



Cal/EPA

California
Environmental
Protection
Agency

Air Resources Board

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Pete Wilson
Governor

MEMORANDUM

CTO-076/0294

James M. Strock
Secretary for
Environmental
Protection

TO: Roy Yeaman
Senior Hazardous Substances Scientist
Base Closure Unit
Southern California Operations
Office of Military Facilities
Department of Toxic Substances Control

FROM: Lynton Baker *Lynton Baker*
Staff Air Pollution Specialist
Project Support Section
Stationary Source Division

DATE: August 19, 1996

SUBJECT: APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS FOR
EL TORO MARINE CORPS AIR STATION OPERABLE UNITS 2B AND 2C

This memorandum is in response to your request for potential California "Applicable or Relevant and Appropriate Requirements" (ARARs) relating to the remediation of Operable Units 2B and 2C at the El Toro Marine Corps Air Station. State law as codified in the Health and Safety Code (Division 26, section 40000) provides to local and regional authorities the primary responsibility for control of air pollution from sources other than emissions from motor vehicles. Air pollution control districts and air quality management districts are required to adopt and enforce rules and regulations to achieve and maintain the state and federal ambient air quality standards in all areas affected by emission sources under their jurisdiction, and to enforce all applicable provisions of state and federal law (Health and Safety Code section 40001).

Rules and regulations of the South Coast Air Quality Management District (SCAQMD) should be included in the consideration of action specific ARARs for Operable Units 2B and 2C. If you have not contacted the SCAQMD, we recommend that you contact Mr. Scott Caso of the district's Stationary Source Compliance Division at (909) 396-2218. SCAQMD rules that may apply include:

201	Permit to Construct
203	Permit to Operate
402	Nuisance
403	Fugitive Dust
1150	Excavation of Landfill Sites (copy enclosed)

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- 1150.2 Control of Gaseous Emissions from Inactive Landfills (copy enclosed)
- 1166 Volatile Organic Compound Emissions from Decontamination of Soil
- 1401 New Source Review of Carcinogenic Air Contaminants

In addition, the California Ambient Air Quality Standards (CAAQS, list enclosed) may apply as chemical specific ARARs. This is to ensure that activities undertaken to remediate Operable Units 2B and 2C do not cause ambient air concentrations above the health protection levels of the CAAQS. In particular, the CAAQS for particulate matter (PM10) and lead should be considered.

If you have questions, please call me at (916) 327-5619.

Enclosures

cc: Mr. Scott Caso (w/o Enclosures)
Stationary Source Compliance Division
South Coast Air Quality Management District

Calif. Code of Regs.,
Title 17, Sect. 70200

State of California Air Resources Board Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards ¹		National Standards ²		
		Concentration ³	Method ⁴	Primary ^{3,5}	Secondary ^{3,4,6}	Method ⁷
Ozone	1 Hour	0.09 ppm (180 ug/m3)	Ultraviolet Photometry	0.12 ppm (235 ug/m3)	Same as Primary Std.	Ethylene Chemiluminescence
Carbon Monoxide	8 Hour	9.0 ppm (10 mg/m3)	Non-dispersive Infrared Spectroscopy (NDIR)	9 ppm (10 mg/m3)		Non-dispersive Infrared Spectroscopy (NDIR)
	1 Hour	20 ppm (23 mg/m3)		35 ppm (40 mg/m3)		
Nitrogen Dioxide	Annual Average	-	Gas Phase Chemilumi- nescence	0.053 ppm (100 ug/m3)	Same as Primary Std.	Gas Phase Chemiluminescence
	1 Hour	0.25 ppm (470 ug/m3)		-		
Sulfur Dioxide	Annual Average	-	Ultraviolet Fluorescence	80 ug/m3 (0.03 ppm)		Pararosaniline
	24 Hour	0.04 ppm (105 ug/m3)		365 ug/m3 (0.14 ppm)		
	3 Hour	-		1300 ug/m3 (0.5 ppm)		
	1 Hour	0.25 ppm (655 ug/m3)		-		
Suspended Particulate Matter (PM ₁₀)	Annual Geometric Mean	30 ug/m3	Size Selective Inlet High Volume Sampler and Gravimetric Analysis	-	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	24 Hour	50 ug/m3		150 ug/m3		
	Annual Arithmetic Mean	-		50 ug/m3		
Sulfates	24 Hour	25 ug/m3	Turbidimetric Barium Sulfate	-	-	-
Lead	30 day Average	1.5 ug/m3	Atomic Absorption	-	Same as Primary Std.	Atomic Absorption
	Calendar Quarter	-		1.5 ug/m3		
Hydrogen Sulfide	1 Hour	0.03 ppm (42 ug/m3)	Cadmium Hydr- oxide STRactan	-	-	-
Vinyl Chloride (chloroethene)	24 Hour	0.010 ppm (26 ug/m3)	Tedlar Bag Collection, Gas Chromatography	-	-	-
Visibility Reducing Particles ⁸	8 hour (10 am to 6 pm, PST)	In sufficient amount to produce an extinction coefficient of 0.23 per kilometer due to particles when the relative humidity is less than 70 percent. Measurement in accordance with ARB Method V.		-	-	-
Applicable Only in the Lake Tahoe Air Basin						
Carbon Monoxide	8 hour	6 ppm (7 mg/m3)	NDIR	-	-	-
Visibility Reducing Particles ⁹	8 hour (10 am to 6 pm, PST)	In sufficient amount to produce an extinction coefficient of 0.07 per kilometer due to particles when the relative humidity is less than 70 percent. Measurement in accordance with ARB Method V.		-	-	-

(Footnotes on reverse side)

ARB Fact Sheet 39; 11/91

SCAQMD RULE 1150 EXCAVATION OF LANDFILL SITES
LAST REVISED 10/15/82

(Adopted October 15, 1982)

RULE 1150. EXCAVATION OF LANDFILL SITES

(a) Definitions

For the purpose of this rule:

- (1) A landfill is a place, location, tract of land, area, or premises in use, or which has been used for the disposal of waste.
- (2) An Active Landfill is a landfill that has received and/or processed waste within the preceding two years.
- (3) An Inactive Landfill is a landfill that has not received and/or processed waste within the preceding two years.
- (4) Operator is the legal owner of a landfill or a person authorized by the legal owner to operate the landfill or to perform excavation activities at the landfill.
- (5) Excavation means any activity which exposes buried waste to the atmosphere except for activities which are a normal part of the daily operation of an active landfill.

(b) Requirements

- (1) The operator of a landfill is subject to the provisions of this rule.
- (2) No person shall initiate excavation of an active or inactive landfill without Excavation Management Plan approved by the Executive Officer. The Plan shall, as a minimum, provide information regarding the quantity and characteristics of the material to be excavated and transported, and shall identify mitigation measures to be activated as necessary during excavation to ensure a that public nuisance condition does not occur. Mitigation measures shall be selected after consideration of the physical characteristics of the landfill. Such mitigation measures may include gas collection and disposal, baling, encapsulation, covering of the material, chemical neutralizing, or other measures approved by the Executive Officer.
- (3) The Executive Officer shall not approve any Excavation Management Plan unless such a Plan includes a provision for immediate cessation of excavation activities when the operator is notified by the Executive Officer that a public nuisance has occurred. Upon determination by the Executive Officer that a public nuisance has occurred, those mitigation measures identified in the Plan shall be implemented immediately, as well as any additional mitigation measures which the Executive Officer deems appropriate.
- (4) As part of his evaluation of an Excavation Management Plan, the Executive Officer may consult with public health agencies in evaluating potential health effects. When the results of such consultations so warrant, ambient air monitoring equipment requirements may be specified as a condition of Plan approval.
- (5) Compliance with the provisions of this rule does not exempt a person from complying with the requirements of Rule 402, Nuisance; California Health and Safety Code section 41700; or other applicable codes,

rules, and regulations.

- (6) The District shall respond within 30 days to the applicant as to whether a submitted Plan is complete or incomplete. If additional review time is needed by the District, the applicant will be so informed within the same 30-day period.

(c) Exemptions

- (1) The drilling of holes up to 24 inches in diameter for geological evaluation or for telephone or power transmission poles or their footings.
- (2) The drilling of oil wells, gas wells, or landfill gas collection wells or the maintenance of gas or leachate collection systems shall not require submittal of an Excavation Management Plan. Permit requirements to construct/operate equipment at a landfill remain, and are not affected by requirements for an Excavation Management Plan.
- (3) Emergency excavation performed by, under the jurisdiction of, or pursuant to the requirements of, an authorized Health Officer, Agricultural Commissioner, or Fire Protection Officer. Whenever possible, the Executive Officer shall be notified prior to commencing such excavation.
- (4) The Executive Officer may exempt from the requirements of this rule any excavation activities which he determines pose an insignificant risk of violating Health and Safety Code Section 41700.

(d) Fees

For the purpose of determining the appropriate processing fees only, the filing of an Excavation Management Plan shall be considered the equivalent of filing an application for a permit. The person submitting the Plan shall be assessed a filing fee as described in Rule 301(a), an engineering evaluation fee and operating fee as described in Rule 301(b) and 301(e) - Schedule 5, and where applicable, Rule 301(f) and Rule 304. The fees shall be due and payable as described in those rules.

(e) Effective Dates

The provisions of this rule shall be effective for any landfill site excavation begun after January 1, 1983.

SCAQMD RULE 1150.2 GASEOUS EMIS. FROM INACTIVE LANDFILLS
LAST REVISED 10/18/85

(Adopted October 18, 1985)

RULE 1150.2. CONTROL OF GASEOUS EMISSIONS FROM INACTIVE
LANDFILLS

(a) Summary

The purpose of this rule is to reduce gaseous emissions from inactive landfills to prevent public nuisance and possible detriment to public health caused by exposure to such emissions. Based on the established criteria and from the available information, the District will determine whether the gas generated from the landfill needs to be collected. If so, the owner shall install a landfill gas control system approved by the Executive Officer.

The rule requires installation of the landfill gas control system sufficient to draw landfill gas toward the gas collection devices without overdraw that would adversely affect the system. Sample probes shall be installed at the perimeter of the landfill to monitor off-site migration. Sufficient landfill gas shall be collected to prevent the average concentration of total organic compounds over a certain area on the surface of the landfill from exceeding 50 ppm. The concentration of total organic compounds, and any toxic air contaminants shall be determined when the landfill gas control system commences operation and periodically thereafter. Air samples at the perimeter of the landfill shall be analyzed to determine off-site migration. Results from such determination shall be reported to the Executive Officer. The maximum concentration of organic compounds as methane, measured at any point on the surface of the landfill, shall not exceed 500 ppm.

The rule also requires the proper disposal of collected gas. The efficiency of the gas disposal system shall be determined when the landfill gas control system commences operation and periodically thereafter. Mitigation measures shall be implemented as necessary during the installation of the system to prevent public nuisance. Mitigation measures and methods of determination shall be approved by the Executive Officer.

(b) Definitions

For purposes of this rule, the following definitions shall apply:

- (1) An Inactive Landfill is a site where refuse had been disposed of on or before January 1, 1982, and no more subsequent refuse disposal activity had been conducted within the site.
- (2) Landfill Gas is any untreated raw gas derived through a natural process from the decomposition of organic waste deposited in a landfill or the evolution of volatile species in the waste.
- (3) Toxic Air Contaminant is an air contaminant which has been identified as a hazardous air pollutant pursuant to Section 7412 of Title 42 of the United States Code; or has been identified as a toxic air contaminant by the Air Resources Board pursuant to Health and Safety Code Section 39655 through 39662; or which may cause or contribute to an increase in mortality or an increase in serious illness, or potential hazard to human health.
- (4) Perimeter is the outer boundary of the entire waste disposal property.

- (5) Owner is a person whose name appears in the title of the property.

(c) Requirements

- (1) At any time after the adoption of this rule, but not later than 30 days after the receipt of a request, the owner shall submit to the Executive Officer preliminary information necessary to determine if further screening of the inactive landfill is necessary.
- (2) Within 90 days of the date of a second request, the owner of an inactive landfill shall submit to the Executive Officer additional information, as may be necessary to determine whether or not landfill gas control systems and/or gas monitoring systems are required to be installed in the landfill.
- (3) If the owner needs additional time to provide the information required in subparagraphs (c)(1) and (c)(2), he/she shall request an extension in writing from the Executive Officer, indicating the amount of time that is adequate and reasonable to obtain such information. Such request for extension shall be submitted to the Executive Officer within 30 days of the receipt of the Executive Officer's requests as specified in subparagraph (c)(1) and (c)(2).
- (4) The Executive Officer shall present to the Board the screening criteria used to determine the need for controls under subparagraph (c)(5). No notifications will be made for controls prior to approval of these criteria by the Board.
- (5) Upon notification by the Executive Officer that landfill gas control systems and/or gas monitoring systems are required, the owner of an inactive landfill shall:
 - (A) Install and maintain in good operating condition a landfill gas control system according to the design approved by the Executive Officer, which is sufficient to draw landfill toward the gas collection devices without overdraw that could cause excessive aerobic decomposition, fires, or damaging effect on the gas disposal system. Such system shall be extended as necessary to draw landfill gas to prevent off-site migration.
 - (B) Install and maintain sampling probes at the perimeter of the landfill to determine if off-site migration exists. A plan for such installation shall be submitted to the Executive Officer for approval as part of the compliance plan.
 - (C) Analyze the samples identified below for the concentrations of total organic compounds and any toxic air contaminants following installation of the landfill gas control system, and once a month or at greater intervals thereafter, as required by the Executive Officer. The sampling plan and methods of collection and analysis shall be reported to the Executive Officer as required and in the form and manner prescribed by him.
 - (i) Integrated air sample on the surface of the landfill over an area determined by the Executive Officer to be representative on a site-by-site basis.
 - (ii) Landfill gas collected by the gas control system.
 - (iii) Landfill gas from the sampling probes specified in subparagraph (c)(5)(B).
 - (iv) Air at the perimeter of the landfill.
 - (D) Collect sufficient landfill gas with the

landfill gas control system to prevent the concentration of total organic compounds in the sample specified in subparagraph (c) (5) (C) (i) from exceeding 50 ppm.

- (E) Not allow the maximum concentration of total organic compounds from exceeding 500 ppm measured as methane at any point on the surface of the landfill.
- (F) Dispose of ROG and toxic compounds in the landfill gas by any of the following processes which have been demonstrated to the satisfaction of the Executive Officer to achieve the maximum possible efficiency:
 - (i) Combustion.
 - (ii) Gas treatment and subsequent sale.
 - (iii) Sale and processing off-site.
 - (iv) Other equivalent methods.
- (G) Evaluate the efficiency of the combustion or the gas treating equipment when the system commences operation and annually thereafter. The evaluation shall be made in a manner approved by the Executive Officer, recorded, and maintained for at least two (2) years, and be available to the District for inspection.
- (H) Take approved mitigation measures during installation of the landfill gas control system to prevent public nuisance.
- (I) Submit to the Executive Officer a plan to comply with the requirements of this rule. Such plan shall include but not be limited to:
 - (i) The means to meet the compliance schedule.
 - (ii) The installation procedures and location of sampling probes.
 - (iii) Sampling and test methods.
 - (iv) Mitigation measures to be taken during the installation of landfill gas control system.
 - (v) Mitigation measures to be taken when excessive concentrations are determined.

If after the installation of the landfill gas control system in accordance with the approved plan and the provisions of the permit to construct, the Executive Officer determines that in spite of all reasonable efforts by the owner, the limits cannot be attained, he may specify other attainable limits.

(d) Compliance Schedule

The owner of an inactive landfill shall meet the following compliance schedule:

- (1) From the date of notification from the Executive Officer that a landfill gas control system is required:
 - (A) Within 6 months submit a compliance plan specified in subparagraph (c) (5) (I).
 - (B) Within 12 months file an application with the District for a permit to construct and permit to operate a landfill gas control system.
- (2) From the date the permit to construct is issued:
 - (A) Within 6 months, award contract(s) for installation for the landfill gas control system.
 - (B) Within 12 months, begin installation.
 - (C) Within 24 months, complete installation
 - (D) Within 27 months, attain compliance with this rule.

(e) Fees

The owner of an inactive landfill shall be assessed applicable filing and evaluation fees pursuant to Rules 301, 301.1, 304, and 306.

- (f) **Applicability of Other Rules**
Compliance with the provisions of this rule does not exempt a person from complying with the requirements of Section 41700 of the California Health and Safety Code, Rules 401 (Visible Emissions), 402 (Nuisance), 403 (Fugitive Dust), 1150 (Excavation of Landfill Sites) of the District's Rules and Regulations, or any other applicable law, statute, code, ordinance, rule, or regulation.
- (g) **Exemptions**
A landfill may be exempt for all or any portion of the requirements of this rule if the owner can demonstrate to the satisfaction of the Executive Officer that due to the size, nature and age of the refuse, projected gas generation, or remoteness of the facility, there will be no adverse impact on air quality. Such exemption may be determined upon evaluation of the information obtained under the provisions of subparagraph (c)(1) or (c)(2) of this rule in accordance with the established screening criteria.
The exemption may be reviewed periodically by the Executive Officer to consider the development of the landfill surface and/or nearby property and the impact of such development on the public. Depending upon the results of the review, the Executive Officer may extend or terminate the exemption.
- (h) **Summary Paragraph Intended Only as a Guide**
Paragraph (a) of this rule is intended only to summarize and give guidance in the interpretation and, if found to be in conflict with a provision of any other paragraph of this rule, shall yield to the provision in the other paragraph.

4-99 1-4-2000