

NAVAJO NATION
SOLID WASTE
REGULATIONS

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NAVAJO NATION SOLID WASTE REGULATIONS

PART I - GENERAL PROVISIONS

101. TITLE.

These regulations may be cited as the “Solid Waste Regulations.”

102. AUTHORITY.

These regulations are adopted pursuant to Navajo Nation Solid Waste Act 4 N.N.C. §§ 101 et seq., as amended by Navajo Nation Council Resolution No. CJY-51-97.

103. PURPOSE.

The purpose of these regulations is to protect the health and welfare of present and future citizens of the Navajo Nation by providing for the prevention and abatement of air, land, and water pollution and other public health and environmental hazards related to solid waste management.

104. A. Applicability. These regulations apply to all persons and all owners and operators of solid waste storage, collection, transportation, processing, composting, recycling and/or disposal facilities and all persons as defined by the Navajo Nation Solid Waste Act and these regulations within the Navajo Nation.
- B. Contractors. Contracting for any aspect of solid waste management does not relieve the contractor/contractee of the responsibility for compliance with these regulations.
- C. Effective Date. Unless otherwise specified these regulations shall become effective upon approval by the Resources Committee.

105. DEFINITIONS.

- A. “Airport” means public-use airport open to the public without prior permission and without restrictions within the physical capacities of available facilities.
- B. “Aquifer” means a geologic formation, group of formations or portions of a formation capable of yielding significant quantities of ground water to wells or springs.
- C. “Bird hazard” means an increase in the likelihood of bird/aircraft collisions that may cause damage to the aircraft or injury to its occupants.

- D. “Closed facility” means any facility that no longer receives solid waste; and, for landfills, those closed in accordance with the applicable regulations in effect at the time of closure.
- E. “Composting” means a method of solid waste management whereby the organic component of the waste stream is biologically decomposed under controlled conditions to a state in which the end product or compost can be safely handled, stored, or applied to the land without adversely affecting human health or the environment.
- F. “Construction/demolition debris” means material from construction/demolition of a structure not water soluble and nonhazardous, including, but not limited to, steel, glass, brick, concrete, asphalt, roofing materials, pipe, gypsum wallboard and lumber. If construction/demolition debris is mixed with other wastes, whether or not originating from construction projects, it loses its classification as construction/demolition debris. Not included are asbestos, waste paints, solvents, sealers, adhesives or potentially hazardous materials.
- G. “Director” means the Executive Director of the Navajo Nation Environmental Protection Agency or his or her designee.
- H. “Disposal” means introduction of any solid waste to any environmental pathway so that such solid waste may enter the environment, be emitted into the air or discharged into surface or ground water.
- I. “Flood plain” means the lowland and relatively flat areas adjoining inland and coastal waters, including flood prone areas of offshore islands, that are inundated by the 100-year flood.
- J. “Ground water” means water below the land surface in a zone of saturation.
- K. “Health Advisor” means the Director of the Navajo Area Indian Health Service or his designee.
- L. “Hot waste” means any solid waste which is on fire or smoldering.
- M. “Household waste” means any solid waste derived from households, including single and multiple residences, hotels, motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds and day-use recreation areas.
- N. “Lateral expansion” means a horizontal expansion of the waste boundaries of an existing SWLF.
- O. “Leachate” means a liquid that has passed through or emerged from solid waste

and contains soluble, suspended or miscible materials removed from such waste.

- P. “Liner” means a continuous layer of natural or man-made materials beneath and/or on the sides of a surface impoundment, landfill or landfill cell, that restricts the downward or lateral movement of solid waste, solid waste constituents or leachate.
- Q. “Liquid waste” means any waste material that is determined to contain “free liquids” as defined by Method 9095 (Paint Filter Liquids Test), as described in Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (EPA Pub. No. SW-846).
- R. “Litter” means the discarding of scraps, rubbish or other waste materials on tribal trust or fee lands, but not including home-sites or other areas set aside, withdrawn or leased for private (non-public) use.
- S. “Lower Explosive Limit (LEL)” means the lowest percent by volume of a mixture of explosive gases in air that will propagate a flame at 25°C and atmospheric pressure.
- T. “Maximum horizontal acceleration in lithified earth materials” means the maximum expected horizontal acceleration depicted on a seismic hazard map, with a 90 percent (90%) or greater probability that the acceleration will not be exceeded in two hundred and fifty (250) years, or the maximum expected horizontal acceleration based on a site-specific seismic risk assessment.
- U. “Modify” means to change the method or design of collection, transportation, processing, composting or disposal of solid waste from that originally permitted including horizontal expansion of the permitted boundaries of a landfill or facility.
- V. “Navajo Nation” means when referring to the government (a) the Navajo Nation government, its divisions, departments, agencies, offices, programs, branches, and employees and officials thereof, and companies, enterprises, chapters, and political subdivisions of the Navajo Nation; and when referring to its territorial jurisdiction, (b) the area defined in 7 N.N.C. § 254.
- W. “NNSWA” means the Navajo Nation Solid Waste Act.
- X. “One-hundred year flood” means a flood that has a one-percent or greater chance of recurring in any given year or a flood of a magnitude equaled or exceeded once in one hundred (100) years on the average over a significantly long period.
- Y. “Open burning” means the combustion of solid waste without:

1. Control of combustion air to maintain adequate temperature for efficient combustion.
 2. Containment of the combustion reaction in an enclosed device to provide sufficient residence time and mixing for complete combustion.
 3. Control of the emission of the combustion products.
- Z. “Open dump” means an excavated (trenched) area consisting of one-half (½) acre or more where solid waste is disposed and is not in compliance with the operating criteria for landfills under these regulations, but specifically does not include open scatter areas, litter areas, arroyos or trenched dumps in water ways or flood plain areas.
- AA. “Other wastes” means all waste not defined as solid waste in the NNSWA.
- BB. “Operator” means the person(s) responsible for the operation of a facility or part of a facility.
- CC. “Owner” means the person(s) who owns a facility or part of a facility.
- DD. “Person” means any individual, public or private corporation, company, partnership, firm, association, the federal government, its agencies, any state or political subdivision thereof including any city, town, village, county or municipality, or any Indian tribe, including the Navajo Nation, its divisions, departments, programs, companies, enterprises or any political subdivision of the Navajo Nation including chapter governments.
- EE. “Public water supply” means a system providing water for human consumption and other domestic uses which has at least fifteen (15) service connections, or regularly serves an average of at least twenty-five (25) individuals daily for at least sixty (60) days out of the year.
- FF. “Recycling” means any process by which recyclable materials are collected, separated, processed and reused or returned to use in the form of raw materials or products.
- GG. “Run-off” means any precipitation, leachate or other liquid that drains from the surface of a solid waste landfill facility.
- HH. “Run-on” means any precipitation, leachate or other liquid that drains onto the surface of a solid waste landfill facility.
- II. “Scavenging” means the uncontrolled removal of solid waste from a solid waste

landfill facility.

- JJ. “Seismic impact zones” means an area with a ten percent (0.10) or greater probability that the maximum horizontal acceleration in lithified earth material, expressed as a percentage of the earth's gravitational pull (g), will exceed 0.10g in two hundred fifty (250) years.
- KK. “Sludge” means any solid, semi-solid or liquid waste generated from a municipal, commercial or industrial wastewater treatment plant, water supply treatment plant or air pollution control facility, exclusive of the treated effluent from a wastewater treatment plant, or any other waste having similar characteristics and effects.
- LL. “Solid waste” means any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations and from community activities, but does not include:
1. Drilling fluids, produced waters and other non-domestic wastes associated with the exploration, development or production, transportation, storage, treatment or refinement of crude oil, natural gas, carbon dioxide gas or geothermal energy;
 2. Fly ash waste, bottom ash waste, slag waste and flue gas emission control waste generated primarily from the combustion of coal or other fossil fuels and wastes produced in conjunction with the combustion of fossil fuels that are necessarily associated with the production of energy and that traditionally have been and actually are mixed with and are disposed of or treated at the same time with fly ash, bottom ash, boiler slag or flue gas emission control wastes from coal combustion;
 3. Waste from the extraction, beneficiation and procession of ores and minerals, including phosphate rock and overburden from the mining of uranium ore, coal, copper, molybdenum and other ores and minerals;
 4. Agricultural waste, including, but not limited to, manures and crop residues returned to the soil as fertilizer or soil conditioner;
 5. Cement kiln dust waste;
 6. Sand and gravel;
 7. Solid or dissolved material in domestic sewage, or solid or dissolved

materials in irrigation return flows or industrial discharges that are point sources subject to permits under Section 402 of the Federal Water Pollution Control Act, 33 U.S.C. Section 1342, or source, special nuclear or by-product material as defined by the Atomic Energy Act of 1954, 42 U.S.C. Section 2011 et seq.;

8. Densified-refuse-derived fuel; or
 9. Any material regulated by Subtitle C or Subtitle I, 42 U.S.C. Section 6901 et seq., petroleum contaminated soils, of the federal Resource Conservation and Recovery Act of 1976, or substances regulated by the Federal Toxic Substances Control Act, 7 U.S.C. Section 136 et seq. or low-level radioactive waste.
- MM. “Solid Waste Landfill” means a discrete area of land containing an excavation (trench) consisting of at least one-half (½) acre or more that receives household waste, and that is not a land application unit, surface impoundment, injection well, or waste pile as those terms are defined in 40 C.F.R. § 257.2. A solid waste landfill also may receive other types of RCRA subtitle D wastes, such as commercial solid waste, nonhazardous sludge, conditionally-exempt small quantity generator waste and industrial solid waste. Such a facility may be publicly or privately owned. A solid waste landfill may be a new unit or a lateral expansion.
- NN. “Solid Waste Management Facility” means all contiguous land and structures, other appurtenances, and improvements on the land used for the disposal of solid waste.
- OO. “Storage” means the accumulation of solid waste for the purpose of processing, composting, recycling, transportation and/or disposal.
- PP. “Surface impoundment or impoundment” means a facility or part of a facility which is a natural topographic depression, man-made excavation, or diked area formed primarily of earthen materials, although it may be lined with man-made materials, which is designed to hold an accumulation of liquid waste or waste containing free liquids, and which is not an injection well. Examples of surface impoundments are holding, storage, settling, and aeration pits, ponds, or lagoons.
- QQ. “Transfer station” means a permanent, fixed, supplemental collection and transportation facility, used by persons and route collection vehicles to deposit collected solid waste from off-site into a larger transfer vehicle for transport to a solid waste handling or disposal facility.
- RR. “Unit boundary” means a vertical surface located at the hydraulically down-

gradient limit of a landfill unit or other solid waste disposal facility unit which is required to monitor ground water. This vertical surface extends down into the ground water.

- SS. “Uppermost aquifer” means the geologic formation nearest the natural ground surface that is an aquifer, as well as lower aquifers that are hydraulically interconnected with this aquifer within the property boundary of the facility.
- TT. “Variance” means an acceptable alternative that meets or exceeds the standards provided by the NNSWA and these regulations.
- UU. “Water Code” means the Navajo Nation Water Code (105.JJ.) 22 N.N.C. §§ 1101 et seq. (1984).
- VV. “Water table” means that surface in unconfined ground water at which pressure is atmospheric and is defined by levels at which water stands in wells penetrating just far enough to hold standing water.
- WW. “Wetlands” means those areas that are inundated or saturated by surface water or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.
- XX. “White goods” means refrigerators, ranges, washers, water heaters, freezers and other “non-hazardous” domestic and large commercial appliances.
- YY. “Yard waste” means vegetative matter resulting from domestic landscaping, land maintenance and land clearing operations.

106. VARIANCES.

- A. The Director has the authority to grant a variance from any requirement of these regulations, provided that no variance shall be issued that will endanger the public health or harm the environment.
- B. Any owner/operator seeking a variance from any requirement of these regulations shall do so in accordance with the following procedures:
 - 1. A request for a variance shall be submitted to the Director in writing with supporting documents. The Director shall act on the request within 45 days, unless additional information is required to properly assess the request for a variance.
 - 2. The Director shall deny the variance petition unless the petitioner

establishes by clear and convincing evidence that granting the variance will not result in any significant harm to human health, safety, welfare or the environment.

3. No variance shall be granted until the Director has considered the relative interests of the owner/operator, other users of property likely to be affected and the general public.
4. Variances may be granted for an indefinite time period, provided that all variances are subject to revocation upon change circumstance indicating the variance is no longer warranted.
5. The Director shall maintain a file, open to public inspection, of all variance petitions and resulting action.
6. A filing and review fee in the amount set forth in Appendix C shall accompany the application for a variance. The Director may waive the filing and review fee for governmental entities and agencies thereof. The filing and review fee is not applicable where expressly prohibited by law.

107. SEVERABILITY.

If any part or application of these regulations is held invalid, the remainder or its application to other situations or persons shall not be affected.

108. INTERPRETATION.

The Navajo Nation Solid Waste Regulations shall be liberally construed to carry out the purpose of the Act and these regulations.

109. COMPLIANCE WITH OTHER REGULATIONS.

Compliance with these regulations does not relieve a person of the obligation to comply with other applicable Navajo Nation and federal laws and regulations.

PART II - PROHIBITED ACTS

201. DISPOSAL.

A. No person shall:

1. Dispose of any solid waste in a manner that will harm the environment, endanger the public health, safety and welfare or create a public nuisance.
2. Dispose of any solid waste in a place other than a facility which is in compliance with these regulations and other applicable laws.
3. Dispose of any waste not defined as solid waste in a solid waste landfill facility.
4. Dispose of bulk or non-containerized liquids in a solid waste landfill facility.

B. The on site disposal of on site generated solid waste from a single family ranch, camp or farm is not prohibited where said disposal does not create a public health or environmental hazard or public nuisance.

202. PERMITS REQUIRED.

Unless otherwise specified no person shall construct, operate or modify a solid waste landfill or composting facility unless the facility has obtained a permit from the Director for the described action. A permit is not required, however, for facilities that qualify under Section 201(B).

203. OPEN BURNING.

No open burning shall be allowed at any solid waste landfill facility.

204. DISCHARGE OF POLLUTANTS INTO WATER.

Owners/operators shall not allow a discharge of pollutants to waters of the United States in violation of the Clean Water Act or any water quality management plans approved under the Clean Water Act. A demonstration of compliance may require ground water and surface water monitoring.

205. AIR CONTAMINANTS.

Owners/operators shall not allow emission of any air contaminant from the facility in excess of limits prescribed by applicable air quality regulations.

206. OPEN DUMPING.

All open dumping shall be prohibited.

PART III - INSPECTIONS AND ENFORCEMENT

301. ENFORCEMENT.

- A. Subject to available appropriations, the Director is responsible for ensuring that the NNSWA and these regulations are carried out and enforced. The Director has the authority under the NNSWA to issue citations for any violation of said Act, these regulations and any permit issued thereunder.
- B. All Navajo Nation commissioned officers are authorized, by the NNSWA, to enforce said Act and these regulations.

302. INSPECTIONS.

- A. The Director or Health Advisor has the authority to enter any solid waste disposal, collection, transfer station or composting facility for the purpose of:
 - 1. Making an inspection or investigation.
 - 2. Taking samples.
 - 3. Inspecting records.
 - 4. Conducting any study, taking corrective action, enforcing of these regulations or conducting any monitoring/testing.
- B. The Director has the authority to inspect the vehicles and equipment of any solid waste transporter (excluding noncommercial household vehicles).
- C. The owner/operator shall have the right to collect aliquot samples during activities specified in § 302 and conduct his own analysis.

PART IV - STANDARDS FOR SOLID WASTE LANDFILL FACILITIES

401. SCOPE AND EFFECTIVE DATE.

A. New, Existing and Expanded Landfills.

1. All solid waste landfills that receive waste on or after October 9, 1993 must comply with all requirements of these regulations unless otherwise specified.
2. These regulations do not apply to solid waste landfills that stopped receiving waste before October 9, 1991.
3. Solid waste landfills that receive waste after October 9, 1991, but stopped receiving waste before October 9, 1993 are exempt from all the requirements of these regulations except the final cover requirements specified in Section 406. The final cover must have been installed within six months of last receipt of wastes and the cover must be maintained pursuant to the criteria existing at the time of closure. Owners and operators who failed to complete the cover installation within the six month period are subject to all the requirements of these regulations including closure, ground water monitoring, financial assurances and post-closure care.

B. Delay of the Effective Date and Exemption for Small Solid Waste Existing Landfills.

1. The effective date of these regulations for small existing solid waste landfills and permit requirement is extended until October 9, 2005, provided said small solid waste landfills meet the following conditions:
 - a. The small solid waste landfill accepts fewer than 20 tons per day, on an average annual basis;
 - b. Exhibits no evidence of ground water contamination; and
 - c. Serves either:
 - (i) A community that experiences an annual interruption of at least three consecutive months of surface transportation that prevents access to a regional waste management facility or
 - (ii) A community that has no practicable waste management

alternative and the landfill unit is located in an area that annually receives less than or equal to 25 inches of precipitation.

2. A small landfill that qualifies for the extension in Section 401(B)(1) and ceases to accept waste by October 9, 2005, shall have until October 9, 2006 to complete the closure criteria requirements set forth at Section 406(A)(1) and (2).
3. Small new or existing solid waste landfills that meet the conditions in Section 401(B)(1) are exempt from the ground water monitoring and design requirements unless there is evidence of contamination as specified in 40 C.F.R. Part 258.1.
4. An extension of the effective compliance date for closure/cover under Section 401(B)(1) and permit requirements may be sought under the variance provision of these regulations at Section 106.

C. Alternative Solid Waste Landfill Standards. The Director may authorize alternative solid waste landfill standards to the extent consistent with 40 C.F.R. Part 258.

402. SITING.

- A. New landfills, existing landfills and modifications of landfills shall not be sited in the following areas:
 1. Wetlands, watercourses, floodplains, habitats of threatened/endangered species or prime farm lands.
 2. Where depth to the seasonal high ground water table will be closer than one hundred (100) feet from the bottom of the fill.
 3. Where surface or subsurface mines are considered to be a problem as determined by the Director.
 4. Within two hundred (200) feet of a fault that has had a displacement within Holocene time unless the owner/operator demonstrates to the Director that all containment structures, including liners, leachate collection and surface water control systems are designed to resist the maximum horizontal acceleration in lithified material for the site.
 5. Historically, archaeologically or culturally significant sites, unless in compliance with the Navajo Nation Cultural Resources Protection Act,

CMY-19-88, and all other applicable tribal and federal laws.

6. Within a five (5) mile radius of any airport runway end used by turbojet or piston-type aircraft.
 7. Seismic impact zones unless the owner/operator demonstrates to the Director that all containment structures, including liners, leachate collection and surface water control systems are designed to resist maximum horizontal acceleration in lithified earth material for the site. The owner/operator must place the demonstration in the operating record and notify the Director that it has been placed in the operating record.
 8. Unstable areas defined as locations susceptible to natural or human induced events or forces capable of impairing the integrity of some or all of the landfill structural components responsible for preventing releases from a landfill. Unstable areas can include poor foundation conditions, areas susceptible to mass movement and Karst Terranes. The owner/operator shall determine whether an area is unstable utilizing factors listed in 40 C.F.R. 258.15.
- B. Existing facilities not meeting the listed § 402 siting criteria must close by October 9, 1996, in accordance with closure and post-closure requirements set forth in §§ 406 and 407 of these regulations.

403. DESIGN.

- A. Liner. Unless otherwise specified, all solid waste landfills, including lateral expansions, shall be constructed with a composite liner. The upper component must consist of a synthetic material with a thickness of at least 60 mils (if HDPE) or 30 mils (if other suitable material); and the lower component must consist of at least two feet thickness of recompacted clay or other soil material with a permeability of no more than 1×10^{-7} cm/sec having the bottom liner sloped no less than 2% and the side liners sloped no more than 33%, except where construction and operational integrity can be demonstrated at steeper slopes, with the synthetic liner installed in direct and uniform contact with the compacted soil component.
- B. Leachate Collection System.
1. A solid waste landfill required to have liners shall also have a leachate collection system that:
 - a. Is sized according to water balance calculations or using other accepted engineering methods either of which shall be approved by the Director; and

- b. Is designed to prevent more than one foot depth of leachate at any point in the bottom of the landfill unit; and
 - c. Has a leachate treatment system, or a pretreatment system, if necessary, in the case of discharge to a municipal water treatment plant; and
 2. The returning of leachate to the landfill or the recirculation of leachate in the landfill may be done only in landfills that have a composite liner system.
- C. Alternative Design. The Director may approve of an alternative liner design. The design must ensure that the concentration values listed in Appendix A of this Section will not be exceeded in the uppermost aquifer at the relevant part of compliance, as specified by the Director under this Section. When approving an alternative design, the Director shall consider the following factors:
 1. The hydrogeologic characteristics of the facility and surrounding land; and
 2. The climatic factors of the area; and
 3. The volume and physical and chemical characteristics of the leachate.
- D. Relevant Point of Compliance. The relevant point of compliance specified by the Director shall be no more than 150 meters from the waste management unit boundary and shall be located on land owned by the owner of the solid waste landfill. In determining the relevant point of compliance, the Director shall consider at least the following factors:
 1. The hydrogeologic characteristics of the facility and surrounding land;
 2. The volume and physical and chemical characteristics of the leachate;
 3. The quantity, quality, and direction, of flow of ground water;
 4. The proximity and withdrawal rate of the ground-water users;
 5. The availability of alternative drinking water supplies;
 6. The existing quality of the ground water, including other sources of contamination and their cumulative impacts on the ground water and whether the ground water is currently used or reasonably expected to be used for drinking water;

7. Public health, safety, and welfare effects; and
8. Practicable capability of the owner or operator.

E. Methane Gas Control System.

1. All solid waste landfills shall have a methane gas monitoring and control system which assures that:
 - a. The concentration of methane gas generated by the facility does not exceed twenty-five percent (25%) of the lower explosive limit (LEL) for methane in facility structures (excluding gas control or recovery system components).
 - b. The concentration of methane gas does not exceed the LEL for methane at the facility property boundary.
 - c. Monitoring type and frequency is determined by:
 - (i) Soil conditions.
 - (ii) The hydrogeologic conditions surrounding the facility.
 - (iii) The hydraulic conditions surrounding the facility.
 - (iv) The location of facility structures and property boundaries.
 - d. The minimum frequency of monitoring shall be quarterly.
2. If methane gas levels exceed the limits specified in § 403(D), the owner or operator must:
 - a. Immediately take all necessary steps to ensure protection of human health and notify the Director.
 - b. Within seven (7) days of detection, place in the operating record the methane gas levels detected and a description of the steps taken to protect human health.
 - c. Within sixty (60) days of detection, implement a remediation plan for the methane gas releases, place a copy of the plan in the operating record, and notify the Director that the plan has been implemented. The plan shall describe the nature and extent of the problem and the proposed remedy.

- d. The Director may establish alternative schedules for demonstrating compliance with Subsections 403(E)(2)(b) and (c).

F. Run On/Off Control Systems. All solid waste landfills must be designed, constructed and maintained:

1. To prevent flow onto the active portion of the landfill during the peak discharge from a 25 year storm; and
2. To collect and control at least the water volume resulting from a 24 hour, 25 year storm.
3. So that runoff from the active portion of the landfill unit is handled in accordance with 40 C.F.R. § 258.27(a).

404. OPERATION.

A. General Operating Requirements.

1. All landfill owners/operators shall utilize the principles of environmental engineering to confine the solid waste to the smallest practical area and to reduce it to the smallest practical volume.
2. All solid waste landfill facility owners/operators shall:
 - a. Locate and operate the facility so that it does not create a public nuisance or potential hazard to public health, welfare or the environment and in a manner to control disease vectors and odors.
 - b. Have signs to indicate the location of the site, hours of operation, provide disposal instructions, prohibit fires, scavenging, disposal of other wastes and provide emergency telephone numbers.
 - c. Barriers must be used to prevent unauthorized access by the public and entry by large animals to the facility.
 - d. Prohibit scavenging.
 - e. Provide adequate means to prevent and extinguish fires.
 - f. Direct deposit of hot waste to a location at the facility remote from the operating area or designated by permit for such purpose. The hot waste shall be immediately spread out for cooling and extinguished if on fire. The hot waste shall not be mixed with the

solid waste stream until it reaches a temperature that will not cause combustion of solid waste material.

- g. Implement a plan including recordkeeping to inspect loads or take other steps as approved by the Director that will prevent the disposal of other wastes. The plan shall require at a minimum:
 - (i) Inspection frequency and inspection of loads suspected of containing other wastes;
 - (ii) Inspection in a designated area or at a designated point in the disposal process;
 - (iii) A training program for the facility employees in identification of other waste and;
 - (iv) Maintaining written records of all inspections, signed by the inspector.
- h. Upon discovery of receipt of other waste, record the incident and:
 - (i) Notify the Director, the transporter and the generator within 24 hours.
 - (ii) Restrict the area from public access and facility personnel not involved in the incident.
 - (iii) Assure proper cleanup, transport and disposal of the waste.
- i. Have equipment manuals, telephone, catalogs, spare parts lists and spare parts readily available at the facility.
- j. Provide and maintain in good repair access roads at the facility. Access roads shall be so designed and constructed that traffic will enter and exit the site safely, flow smoothly and will not be interrupted by inclement weather.
- k. Provide sufficient unloading areas.
- l. Have and maintain adequate first-aid supplies at the facility site.
- m. Have a safety plan to address accident prevention and emergency response.

- n. Prepare and maintain an Operation Manual of current policies and procedures. The Operation Manual shall be included as part of the permit application. A copy of the Manual shall be maintained at the site. The Operation Manual shall include all information that would enable supervisory and operating personnel and persons evaluating facility operation to determine what sequence of operation, plans, diagrams, policies, procedures and legal requirements must be followed for orderly and successful operation on a daily and yearly basis.
- o. Operate in compliance with all other relevant Navajo Nation and federal regulations.

B. Record Keeping and Annual Reports.

- 1. The operator of a facility shall make and maintain on-site an operational record for each day that solid waste is received, processed or disposed and each day that construction, monitoring, closure or post-closure activity occurs.
- 2. The daily operational record shall include:
 - a. The quantity of solid waste received.
 - b. The origin of the solid waste.
 - c. The transporters of the solid waste.
 - d. The location, depth and quantity of waste in the particular grid location of the area currently being used for disposal. The location and total quantity of all waste must be recorded on a map or diagram of each cell or disposal area. Map or diagram scale shall be one inch equals one hundred feet (1" = 100').
 - e. A description of waste handling problems, emergency activities and resulting remediation.
 - f. A record of approved deviations from the originally permitted design or operational plans.
- 3. Owners/operators shall submit annual reports to the Director within forty five (45) days of the end of the calendar year on a form supplied by the Director. The report shall include:

- a. The quantity of solid waste received in each month.
 - b. A topographic survey map of the same scale, contour interval and grid system as the original site plans showing the following:
 - (i) The contours at the beginning and end of the year.
 - (ii) The location of ground water monitoring wells, access roads and facility structures.
 - (iii) The completed areas of the site as well as areas partially filled but not active in the previous year.
 - (iv) Property lines and boundaries of permitted fill areas and boundaries of lined areas.
 - c. A description of the capacity used in the previous year and the remaining permitted capacity.
 - d. A description of the acreage used for disposal, the acreage seeded, the acreage where vegetation is permanently established and a narrative of the operator's progress in implementing the closure plan.
 - e. Any change in land status or use that may affect the owner's/operator's rights and responsibilities.
 - f. A description of emergency disposal areas or methods approved by the Director and used by the owner/operator, which are not described in the permit.
 - g. Documentation and results of required ground water and methane gas monitoring programs.
 - h. A summary of the upcoming year's activities to include projected weight or volume of waste for the year, projected opening of new cells and closeout of existing cells, new projects and deviations from past operating procedures.
4. Owner's/operator's must place in the operation record all documentation required under these regulations to operate their facilities. The Director shall be notified that such documentation has been placed in the record.
 5. All records and plans required by these regulations, whether within or

outside the territorial jurisdiction of the Navajo Nation, must be furnished upon request and made available at all reasonable times for inspection by the Director.

C. Contingency Plan.

1. All owners/operators of solid waste landfill facilities must have a contingency plan for each solid waste landfill facility. The contingency plan shall be designed to minimize hazards to human health or the environment from fires, explosions or any unplanned sudden or non-sudden release of contaminants or hazardous waste constituents to air, soil, surface water or ground water.
2. The provisions of the plan shall be carried out immediately whenever there is a fire, explosion or release of contaminants or hazardous waste constituents which could threaten human health or the environment.
3. The contingency plan shall:
 - a. Describe the actions facility personnel must take in response to fires, explosion or releases of contaminants or hazardous waste constituents to air, soil, surface water or ground water.
 - b. Describe arrangements agreed to by local police departments, fire departments, hospitals, contractors, state and local emergency response teams to coordinate emergency services.
 - c. List name, address and phone numbers (office and home) of the emergency coordinator. Where more than one person is listed, one must be named as the Lead Emergency Coordinator.
 - (i) Include a list of all emergency equipment at the facility (such as fire extinguishing systems, spill control equipment, communications and alarm systems (internal and external) and decontamination equipment), where this equipment is required. This list must be kept up to date. In addition, the plan must include the location and a physical description of each item on the list and a brief outline of its capabilities.
 - (ii) Include an evacuation plan for facility personnel. The plan must describe signals to be used to begin evacuation, evacuation routes and alternate evacuation routes in cases where the primary routes could be blocked by fire or

releases of hazardous wastes.

- (iii) Include an evaluation of expected contaminants, expected media contaminated and procedures for investigation, containment and correction of remediation.
- 4. A copy of the contingency plan and all revisions to the plan must be maintained at the facility and submitted to all local police departments, fire departments, hospitals, state and local emergency response teams.
- 5. The contingency plan and all revisions to the plan must be reviewed and immediately amended if necessary, whenever:
 - a. The facility permit is revised or modified.
 - b. The plan fails in an emergency.
 - c. The facility changes design, construction, operation, maintenance or other circumstances in a way that increases the potential for fires, explosions or releases of hazardous waste constituents or changes the response necessary in an emergency.
 - d. The list of emergency coordinators changes.
 - e. The list of emergency equipment changes.
- 6. Whenever there is an imminent or actual emergency situation, the emergency coordinator or his designee must immediately:
 - a. Activate internal facility alarms or communication systems, where applicable, to notify all facility personnel.
 - b. Notify appropriate Navajo Nation, federal and other agencies with designated response roles.
- 7. Whenever there is a release, fire or explosion, the emergency coordinator must immediately identify the character, exact source, amount and extent of any released materials. He may do this by observation or review of facility records or manifests and, if necessary, by chemical analysis. Concurrently, the emergency coordinator must assess possible hazards to human health or the environment that may result from the release, fire or explosion. This assessment may consider both the direct and indirect hazard of the release, fire or explosion.

8. If the facility stops operations in response to fire, explosion or release the emergency coordinator must monitor for leaks, pressure build up, gas generation or rupture of valves, pipes or equipment, wherever this is appropriate.
9. Immediately after an emergency, the emergency coordinator must provide for treating, storing or disposing of recovered waste or any other material that results from a release, fire or explosion at the facility at a site approved by the Director.
10. The emergency coordinator must ensure that no waste that may be incompatible with the released material is treated, stored or disposed of until cleanup procedures are complete.

D. Cover. The owner/operator shall:

1. Not excavate a closed cell except as authorized by the Director.
2. At the conclusion of each day's activity or operation, or more often as conditions may dictate, cover the fill with a six (6) inch layer of earth or other appropriate material that will provide equivalent control of disease vectors, fires, odors, blowing litter and scavenging. An alternative cover must not present a threat to the human health and the environment.
3. Provide immediate cover of dead animals.

405. GROUND WATER MONITORING.

A. Applicability.

1. The requirements in this Section apply to all Solid Waste Landfill Facilities (SWLFs), except as provided in paragraph (2) of this Subsection. The requirements of this Section do not apply to small new or existing landfills that meet the conditions specified in Section 401(B)(1) unless there is evidence of contamination as specified in 40 C.F.R. Part 258.1.
2. Ground water monitoring requirements under § 405(B) through § 405(E) of this Section may be suspended by the Director for a SWLF if the owner or operator can demonstrate that there is no potential for migration of hazardous constituents from that SWLF to the uppermost aquifer during the active life of the unit and the post-closure care period. This demonstration must be certified by a qualified ground water scientist and approved by the Director, and must be based upon:

- a. Site-specific field collected measurements, sampling, and analysis of physical, chemical, and biological processes affecting contaminant fate and transport.
 - b. Contaminant fate and transport predictions that maximize contaminant migration and consider impacts on human health and environment.
3. Owners and operators of SWLFs must comply with the ground water monitoring requirements of this part according to the following schedule unless an alternative schedule is specified under paragraph (4) of this Section:
 - a. Existing SWLFs and lateral expansions less than one mile from a drinking water intake (surface or subsurface) must be in compliance with the ground water monitoring requirements specified in §§ 405(B)-405(E) by October 9, 1994.
 - b. Existing SWLFs and lateral expansions greater than one mile but less than two miles from a drinking water intake (surface or subsurface) must be in compliance with the ground water monitoring requirements specified in §§ 405(B)-405(E) by October 9, 1995.
 - c. Existing SWLFs and lateral expansions greater than two miles from a drinking water intake (surface or subsurface) must be in compliance with the ground water monitoring requirements specified in §§ 405(B)-405(E) by October 9, 1996.
 - d. New SWLFs must be in compliance with the ground water monitoring requirements specified in §§ 405(B)-405(E) before receiving waste.
4. The Director may specify an alternative schedule for the owners or operators of existing SWLFs and lateral expansions to comply with the ground water monitoring requirements specified in §§ 405(B)-405(E). This schedule must ensure that 50 percent of all existing SWLFs are in compliance by October 9, 1994 and all existing SWLFs are in compliance by October 9, 1996. In setting the compliance schedule, the Director must consider potential risks posed by the unit to human health and the environment. The following factors should be considered in determining potential risk:
 - a. Proximity of human and environmental receptors.

- b. Design of the SWLF.
 - c. Age of the SWLF.
 - d. The size of the SWLF.
 - e. Types and quantities of wastes disposed including sewage sludge.
 - f. Resource value of the underlying aquifer, including:
 - (i) Current and future uses;
 - (ii) Proximity and withdrawal rate of uses; and
 - (iii) Ground water quality and quantity.
5. Once established at a SWLF, ground water monitoring shall be conducted throughout the active life and post-closure care period of that SWLF as specified in § 407.
6. For the purposes of this subpart, a qualified ground water scientist is a scientist or engineer who has received a baccalaureate or post-graduate degree in the natural sciences or engineering and has sufficient training and experience in ground water hydrology and related fields as may be demonstrated by State registration, professional certifications, or completion of accredited university programs that enable that individual to make sound professional judgments regarding ground water monitoring, contaminant fate and transport, and corrective-action.
7. The Director may establish alternative schedules for demonstrating compliance with § 405(B)(4)(b), pertaining to notification of placement of certification in operating record; § 405(D)(3)(a), pertaining to notification that statistically significant increase (SSI) notice is in operating record; § 405(D)(3)(b) and (c), pertaining to an assessment monitoring program; § 405(E)(2), pertaining to sampling and analyzing Appendix B constituents; § 405(E)(4)(a), pertaining to placement of notice (Appendix B constituents detected) in record and notification of notice in record; § 405(E)(4)(b), pertaining to sampling for Appendix A and B to this part; § 405(E)(7), pertaining to notification (and placement of notice in record) of SSI above ground water protection standard; §§ 405(E)(7)(a)(iv) and 405(F)(1), pertaining to assessment of corrective measures; § 405(G)(1), pertaining to selection of remedy and notification of placement in record; § 405(H)(3)(d), pertaining to notification of placement in record (alternative corrective action measures); and § 405(H)(6), pertaining to

notification of placement in record (certification of remedy completed).

B. Ground Water Monitoring Systems.

1. A ground water monitoring system must be installed that consists of a sufficient number of wells, installed at appropriate locations and depths, to yield ground water samples from the uppermost aquifer that:
 - a. Represent the quality of background ground water that has not been affected by leakage from a unit. A determination of background quality may include sampling of wells that are not hydraulically upgradient of the waste management area where:
 - (i) Hydrogeologic conditions do not allow the owner or operator to determine what wells are hydraulically upgradient; or
 - (ii) Sampling at other wells will provide an indication of background ground water quality that is as representative or more representative than that provided by the upgradient wells.
 - b. Represent the quality of ground water passing the relevant point of compliance specified by the Director under Section 403(D) or at the waste management unit boundary where program approval has not been granted. The down-gradient monitoring system must be installed at the relevant point of compliance specified by the Director under Section 403(D) or at the waste management unit boundary where program approval has not been granted that ensures detection of ground water contamination in the uppermost aquifer. When physical obstacles preclude installation of ground water monitoring wells at the relevant point of compliance at existing units, the down-gradient monitoring system may be installed at the closest practicable distance hydraulically down-gradient from the relevant point of compliance specified by the Director that ensures detection of ground water contamination in the uppermost aquifer.
2. The Director may approve a multi-unit ground water monitoring system instead of separate ground water monitoring systems for each SWLF when the facility has several units, provided the multi-unit ground water monitoring system meets the requirement of § 405(B)(1) and will be as protective of human health and the environment as individual monitoring systems for each SWLF, based on the following factors:

- a. Number, spacing, and orientation of the SWLFs.
 - b. Hydrogeologic setting.
 - c. Site history.
 - d. Engineering design of the SWLFs.
 - e. Type of waste accepted at the SWLFs.
3. Monitoring wells must be cased in a manner that maintains the integrity of the monitoring well bore hole. This casing must be screened or perforated and packed with gravel or sand, where necessary, to enable collection of ground water samples. The annular space (i.e., the space between the bore hole and well casing) above the sampling depth must be sealed to prevent contamination of samples and the ground water.
- a. Owner or operator must notify the Director that the design, installation, development, and decommission of any monitoring wells, piezometers and other measurement, sampling, and analytical devices documentation has been placed in the operating record.
 - b. The monitoring wells, piezometers, and other measurement, sampling, and analytical devices must be operated and maintained so that they perform to design specifications throughout the life of the monitoring program.
4. The number, spacing, and depths of monitoring systems shall be:
- a. Determined based upon site-specific technical information that must include thorough characterization of:
 - (i) Aquifer thickness, ground water flow rate, ground water flow direction including seasonal and temporal fluctuations in ground water flow; and
 - (ii) Saturated and unsaturated geologic units and fill materials overlying the uppermost aquifer, materials comprising the uppermost aquifer, and materials comprising the confining unit defining the lower boundary of the uppermost aquifer; including, but not limited to: thicknesses, stratigraphy, lithology, hydraulic conductivities, porosities and effective porosities.

- b. Certified by a qualified ground water scientist. Within 14 days of this certification, the owner or operator must notify the Director that the certification has been placed in the operating record.

C. Ground Water Sampling and Analysis Requirements.

1. The ground water monitoring program must include consistent sampling and analysis procedures that are designed to ensure monitoring results that provide an accurate representation of ground water quality at the background and down-gradient wells installed in compliance with § 405(B)(1) of this part. The owner or operator must notify the Director that the sampling and analysis program documentation has been placed in the operating record and the program must include procedures and techniques for:
 - a. Sample collection.
 - b. Sample preservation and shipment.
 - c. Analytical procedures.
 - d. Chain of custody control.
 - e. Quality assurance and quality control.
2. The ground water monitoring program must include sampling and analytical methods that are appropriate for ground water sampling and that accurately measure hazardous constituents and other monitoring parameters in ground water samples. Ground water samples shall not be field-filtered prior to laboratory analysis.
3. The sampling procedures and frequency must be protective of human health and the environment.
4. Ground water elevations must be measured in each well immediately prior to purging, each time ground water is sampled. The owner or operator must determine the rate and direction of ground water flow each time ground water is sampled. Ground water elevations in wells which monitor the same waste management area must be measured within a period of time short enough to avoid temporal variations in ground water flow which could preclude accurate determination of ground water flow rate and direction.
5. The owner or operator must establish background ground water quality in

a hydraulically upgradient or background well(s) for each of the monitoring parameters or constituents required in the particular ground water monitoring program that applies to the SWLF, as determined under § 405(D)(1) or § 405(E)(1) of this part. Background ground water quality may be established at wells that are not located hydraulically upgradient from the SWLF if it meets the requirements of § 405(B)(1)(a).

6. The number of samples collected to establish ground water quality data must be consistent with the appropriate statistical procedures determined pursuant to paragraph (7) of this Subsection. The sampling procedures shall be those specified under § 405(D)(2) for detection monitoring, § 405(E)(2) and (4) for assessment monitoring, and § 405(F)(2) of corrective action.
7. The owner or operator must specify in the operating record one of the following statistical methods to be used in evaluating ground water monitoring data for each hazardous constituent. The statistical test chosen shall be conducted separately for each hazardous constituent in each well.
 - a. A parametric analysis of variance (ANOVA) followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The method must include estimation and testing of the contrasts between each compliance well's mean and the background mean levels for each constituent.
 - b. An analysis of variance (ANOVA) based on ranks followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The method must include estimation and testing of the contrasts between each compliance well's median and the background median levels for each constituent.
 - c. A tolerance or prediction interval procedure in which an interval for each constituent is established from the distribution of the background data, and the level of each constituent in each compliance well is compared to the upper tolerance or prediction limit.
 - d. A control chart approach that gives control limits for each constituent.
 - e. Another statistical test method that meets the performance standards of § 405(C)(8). The owner or operator must place a justification for this alternative in the operating record and notify the Director of the use of this alternative test. The justification

must demonstrate that the alternative method meets the performance standards of § 405(C)(8).

8. Any statistical method chosen under § 405(C)(7) shall comply with the following performance standards, as appropriate:
 - a. The statistical method used to evaluate ground water monitoring data shall be appropriate for the distribution of chemical parameters or hazardous constituents. If the distribution of the chemical parameters or hazardous constituents is shown by the owner or operator to be inappropriate for a normal theory test, then the data should be transformed or a distribution-free theory test should be used. If the distributions for the constituents differ, more than one statistical method may be needed.
 - b. If an individual well comparison procedure is used to compare an individual compliance well constituent concentration with background constituent concentrations or a ground water protection standard, the test shall be done at a Type I error level no less than 0.01 for each testing period. If a multiple comparisons procedure is used, the Type I experiment wise error rate for each testing period shall be no less than 0.05; however, the Type I error of no less than 0.01 for individual well comparisons must be maintained. This performance standard does not apply to tolerance intervals, prediction intervals, or control charts.
 - c. If a control chart approach is using to evaluate ground water monitoring data, the specific type of control chart and its associated parameter values shall be protective of human health and the environment. The parameters shall be determined after considering the number of samples in the background data base, the data distribution, and the range of the concentration values of each constituent of concern.
 - d. If a tolerance interval or a predictional interval is used to evaluate ground water monitoring data, the levels of confidence and, for tolerance intervals, the percentage of the population that the interval must contain, shall be protective of human health and the environment. These parameters shall be determined after considering the number of samples in the background data base, the data distribution, and the range of the concentration values for each constituent of concern.
 - e. The statistical method shall account for data below the limit of

detection with one or more statistical procedures that are protective of human health and the environment. Any practical quantitation limit (pql) that is used in the statistical method shall be the lowest concentration level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions that are available to the facility.

f. If necessary, the statistical method shall include procedures to control or correct for seasonal and spatial variability as well as temporal correlation in the data.

9. The owner or operator must determine whether or not there is a statistically significant increase over background values for each parameter or constituent required in the particular ground water monitoring program that applies to the SWLF, as determined under §§ 405(D)(1) or 405(E)(1) of this part.

a. In determining whether a statistically significant increase has occurred, the owner or operator must compare the ground water quality of each parameter or constituent at each monitoring well designated pursuant to § 405(B)(1)(b) to the background value of that constituent, according to the statistical procedures and performance standards specified under paragraphs (7) and (8) of this Subsection.

b. Within a reasonable period of time after completing sampling and analysis, the owner of operator must determine whether there has been a statistically significant increase over background at each monitoring well.

D. Detection Monitoring Program.

1. Detection monitoring is required at SWLFs at all ground water monitoring wells defined under § 405(B)(1)(a) and (b) of this part. At a minimum, a detection monitoring program must include the monitoring for the constituents listed in Appendix A to this part.

a. The Director may delete any of the Appendix A monitoring parameters for a SWLF if it can be shown that the removed constituents are not reasonably expected to be in or derived from the waste contained in the unit.

b. The Director may establish an alternative list of inorganic indicator parameters for a SWLF, in lieu of some or all of the heavy metals

(constituents 1-15 in Appendix A to this part), if the alternative parameters provide a reliable indication of inorganic releases from the SWLF to the ground water. In determining alternative parameters, the Director shall consider the following factors:

- (i) The types, quantities, and concentrations of constituents in wastes managed at the SWLF;
- (ii) The mobility, stability, and persistence of waste constituents or their reaction products in the unsaturated zone beneath the SWLF;
- (iii) The detectability of indicator parameters, waste constituents, and reaction products in the ground water; and
- (iv) The concentration or values and coefficients of variation of monitoring parameters or constituents in the ground water background.

2. The monitoring frequency for all constituents listed in Appendix A to this part, or in the alternative list approved in accordance with paragraph (1)(b) of this Subsection, shall be a least semiannual during the active life of the facility (including closure) and the post-closure period. A minimum of four independent samples from each well (background and down-gradient) must be collected and analyzed for the Appendix A constituents, or the alternative list approved in accordance with paragraph (1)(b) of this Subsection, during the first semiannual sampling event. At least one sample from each well (background and down-gradient) must be collected and analyzed during subsequent semiannual sampling events. The Director may specify an appropriate alternative frequency for repeated sampling and analysis for Appendix A constituents, or the alternative list approved in accordance with paragraph (1)(b) of this Subsection, during the active life (including closure) and the post-closure care period. The alternative frequency during the active life (including closure) shall be no less than annual. The alternative frequency shall be based on consideration of the following factors:

- a. Lithology of the aquifer and unsaturated zone.
- b. Hydraulic conductivity of the aquifer and unsaturated zone.
- c. Ground water flow rates.
- d. Minimum distance between upgradient edge of the SWLF and

down-gradient monitoring well screen (minimum distance of travel).

e. Resource value of the aquifer.

3. If the owner or operator determines, pursuant to § 405(C)(7) of this part, that there is a statistically significant increase over background for one or more of the constituents listed in Appendix A to this part or in the alternative list approved in accordance with paragraph (1)(b) of this Subsection, at any monitoring well at the boundary specified under § 405(B)(1)(b), the owner or operator:

a. Must, within 14 days of this finding, place a notice in the operating record indicating which constituents have shown statistically significant changes from background levels, and notify the Director that this notice was placed in the operating record.

b. Must establish an assessment monitoring program meeting the requirements of § 405(E) of this part within 90 days except as provided for in paragraph (3)(c) of this Subsection.

c. The owner/operator may demonstrate that a source other than a SWLF caused the contamination or that the statistically significant increase resulted from error in sampling, analysis, statistical evaluation, or natural variation in ground water quality. A report documenting this demonstration must be certified by a qualified ground water scientist and be placed in the operating record. If a successful demonstration is made and documented, the owner or operator may continue detection monitoring as specified in this Section. If, after 90 days, a successful demonstration is not made, the owner or operator must initiate an assessment monitoring program as required in § 405(E).

E. Assessment Monitoring Program.

1. Assessment monitoring is required whenever a statistically significant increase over background has been detected for one or more of the constituents listed in the Appendix A to this part or in the alternative list approved in accordance with § 405(D)(1)(b).

2. Within 90 days of triggering an assessment monitoring program, and annually thereafter, the owner or operator must sample and analyze the ground water for all constituents identified in Appendix B to this part. A minimum of one sample from each down-gradient well must be collected

and analyzed during each sampling event. For any constituent detected in the down-gradient wells as a result of the complete Appendix B analysis, a minimum of four independent samples from each well (background and down-gradient) must be collected and analyzed to establish background for the constituents. The Director may specify an appropriate subset of wells to be sampled and analyzed for Appendix B constituents during assessment monitoring. The Director may delete any of the Appendix B monitoring parameters for a SWLF if it can be shown that the removed constituents are not reasonably expected to be in or derived from the waste contained in the unit.

3. The Director may specify an appropriate alternate frequency for repeated sampling and analysis for the full set of Appendix B constituents required by § 405(E)(2) of this part, during the active life (including closure) and post-closure care of the unit considering the following factors:
 - a. Lithology of the aquifer and unsaturated zone.
 - b. Hydraulic conductivity of the aquifer and unsaturated zone.
 - c. Ground water flow rates.
 - d. Minimum distance between upgradient edge of the SWLF and down-gradient monitoring well screen (minimum distance of travel).
 - e. Resource value of the aquifer.
 - f. Nature (fate and transport) of any constituents detected in response to this Section.

4. After obtaining the results from the initial or subsequent sampling events required in paragraph (2) of this Subsection, the owner or operator must:
 - a. Within 14 days, place a notice in the operating record identifying the Appendix B constituents that have been detected and notify the Director that this notice has been placed in the operating record.
 - b. Within 90 days, and on at least a semiannual basis thereafter, resample all wells specified by § 405(B)(1), conduct analyses for all constituents in Appendix A to this part or in the alternative list approved in accordance with § 405(D)(1)(b), and for those constituents in Appendix B to this part that are detected in response to paragraph (2) of this Subsection, and record their

concentrations in the facility operating record. At least one sample from each well (background and down-gradient) must be collected and analyzed during these sampling events. The Director may specify an alternative monitoring frequency during the active life (including closure) and the post-closure period for the constituents referred to in this paragraph. The alternative frequency for Appendix A constituents, or the alternative list approved in accordance with § 405(D)(1)(b), during the active life (including closure) shall be no less than annual. The alternative frequency shall be based on consideration of the factors specified in paragraph (3) of this Subsection.

- c. Establish background concentrations for any constituents detected pursuant to paragraph (2) or (4)(b) of this Subsection.
 - d. Establish ground water protection standards for all constituents detected pursuant to paragraph (2) or (4) of this Subsection. The ground water protection standards shall be established in accordance with paragraphs (8) or (9) of this Subsection.
5. If the concentrations of all Appendix B constituents are shown to be at or below background values, using the statistical procedures in § 405(C)(7), for two consecutive sampling events, the owner or operator must notify the Director of this finding and may return to detection monitoring.
 6. If the concentrations of any Appendix B constituents are above background values, but all concentrations are below the ground water protection standard established under paragraphs (8) or (9) of this Subsection, using the statistical procedures in §405(C)(7), the owner or operator must continue assessment monitoring in accordance with this Section.
 7. If one or more Appendix B constituents are detected at statistically significant levels above the ground water protection standard established under paragraphs (8) or (9) of this Subsection in any sampling event, the owner or operator must, within 14 days of this finding, place a notice in the operating record identifying the Appendix B constituents that have exceeded the ground water protection standard and notify the Director and all appropriate local government officials that the notice has been placed in the operating record. The owner or operator also:
 - a. (i) Must characterize the nature and extent of the release by installing additional monitoring wells as necessary;

- (ii) Must install at least one additional monitoring well at the facility boundary in the direction of contaminant migration and sample this well in accordance with § 405(E)(4)(b);
 - (iii) Must notify all persons who own the land or reside on the land that directly overlies any part of the plume of contamination if contaminants have migrated off-site if indicated by sampling of wells in accordance with § 405(E)(7)(a); and
 - (iv) Must initiate an assessment of corrective measures as required by § 405(F) of this part within 90 days; or
 - b. May demonstrate that a source other than a SWLF caused the contamination, or that the SSI increase resulted from error in sampling, analysis, statistical evaluation, or natural variation in ground water quality. A report documenting this demonstration must be certified by a qualified ground water scientist and placed in the operating record. If a successful demonstration is made the owner or operator must continue monitoring in accordance with the assessment monitoring program pursuant to § 405(E), and may return to detection monitoring if the Appendix B constituents are at or below background as specified in § 405(E)(5). Until a successful demonstration is made, the owner or operator must comply with § 405(E)(7) including initiating an assessment of corrective measures.
- 8. The owner or operator must establish a ground water protection standard for each Appendix B constituent detected in the ground water. The ground water protection standard shall be:
 - a. For constituents for which a maximum contaminant level (MCL) has been promulgated under Section 1412 of the Safe Drinking Water Act codified under 40 C.F.R. part 141, the MCL for the constituent.
 - b. For constituents for which MCLs have not been promulgated, the background concentration for the constituent established from wells in accordance with § 405(B)(1)(a).
 - c. For constituents for which the background level is higher than the MCL identified under paragraph (8)(a) of this Subsection or health based levels identified under § 405(E)(9)(a), the background concentration.

9. The Director may establish an alternative ground water protection standard for constituents for which MCLs have not been established. These ground water protection standards shall be appropriate health based levels that satisfy the following criteria:
 - a. The level is derived in a manner consistent with Agency guidelines for assessing the health risks of environmental pollutants (51 F.R. 33992, 34006, 34014, 34028, Sept. 24, 1986).
 - b. The level is based on scientifically valid studies conducted in accordance with the Toxic Substances Control Act Good Laboratory Practice Standards (40 C.F.R. PART 792) or equivalent.
 - c. For carcinogens, the level represents a concentration associated with an excess lifetime cancer risk level (due to continuous lifetime exposure) within the 1×10^{-4} to 1×10^{-6} range.
 - d. For systemic toxicants, the level represents a concentration to which the human population (including sensitive subgroups) could be exposed to on a daily basis that is likely to be without appreciable risk of deleterious effects during a lifetime. For purposes of this subpart, systemic toxicants include toxic chemicals that cause effects other than cancer or mutation.
10. In establishing ground water protection standards under paragraph (9) of this Subsection, the Director may consider the following:
 - a. Multiple contaminants in the ground water.
 - b. Exposure threats to sensitive environmental receptors.
 - c. Other site-specific exposure or potential exposure to ground water.

F. Assessment of Corrective Measures.

1. Within 90 days of finding that any of the constituents listed in Appendix B of this part have been detected at a statistically significant level exceeding the ground water protection standards defined under § 405(E)(8) or (9) of this part, the owner or operator must initiate an assessment of corrective measures. Such an assessment must be completed within a reasonable period of time.
2. The owner or operator must continue to monitor in accordance with the

assessment monitoring program as specified in § 405(E).

3. The assessment shall include an analysis of the effectiveness of potential corrective measures in meeting all of the requirements and objectives of the remedy as described under § 405(G), addressing at least the following:
 - a. The performance, reliability, ease of implementation, and potential impacts of appropriate potential remedies, including safety impacts, cross-media impacts, and control of exposure to any residual contamination.
 - b. The time required to begin and complete the remedy.
 - c. The costs of remedy implementation.
 - d. Permit requirements or other environment or public health requirements that may substantially affect implementation of the remedy(s).
4. The owner or operator must discuss the results of the corrective measures assessment, prior to the selection of remedy, in a public meeting with interested and affected parties.

G. Selection of Remedy.

1. Based on the results of the corrective measures assessment conducted under § 405(F), the owner or operator must select a remedy that, at a minimum, meets the standards listed in paragraph (2) of this Subsection. The owner or operator must notify the Director, within 14 days of selecting a remedy, a report describing the selected remedy has been placed in the operating record and how it meets the standards in paragraph (2) of this Subsection.
2. Remedies must:
 - a. Be protective of human health and the environment.
 - b. Attain the ground water protection standard as specified pursuant to § 405(E)(8) or (9).
 - c. Control the source(s) of releases so as to reduce or eliminate, to the maximum extent practicable, further releases of Appendix B constituents into the environment that may pose a threat to human health or the environment.

- d. Comply with standards for management of wastes as specified in § 405(H)(4).
3. In selecting a remedy that meets the standards of § 405(G)(2), the owner or operator shall consider the following evaluation factors:
- a. The long and short term effectiveness and protectiveness of the potential remedy(s), along with the degree of certainty that the remedy will prove successful based on consideration of the following:
 - (i) Magnitude of reduction of existing risks;
 - (ii) Magnitude of residual risks in terms of likelihood of further releases due to waste remaining following implementation of a remedy;
 - (iii) The type and degree of long-term management required, including monitoring, operation, and maintenance;
 - (iv) Short-term risks that might be posed to the community, workers, or the environment during implementation of such a remedy, including potential threats to human health and the environment associated with excavation, transportation and redisposal or containment;
 - (v) Time until full protection is achieved;
 - (vi) Potential for exposure of humans and environmental receptors to remaining wastes, considering the potential threat to human health and the environment associated with excavation, transportation, redisposal, or containment;
 - (vii) Long-term reliability of the engineering and institutional controls; and
 - (viii) Potential need for replacement of the remedy.
 - b. The effectiveness of the remedy in controlling the source to reduce further releases based on consideration of the following factors:
 - (i) The extent to which the containment practices will reduce further releases; and

- (ii) The extent to which treatment technologies may be used.
 - c. The ease or difficulty of implementing a potential remedy(s) based on consideration of the following types of factors:
 - (i) Degree of difficulty associated with constructing the technology;
 - (ii) Expected operational reliability of the technologies;
 - (iii) Need to coordinate with and obtain necessary approvals and permits from other applicable agencies;
 - (iv) Availability of necessary equipment and specialists; and
 - (v) Available capacity and location of needed treatment, storage, and disposal services.
 - d. Practicable capability of the owner or operator, including a consideration of the technical and economic capability.
 - e. The degree to which community concerns are addressed by a potential remedy(s).
- 4. The owner or operator shall specify as part of the selected remedy a schedule(s) for initiating and completing remedial activities. Such a schedule must require the initiation of remedial activities within a reasonable period of time taking into consideration the factors set forth in paragraphs (4)(a)-(h) of this Subsection. The owner or operator must consider the following factors in determining the schedule of remedial activities:
 - a. Extent and nature of contamination;
 - b. Practical capabilities of remedial technologies in achieving compliance with ground water protection standards established under § 405(E)(7) or (8) and other objectives of the remedy.
 - c. Availability of treatment or disposal capacity for wastes managed during implementation of the remedy.
 - d. Desirability of utilizing technologies that are not currently available, but which may offer significant advantages over already available technologies in terms of effectiveness, reliability, safety

- or ability to achieve remedial objectives.
- e. Potential risks to human health and the environment from exposure to contamination prior to completion of the remedy.
 - f. Resource value of the aquifer including:
 - (i) Current and future uses;
 - (ii) Proximity and withdrawal rate of users;
 - (iii) Ground water quantity and quality;
 - (iv) The potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituent;
 - (v) The hydrogeologic characteristics of the facility and surrounding land;
 - (vi) Ground water removal and treatment costs; and
 - (vii) The cost and availability of alternative water supplies.
 - g. Practicable capability of the owner or operator.
 - h. Other relevant factors.
5. The Director may determine that remediation of a release of an Appendix B constituent from an SWLF is not necessary if the owner or operator demonstrates to the satisfaction of the Director that:
- a. The ground water is additionally contaminated by substances that have originated from a source other than a SWLF and those substances are present in concentrations such that cleanup of the release from the SWLF would provide no significant reduction in risk to actual or potential receptors.
 - b. The constituent(s) is present in ground water that:
 - (i) Is not currently or reasonably expected to be a source of drinking water; and
 - (ii) Is not hydraulically connected with waters to which the

hazardous constituents are migrating or are likely to migrate in a concentration(s) that would exceed the ground water protection standards established under § 405 (E)(8) or (9).

- c. Remediation of the release(s) is technically impracticable.
 - d. Remediation results in unacceptable cross-media impacts.
6. A determination by the Director pursuant to paragraph (5) of this Subsection shall not affect the authority of the Navajo Nation to require the owner or operator to undertake source control measures or other measures that may be necessary to eliminate or minimize further releases to the ground water, to prevent exposure to the ground water, or to remediate the ground water to concentrations that are technically practicable and significantly reduce threats to human health or the environment.

H. Implementation of the Corrective Action Program.

- 1. Based on the schedule established under § 405(G)(4) for initiation and completion or remedial activities the owner/operator must:
 - a. Establish and implement a corrective action ground water monitoring program that:
 - (i) At a minimum, meets the requirements of an assessment monitoring program under § 405(E);
 - (ii) Indicates the effectiveness of the corrective action remedy; and
 - (iii) Demonstrates compliance with ground water protection standards pursuant to paragraph (5) of this Subsection.
 - b. Implement the corrective action remedy selected under § 405(G).
 - c. Take any interim measures necessary to ensure the protection of human health and the environment. Interim measures should, to the greatest extent practicable, be consistent with the objectives of and contribute to the performance of any remedy that may be required pursuant to § 405(G). The following factors must be considered by an owner or operator in determining whether interim measures are necessary:

- (i) Time required to develop and implement a final remedy;
 - (ii) Actual or potential exposure of nearby populations or environmental receptors to hazardous constituents;
 - (iii) Actual or potential contamination of drinking water supplies or sensitive ecosystems;
 - (iv) Further degradation of the ground water that may occur if remedial action is not initiated expeditiously;
 - (v) Weather conditions that may cause hazardous constituents to migrate or be released;
 - (vi) Risks of fire or explosion, or potential for exposure to hazardous constituents as a result of an accident or failure of a container or handling system; and
 - (vii) Other situations that may pose threats to human health and the environment.
2. An owner or operator may determine, based on information developed after implementation of the remedy has begun or other information, that compliance with requirements of § 405(G)(2) are not being achieved through the remedy selected. In such cases, the owner or operator must implement other methods or techniques that could practicably achieve compliance with the requirements, unless the owner or operator makes the determination under § 405(H)(3).
3. If the owner or operator determines that compliance with requirements under § 405(G)(2) cannot be practically achieved with any currently available methods, the owner or operator must:
- a. Obtain certification of a qualified ground water scientist that compliance with requirements under § 405(G)(2) cannot be practically achieved with any currently available methods.
 - b. Implement alternate measures to control exposure of humans or the environment to residual contamination, as necessary to protect human health and the environment.
 - c. 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.
 - d. Notify the Director within 14 days that a report justifying the alternative measures prior to implementing the alternative measures has been placed in the operating record.
4. All solid wastes that are managed pursuant to a remedy required under § 405(G), or an interim measure required under § 405(H)(1)(c), shall be managed in a manner:
- a. That is protective of human health and the environment.
 - b. That complies with applicable RCRA requirements.
5. Remedies selected pursuant to § 405(G) shall be considered complete when:
- a. The owner or operator complies with the ground water protection standards established under § 405(E)(8) or (9) at all points within the plume of contamination that lie beyond the ground water monitoring well system established under § 405(B)(1).
 - b. Compliance with the ground water protection standards established under § 405(E)(8) or (9) has been achieved by demonstrating that concentrations of Appendix B 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 § 405(C)(7) or (8). The Director may specify an alternative length of time during which the owner or operator must demonstrate that concentrations of Appendix B 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.

c. All actions required to complete the remedy have been satisfied.

6. Upon completion of the remedy, the owner or operator must notify the Director within 14 days that a certification that the remedy has been completed in compliance with the requirements of § 405(H)(5) has been placed in the operating record. The certification must be signed by the owner or operator and by a qualified ground water scientist.
7. When, upon completion of the certification, the owner or operator determines that the corrective action remedy has been completed in accordance with the requirements under paragraph (5) of this Subsection, the owner or operator shall be released from the requirements for financial assurance for corrective action under Part VI.

406. CLOSURE.

- A. Closure Criteria. Owners/operators of all solid waste landfill facilities must install a final cover designed to minimize infiltration and erosion. The final cover must be designed and constructed to:
 1. Have a permeability less than or equal to the permeability of any bottom liner system or natural subsoils present, or a permeability no greater than 1×10^{-5} cm/sec, whichever is less, and
 2. Minimize infiltration through the closed SWLF by the use of an infiltration layer that contains a minimum 18-inches of earthen material, and
 3. Minimize erosion of the final cover by the use of an erosion layer that contains a minimum 6-inches of earthen material that is capable of sustaining native plant growth.
- B. The Director may approve an alternative final cover design that includes:
 1. An infiltration layer that achieves an equivalent reduction in infiltration as the infiltration layer specified in paragraphs (A)(1) and (A)(2) of this Section; and
 2. An erosion layer that provides equivalent protection from wind and water erosion as the erosion layer specified in paragraph (A)(3) of this Section.

- C. The owner or operator must prepare a written closure plan that describes the steps necessary to close all SWLFs at any point during their active life in accordance with the cover design requirements in § 406(A) or (B), as applicable. The closure plan, at a minimum, must include the following information:
1. A description of the final cover, designed in accordance with § 406(A) and the methods and procedures to be used to install the cover;
 2. An estimate of the largest area of the SWLF ever requiring a final cover as required under § 406(A) at any time during the active life;
 3. An estimate of the maximum inventory of wastes ever on-site over the active life of the landfill facility; and
 4. A schedule for completing all activities necessary to satisfy the closure criteria in § 406.
- D. The owner or operator must notify the Director that a closure plan has been prepared and placed in the operating record no later than the effective date of this part, or by the initial receipt of waste, whichever is later.
- E. Prior to beginning closure of each SWLF as specified in § 406(F), an owner or operator must notify the Director that a notice of the intent to close the unit has been placed in the operating record.
- F. The owner or operator must begin closure activities of each SWLF no later than 30 days after the date on which the SWLF receives the known final receipt of wastes or, if the SWLF has remaining capacity and there is a reasonable likelihood that the SWLF will receive additional wastes, no later than one year after the most recent receipt of wastes. Extensions beyond the one-year deadline for beginning closure may be granted by the Director if the owner or operator demonstrate that the SWLF has the capacity to receive additional wastes and the owner or operator has taken and will continue to take all steps necessary to prevent threats to human health and the environment from the unclosed SWLF.
- G. The owner or operator of all SWLFs must complete closure activities of each SWLF in accordance with the closure plan within 180 days following the beginning of closure as specified in paragraph (F) of this Section. Extensions of the closure period may be granted by the Director if the owner or operator demonstrates that closure will, of necessity, take longer than 180 days and he has taken and will continue to take all steps to prevent threats to human health and the environment from the unclosed SWLF.
- H. Following closure of each SWLF, the owner/operator must notify the Director by

written certification signed by an independent registered professional engineer verifying that closure has been completed in accordance with the approved closure plans. The certification shall be placed in the operating record.

- I. Following landfill closure, the owner/operator must record a notation on the title/deed (and/or provide notice to the Bureau of Indian Affairs and the Navajo Land Department) to the landfill facility property and notify the Director that the notation has been recorded and a copy has been placed in the operating record.
 1. The notation on the title/deed must in perpetuity notify any potential purchaser/user of the property that:
 - a. The land has been used as a landfill facility.
 - b. Its use is restricted under § 407(C)(3).
 2. The owner or operator may request permission from the Director to remove the notation from the title/deed if all wastes are removed from the facility.

407. POST CLOSURE CARE.

- A. Post-Closure Care Requirements. Following closure the owner/operator must conduct post-closure care. Post-closure care must be conducted for thirty (30) years, except as provided under § 407(B), and consists of the following:
 1. Maintaining the integrity and effectiveness of any final cover, including making repairs to the cover to correct effects of settlement, subsidence, erosion, or other events and preventing run-on and run-off from eroding or otherwise damaging the final cover.
 2. Maintaining and operating the leachate collection system as required under these regulations. The Director may allow the owner/operator to stop managing leachate if the owner/operator demonstrates that leachate no longer poses a threat to human health or the environment.
 3. Monitoring ground water in accordance with permit requirements and 405(A)-(H).
 4. Maintaining and operating the required methane gas monitoring system in accordance with the requirements of § 403(E).
- B. The length of the post-closure care period may be:

1. Decreased by the Director if the owner/operator demonstrates that the reduced period is sufficient to protect human health and the environment and the demonstration is approved by the Director.
 2. Increased by the Director if the Director determines that the lengthened period is necessary to protect human health and the environment.
- C. The owner/operator must prepare and place in the operating record no later than the effective date of these regulations, or by the initial receipt of waste, whichever is later, a written post-closure plan. The owner/operator must notify the Director when a post-closure plan has been prepared and placed in the operating record. The post-closure plan shall include the following information:
1. A description of monitoring and maintenance activities required in § 407(A).
 2. Name, address, telephone number and emergency contact during the post-closure period.
 3. Description of planned land uses during the post-closure period. Post-closure uses shall not disturb the integrity of the final cover, liner, other components of the containment system or the function of the monitoring systems. The Director may approve a disturbance if the owner/operator demonstrates that the disturbance will not increase the potential threat to human health or the environment.
- D. Following completion of the post-closure care period for each SWLF, the owner or operator must notify the Director by written certification, signed by an independent registered professional engineer, that post-closure care has been completed in accordance with the approved plans. The certification shall be placed in the operating record.

PART V - PERMIT REQUIREMENTS FOR SOLID WASTE LANDFILL FACILITIES

501. APPLICATION/EFFECTIVE DATE.

Unless otherwise specified, a permit is required for all solid waste landfill facilities or expansions. The effective dates are as follows:

- A. New and Expanded Solid Waste Landfills. Upon the adoption of these regulations, the owner/operator of any new solid waste landfill facility or lateral expansion of an existing facility shall:

1. Apply for a permit according to the requirements of these regulations; and
 2. Not begin construction of said facility, including lateral expansion until a permit has been granted by the Director.
- B. Existing Solid Waste Landfills. The owners/operators of existing solid waste landfill facilities are not required to have a permit, provided said facilities cease receiving waste by October 9, 1995.
- C. Corrective Actions. Permits are not required for any corrective actions whether initiated by the owner/operator, Director, the Navajo Nation or the United States Environmental Protection Agency.

502. APPLICATION PROCEDURES.

- A. Prospective applicants may request the Director to schedule a preapplication conference to discuss the proposed solid waste landfill facility and application contents before the application is filed.
- B. Any owner or operator who intends to operate a SWLF subject to the permit requirements must apply for a permit with the Director. Two copies of the application, signed by the owner or operator and received by the Director are required before permit review can begin.
- C. Applications for a permit must be completed in the form required by the Director.
- D. Filing, Permit Review and Renewal Fees.
1. A filing fee shall accompany the filing of an application for a permit. The review of the application will not begin until the filing fee is received.
 2. Review and renewal fees shall be charged at an hourly rate for the review of an application. The review fee shall be billed quarterly and shall be due and payable quarterly.
- E. All contents and materials submitted as a permit application shall become part of the approved permit and shall be part of the operating record of the solid waste landfill facility.
- F. The owner or operator of a SWLF shall apply for renewal of the facility's permit every five years.

503. APPLICATION CONTENTS.

A. General Information. Each permit application shall contain the following:

1. The name, address, telephone number and emergency telephone number of the applicant, property owner, and responsible party for the site operation;
2. A general description of the facility accompanied by facility plans and drawings signed and sealed by a Professional Engineer registered in the State of Utah, Arizona or New Mexico;
3. A legal description and proof of ownership, lease agreement, or other mechanism approved by the Director of the proposed site, latitude and longitude map coordinates of the facility's front gate, and maps of the proposed facility site including land use and zoning of the surrounding area;
4. The types of waste to be handled at the facility and area served by the facility;
5. The plan of operation, including contingency plans, to ensure compliance with ground water quality requirements;
6. The form used to record weights or volumes of wastes received.
7. An inspection schedule and inspection log;
8. The closure and post-closure plans;
9. Documentation to show that any waste water treatment facility, such as a run-off or a leachate treatment system, is being reviewed or has been reviewed by the Navajo Environmental Protection Agency - National Pollutant Discharge System Program; and
10. A financial assurance plan.
11. The following maps:
 - a. Topographic map of the landfill unit drawn to a scale of 200 feet to the inch containing five foot contour intervals where the relief exceeds 20 feet and two foot contour intervals where the relief is less than 20 feet, showing the boundaries of the landfill unit, ground water monitoring wells, landfill gas monitoring points, and borrow and fill areas; and

- b. The most recent full size U.S. Geological Survey topographic map, 7-½ minute series, if printed, or other recent topographic survey of equivalent detail of the area, showing the waste facility boundary, the property boundary, surface drainage channels, flood plains, FAA facilities, existing utilities, and structures within one-fourth mile of the facility site, and the direction of the prevailing winds.
12. A geohydrological assessment of the facility that addresses:
- a. Local and regional geology and hydrology, including faults, unstable slopes and subsidence areas on site;
 - b. Evaluation of bedrock and soil types and properties, including permeability rates;
 - c. Depths to ground water or aquifers;
 - d. Direction and flow rate of ground water;
 - e. Quantity, location, and construction of any private and public wells on the site and within a 2,000 foot radius of the site;
 - f. Identification of all water rights for ground water and surface water on the site and within a 2,000 foot radius of the site;
 - g. Identification and description of all surface waters on the site and within a one-mile radius of the site;
 - h. Background ground and surface water quality assessment, and for facilities seeking expansion, identification of impacts of the existing facility upon ground and surface waters from landfill leachate discharges;
 - i. Calculation of a site water balance; and
 - j. Conceptual design of a ground water and surface water monitoring system, including proposed installation methods for these devices and where applicable, a vadose zone monitoring plan;
13. Engineering report, plans, specifications, and calculations that address:
- a. How the facility will meet the location standards including documentation of any demonstration made with respect to any location standard;

- b. The basis for calculating the facility's life;
 - c. Cell design to include liner design, cover design, fill methods, elevation of final cover and bottom liner, and equipment requirements and availability;
 - d. Identification of borrow sources for daily and final cover, and for soil liners;
 - e. Interim and final leachate collection, treatment, and disposal;
 - f. Ground water monitoring well location, design, and construction;
 - g. Landfill gas control and monitoring;
 - h. Design and location of run-on and run-off control systems; and
 - i. Closure and post-closure design, construction, maintenance, and land use.
14. Closure plan to address:
- a. Closure schedule;
 - b. Capacity of site in volume and tonnage;
 - c. Final inspection by regulatory agencies; and
 - d. Identification of closure costs including cost calculations and the funding mechanism.
15. Post-closure plan to address:
- a. Site monitoring of landfill gas, ground water, and surface water;
 - b. Changes to record of title, land use, and zoning restrictions;
 - c. Maintenance activities to maintain cover and run-on and run-off systems;
 - d. Identification of post-closure costs including cost calculation and the funding mechanism; and
 - e. List the name, address, and telephone number of the person or

office to contact about the facility during the post-closure period.

504. CONDITIONS.

A. Inspections.

As a condition of obtaining a permit to operate a solid waste landfill facility, the Director or health advisor shall have the right to enter said facility to conduct inspections and take samples as provided for and/or allowed under the NNSWA or these regulations.

B. Records.

As a condition of obtaining a permit to operate a solid waste landfill facility, the Director shall have the right to enter any premises of the owner/operator where records of the solid waste landfill facility are kept or said facility to inspect records as provided for and/or allowed under the NNSWA or these regulations.

C. Consent to Jurisdiction.

As a condition of obtaining a permit to operate a solid waste landfill facility, the permittee, his agents, employees, lessees, sublessees, successors and assigns shall consent to the jurisdiction of the Navajo Nation and shall agree to abide by all laws of the Navajo Nation as required by the NNSWA.

505. AVAILABILITY OF APPLICATIONS TO THE PUBLIC.

The Director shall notify the public of and the public shall have the right to review all permit applications, renewals, modifications, and determinations, including determinations and modifications pertaining to corrective actions and to provide comments. The Director may schedule a public hearing to entertain comments related to said actions if a request for a public hearing is submitted to the Director in writing within 15 days of publication of the public notice.

506. FEES.

The permit filing, review and renewal fees shall be assessed in accordance with Appendix C. Fees collected shall be utilized solely to enhance the Resource Conservation Recovery Program of the Navajo Nation. A final determination on the permit application shall be made following administrative review and upon full payment of fees.

507. MODIFICATIONS.

The owner/operator of a permitted facility who seeks to modify such facility must obtain

a permit modification from the Director.

508. TRANSFERS.

- A. A permit may not be transferred without approval from the Director, nor shall a permit be transferred from one property to another.
- B. Application for transfer of a permit shall be made at least 60 days prior to the change of permittee.
- C. The new permittee shall:
 - 1. Assume permit requirements, all financial responsibility, disclosure statement, and public notice and hearing requirements;
 - 2. Provide adequate documentation that the operator has or shall have ownership or control of the facility for which the transfer of permit has been requested;
 - 3. Demonstrate adequate knowledge and ability to operate the facility in accordance with the permit conditions; and
 - 4. Demonstrate adequate financial assurance as required in these regulations for the operation of the facility.
- D. An application for permit transfer may be denied if the Director finds that the application has:
 - 1. Knowingly misrepresented a material fact in the application;
 - 2. Refused or failed to disclose any information requested by the Director.
 - 3. Exhibited a history of willful disregard of any tribal, state or federal environmental law; or
 - 4. Had any permit revoked or permanently suspended for cause under any tribal, state or federal environmental law.

509. REVOCATION.

A permit may be revoked by the Director for:

- A. Failure to comply with the terms or conditions of the permit.

- B. Fraud, deceit or submission of inaccurate qualification information.
- C. Violation of the code or these regulations.
- D. Permit revocation may be appealed as stipulated under Subchapter 9, Appeal Process of the NNSWA of the Navajo Nation.

**PART VI - FINANCIAL RESPONSIBILITY FOR OWNERS AND
OPERATORS OF SOLID WASTE LANDFILL FACILITIES**

601. APPLICABILITY.

The requirements of Part VI §§ 601 et seq. apply to owners/operators of all solid waste landfill facilities, except owners/operators who are state and federal governmental entities whose debts and liabilities are the debts and liabilities of a state or the United States.

602. EFFECTIVE DATE.

The effective date for the requirements under Part VI §§ 601 et seq. is April 9, 1997, provided however that the effective date for solid waste landfills that qualify for the small solid waste landfill extension under § 401(B) is October 9, 2005.

603. FINANCIAL ASSURANCES FOR OPERATIONS.

At all times during the operation of the solid waste landfill facility, the owner/operator shall carry adequate public liability insurance to cover personal and property damage claims.

604. FINANCIAL ASSURANCES FOR CLOSURE.

- A. The owner/operator must have a detailed written estimate, in current dollars, of the cost of hiring a third party to close the largest area of the facility ever requiring a final cover as required under § 406 at any time during the active life in accordance with the closure plan. The owner/operator must notify the Director that the estimate has been placed in the operating record.
1. The cost estimate must equal the cost of closing the largest area of the facility ever requiring a final cover at any time during the active life when the extent and manner of its operation would make closure the most expensive, as indicated by its closure plan.
 2. During the active life of the facility, the owner/operator must annually adjust the closure cost estimate for inflation.
 3. The owner/operator must increase the closure cost estimate and the amount of financial assurance provided under § 604(B) if changes to the closure plan or facility conditions increase the maximum cost of closure at any time during the remaining active life.
 4. The owner/operator may reduce the closure cost estimate and the amount

of financial assurance provided under § 604(B) if the cost estimate exceeds the maximum cost of closure at any time during the remaining life of the facility. The owner/operator must notify the Director that the justification for the reduction of the closure cost estimate and the amount of financial assurance has been placed in the operating record.

- B. The owner/operator must establish financial assurance for closure of the facility in compliance with § 607. The owner/operator must provide continuous coverage for closure until released from financial assurance requirements by demonstrating compliance with § 406(G) and (H).

605. FINANCIAL ASSURANCES FOR POST-CLOSURE CARE.

- A. The owner/operator must have a detailed written estimate, in current dollars, of the cost of hiring a third party to conduct post-closure care for the facility in compliance with the post-closure care plan in § 407. The post-closure cost estimate used to demonstrate financial assurance in § 605(B) must account for the total costs of conducting post-closure care, including annual and periodic costs as described in the post-closure plan over the entire post-closure care period. The owner/operator must notify the Director that the estimate has been placed in the operating record.
 - 1. The cost estimate for post-closure care must be based on the most expensive cost of post-closure care during the post-closure care period.
 - 2. During the active life of the facility and during the post-closure care period, the owner/operator must annually adjust the post-closure cost estimate for inflation.
 - 3. The owner/operator must increase the post-closure care cost estimate and the amount of financial assurance provided under § 605(B) if changes in the post-closure plan or facility conditions increase the maximum costs of post-closure care.
 - 4. The owner/operator may reduce the post-closure cost estimate and the amount of financial assurance provided under § 605(B) if the cost estimate exceeds the maximum costs of post-closure care remaining over the post-closure care period. The owner/operator must notify the Director that the justification for the reduction of the post-closure cost estimate and the amount of financial assurance has been placed in the operating record.
- B. The owner/operator of the facility must establish, in a manner in accordance with § 607, financial assurance for the costs of post-closure care as required under § 407. The owner/operator must provide continuous coverage for post-closure

care until released from financial assurance requirements for post-closure care by demonstrating compliance with § 407(D).

606. FINANCIAL ASSURANCES FOR CORRECTIVE ACTIONS.

- A. An owner/operator of a facility required to undertake a corrective action program under § 405 must have a detailed written estimate, in current dollars, of the cost of hiring a third party to perform the corrective action in accordance with the program required under § 405. The corrective action cost estimate must account for the total costs of corrective action activities as described in the corrective action plan for the entire corrective action period. The owner/operator must notify the Director that the estimate has been placed in the operating record.
 - 1. The owner/operator must annually adjust the estimate for inflation until the corrective action program is completed in accordance with § 405.
 - 2. The owner/operator must increase the corrective action cost estimate and the amount of financial assurance provided under § 606(B) if changes in the corrective action program or facility conditions increase the maximum costs of corrective action.
 - 3. The owner/operator may reduce the amount of the corrective action cost estimate and the amount of financial assurance provided under § 605(B) if the cost estimate exceeds the maximum remaining costs of corrective action. The owner/operator must notify the Director that the justification for the reduction of the corrective action cost estimate and the amount of financial assurance has been placed in the operating record.
- B. The owner/operator of each facility required to undertake a corrective action must establish, in a manner in accordance with § 607, financial assurance for the most recent corrective action under § 405. The owner/operator must provide continuous coverage for corrective action until released from financial assurance requirements for corrective action by demonstrating compliance with § 405(H)(6) and (7).

607. ALLOWABLE FINANCIAL ASSURANCE MECHANISMS.

- A. The mechanisms used to demonstrate financial assurance under Part VI must ensure that the funds necessary to meet the costs of closure, post-closure care, and corrective action will be available whenever they are needed. Owners/operators must choose from the options specified in § 607(A)(1) through (5).
 - 1. Trust Fund.

- a. An owner/operator may satisfy the requirements of Part VI by establishing a trust fund which conforms to the requirements of this paragraph. The trustee must be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a federal, tribal or state agency. A copy of the trust agreement must be placed in the facility's operating record.
- b. Payments into the trust fund must be made annually by the owner/operator over the term of the initial permit or over the remaining life of the facility, whichever is shorter, in the case of a trust fund for closure or post-closure care, or over one-half of the estimated length of the corrective action program in the case of corrective action. This period is referred to as the pay-in period.
- c. For a trust fund used to demonstrate financial assurance for closure and post-closure care, the first payment into the fund must be at least equal to the current cost estimate for closure or post-closure care, divided by the number of years in the pay-in period as defined in § 607(A)(1)(b). The amount of subsequent payments must be determined by the following formula:

$$\text{Next Payment} = \frac{CE + CV}{Y}$$

Where CE is the current cost estimate for closure or post-closure care (updated for inflation or other changes), CV is the current value of the trust fund, and Y is the number of years remaining in the pay-in period.

- d. For a trust fund used to demonstrate financial assurance for corrective action, the first payment into the trust fund must be at least equal to one-half of the current cost estimate for corrective action, divided by the number of years in the corrective action pay-in period as defined in § 607(A)(1)(b). The amount of subsequent payment must be determined by the following formula:

$$\text{Next Payment} = \frac{RB + CV}{Y}$$

Where RB is the most recent estimate of the required trust fund

balance for corrective action (i.e., the total costs that will be incurred during the second half of the corrective action period), CV is the current value of the trust fund, and Y is the number of years remaining on the pay-in period.

- e. The initial payment into the trust fund must be made before the initial receipt of waste or before the effective date of Part VI, (April 9, 1997) or October 9, 1997 for small SWLFs that meet the conditions in Section 401(B)(1), whichever is later, in the case of closure and post-closure care, or no later than one hundred and twenty (120) days after the corrective action remedy has been selected in accordance with the requirements of § 405.
- f. If the owner/operator establishes a trust fund after having used one or more alternate mechanisms specified in § 607, the initial payment into the trust fund must be at least the amount that the fund would contain if the trust fund were established initially and annual payments made according to the specifications of this paragraph in § 607(A)(1), as applicable.
- g. The owner/operator, or other person authorized to conduct closure, post-closure care, or corrective action activities may request reimbursement from the trustee for these expenditures. Requests for reimbursement will be granted by the trustee only if sufficient funds are remaining in the trust fund to cover the remaining costs of closure, post-closure care, or corrective action, and if justification and documentation of the cost is placed in the operating record. The owner/operator must notify the Director that the documentation of the justification for reimbursement has been placed in the operating record and that reimbursement has been received.
- h. The trust fund may be terminated by the owner/operator only if the owner/operator substitutes alternate financial assurance as specified in § 607 or if he is no longer required to demonstrate financial responsibility in accordance with the requirements of § 604(B), § 605(B), or § 606(B).

2. Surety Bond Guaranteeing Payment or Performance.

- a. An owner/operator may demonstrate financial assurance for closure or post-closure care by obtaining a payment or performance surety bond which conforms to the requirements of this paragraph. An owner/operator may demonstrate financial

assurance for corrective action by obtaining a performance bond which conforms to the requirements of this paragraph. The bond must be effective before the initial receipt of waste or before the effective date of § 607, (April 9, 1997) or October 9, 2005 for small SWLFs that meet the conditions in Section 401(B)(1), whichever is later, in the case of closure and post-closure care, or no later than one hundred and twenty (120) days after the corrective action remedy has been selected in accordance with the requirements of § 405. The owner/operator must notify the Director that a copy of the bond has been placed in the operating record. The surety company issuing the bond must, at a minimum, be among those listed as acceptable sureties on Federal bonds in Circular 570 of the U.S. Department of the Treasury.

- b. The penal sum of the bond must be in an amount at least equal to the current closure, post-closure care or corrective action cost estimate, whichever is applicable, except as provided in § 607(A)(4).
- c. Under the terms of the bond, the surety will become liable on the bond obligation when the owner/operator fails to perform as guaranteed by the bond.
- d. The owner/operator must establish a standby trust fund. The standby trust fund must meet the requirements of § 607(A)(1) except the requirements for initial payment and subsequent annual payments specified in § 607(A)(1)(b), (c), (d), and (e).
- e. Payments made under the terms of the bond will be deposited by the surety directly into the standby trust fund. Payments from the trust fund must be approved by the trustee.
- f. Under the terms of the bond, the surety may cancel the bond by sending notice of cancellation by certified mail to the owner/operator and to the Director one hundred and twenty (120) days in advance of cancellation. If the surety cancels the bond, the owner/operator must obtain alternate financial assurance as specified in § 607.
- g. The owner/operator may cancel the bond only if alternate financial assurance is substituted as specified in § 607 or if the owner/operator is no longer required to demonstrate financial responsibility in accordance with § 604(B), § 605(B), or § 606(B).

3. Insurance.

- a. An owner/operator may demonstrate financial assurance for closure and post-closure care by obtaining insurance which conforms to the requirements of this paragraph. The insurance must be effective before the initial receipt of waste or before the effective date of § 607 (April 9, 1997) or October 9, 2005 for small SWLFs that meet the conditions in Section 401(B)(1), whichever is later. At a minimum, the insurer must be licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more states. The owner/operator must notify the Director that a copy of the insurance policy has been placed in the operating record.
- b. The closure or post-closure care insurance policy must guarantee that funds will be available to close the facility whenever final closure occurs or to provide post-closure care for the facility whenever the post-closure care period begins, whichever is applicable. The policy must also guarantee that once closure or post-closure care begins, the insurer will be responsible for the paying out of funds to the owner/operator or other person authorized to conduct closure or post-closure care, up to an amount equal to the face amount of the policy.
- c. The insurance policy must be issued for a face amount at least equal to the current cost estimate for closure or post-closure care, whichever is applicable, except as provided in § 607(A)(1). The term “face amount” means the total amount the insurer is obligated to pay under the policy. Actual payments by the insurer will not change the face amount, although the insurer's future liability will be lowered by the amount of the payments.
- d. An owner/operator, or any other person authorized to conduct closure or post-closure care, may receive reimbursements for closure or post-closure expenditures, whichever is applicable. Requests for reimbursement will be granted by the insurer only if the remaining value of the policy is sufficient to cover the remaining costs of closure or post-closure care, and if justification and documentation of the cost is placed in the operating record. The owner/operator must notify the Director that the documentation of the justification for reimbursement has been placed in the operating record and that reimbursement has been received.

- e. Each policy must contain a provision allowing assignment of the policy to a successor owner/operator. Such assignment may be conditional upon consent of the insurer, provided that such consent is not unreasonably refused.
 - f. The insurance policy must provide that the insurer may not cancel, terminate or fail to renew the policy except for failure to pay the premium. The automatic renewal of the policy must, at a minimum, provide the insured with the option of renewal at the face amount of the expiring policy. If there is a failure to pay the premium, the insurer may cancel the policy by sending notice of cancellation by certified mail to the owner/operator and to the Director one hundred and twenty (120) days in advance of cancellation. If the insurer cancels the policy, the owner/operator must obtain alternate financial assurance as specified in § 607.
 - g. For insurance policies providing coverage for post-closure care, commencing on the date that liability to make payments pursuant to the policy accrues, the insurer will thereafter annually increase the face amount of the policy. Such increase must be equivalent to the face amount of the policy, less any payments made, multiplied by an amount equivalent to eighty-five percent (85%) of the most recent investment rate or of the equivalent coupon-issue yield announced by the U.S. Treasury for 26-week Treasury securities.
 - h. The owner/operator may cancel the insurance policy only if alternate financial assurance is substituted as specified in § 607 or if the owner/ operator is no longer required to demonstrate financial responsibility in accordance with the requirements of § 604(B), § 605(B), or § 606(B).
4. Use of Multiple Financial Mechanisms. An owner/operator may satisfy the requirements of § 607 by establishing more than one financial mechanism per facility. The mechanisms must be as specified in Section 607(A)(1), (2), and (3), except that it is the combination of mechanisms, rather than the single mechanism, which must provide financial assurance for an amount at least equal to the current cost estimate for closure, post-closure care or corrective action, whichever is applicable. The financial test and a guarantee provided by a corporate parent, sibling, or grandparent may not be combined if the financial statements of the two firms are consolidated.
5. The language of the mechanisms listed in Section 607(A)(1), (2), and (3) must ensure that the instruments satisfy the following criteria:

- a. The financial assurance mechanisms must ensure that the amount of funds assured is sufficient to cover the costs of closure, post-closure care, and corrective action for known releases when needed.
- b. The financial assurance mechanisms must ensure that funds will be available in a timely fashion when needed.
- c. The financial assurance mechanisms must be obtained by the owner/operator by the effective date of these requirements or prior to the initial receipt of solid waste, whichever is later, in the case of closure and post-closure care, and no later than one hundred and twenty (120) days after the corrective action remedy has been selected in accordance with the requirements of § 405, until the owner/operator is released from the financial assurance requirements under § 604, § 605, and § 606.
- d. The financial assurance mechanisms must be legally valid, binding, and enforceable under tribal, state and/or federal law.

PART VII - TRANSFER STATIONS

701. SCOPE/EFFECTIVE DATE.

All solid waste transfer stations shall comply with all requirements of Part VII and other applicable parts of these regulations, effective upon adoption of these regulations.

702. PERMITS.

A permit is not required to own, operate or maintain a solid waste transfer station.

703. GENERAL OPERATING REQUIREMENTS.

- A. Part VII does not apply to those storage containers placed for individual or clusters of residences and institutional, commercial, recreational or industrial establishments that service exclusively those establishments.
- B. Each transfer station shall have accessible emergency communication for employees during operating hours.
- C. Only solid waste shall be accepted at any transfer station.
- D. Containers used shall be designed or equipped to prevent leakage and spillage.

- E. At any transfer station:
 - 1. Containers shall be removed or emptied at least once every month or more frequently as conditions warrant.
 - 2. Containers shall use hinged lids or removable covers during transportation.
 - 3. If applicable, recyclable material shall be placed directly into appropriate containers clearly identified for that purpose.
 - 4. Unloading of solid waste shall be confined to as small an area as possible and in designated areas only.
 - 5. The operator (of any transfer station) shall be present during all hours of operation.
- F. Each transfer station site shall be cleaned daily of all litter.

PART VIII - COMPOSTING

801. SCOPE/EFFECTIVE DATE.

All solid waste landfill composting facilities or other composting facilities (excluding residential) shall comply with all requirements of Part VIII and other applicable parts of these regulations, effective upon adoption of these regulations.

802. PERMITS.

All composting facilities require a permit approved by the Director except a composting facility which occupies less than 5 acres, uses only water or an inoculant as an additive and utilizes no more than 50% manure in the final mix, and does not compost treated sewage sludge or solid waste. The permit application shall contain the following information:

- A. Detailed plans and specifications for the entire composting facility, including manufacturer's performance data for equipment.
- B. The method of measuring, shredding, mixing and proportioning input materials.
- C. A description of temperature monitoring equipment and location of all temperature and other type of monitoring points and frequency of monitoring.
- D. A description of any amendments, including quantity, quality and frequency of

use.

- E. Special precautions or procedures for operation during wind, heavy rain, snow and freezing conditions.
- F. Estimated composting time duration.
- G. For windrow systems, the windrow construction, including width, length and height.
- H. The method of aeration, including turning frequency or mechanical aeration equipment and aeration capacity.
- I. A description of the use for the compost, method for site-removal and a plan for disposal of compost not used in the expected manner.
- J. For in-vessel composting systems, a process flow diagram of the entire process, including all major equipment and flow streams.

803. GENERAL OPERATING REQUIREMENTS FOR COMPOSTING FACILITIES.

The following operational requirements apply to composting facilities:

- A. Daily operational records including temperature and quantity of material processed.
- B. All waste piles collected must be processed within two years.
- C. All materials not destined for processing must be disposed of properly.
- D. If windrowed, construction and turning frequency must be sufficient to maintain aerobic conditions and to produce a compost product in the desired time frame.
- E. The finished compost must be sufficiently stabilized so that it can be stored or applied to land without producing a public health or environmental hazard.
- F. The finished compost must contain no sharp objects.
- G. Any records pertaining to the composting facility shall be made available to the Director upon request.

804. CLOSURE AND POST-CLOSURE CARE REQUIREMENTS FOR COMPOSTING FACILITIES.

- A. Closure. Within thirty (30) calendar days of closure, all composting facilities shall:
 - 1. Remove all windrows and in-vessel compost material.
 - 2. Remove or revegetate compacted compost material.
 - 3. Drain ponds or leachate collection systems, recontour and properly dispose of any remaining materials.

- B. Post-Closure Care. Post-closure care shall include:
 - 1. Ground water monitoring.
 - 2. Inspection and maintenance of cover material.

- C. Post-Closure Care Period. The post-closure care period for composting facilities shall be thirty (30) years.
 - 1. The Director may decrease the post-closure period if the owner/operator demonstrates that a reduced period is sufficient to protect human health and the environment.
 - 2. The Director may extend post closure care if the extended period is necessary to protect human health and the environment.

PART IX - COLLECTION AND TRANSPORTATION OF SOLID WASTE

901. GENERAL REQUIREMENTS.

All solid waste shall be collected, transported and stored in compliance with Part IX and other applicable provisions of these regulations.

902. TRANSPORTERS.

Any transporter shall use vehicles which have covers or enclosures to prevent solid waste from being released during collection/transportation and which are maintained in a sanitary manner. Vehicles (excluding noncommercial household vehicles) shall be in compliance with standards established by the American National Standards Institutes (ANSI Z245-1, Safety Standards for Refuse Collection Equipment). Collection and transportation shall be in accordance with U.S. Environmental Protection Agency Guidelines for Solid Waste Storage and Collection (Title 40 C.F.R. 243).

903. GENERATORS.

- A. Any person who generates solid waste shall provide containers for the solid waste except for construction/demolition waste, yard waste and white goods. Storage facilities shall be insect-, rodent- and leak-proof and be kept clean and sanitary. Outside containers shall:
 - 1. If manually lifted, have a maximum capacity of thirty-two (32) gallons with safe, usable handles or shall be bags which are not filled to an extent that they rupture with normal handling.
 - 2. If mechanically handled, be compatible with collection vehicles.
- B. Any person who stores yard waste, white goods or junk vehicles shall do so to prevent insect and rodent harborage, environmental and safety hazards and protect public health.

PART X - RECYCLING

1001. RESERVED

APPENDIX A

GROUND WATER QUALITY STANDARDS

<u>Chemical</u>	<u>MCL (mg/l)</u>
Arsenic	0.05
Barium	1.0
Benzene	0.005
Cadmium	0.01
Carbon tetrachloride	0.005
Chromium (hexavalent)	0.05
2,4-Dichlorophenoxy acetic acid	0.1
1,4-Dichlorobenzene	0.075
1,2-Dichloroethane	0.005
1,1-Dichloroethylene	0.007
Endrin	0.0002
Fluoride	4
Lindane	0.004
Lead	0.05
Mercury	0.002
Methoxychlor	0.1
Nitrate	10
Selenium	0.01
Silver	0.05
Toxaphene	0.005
1,1,1-Trichloromethane	0.2
Trichloroethylene	0.005
2,4,5-Trichlorophenoxy acetic acid	0.01
Vinyl Chloride	0.002

APPENDIX B

40 C.F.R. PART 258, APPENDIX II

APPENDIX C

SOLID WASTE LANDFILL FACILITY PERMIT FEES

A. Request for copies over 10 pages, per page	\$0.25
B. Solid waste regulations	\$20.00
C. Solid waste permit filing fee	\$1,000.00
D. Solid waste permit modification and renewal filing fee	\$100.00
E. Solid waste permit application and renewal review fee	\$50.00