

RULE 59. CONTROL OF WASTE DISPOSAL SITE EMISSIONS
(Effective 11/3/87)

(a) **APPLICABILITY**

Except as provided in Section (b) below, this rule is applicable to waste disposal sites with the potential to emit gaseous reactive organic compounds, odors, and/or toxic air contaminants.

(b) **EXEMPTIONS**

The following waste disposal sites are exempt from the provisions of this rule except in cases where a violation of District Rule 51 - Nuisance has occurred within the preceding two years:

(1) Waste disposal sites having a landfill area of one acre or less, except for designated hazardous waste sites.

(2) Waste disposal sites where the owner/operator complies with the provisions of Sections (e) and (f) of this rule and can demonstrate to the satisfaction of the Air Pollution Control Officer that the concentration limits of Subsection (d)(1)(ii) are never exceeded in the absence of a landfill gas control system, and/or never exceeded in the absence of an evaporative emissions control system where liquid chemical wastes are concentrated or treated. This exemption requires the written approval of the Air Pollution Control Officer to be valid and is subject to revocation by the District if later testing shows the concentration limits of Subsection (d)(1)(ii) were exceeded after the exemption was approved.

An exemption obtained pursuant to this rule does not constitute an exemption to the requirements of Section 41805.5 of the California State Health and Safety Code.

(c) **DEFINITIONS**

(1) "**Active Waste Disposal Site**" means a waste disposal site which has received waste for disposal after January 1, 1984 or within four years preceding the date of submittal of the initial air quality assessment report required by this rule, whichever period of time is shorter.

(2) "**Best Available Control Technology**" (**BACT**) means the maximum degree of air contaminant emission reduction which the Air Pollution Control Officer determines is achievable, on a case-by-case basis, taking into account technology which is demonstrated but not necessarily proven in field application.

(3) "**Condensate**" means the liquid that results from the condensation of gases generated at a waste disposal site.

(4) **"Hazardous Waste"** means a waste or combination of wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may either:

(i) Cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness.

(ii) Pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported, or disposed of, or otherwise managed.

Unless expressly provided otherwise in the California Health and Safety Code, the term "hazardous waste" shall be understood to also include extremely hazardous waste.

(5) **"Inactive Waste Disposal Site"** means a waste disposal site which has not received any waste for disposal after January 1, 1984 or within four years preceding the submittal of the initial air quality assessment report required by this rule, whichever period of time is shorter.

(6) **"Landfill"** means any location within a waste disposal site used for the storage of waste where the organic portion of the waste is subject to natural processes of aerobic and anaerobic decomposition.

(7) **"Landfill Gas"** is any untreated, raw gas derived through a natural process from the decomposition or organic waste deposited in a landfill or from the evolution of volatile species in the waste.

(8) **"Landfill Gas Control System"** means any system, including maintenance practices that is used to control landfill gas emissions.

(9) **"Leachate"** is any liquid, which has come to contact with the decomposing waste of a landfill.

(10) **"Off Site Gas Migration"** means underground landfill gases detected at any point beyond the perimeter and/or within three feet inside the perimeter of a waste disposal site.

(11) **"Perimeter"** means the outer boundary of the entire waste disposal site property which includes only the waste disposal site and the landfill or landfills or evaporation system or systems within the waste disposal site.

(12) **"Reactive Organic Compound"** means any organic compound that is considered photochemically reactive under the State Implementation Plan.

(13) **"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 the State of California Health and Safety Code, Chapter 3.5, Articles 2 and 3, Sections 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.

(14) **"Waste Disposal Site"** includes the place, location, tract of land, area, or premises in use, intended to be used, or which has been used for the landfill disposal of wastes and/or the evaporation of liquid chemical waste.

(d) **STANDARDS**

(1) Except as provided for in Subsection (b)(2), no person owning or operating a landfill shall allow the emissions of any odors, toxic air contaminants, and/or reactive organic compounds unless:

(i) The landfill is equipped with a landfill gas control system using the best available control technology as determined by the Air Pollution Control Officer, or

(ii) The owner/operator demonstrates to the satisfaction of the Air Pollution Control Officer that the landfill can be maintained at all times, using a landfill gas control system or maintenance practices, such that:

(A) the concentration of organic compounds does not exceed 500 part per million by volume (ppmv) expressed as methane at any point measured immediately above the surface of the landfill; and,

(B) the concentration of any toxic air contaminant emitted to the atmosphere from any point measured immediately above the surface of the landfill and from any landfill gas collection, energy recovery, gas purification and/or disposal system does not exceed the threshold level established for that toxic air contaminant by the Air Resources Board, pursuant to Section 39662, Article 3, Chapter 3.5 of the California Health and Safety Code; and there are no detectable emissions of any toxic air contaminant for which the Air Resources Board has not specified a threshold exposure level because there is no known level below which no significant adverse health effects are anticipated; and,

(C) the concentration of any toxic air contaminant emitted to the atmosphere from any point measured immediately above the surface of the landfill and from any landfill gas collection, energy recovery, gas purification and/or disposal system does not exceed either the Threshold Limit Value established for that toxic air contaminant by the American Conference of Governmental Industrial Hygienists or any concentration that poses an unacceptable health risk to human beings as determined by the Air Pollution Control Officer after consultation with the appropriate local, state or federal governmental health agency.

If there are two or more applicable concentration limits which have the same time averaging period for a given toxic air contaminant, the most stringent one shall apply. Also, if the owner/operator does not maintain the concentrations below the levels specified above, the owner/operator shall be required to submit to the District an application for re-evaluation and shall install BACT as determined by the Air Pollution Control Officer.

(2) Every landfill gas control system shall be designed, modified, and extended, when necessary, to prevent underground off site gas migration and to maintain compliance with this rule. Each extension or modification shall be done in accordance with plans and specifications previously submitted to and approved by the Air Pollution Control Officer. Each extension shall be designed to maintain and achieve the level of emissions control required by (i) or (ii) in Subsection (d)(1) above.

(3) There shall be no landfill gas leaks from the gas wells, piping, flanges, valves, blowers, flame arrestors, pipe fittings, sampling ports, or any other connections or fittings along the landfill gas transfer path of any landfill gas collection, energy recovery, gas purification and/or disposal system which result in concentrations of 500 ppmv or more measured as propane or 1375 ppmv or more measured as methane at a distance of 1.3 centimeters (1/2 inches) from the transfer path, other than non-repeatable, momentary readings.

(4) Except as provided for in Section (b), no person owning or operating one or more evaporation ponds and/or an evaporation system used to treat or concentrate liquid chemical waste shall allow evaporative emissions to the atmosphere from any point measured immediately above any surface area where liquid chemical waste is exposed to the atmosphere to exceed the concentration limits specified in Subsection (d)(1)(ii).

(5) The owner/operator of a landfill subject to the requirements of this rule shall install sampling probes at the waste disposal site to determine whether underground offsite gas migration exists. The probes shall be installed in accordance with plans previously submitted to and approved in writing by the Air Pollution Control Officer.

(6) Any gas collection system used in conjunction with a landfill gas control system shall be designed and operated to draw gas toward the gas collection device or devices without overdraw that could cause fires or damage to the landfill gas disposal system.

(7) Flares used to control the emissions of landfill gases shall be equipped with automatic shutoff mechanisms designed to immediately stop the flow of landfill gases when a flame-out occurs. During restart or startup, there shall be a sufficient flow of propane or commercial natural gas to the burners to ensure that unburned landfill gases are not emitted to the atmosphere.

(8) No person owning or operating a landfill shall allow leachate and/or condensate from the landfill to reach any surface where odors, toxic air contaminants or reactive organic compounds can be evaporated into the atmosphere.

(9) Whenever landfill material is to be brought to the surface during the installation or preparation of wells, piping, or other equipment, or when landfill waste is to be excavated and moved, the owner/operator shall first obtain and then follow mitigation measures approved in writing by the Air Pollution Control Officer to prevent public nuisance and to minimize the release of odors, toxic air contaminants, and reactive organic compounds into the atmosphere.

(e) COMPLIANCE TESTING, RECORDKEEPING AND FEES

(1) Every landfill owner/operator shall analyze the concentrations of total organic compounds and toxic air contaminants found in the body and immediately above the surface of the landfill. Such testing shall, in part, determine whether there is underground offsite gas migration.

(2) Every owner/operator of a landfill equipped with a landfill gas collection, energy recovery, gas purification and/or disposal system shall analyze the concentrations of air contaminants including total organic compounds, toxic air contaminants and criteria pollutants except ozone emitted to the atmosphere from the system.

(3) Every landfill owner/operator shall determine if the concentration of any landfill gas leaks from gas wells, piping flanges, blowers, flame arrestors, pipe fittings, sampling ports or any other connections or fittings along the landfill gas transfer path of any landfill gas collection, energy recovery, gas purification and/or disposal system equals or exceeds 500 ppmv measured as propane or 1375 ppmv measured as methane at a distance of 1.3 centimeters (1/2 inches) from the transfer path other than non-repeatable, momentary readings.

(4) Every owner/operator of an active waste disposal site with one or more landfills shall analyze the concentrations in the atmosphere of toxic air contaminants specified by the District and/or the State Air Resources Board measured inside the landfill waste disposal site property within ten feet of the perimeter.

(5) Every owner/operator of an active waste disposal site with one or more landfills shall make a chemical analysis of the composition of the landfill gas streams immediately above and within the landfill waste disposal site, including the concentrations of total organic compounds and toxic air contaminants measured immediately above the surface of the landfill.

(6) Every owner/operator of an evaporation pond and/or evaporation system shall analyze the concentrations of total organic compounds and toxic air contaminants immediately above any surface area where liquid chemical waste is exposed to the atmosphere.

(7) Every owner/operator of a waste disposal site shall test for compliance with the requirements of this rule using procedures approved by the Air Pollution Control Officer. All sampling plans and methods of analysis shall require written approval by the Air Pollution Control Officer prior to sampling. Any subsequent modifications to the

sampling or analysis methods shall require concurrence of the Air Pollution Control Officer. The results of each analysis shall be written in a legible form approved by the Air Pollution Control Officer and made readily available to the District upon request. The records of each analysis shall be maintained for at least two years.

(8) All owners/operators submitting sampling plans, method of analysis, and reports required by this rule shall reimburse the District for all costs incurred in reviewing those documents, and for any site visits used to determine the status of compliance and/or the applicability of a Subsection (b)(2) exemption, prior to the submittal of an application for an Authority to Construct and Permit to Operate. District costs shall be determined using the labor rates specified in Rule 40, Schedule 94.

(f) **REPORTS**

(1) Every owner/operator of a waste disposal site shall submit to the District, using information required by Section (e) of this rule and Section 41805.5 of the California State Health and Safety Code, air quality assessment reports as specified below:

(i) For every active waste disposal site, an air quality assessment report shall be submitted to the District on or before July 1, 1987,

(ii) For every inactive waste disposal site, an air quality assessment report shall be submitted to the District on or before January 1, 1988,

(iii) An air quality assessment report shall be submitted within thirty days following the installation of any landfill gas control system that is installed after the date of adoption of this rule, and at intervals specified by the Air Pollution Control Officer thereafter, and

(iv) An air quality assessment report shall be submitted to the District within sixty days following written notification by the Air Pollution Control Officer of the revocation of an exemption.

If any given air quality assessment report cannot be submitted to the District within the time required above due to circumstances the District agrees are beyond the control of the owner/operator, then the owner/operator shall submit the report at a later date specified by the District. However, the owner/operator shall still be required to submit a test plan to the District pursuant to Section (e) within the submittal time required for the air quality assessment report.

(2) Every initial air quality assessment report for each active waste disposal site with one or more landfills shall contain all of the information listed below. All other required air quality assessment reports shall contain all or a portion of the following information as determined by the Air Pollution Control Officer. The listed information required is as follows:

(i) Test results to determine if there is any underground landfill gas migration beyond the landfill waste disposal site using the sampling probes specified in Subsection (d)(5),

(ii) The concentrations in the atmosphere of toxic air contaminants specified by the District and/or the State Air Resources Board measured inside the landfill waste disposal site property within ten feet of the perimeter,

(iii) A chemical analysis of the composition of the landfill gas streams immediately above and within the landfill waste disposal site, including the concentrations of total organic compounds and toxic air contaminants measured immediately above the surface of the landfill, and

(iv) Any other information which the District may require to determine the effect of the site on air quality.

(3) If the measurements required by this section reveal concentrations of known and/or suspected toxic air contaminants including carcinogens, the owner/operator shall submit to the District, if requested by the Air Pollution Control Officer, a health risk assessment of the emissions impact on surrounding communities.

The above information shall be obtained in accordance with the approved guidelines specified in Section (e) and shall be submitted in a form and manner approved by the Air Pollution Control Officer.

(g) COMPLIANCE SCHEDULES FOR REMEDIAL ACTION

Except for emergencies provided for in Subsection (g)(4) below, every owner/operator of a waste disposal site shall submit to the District applications in accordance with the following schedules:

(1) Every owner/operator shall submit applications for Authority to Construct and Permits to Operate to the District within sixty days following written notification from the District that, based on the review of an associated air quality assessment report, remedial action is required to comply with the provisions of Section (d) of this rule and/or the provisions of Section 41805.5 of the California Health and Safety Code.

An application shall be submitted to the District for an Authority to Construct and Permit to Operate for each basic landfill gas control system, including maintenance practices, or system designed to prevent evaporative emissions. For landfills, a basic system may consist of a gas collection system and a flare. Equipment added to use the gases for the production of energy or which purify the gas for sale is not part of the basic system. Separate permit applications shall be required for each engine, turbine, gas purification unit, and any other energy recovery unit that is in addition to a basic landfill gas collection system and any associated flare. Each application required shall be submitted to the District with the fees specified in Rule 40 for the equipment or system stated on the application.

(2) Every owner/operator planning to open a new waste disposal site or reopen a previously closed waste disposal site shall submit to the District Authority to Construct and Permit to Operate applications and shall be required to obtain Authority to Construct approval from the District prior to the receipt of waste and the installation of a landfill control system.

(3) Every owner/operator planning to install a landfill gas control system required by any other governmental agency or for any other reasons shall submit to the District Authority to Construct and Permit to Operate applications and shall be required to obtain Authority to Construct approval from the District prior to installation.

(4) If the San Diego Health Department, any health agency of the State of California, or the District determines that there is an imminent, life endangering threat to human beings requiring immediate action, then the owner/operator shall immediately take whatever actions are deemed necessary by the District and/or the health agency to protect human health. Concurrently, the owner/operator shall submit to the District the appropriate Authority to Construct and Permit to Operate application or applications.

Except as provided for in Subsection (g)(4) above, completion of construction of any required landfill gas control system shall take place before the Authority to Construct expiration date determined in writing by the Air Pollution Control Officer.