

## Environmental Protection Agency

## § 257.30

owner or operator makes the determination under §257.28(c).

(c) If the owner or operator determines that compliance with requirements under §257.27(b) cannot be practically achieved with any currently available methods, the owner or operator must:

(1) Obtain certification of a qualified ground-water scientist or approval by the Director of an approved State that compliance with requirements under §257.27(b) cannot be practically achieved with any currently available methods;

(2) Implement alternate measures to control exposure of humans or the environment to residual contamination, as necessary to protect human health and the environment; and

(3) Implement alternate measures for control of the sources of contamination, or for removal or decontamination of equipment, units, devices, or structures that are:

(i) Technically practicable; and

(ii) Consistent with the overall objective of the remedy.

(4) Notify the State Director within 14 days that a report justifying the alternative measures prior to implementing the alternative measures has been placed in the operating record.

(d) All solid wastes that are managed pursuant to a remedy required under §257.27, or an interim measure required under §257.28(a)(3), shall be managed in a manner:

(1) That is protective of human health and the environment; and

(2) That complies with applicable RCRA requirements.

(e) Remedies selected pursuant to §257.27 shall be considered complete when:

(1) The owner or operator complies with the ground-water protection standards established under §§257.25 (h) or (i) at all points within the plume of contamination that lie beyond the ground-water monitoring well system established under §257.22(a).

(2) Compliance with the ground-water protection standards established under §§257.25 (h) or (i) has been achieved by demonstrating that concentrations of appendix II (appendix II of Part 258) constituents have not exceeded the ground-water protection standard(s)

for a period of three consecutive years using the statistical procedures and performance standards in §257.23 (g) and (h). The Director of an approved State may specify an alternative length of time during which the owner or operator must demonstrate that concentrations of appendix II (appendix II of 40 CFR part 258) constituents have not exceeded the ground-water protection standard(s) taking into consideration:

(i) Extent and concentration of the release(s);

(ii) Behavior characteristics of the hazardous constituents in the ground-water;

(iii) Accuracy of monitoring or modeling techniques, including any seasonal, meteorological, or other environmental variabilities that may affect the accuracy; and

(iv) Characteristics of the ground-water.

(3) All actions required to complete the remedy have been satisfied.

(f) Upon completion of the remedy, the owner or operator must notify the State Director within 14 days that a certification that the remedy has been completed in compliance with the requirements of §257.28(e) has been placed in the operating record. The certification must be signed by the owner or operator and by a qualified ground-water scientist or approved by the Director of an approved State.

### § 257.29 [Reserved]

#### RECORDKEEPING REQUIREMENTS

### § 257.30 Recordkeeping requirements.

(a) The owner/operator of a non-municipal non-hazardous waste disposal unit must record and retain near the facility in an operating record or in an alternative location approved by the Director of an approved State the following information as it becomes available:

(1) Any location restriction demonstration required under §§257.7 through 257.12; and

(2) Any demonstration, certification, finding, monitoring, testing, or analytical data required in §§257.21 through 257.28.

(b) The owner/operator must notify the State Director when the documents

from paragraph (a) of this section have been placed or added to the operating record, and all information contained in the operating record must be furnished upon request to the State Director or be made available at all reasonable times for inspection by the State Director.

(c) The Director of an approved State can set alternative schedules for recordkeeping and notification requirements as specified in paragraphs (a) and (b) of this section, except for the notification requirements in § 257.25(g)(1)(iii).

APPENDIX I TO PART 257—MAXIMUM CONTAMINANT LEVELS (MCLS)

MAXIMUM CONTAMINANT LEVELS (MCLS) PROHIBITED UNDER THE SAFE DRINKING WATER ACT

Chemical	CAS No.	MCL (mg/l)
Arsenic .....	7440-38-2	0.05
Barium .....	7440-39-3	1.0
Benzene .....	71-343-2	0.005
Cadmium .....	7440-43-9	0.01
Carbon tetrachloride .....	56-23-5	0.005
Chromium (hexavalent) .....	7440-47-3	0.05
2,4-Dichlorophenoxy acetic acid .....	94-75-7	0.1
1,4-Dichlorobenzene .....	106-46-7	0.075
1,2-Dichloroethane .....	107-06-2	0.005
1,1-Dichloroethylene .....	75-35-4	0.007
Endrin .....	75-20-8	0.0002
Fluoride .....	7	4.0
Lindane .....	58-89-9	0.004
Lead .....	7439-92-1	0.05
Mercury .....	7439-97-6	0.002
Methoxychlor .....	72-43-5	0.1
Nitrate .....		10.0
Selenium .....	7782-49-2	0.01
Silver .....	7440-22-4	0.05
Toxaphene .....	8001-35-2	0.005
1,1,1-Trichloroethane .....	71-55-6	0.2
Trichloroethylene .....	79-01-6	0.005
2,4,5-Trichlorophenoxy acetic acid ..	93-76-5	0.01
Vinyl chloride .....	75-01-4	0.002

[56 FR 51016, Oct. 9, 1991]

APPENDIX II TO PART 257

A. Processes to Significantly Reduce Pathogens

*Aerobic digestion:* The process is conducted by agitating sludge with air or oxygen to maintain aerobic conditions at residence times ranging from 60 days at 15 °C to 40 days at 20 °C, with a volatile solids reduction of at least 38 percent.

*Air Drying:* Liquid sludge is allowed to drain and/or dry on under-drained sand beds, or paved or unpaved basins in which the sludge is at a depth of nine inches. A minimum of three months is needed, two months

of which temperatures average on a daily basis above 0 °C.

*Anaerobic digestion:* The process is conducted in the absence of air at residence times ranging from 60 days at 20 °C to 15 days at 35 to 55 °C, with a volatile solids reduction of at least 38 percent.

*Composting:* Using the within-vessel, static aerated pile or windrow composting methods, the solid waste is maintained at minimum operating conditions of 40 °C for 5 days. For four hours during this period the temperature exceeds 55 °C.

*Lime Stabilization:* Sufficient lime is added to produce a pH of 12 after 2 hours of contact.

*Other methods:* Other methods or operating conditions may be acceptable if pathogens and vector attraction of the waste (volatile solids) are reduced to an extent equivalent to the reduction achieved by any of the above methods.

B. Processes to Further Reduce Pathogens

*Composting:* Using the within-vessel composting method, the solid waste is maintained at operating conditions of 55 °C or greater for three days. Using the static aerated pile composting method, the solid waste is maintained at operating conditions of 55 °C or greater for three days. Using the windrow composting method, the solid waste attains a temperature of 55 °C or greater for at least 15 days during the composting period. Also, during the high temperature period, there will be a minimum of five turnings of the windrow.

*Heat drying:* Dewatered sludge cake is dried by direct or indirect contact with hot gases, and moisture content is reduced to 10 percent or lower. Sludge particles reach temperatures well in excess of 80 °C, or the wet bulb temperature of the gas stream in contact with the sludge at the point where it leaves the dryer is in excess of 80 °C.

*Heat treatment:* Liquid sludge is heated to temperatures of 180 °C for 30 minutes.

*Thermophilic Aerobic Digestion:* Liquid sludge is agitated with air or oxygen to maintain aerobic conditions at residence times of 10 days at 55-60 °C, with a volatile solids reduction of at least 38 percent.

*Other methods:* Other methods or operating conditions may be acceptable if pathogens and vector attraction of the waste (volatile solids) are reduced to an extent equivalent to the reduction achieved by any of the above methods.

Any of the processes listed below, if added to the processes described in Section A above, further reduce pathogens. Because the processes listed below, on their own, do not reduce the attraction of disease vectors, they are only add-on in nature.

*Beta ray irradiation:* Sludge is irradiated with beta rays from an accelerator at dosages of at least 1.0 megarad at room temperature (ca. 20 °C).

## Environmental Protection Agency

## § 258.1

*Gamma ray irradiation:* Sludge is irradiated with gamma rays from certain isotopes, such as <sup>60</sup>Cobalt and <sup>137</sup>Cesium, at dosages of at least 1.0 megarad at room temperature (ca. 20 °C).

*Pasteurization:* Sludge is maintained for at least 30 minutes at a minimum temperature of 70 °C.

*Other methods:* Other methods or operating conditions may be acceptable if pathogens are reduced to an extent equivalent to the reduction achieved by any of the above addition methods.

### PART 258—CRITERIA FOR MUNICIPAL SOLID WASTE LANDFILLS

#### Subpart A—General

- Sec.  
258.1 Purpose, scope, and applicability.  
258.2 Definitions.  
258.3 Consideration of other Federal laws.  
258.4–258.9 [Reserved]

#### Subpart B—Location Restrictions

- 258.10 Airport safety.  
258.11 Floodplains.  
258.12 Wetlands.  
258.13 Fault areas.  
258.14 Seismic impact zones.  
258.15 Unstable areas.  
258.16 Closure of existing municipal solid waste landfill units.  
258.17–258.19 [Reserved]

#### Subpart C—Operating Criteria

- 258.20 Procedures for excluding the receipt of hazardous waste.  
258.21 Cover material requirements.  
258.22 Disease vector control.  
258.23 Explosive gases control.  
258.24 Air criteria.  
258.25 Access requirements.  
258.26 Run-on/run-off control systems.  
258.27 Surface water requirements.  
258.28 Liquids restrictions.  
258.29 Recordkeeping requirements.  
258.30–258.39 [Reserved]

#### Subpart D—Design Criteria

- 258.40 Design criteria.  
258.41 Project XL Bioreactor Landfill Projects.  
258.42–258.49 [Reserved]

#### Subpart E—Ground-Water Monitoring and Corrective Action

- 258.50 Applicability.  
258.51 Ground-water monitoring systems.  
258.52 [Reserved]  
258.53 Ground-water sampling and analysis requirements.

- 258.54 Detection monitoring program.  
258.55 Assessment monitoring program.  
258.56 Assessment of corrective measures.  
258.57 Selection of remedy.  
258.58 Implementation of the corrective action program.  
258.59 [Reserved]

#### Subpart F—Closure and Post-Closure Care

- 258.60 Closure criteria.  
258.61 Post-closure care requirements.  
258.62–258.69 [Reserved]

#### Subpart G—Financial Assurance Criteria

- 258.70 Applicability and effective date.  
258.71 Financial assurance for closure.  
258.72 Financial assurance for post-closure care.  
258.73 Financial assurance for corrective action.  
258.74 Allowable mechanisms.  
258.75 Discounting.

#### APPENDIX I TO PART 258—CONSTITUENTS FOR DETECTION MONITORING

#### APPENDIX II TO PART 258—LIST OF HAZARDOUS AND ORGANIC CONSTITUENTS

AUTHORITY: 33 U.S.C. 1345(d) and (e); 42 U.S.C. 6902(a), 6907, 6912(a), 6944, 6945(c) and 6949a(c).

SOURCE: 56 FR 51016, Oct. 9, 1991, unless otherwise noted.

#### Subpart A—General

##### § 258.1 Purpose, scope, and applicability.

(a) The purpose of this part is to establish minimum national criteria under the Resource Conservation and Recovery Act (RCRA or the Act), as amended, for all municipal solid waste landfill (MSWLF) units and under the Clean Water Act, as amended, for municipal solid waste landfills that are used to dispose of sewage sludge. These minimum national criteria ensure the protection of human health and the environment.

(b) These Criteria apply to owners and operators of new MSWLF units, existing MSWLF units, and lateral expansions, except as otherwise specifically provided in this part; all other solid waste disposal facilities and practices that are not regulated under subtitle C of RCRA are subject to the criteria contained in part 257 of this chapter.

(c) These Criteria do not apply to municipal solid waste landfill units