow water bearing beds have been examined in detail because potential impacts to groundwater from the landfill would initially be detected there.
15. The hydraulic properties of the shallow aquifer zone have been characterized, and the results have shown that the silty clays and clays from the shallow aquifer have relatively low permeability.
16. The main surface water bodies adjacent to the OCDS are marshlands of the San Francisco National Wildlife Refuge and the San Jose/Santa Clara WPCP outfall channel. The wildlife refuge borders the northwestern part of the OCDS and consists of a dendritic pattern of meandering sloughs and creeks. The WPCP outfall channel flows northwest along the northeast boundary of the WMU and drains into the south branch of Coyote Creek. Other surface waterways near the OCDS are the Guadalupe River and Coyote Creek, which empty into the bay northwest and northeast of the OCDS. No surface water bodies exist at the OCDS. Various temporary drainage facilities are placed near active fill areas to direct surface water from runoff away from the refuse. A perimeter levee protects the WMU from potential flooding.

WASTE DISPOSAL & THEIR CLASSIFICATION:

17. The northwestern 30.8 acres of the waste management unit (WMU) have been used for most of the historical refuse disposal. Recyclable such as demolition waste, cardboard,

paper, polyethylene, foil are diverted from the landfill for processing. The only material currently landfilled at the OCDS includes culled fiberglass, or other such products that did not meet product specifications and could not be recycled back into the production line. No designated, infectious, or hazardous wastes are disposed of at the waste management unit. Wash-water residue containing low levels of phenols were historically disposed of at the OCDS, however, this practice has long since been discontinued.

18. Owens-Corning listed the following wastes as being disposed of at the WMU to comply with Section 103 (C) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, known as Superfund):
 - a. 369 cubic yards of furnace refractory brick and slag suspected of containing chromium.
 - b. 1,020 tons of baghouse dust containing concentrations of chromium less than 200 ppm
 - c. 5,100 baghouse bags impregnated with chromium containing dust
 - d. 16, 500 gallons of methylene chloride solvent and waste adhesives
 - e. 14,000 gallons of waste diacetone alcohol and epoxy resin
 - f. 960 gallons of waste paint and solvent
19. The disposal volumes at the landfill due to recycling efforts and management have been reduced. The remaining site capacity in 1991 was estimated at 638,000 cubic yards. The expected life of the WMU is 50 years and the waste management facility would be closed in 2042.

MONITORING PROGRAM:

20. The existing self-monitoring well network consists of four groundwater monitoring wells, two piezometers, and two leachate monitoring wells as shown in Figure No.1. The groundwater monitoring wells G-3, G-5, G-6R and G-7 monitor the near surface groundwater zone within the Bay Mud aquifer underlying the disposal site. Well G-2, used as a piezometer, is located on OCFC property, but is west of waste management unit. Well G-4, also used as a piezometer, is located between the north corner of the landfill and the San Jose/Santa Clara Water Pollution Control Plant (WPCP) outfall channel. Piezometers G-2 and G-4 do not intercept groundwater flowing directly beneath the site and are therefore not used for water quality monitoring. Three detection monitoring wells, G-3, G-5 and G-7, monitor the near surface water bearing zone within the Bay Mud along the hydraulically downgradient limit of the waste management unit.

Upgradient well G-6R, along the southeastern edge of the site away from waste disposal activities, monitors upgradient water quality within the upper most aquifer. The leachate wells, GR-1 and GR-2, monitor leachate in the waste management unit and provide data on variations in leachate chemistry and leachate piezometric elevations.

21. The initial groundwater monitoring network at the facility was installed in 1977 and complied with the self-monitoring requirements in effect at that time. In 1991, downgradient point of compliance well G-7 was added to the detection monitoring network as a part of the SWAT program, and damaged upgradient monitoring well G-6 was decommissioned and replaced with monitoring well G-6R.
22. The site has no leachate collection and removal system. Leachate wells GR-1 and GR-2 were installed in 1985 at the request of the Board to characterize the occurrence and chemical composition of leachate at the site.
23. Federal Regulations [40 Code of Federal Regulations (CFR) Parts 122, 123, and 124] require specific categories of industrial activities, including landfills, to obtain a NPDES permit for storm water discharges. The State Water Resources Control Board has issued a General Permit for Storm Water Discharges Associated with Industrial Activities (NPDES Permit No. CAG612001). This facility is subject to these requirements. Pursuant to the Stormwater Discharge Program, this facility is required to submit a Notice of Intent for coverage under the General Permit; to prepare and implement a monitoring program; and to submit an annual report. Compliance with the monitoring and reporting requirements of this Order are intended to assure compliance with the requirements of the General Permit.

CALIFORNIA ENVIRONMENTAL QUALITY ACT:

24. This action is exempt from the provisions of the California Environmental Quality Act pursuant to Section 15308, Title 14 of the California Code of Regulations.
25. Sanitary landfills could potentially impact groundwater if not properly designed, maintained and/or operated. Groundwater can also be affected by water that percolates through waste materials and extracts or dissolves substances from it and carries them into the groundwater.
26. According to Section 13273 of California Water Code, a Solid Waste Assessment Test (SWAT) was prepared for the site in July of 1992. The result of the SWAT report indicated that no compounds are present in surface water, leachate, or groundwater at concentrations exceeding hazardous waste criteria and there appears to be no significant impact to surface or groundwater from landfill activities.

IT IS HEREBY ORDERED that the Owens-Corning Fiberglass Corporation, their agents, successors and assigns shall meet the applicable provisions contained in Title 23, Division 3 of Chapter 15, and Division 7 of California Water Code, and shall comply with the following:

A. PROHIBITIONS

1. Wastes shall not be in contact with ponded water.
2. Leachate from wastes and ponded water containing leachate or in contact with refuse shall not be discharged to waters of the State or of the United States.
3. Hazardous and designated wastes as defined in Sections 2521 and 2522 of Chapter 15, shall not be deposited or stored at this site.
4. The discharger, or any future owner or operator of this 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 growth.
3. Adversely alter temperature, turbidity, or apparent color beyond 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**

The groundwater shall not be degraded as a result of the waste maintained at the facility.

B. SPECIFICATIONS

1. All reports pursuant to this Order shall be prepared under the supervision of a registered civil engineer, California registered geologist or certified engineering geologist.
2. The site shall be protected from any washout or erosion of wastes from inundation which 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. 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.
4. As portions of the landfill are closed, the exterior surfaces (cap) shall be graded to a minimum slope of 3 percent in order to promote lateral runoff (normal movement) of precipitation.
5. After closure detailed survey of the landfill's cap must be made, to assure that construction is in compliance the requirement of Article 8 of Chapter 15.
6. The discharger shall maintain and monitor the waste unit so as not to cause a statistically significant difference to exist between water quality parameters at the compliance point and Water Quality Protection Standards as defined in Section 2550.2 of Article 5. The point of compliance as per Section 2550.5, Article 5 of Chapter 15 is a vertical surface located at the hydraulically downgradient limit of the waste management unit that extends through the uppermost aquifer underlying the unit.
7. In the event of a release of a constituent of concern beyond the Point of Compliance, the site will begin a Compliance Period pursuant to Section 2550.6(a). During the Compliance Period, the discharger shall perform an Evaluation Monitoring Program and a Corrective Action Program.
8. The discharger shall install any reasonable additional groundwater and leachate monitoring devices required to fulfill the terms of any Discharge Monitoring Program issued by the Executive Officer.
9. Methane and other landfill gases shall be adequately vented, removed from the landfill units, or otherwise controlled to minimize the danger of explosion, adverse health effects, nuisance conditions, or the impairment of beneficial uses of water.
10. This Board considers the property owner and site operator to have continuing responsibility for correcting any problems which arise in the future as a result of this waste discharge or related operations during the active life and post-closure maintenance period.

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 as provided for by the performance standards adopted by the California Integrated Waste Management Board.
12. The discharger shall provide and maintain a minimum of two permanent surveyed monuments near the landfill from which the location and elevation of wastes, containment structures, and monitoring facilities can be determined throughout the post-closure and maintenance periods. These monuments shall be installed by a licensed land surveyor or registered civil engineer.
13. The Regional Board shall be notified immediately of any failure occurring in the waste management unit. Any failure which 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 Chapter 15 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 the point of compliance as provided in Section 2550.5.

C. PROVISIONS

1. The discharger shall comply with all Prohibitions, Specifications, and Provisions of this Order, immediately upon adoption of this Order or as provided below.
2. The discharger shall submit a detailed **Post Earthquake Inspection and Corrective Action Plan** acceptable to the Executive Officer to be implemented in the event of any earthquake generating ground shaking of Richter Magnitude 7 or greater at or within 30 miles of the landfill. The report shall describe the containment features, and ground water monitoring and leachate control facilities potentially impacted by the static and seismic deformations of the landfill. The plan shall provide for reporting results of the post earthquake inspection to the Board within 72 hours of the occurrence of the earthquake. Immediately after an earthquake event causing damage to the landfill structures, the corrective action plan shall be implemented and this Board shall be notified of any damage.

NOTIFICATION:	IMMEDIATELY
REPORT DUE DATE:	WITHIN THREE MONTHS OF ADOPTION OF THIS ORDER

3. The discharger shall submit a **Contingency Plan** to be instituted in the event of a leak or spill from the leachate facilities. The discharger shall give immediate notification to the San Francisco Bay Regional Water Quality Control Board, the Local Enforcement Agency (LEA), and the California Department of Toxic Substance Control. The discharger shall initiate its corrective action plan to stop and contain the migration of pollutants from the site.

NOTIFICATION: IMMEDIATELY
REPORT DUE DATE: WITHIN 7 DAYS AFTER THE INCIDENT

4. The discharger shall submit to the Regional Board Discharge Monitoring Reports prepared under the supervision of a registered civil engineer or registered geologist, performed according to any **Discharge Monitoring Program** issued by the Executive Officer. The proposed sampling and analysis program submitted by the discharger in August of 1992, must be revised to include the monitoring requirements of this Order for approval by the executive officer.

REPORT DUE DATE: DATE SPECIFIED IN THE DISCHARGE MONITORING PROGRAM.

5. The reports pursuant to these Provisions shall be prepared under the supervision of a registered engineer, California registered geologist and/or certified engineering geologist.
6. The discharger shall comply with all applicable items of the attached Discharge Monitoring Program, or any amendments thereafter.
7. In the event of any change in control or ownership 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. To assume operation of this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order. (Refer to Standard Provisions referenced above). The request must contain the requesting entity's full legal name, the address and telephone number of the persons responsible for contract with the Board and a statement. The statement shall comply with the signatory paragraph described in Standard Provisions and state that the new owner or operator assumes full responsibility for compliance with this Order. Failure to submit the request shall be considered a discharge without requirements, a violation of the California Water Code.
8. The discharger shall immediately notify the Board of any flooding, equipment failure, slope failure, or other change in site conditions which could impair the integrity of waste or leachate containment facilities or precipitation and drainage control structures.

NOTIFICATION: IMMEDIATELY
REPORT DUE DATE: WITHIN 7 DAYS AFTER THE INCIDENT

9. The discharger shall prepare, implement and submit a Storm Water Pollution Prevention Plan in accordance with requirements specified in State Water Resources Control Board General Permit for Storm Water Discharges Associated with Industrial Activities (NPDES Permit No. CAG612001).

REPORT DUE DATE: July 1 of each year (As per the requirements of Order 92-011, the General Permit)

10. The discharger is required to place an intermediate cover on those portions of the landfill which are not actively use for filling. The placement of intermediate cover must be in compliance with Section 2544 (b) of Chapter 15.
11. This order requires the discharger to initiate the semi-annual self monitoring program as defined in the attached Parts A & B.
12. The discharger shall maintain a copy of this Order at its offices in Santa Clara, California, with its environmental compliance staff who are responsible for the OCDS.
13. This Board considers the property owner and site operator to have continuing responsibility for correcting any problems which may arise in the future as result of this waste discharge or related operations.
14. The discharger shall permit the 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 to be kept under the terms and conditions of this Order.
 - c. Inspection of any treatment equipment, monitoring equipment, or monitoring method required by this Order or by any other California State Agency.
 - d. Sampling of any discharge or ground water 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 without appropriate permits from other agencies or organizations.
16. This Order is subject to Board review and updating, as necessary, to comply with changing State or Federal laws, regulations, policies, or guidelines; changes in the Board's Basin Plan; or changes in the discharge characteristics.
17. Copies of all correspondence, reports, and documents pertaining to compliance with the Prohibitions, Specifications and Provisions of this Order, shall also be provided to the Environmental Health Services Division of Santa Clara County.
18. The discharger shall analyze groundwater, leachate and surface water samples for the parameters as presented in Table 2 of the Discharge Monitoring Program for this facility.

19. **Task 1: Documentation of Installation of Additional Leachate & Groundwater Monitoring Wells**

Completion Date: October 1, 1995

The discharger is required to submit a technical report acceptable to the Executive Officer that documents that the Leachate monitoring wells GR-3 and GR-4 and groundwater monitoring wells G-9, G-8 as listed in Table No. 1 in Part B of the attached Self Monitoring Program have been installed.

20. The discharger shall prepare and submit an updated site topographic map based on aerial photography of the site. The age of the aerial photography shall not be older than December 1, 1994. The map shall be annotated to show all groundwater, surface water and leachate monitoring stations.

REPORT DUE DATE: WITHIN THREE MONTHS OF
ADOPTION OF THIS ORDER

21. The discharger must submit a brief technical document acceptable to the Executive Officer, to document that all the provisions of Order No. 78-67 and 77-127 have been met.

REPORT DUE DATE: July 1, 1995

22. This Order rescinds Order Nos. 77-127 and 78-67.
23. The discharger is required to develop a contingency plan to remediate a potential release of leachate from the waste management unit into the environment. The discharger must

implement a leachate contingency plan in the event of a release. The leachate contingency plan must include detailed information regarding the manner in which leachate collection, recovery, treatment and disposal will be achieved.

**NOTIFICATION: IMMEDIATELY
CONTINGENCY PLAN DUE DATE: WITHIN 90 DAYS OF
ADOPTION OF THIS ORDER.**

**IMPLEMENTATION DUE DATE OF LEACHATE
CONTINGENCY PLAN: WITHIN 60 DAYS OF
NOTIFICATION OF RELEASE.**

I, Steven R. Ritchie 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 March 15, 1995.



Steven R. Ritchie
Executive Officer

Attachments:

- A. Figures:
 - 1. Site Location Map
 - 2. Regional Geologic Map
 - 3. Regional Geologic Cross Sectional Map
- B. Discharge Monitoring Program

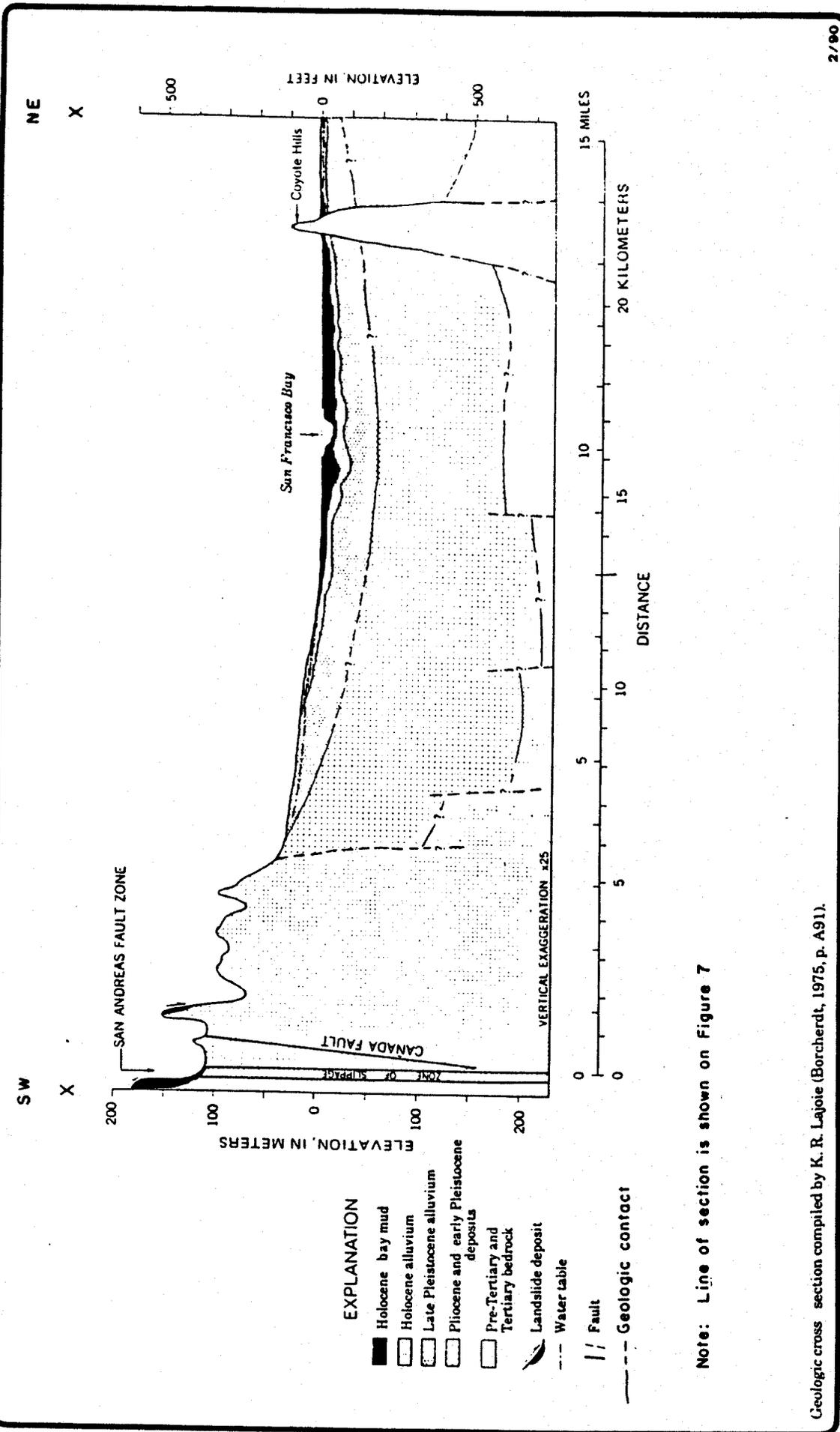


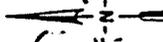
Figure 3
PROJECT NO.
154 - 01. 20

OWENS-CORNING FIBERGLAS CORPORATION
SOLID WASTE DISPOSAL SITE
SOLID WASTE ASSESSMENT TEST PROPOSAL
SAN JOSE, CALIFORNIA

REGIONAL GEOLOGIC CROSS SECTION

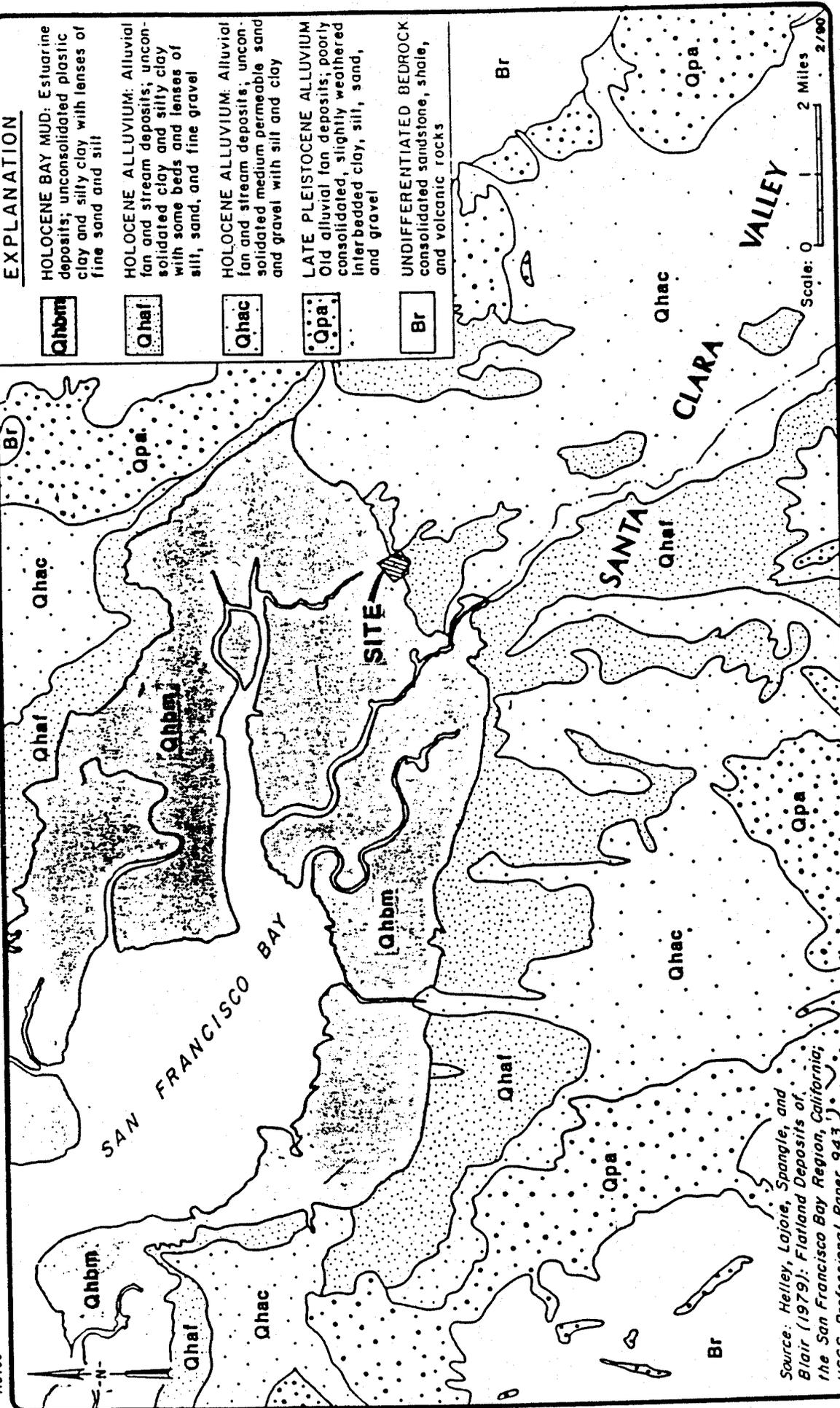


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EXPLANATION

- Qhbm** HOLOCENE BAY MUD: Estuarine deposits; unconsolidated plastic clay and silty clay with lenses of fine sand and silt
- Qhaf** HOLOCENE ALLUVIUM: Alluvial fan and stream deposits; unconsolidated clay and silty clay with some beds and lenses of silt, sand, and fine gravel
- Qhac** HOLOCENE ALLUVIUM: Alluvial fan and stream deposits; unconsolidated medium permeable sand and gravel with silt and clay
- Qpa** LATE PLEISTOCENE ALLUVIUM: Old alluvial fan deposits; poorly consolidated, slightly weathered interbedded clay, silt, sand, and gravel
- Br** UNDIFFERENTIATED BEDROCK: consolidated sandstone, shale, and volcanic rocks



Source: Helley, Lajoie, Spangle, and Blair (1979): Flatland Deposits of the San Francisco Bay Region, California; USGS Professional Paper 943.

OWENS-CORNING FIBERGLAS CORPORATION
SOLID WASTE DISPOSAL SITE
SOLID WASTE ASSESSMENT TEST PROPOSAL
SAN JOSE, CALIFORNIA

REGIONAL GEOLOGY

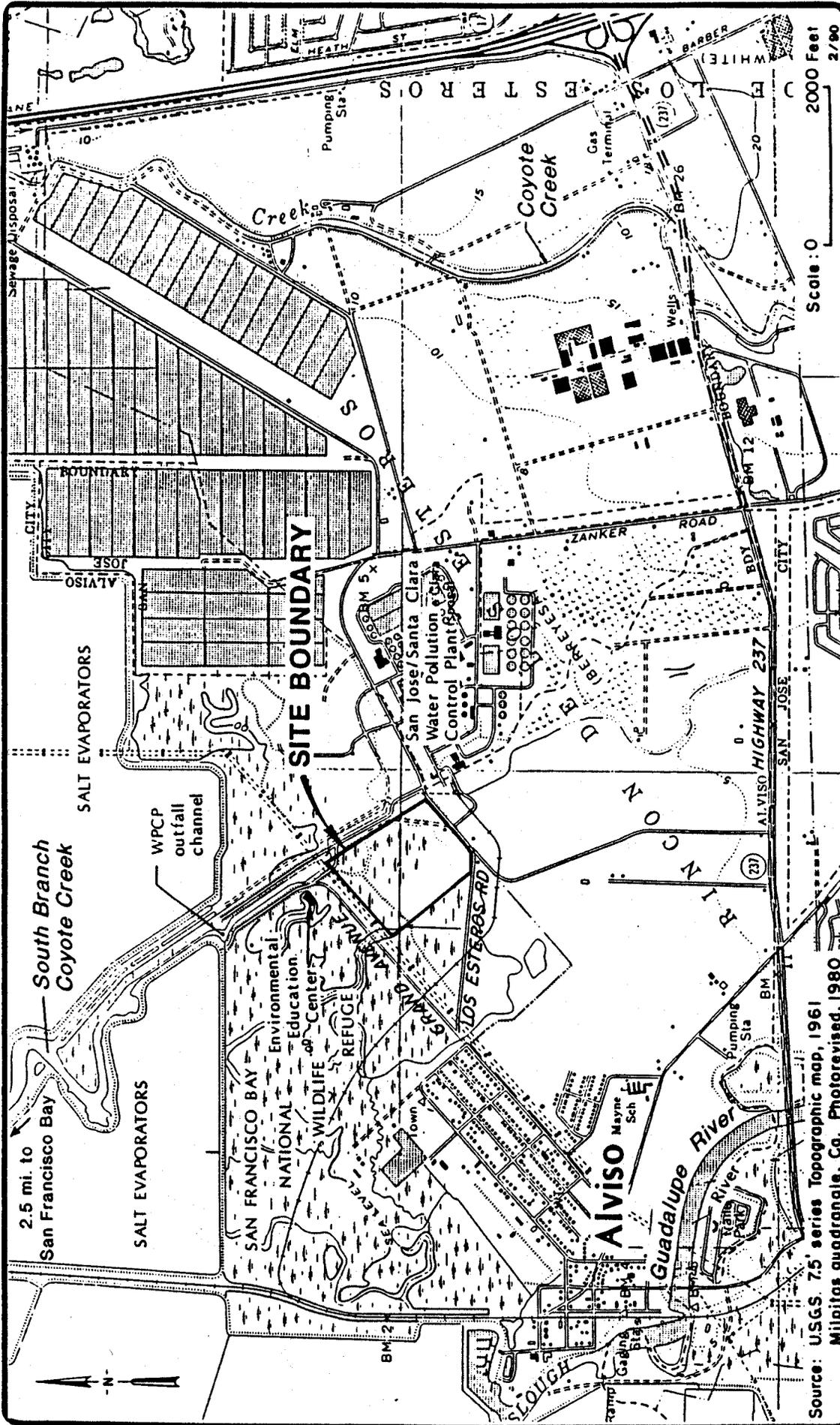
Figure 2

PROJECT NO
154 - 01 20

EMCON
Associates



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Source: U.S.G.S. 7.5 series Topographic map, 1961
 Milpitas quadrangle, Ca. Photorevised, 1980

FIGURE
1
 PROJECT NO.
 154 - 01.20

OWENS-CORNING FIBERGLAS CORPORATION
 SOLID WASTE DISPOSAL SITE
 SOLID WASTE ASSESSMENT TEST PROPOSAL
 SAN JOSE, CALIFORNIA

SITE LOCATION MAP

EMCON
 Associates

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

DISCHARGE MONITORING PROGRAM

FOR

**OWENS-CORNING FIBERGLASS CORPORATION
OWNS-CORNING SOLID WASTE DISPOSAL SITE
SANTA CLARA, COUNTY**

ORDER NO. 95-058

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 Provision C.4 of Regional Board Order No. 95-058

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 discharger 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 discharger in complying with the requirements of Article 5, Chapter 15 as revised July 1, 1991.

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 he/she or their authorized representative 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. DEFINITION OF TERMS

1. A grab sample is a discrete sample collected at any time.
2. Receiving waters refers to any surface water which actually or potentially receives

surface or groundwater which pass over, through, or under waste materials or contaminated soils. In this case, the groundwater beneath and adjacent to the landfill areas and the surface runoff from the site 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 a 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 and/or daylighted refuse.
- 4) Standard Analysis (SA) and measurements are listed on Table 2 (attached).

D. SAMPLING, ANALYSIS, AND OBSERVATIONS

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

1. Groundwater per Section 2550.7(b)
2. Surface water per Section 2550.7(c) and per the general requirements specified in Section 2550.7(e) of Article 5, Chapter 15 and
3. Vadose zone per Section 2550.7(d). This item is neither feasible nor applicable for

this landfill.

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 of analyses, and name of the personal performing the analyses.
4. Complete procedure used, including method of preserving the sample, and the identity and volumes of reagents used where applicable; or reference to standard EPA methods.
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 the 15th day of the month following the report period. In addition, an annual report shall be filed as indicated in F.3 below. 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. A statistical evaluation of the water quality monitoring data for all groundwater compliance points (As required under Part B. Table 1).
 - 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 qualification 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 of 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 shall sign all reports of such work submitted to the Board.
- 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 approval 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; and explanation for any recovery rate that is outside of the normal range specified by the EPA for that method;

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

- e. An evaluation of the effectiveness of the leachate monitoring or control facilities, which includes an evaluation of leachate buildup within the disposal units, a summary of leachate volumes removed from the units, and a discussion of the leachate disposal methods utilized.
- 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.
- g. The quantity and types of wastes disposed of during the past quarter, and the locations of the disposal operations.

2. CONTINGENCY REPORTING

- a. 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;
 - 2) approximate flow rate;
 - 3) nature of effects; i.e., all pertinent observations and analyses; and
 - 4) corrective measures underway or proposed.
- b. A report shall be made in writing to the Board within seven days of determining that a statistically significant increase occurred at a point of compliance (between a down gradient sample and a WQPS). Notification shall indicate what WQPS(s) has/have been exceeded. The discharger shall immediately re-sample at the compliance point where this difference has been found and reanalyze.
- c. If re-sampling and analysis confirms the earlier finding of a statistically significant increase between monitoring results and WQPS(s), the discharger must submit to the Board an amended Report of Waste Discharge as specified in Section 2550.8(k)(5) for establishment of an Evaluation Monitoring Program (EMP) meeting the requirements of Section 2550.9 of Chapter 15.
- d. Within 180 days of determining statistically significant evidence of a release, submit to the regional board an engineering feasibility study for a Corrective Action Program (CAP) necessary to meet the requirements of Section 2550.10. At a minimum, the feasibility study shall contain a detailed description of the

corrective action measures that could be taken to achieve background concentrations for all constituents of concern.

3. REPORTING

By January 31 of each year, the discharger shall submit an annual report to the Board covering the previous calendar year. This report shall contain:

- a. Tabular and graphical summaries of the monitoring data obtained during the previous year; the report should be accompanied by a 5-1/4" or 3-1/2" computer data disk, MS-DOS ASCII format, tabulating the year's data.
- 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, a summary of leachate volumes removed from the units, and a discussion of the leachate disposal methods utilized.

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 30 days after well installation.

PART B

1. DESCRIPTION OF OBSERVATION STATIONS AND SCHEDULE OF OBSERVATIONS

A. ON-SITE OBSERVATIONS - Report Semi-annually

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.	monthly
P-1 thru P-'n' (perimeter)	Located at equidistant intervals not exceeding 1000 feet around the perimeter of the waste management unit.	Standard observations for the perimeter.	monthly

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

B. GROUNDWATER, LEACHATE AND SURFACE WATER MONITORING

Report Semi-annually

Groundwater, surface water, Leachate and seepage monitoring points shall be monitored as outlined below on Table 1 and Table 2 and shown on Figure 1 (Attached).

During the wet season (October through April), estimate or calculate the volume of storm water discharge from each outfall and collect and analyze samples of storm water discharge from two storm events during each wet season which produce significant storm water discharge as defined in State Water Resources Control Board Order No. 92-12-DWQ (General Permit for Storm Water Discharges). The samples must be analyzed for:

- pH, total suspended solids (TSS), specific conductance, and total organic carbon (TOC);
- Toxic chemicals and other pollutants that are likely to be present in storm water discharge in significant quantities.

TABLE 1

Monitoring Points For Each Monitoring Medium.:

MONITORING MEDIA	COMPLIANCE POINTS	UPGRADIENT POINTS
Surface Water	SW2, SW3	SW1
Groundwater	G-2, G-3, G-5, G-7, G-8, G-9	G-6R, G-4
Leachate	GR-1, GR-2, GR-3, GR-4	Not Applicable
Seepage	S-1 through S-n	

G-2- Not a compliance well. Water levels in G-2 should continue to be measured.

C. FACILITIES MONITORING

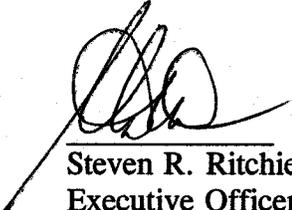
The discharger shall inspect all facilities to ensure proper and safe operation once per quarter and report quarterly. The facilities to be monitored shall include, but not be limited to:

- a. Leachate collection and removal systems;
- b. Surface water monitoring points;
- c. Shallow and deep groundwater monitoring wells;
- d. Perimeter diversion channels;

e. Leachate wells;

I, Steven Ritchie 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. 95-058
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.



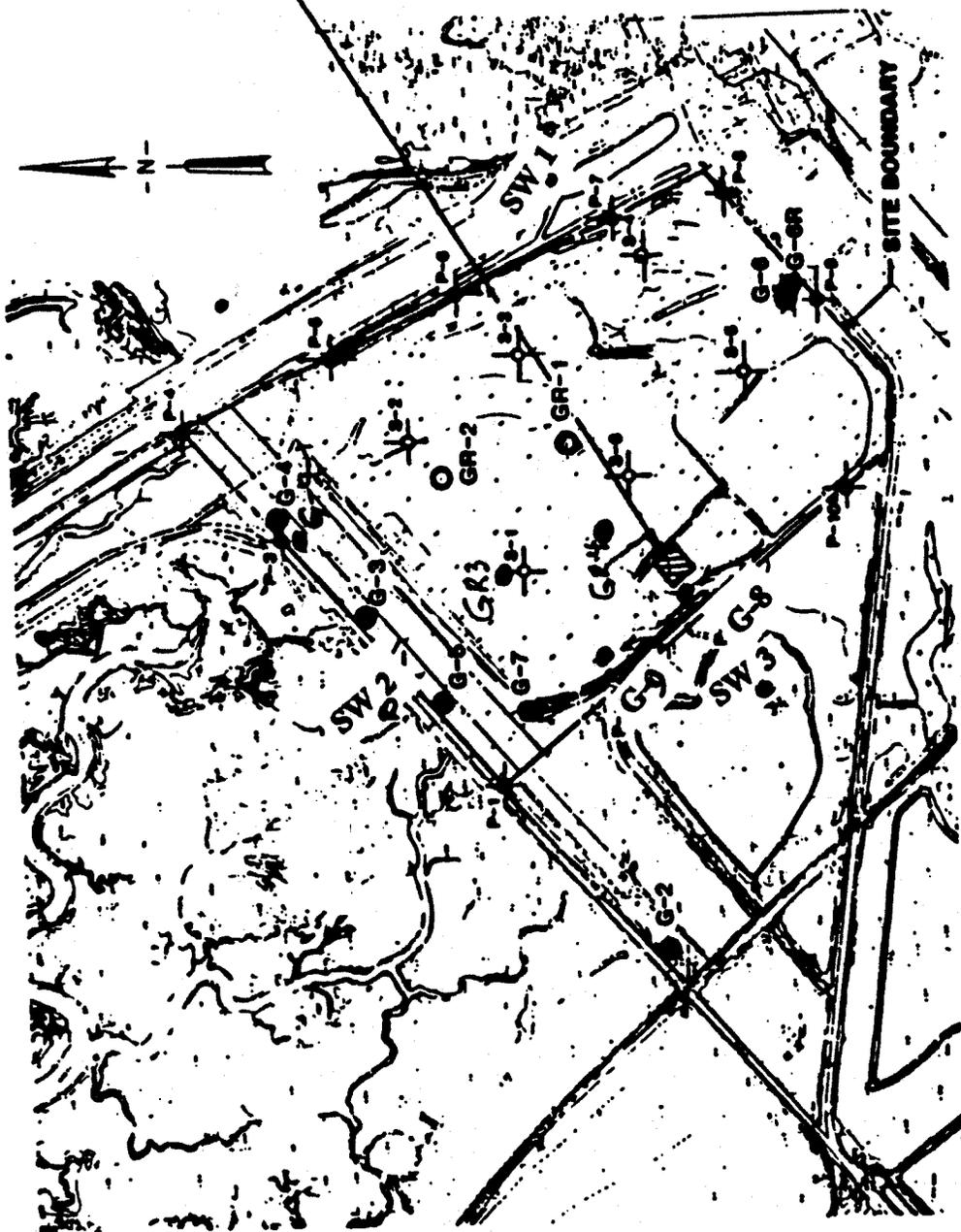
Steven R. Ritchie
Executive Officer

Date Ordered: March 15, 1995

Attachments:

Figure 1 - Monitoring Points Location map

Table 2 - Discharge Monitoring Plan



**AREA FILLED DURING
JULY, AUGUST, AND
SEPTEMBER 1993**

LEGEND

- Groundwater monitoring well.
- Landfill (l.e. leachate) monitoring well
- ⊕ Perimeter observation station.
- ⊞ On-site observation station.

NOTE: Well G-6 was destroyed and replaced with well G-GR. 8/23

0 600 1200 1800
APPROX. SCALE: 1" = 600'

**FIGURE
1**
PROJECT NO.
184-01.22

**OWENS-CORNING FIBERGLAS CORPORATION
SOLID WASTE DISPOSAL SITE
SAN JOSE, CALIFORNIA**

MONITORING WELL LOCATIONS

**EMCON
Associates**

Table 2 - Discharge Monitoring Plan, List of Analytical Parameters

Parameters	Method (USEPA)	Frequency	Reference
Leachate Level Measurements	Field	Semi-annual	1
Water Level Measurements	Field	Semi-annual	1
Temperature Measurements	Field	Semi-annual	1
Electrical Conductivity	Field	Semi-annual	3
pH	Field	Semi-annual	3
Total Organic Carbon	415.1	Semi-annual	2
Total Nitrogen (the sum of Nitrate Nitrogen and Kjeldahl Nitrogen)	351.2	Semi-annual	2
Turbidity	Field	Semi-annual	1
Alkalinity, bicarbonate	310.1	Semi-annual	2
Alkalinity, hydroxide	310.1	Semi-annual	2
Biological Oxygen Demand	410.4	Semi-annual	4
Amonia as N (nonionized)	350.1	Semi-annual	4
Chemical Oxygen Demand	410.2	Semi-annaul	2 ,4
Total Dissolved Solids	160.1	Semi-annual	2 ,4
Total Suspended Solids	160.2	Semi-annual	2 ,4
Volatile Organic Compounds (Appendix I)	8260 w/ capillary column	Once in 5 yrs	3
Volatile Organic Compounds (Appendix I&II)	8260/w capillary column	Once in 5 yrs	3
Appendix II Semi-volatile Organics Compounds	8270	Once in 5 yrs	3
Arsenic	7061	Semi-annual	3
Cadmium	7131	Semi-annual	3
Chromium	6010	Semi-annual	3

Copper	6010	Semi-annual	3
Barium	6010	Semi-annual	3
Nickel	6010	Semi-annual	3
Vanadium	6010	Semi-annual	3
Cobalt	6010	Semi-annual	3
Zinc	6010	Semi-annual	3

1. Not Applicable
2. Methods for Chemical Analysis of Water and Wastes, EPA600/4/79/029, revised March 1983
3. EPA SW-846
4. Surface water monitoring parameter.