

CHAPTER 7035
MINNESOTA POLLUTION CONTROL AGENCY
SOLID WASTE

SOLID WASTE MANAGEMENT FACILITIES; GENERALLY	7035.2735	SURETY BOND GUARANTEEING PERFORMANCE.
7035.0300		DEFINITIONS.
7035.0350		SOLID WASTE MANAGEMENT HIERARCHY.
7035.0400		GENERAL REQUIREMENTS.
7035.0450		DEMONSTRATION/RESEARCH PROJECTS.
7035.0600		VARIANCES.
7035.0605		AVAILABILITY OF REFERENCES.
		INDIVIDUAL PROPERTIES
7035.0700		STORAGE OF SOLID WASTE AT INDIVIDUAL PROPERTIES.
7035.0800		COLLECTION AND TRANSPORTATION OF SOLID WASTE.
7035.0805		RENOVATION AND DEMOLITION.
		INDUSTRIAL SOLID WASTE LAND DISPOSAL FACILITIES
7035.1590		INDUSTRIAL SOLID WASTE LAND DISPOSAL FACILITY DESIGN.
7035.1600		PROHIBITED AREAS FOR INDUSTRIAL SOLID WASTE LAND DISPOSAL FACILITIES.
7035.1700		REQUIRED PRACTICES FOR MAINTENANCE AND OPERATION OF INDUSTRIAL SOLID WASTE LAND DISPOSAL FACILITIES.
7035.1800		PERMIT APPLICATION AND REQUIRED PLANS FOR INDUSTRIAL SOLID WASTE LAND DISPOSAL FACILITIES.
7035.1900		BASIC PERMIT, CERTIFICATION, AND COMPLIANCE REQUIREMENTS FOR INDUSTRIAL SOLID WASTE LAND DISPOSAL FACILITIES.
7035.2500		INDUSTRIAL SOLID WASTE LAND DISPOSAL FACILITY ABANDONMENT.
		SOLID WASTE MANAGEMENT FACILITY GENERAL TECHNICAL REQUIREMENTS
7035.2525		SOLID WASTE MANAGEMENT FACILITIES GOVERNED.
7035.2535		GENERAL SOLID WASTE MANAGEMENT FACILITY REQUIREMENTS.
7035.2545		PERSONNEL TRAINING.
7035.2555		LOCATION STANDARDS.
7035.2565		GROUNDWATER QUALITY, SURFACE WATER QUALITY, AND AIR QUALITY AND SOIL PROTECTION.
7035.2575		OPERATING RECORD.
7035.2585		ANNUAL REPORT.
7035.2595		EMERGENCY PREPAREDNESS AND PREVENTION.
7035.2605		EMERGENCY PROCEDURES.
7035.2610		CONSTRUCTION CERTIFICATION.
7035.2615		CONTINGENCY ACTION PLAN.
7035.2625		CLOSURE.
7035.2635		CLOSURE PROCEDURES.
7035.2645		POSTCLOSURE.
7035.2655		POSTCLOSURE CARE AND USE OF PROPERTY.
		SOLID WASTE MANAGEMENT FACILITIES FINANCIAL REQUIREMENTS
7035.2665		SCOPE.
7035.2685		COST ESTIMATES FOR CLOSURE, POSTCLOSURE CARE, AND CORRECTIVE ACTION.
7035.2695		FINANCIAL ASSURANCES REQUIRED.
7035.2705		TRUST FUND.
7035.2715		TRUST FUND FOR UNRELATED SITES.
7035.2720		DEDICATED LONG-TERM CARE TRUST FUNDS.
7035.2725		SURETY BOND GUARANTEEING PAYMENT INTO A TRUST FUND.
		SOLID WASTE MANAGEMENT FACILITY SPECIFIC TECHNICAL REQUIREMENTS
7035.2815		MIXED MUNICIPAL SOLID WASTE LAND DISPOSAL FACILITIES.
7035.2825		DEMOLITION DEBRIS LAND DISPOSAL FACILITIES.
7035.2836		COMPOST FACILITIES.
7035.2845		RECYCLING FACILITIES.
7035.2855		SOLID WASTE STORAGE STANDARDS.
7035.2860		BENEFICIAL USE OF SOLID WASTE.
7035.2861		CHARACTERIZING SOLID WASTES FOR DEMONSTRATION/RESEARCH PROJECTS AND FOR BENEFICIAL USE.
7035.2862		INCORPORATIONS BY REFERENCE.
7035.2870		SOLID WASTE TRANSFER FACILITIES.
7035.2875		REFUSE-DERIVED FUEL PROCESSING FACILITIES.
7035.2885		MUNICIPAL SOLID WASTE COMBUSTOR ASH LAND DISPOSAL FACILITIES.
7035.2910		MUNICIPAL WASTE COMBUSTOR ASH TESTING REQUIREMENTS.
7035.2915		REQUIREMENTS FOR TEMPORARY PROGRAM TYPE I AND II STORAGE FACILITIES.
		ABANDONED MOTOR VEHICLES AND SCRAP METAL
7035.3000		SCOPE.
7035.3100		DEFINITIONS.
7035.3200		SEVERABILITY.
7035.3300		REGIONAL COLLECTION SITES.
7035.3400		COLLECTION AND SALE.
7035.3500		REIMBURSABLE CONTRACTS.
7035.3600		LICENSING AND REVOCATION.
		SOLID WASTE PROGRAMS AND PROJECTS
7035.4000		SCOPE AND GENERAL CONDITIONS.
7035.4100		DEFINITIONS.
7035.4200		SEVERABILITY.
7035.4300		VARIANCES.
7035.4400		APPLICATION PROCEDURE FOR GRANTS-IN-AID.
7035.4500		CRITERIA FOR ELIGIBILITY.
7035.4600		ADMINISTRATION OF GRANTS-IN-AID.
		SOLID WASTE MANAGEMENT PLANNING ASSISTANCE PROGRAM
7035.5000		PURPOSE.
7035.5100		OVERVIEW OF PROCEDURES FOR APPLYING FOR AND RECEIVING A GRANT.

MINNESOTA RULES 2011

569

SOLID WASTE 7035.0300

7035.5200	DEFINITIONS.		MINNESOTA SOLID WASTE MANAGEMENT DEMONSTRATION PROGRAM
7035.5300	ELIGIBLE APPLICANTS.	7035.7700	APPORTIONMENT OF FUNDS.
7035.5400	ELIGIBLE COSTS.		INFECTIOUS WASTE
7035.5500	ELIGIBLE PROJECTS.	7035.9100	SCOPE.
7035.5600	GRANT APPLICATION PROCEDURES.	7035.9110	DEFINITIONS.
7035.5700	GRANT APPLICATION CONTENT.	7035.9120	REQUIRED PRACTICES FOR FACILITY OWNERS AND OPERATORS AND COMMERCIAL TRANSPORTERS.
7035.5800	AGENCY REVIEW OF GRANT APPLICATIONS AND AWARD OF GRANTS.	7035.9130	MANAGEMENT PLAN.
7035.5900	GRANT AGREEMENT.	7035.9140	MANAGEMENT PLAN CERTIFICATION PROCEDURES.
7035.6000	SEVERABILITY.	7035.9150	FORMS.

7035.0100 [Repealed, 13 SR 1150]

7035.0200 [Repealed, 13 SR 1150]

SOLID WASTE MANAGEMENT FACILITIES; GENERALLY

7035.0300 DEFINITIONS.

Subpart 1. **Scope.** As used in parts 7035.0300 to 7035.2915, the following terms have the meanings given them in this part.

Subp. 2. **Acceptable daily intake.** "Acceptable daily intake" means the highest concentration of a toxic substance in water that is considered to pose no significant risk to human health when consumed daily over a lifetime.

Subp. 3. **Agency.** "Agency" means the Minnesota Pollution Control Agency, its agent, or representative.

Subp. 4. **Aquifer.** "Aquifer" has the meaning given in part 4725.0100.

Subp. 5. **Ash.** "Ash" means the incombustible material that remains after a fuel or solid waste is combusted.

Subp. 6. **Assets.** "Assets" means all existing and all probable future economic benefits obtained or controlled by a particular entity.

Subp. 7. **Backyard compost site.** "Backyard compost site" means a site used to compost food scraps, garden wastes, weeds, lawn cuttings, leaves, and prunings from a single family or household, apartment building, or a single commercial office, a member of which is the owner, occupant, or lessee of the property.

Subp. 7a. **Beneficial use determination.** "Beneficial use determination" refers to standing or case-specific beneficial use determinations under part 7035.2860, subpart 4 or 5, respectively.

Subp. 7b. **Bottom ash.** "Bottom ash" means the residues that remain in a combustion chamber after combustion. An owner or operator may include ash which is carried out of a combustion chamber by the flow of gases and captured by boiler tubes, economizers, or other equipment which captures particulate matter before gases enter air pollution control equipment.

Subp. 8. **Bulking agent.** "Bulking agent" means the material added to a compost system to provide structural support and prevent the settlement and compaction of the decomposing waste.

Subp. 9. **Bulky item.** "Bulky item" means oversized solid waste including appliances, furniture, trees, or other waste that requires extraordinary handling methods to achieve compaction.

Subp. 9a. **By-product lime.** "By-product lime" refers to waste liming materials that are produced when lime is used for processes such as treatment of drinking water, processing of sugar, acetylene production, and miscellaneous other processes.

Subp. 10. **Cell.** "Cell" means compacted solid waste that is enclosed by cover material in a land disposal site.

Subp. 11. **Certified capacity.** "Certified capacity" means the in-place volume granted to an owner or operator of a mixed municipal solid waste land disposal facility for the disposal of mixed municipal solid waste by a certificate of need as issued under Minnesota Statutes, section 115A.917 or 473.823, subdivision 6, and by an agency issued permit.

Subp. 12. **Closure.** "Closure" means actions to prevent or minimize the threat to public health and the environment posed by a closed facility including removing contaminated equipment, removing liners, applying final cover, grading and seeding final cover, installing monitoring devices, constructing ground water and surface water diversion structures, and installing gas control systems, as necessary.

Subp. 13. **Closure document.** "Closure document" means an order, stipulation agreement, or other agency issued or negotiated document that defines specific closure and post-closure care requirements executed at the time a solid waste management facility is closed.

Subp. 14. **Closure plan.** "Closure plan" means a plan for closure of a facility prepared in accordance with part 7035.2625.

Subp. 14a. **Coal combustion slag.** "Coal combustion slag" means the noncombustible coal residue collected in a water-filled hopper at the bottom of a cyclone-type furnace. It is characterized as glassy, angular-shaped particles with diameters ranging from one-tenth to ten millimeters in size.

Subp. 15. **Cocomposting.** "Cocomposting" means the composting of mixed municipal solid waste with a nutrient source or bulking agent.

Subp. 15a. **Combined ash.** "Combined ash" means ash which consists of a mixture of fly ash and bottom ash.

Subp. 16. **Commissioner.** "Commissioner" means the commissioner of the Minnesota Pollution Control Agency.

Subp. 17. **Community water supply.** "Community water supply" has the meaning given it in part 4720.0100.

Subp. 18. **Compliance boundary.** "Compliance boundary" means the planar surface that circumscribes the permitted waste boundary, lies between the permitted waste boundary and the property boundary, extends vertically downward from the land surface, and constitutes the place at which compliance with agency ground water quality standards is measured.

Subp. 19. **Compost facility.** "Compost facility" means a site used to compost or cocompost solid waste, including all structures or processing equipment used to control drainage, collect and treat leachate, and storage areas for the incoming waste, the final product, and residuals resulting from the composting process.

Subp. 20. **Composting.** "Composting" means the controlled microbial degradation of organic waste to yield a humus like product.

Subp. 21. **Contingency action plan.** "Contingency action plan" means a document setting out an organized, planned, and coordinated course of action to be followed in case of a fire, explosion, or release of solid waste, waste by-products, or leachate that could threaten human health or the environment.

Subp. 22. **Corrective action.** "Corrective action" means the steps taken to repair facility structures including liners, monitoring wells, separation equipment, covers, and aeration devices and to bring the facility into compliance with design, construction, ground water, surface water, and air emission standards.

Subp. 23. **Cover material.** "Cover material" means material approved by the agency that is used to cover compacted solid waste in a land disposal site. Important general characteristics of good cover material are low permeability, uniform texture, cohesiveness, and compactibility.

Subp. 24. **Current assets.** "Current assets" means cash or other assets or resources commonly identified as those that are reasonably expected to be realized in cash, or sold or consumed during the normal operating cycle of the business.

Subp. 25. **Current closure cost estimate.** "Current closure cost estimate" means the most recent estimate prepared in accordance with part 7035.2625.

Subp. 26. **Current contingency action cost estimate.** "Current contingency action cost estimate" means the most recent estimate prepared in accordance with part 7035.2615.

Subp. 27. **Current liabilities.** "Current liabilities" means obligations whose liquidation is reasonably expected to require the use of existing resources properly classifiable as current assets or the creation of other current liabilities.

Subp. 28. **Current postclosure care cost estimate.** "Current postclosure care cost estimate" means the most recent estimate prepared in accordance with part 7035.2645.

Subp. 29. **Decomposition gases.** "Decomposition gases" means gases produced by chemical or microbial activity during the decomposition of solid waste.

Subp. 30. **Demolition debris.** "Demolition debris" means solid waste resulting from the demolition of buildings, roads, and other structures including concrete, brick, bituminous concrete, untreated wood, masonry, glass, trees, rock, and plastic building parts. Demolition debris does not include asbestos wastes.

Subp. 31. **Demolition debris land disposal facility.** "Demolition debris land disposal facility" means a site used to dispose of demolition debris.

Subp. 31a. **Demonstration/research project.** "Demonstration/research project" refers to a limited scale project designed to promote new methods of solid waste management. It is designed to obtain scientific or other information about a specific method for managing solid waste not currently available.

Subp. 32. **Design capacity.** "Design capacity" means the total volume of compacted solid waste, topsoil, intermittent, intermediate, and final cover specified in the facility permit, as calculated from final contour and cross-sectional plan sheets that define the areal and vertical extent of the fill area.

Subp. 33. **Disposal.** "Disposal" has the meaning given it in Minnesota Statutes, section 115A.03, subdivision 9.

Subp. 34. **Disposal facility.** "Disposal facility" has the meaning given it in Minnesota Statutes, section 115A.03, subdivision 10.

Subp. 35. **Energy recovery facility.** "Energy recovery facility" means a facility used to capture the heat value of solid waste for conversion to steam, electricity, or immediate heat by direct combustion or by first converting it into an intermediate fuel product. Municipal solid waste combustors are included in the definition of energy recovery facilities.

Subp. 35a. **EPA Method 1311.** "EPA Method 1311" means the Toxicity Characteristic Leaching Procedure issued by the United States Environmental Protection Agency as EPA Method 1311 as provided by the Federal Register, volume 55, number 126, June 29, 1990.

Subp. 35b. **EPA Method 1312.** "EPA Method 1312" means the Synthetic Precipitation Leach Test for Soils, which is incorporated by reference in part 7035.0605.

Subp. 35c. **EPA SW-846.** "EPA SW-846" means Test Methods for Evaluating Solid Waste, EPA SW-846, Third Edition, which is incorporated by reference in part 7035.0605.

Subp. 36. **Existing facility.** "Existing facility" means a facility that is in operation or on which construction has commenced on or before the effective date of new and amended parts 7035.0300 to 7035.2875. A facility has commenced construction if the owner or operator has obtained permits and approvals necessary under federal, state, and local statutes, rules, and ordinances and the on-site construction program has begun or the owner or operator has entered into contractual agreements that cannot be canceled or modified without substantial loss.

Subp. 37. **Facility.** "Facility" means the land, structures, monitoring devices, and other improvements on the land used for monitoring, treating, processing, storing, or disposing of solid waste, leachate, or residuals from solid waste processing.

Subp. 38. **Floodplain.** "Floodplain" means any land that is subject to a one percent or greater chance of flooding in any given year from any source.

Subp. 38a. **Fly ash.** "Fly ash" means ash generated by a combustion facility which is carried out of the combustion chamber by the flow of gases and collected by air pollution control equipment before exhaust gases leave the facility. An owner or operator may include ash which is captured by boiler tubes, economizers, or other equipment which captures particulate matter before gases enter air pollution control equipment.

Subp. 39. **Free liquid.** "Free liquid" refers to the liquid produced when a 100-milliliter representative sample of solid waste is placed on a standard 400-micron conical paint filter for five minutes.

Subp. 40. **Garbage.** "Garbage" means discarded material resulting from the handling, processing, storage, preparation, serving, and consumption of food.

Subp. 41. **Gross revenue.** "Gross revenue" means total receipts less returns and allowances.

Subp. 42. **Ground water; groundwater.** "Ground water" or "groundwater" has the meaning given for groundwater in Minnesota Statutes, section 115.01, subdivision 6.

Subp. 43. **Hazardous substance.** "Hazardous substance" has the meaning given it in Minnesota Statutes, section 115B.02, subdivision 8.

Subp. 43a. **Household hazardous waste.** "Household hazardous waste" has the meaning given in Minnesota Statutes, section 115A.96, subdivision 1, paragraph (b).

Subp. 44. **Independently audited.** "Independently audited" means an audit performed by an independent certified public accountant in accordance with generally accepted auditing standards.

Subp. 45. **Industrial solid waste.** "Industrial solid waste" means all solid waste generated from an industrial or manufacturing process and solid waste generated from non-manufacturing activities such as service and commercial establishments. Industrial solid waste does not include office materials, restaurant and food preparation waste, discarded machinery, demolition debris, municipal solid waste combustor ash, or household refuse.

Subp. 46. **Industrial solid waste land disposal facility.** "Industrial solid waste land disposal facility" means a site used to dispose of industrial solid waste in or on the land.

Subp. 47. **Inert material.** "Inert material" means the uncompostable material remaining in a compost system after decomposition. Inert material does not include soil particles or other naturally occurring materials that may be found in the compost system.

Subp. 48. **Infectious waste.** "Infectious waste" means waste originating from the diagnosis, care, or treatment of a person or animal that has been or may have been exposed to a contagious or infectious disease. Unless the materials have been rendered noninfectious by procedures approved by the state commissioner of health, infectious waste includes:

A. all wastes originating from persons or animals placed in isolation for control and treatment of an infectious disease;

B. bandages, dressings, casts, catheters, tubing, and similar disposable items which have been in contact with wounds, burns, anatomical tracts, or surgical incisions and which are suspect of being or have been medically verified as infectious;

C. all infectious anatomical waste, including human and animal parts or tissues;

D. infectious sharps and needles;

E. laboratory and pathology waste of an infectious nature; or

F. any other waste, as defined by the state commissioner of health, which, because of its infectious nature, requires handling and disposal in a manner prescribed for items A to E.

Subp. 49. **Intermittent cover.** "Intermittent cover" means cover material that is spread and compacted on the top and side slopes of compacted solid waste at least as often as the end of each operating week unless less frequent placement is approved according to part 7035.2885, subpart 10, item A, in order to control fire, infiltration, dust emissions, and erosion.

Subp. 50. **Intervention limit.** "Intervention limit" means a concentration or measure of a substance which, if found to be exceeded in a sample of ground water, indicates possible ground water pollution from the facility.

Subp. 51. **Karst.** "Karst" means a type of topography that is formed from the dissolution of limestone, dolomite, or gypsum and that is characterized by closed depressions or sinkholes, and underground drainage through conduits enlarged by dissolution.

Subp. 52. **Land disposal facility.** "Land disposal facility" means any tract or parcel of land, including any constructed facility, at which solid waste is disposed of in or on the land.

Subp. 53. **Land pollution.** "Land pollution" means the presence in or on the land of any waste or waste by-products in such quantity, of such nature and duration, and under such condition as would negatively affect any waters of the state, create air contaminants, cause air pollution, or contaminate soils at the site making the site unacceptable for further use.

Subp. 54. **Landspreading.** "Landspreading" means the placement of waste or waste by-products on or incorporation of them into the soil surface.

Subp. 55. **Landspreading site.** "Landspreading site" means any land used for landspreading of waste or waste by-products.

Subp. 56. **Leachate.** "Leachate" means liquid that has percolated through solid waste and has extracted, dissolved, or suspended materials from it.

Subp. 57. **Leachate management system.** "Leachate management system" means the structures constructed and operated to contain, transport, and treat leachate, including liners, collection pipes, detection systems, holding areas, and treatment facilities.

Subp. 58. **Liabilities.** "Liabilities" means probable sacrifices of future economic benefits arising from present obligations to transfer assets or provide services to other entities in the future as a result of past transactions or events.

Subp. 59. **Limit of detection.** "Limit of detection" means the lowest concentration of a substance that can be determined to be statistically different from a blank.

Subp. 60. **Limit of quantitation.** "Limit of quantitation" means the concentration of a substance above which a chemical analysis may occur.

Subp. 61. **Liner.** "Liner" means a continuous layer of reworked natural soil or synthetic materials beneath and on the sides of a land disposal facility, compost facility, or storage area that restricts the downward or lateral escape of solid waste, leachate, or gas.

Subp. 62. **Lower compliance boundary.** "Lower compliance boundary" refers to an approximately horizontal, planar or approximately planar, designated surface located beneath a facility and extending to or beyond the compliance boundary. The lower compliance boundary is the place at or below which compliance with agency standards to protect deeper aquifers is measured.

Subp. 62a. **Manufactured product.** "Manufactured product" means an item that through processing becomes chemically and physically stable and remains so during its intended use. Examples of manufactured products include wallboard, ceiling tile, plywood, lumber, office furniture, containers, and bricks. Items that are not considered manufactured products include materials used in bulk in direct contact with the environment such as

flowable fill, lightweight fill, clean fill, and aggregate, and materials used in bulk that are intended to be chemically active such as agricultural soil amendments and fertilizers.

Subp. 62b. **Maximum leachable contaminant levels.** "Maximum leachable contaminant levels" means the numerical standards for the levels in leachate of substances listed in part 7035.2885, subpart 5. They are used to determine design and operational requirements which apply to a municipal solid waste combustor ash land disposal facility.

Subp. 63. **Mixed municipal solid waste.** "Mixed municipal solid waste" has the meaning given it in Minnesota Statutes, section 115A.03, subdivision 21.

Subp. 64. **Mixed municipal solid waste land disposal facility.** "Mixed municipal solid waste land disposal facility" means a site used for the disposal of mixed municipal solid waste in or on the land.

Subp. 65. **Monitoring point.** "Monitoring point" means any installation or location used to determine the quality or physical characteristics of ground water, surface water, or water in the unsaturated zone.

Subp. 66. **Monitoring well.** "Monitoring well" has the meaning given it in part 4725.0100, subpart 30a.

Subp. 67. **Municipality.** "Municipality" means a city, village, borough, county, town, sanitary district, or other governmental subdivision or public corporation, or agency created by the legislature.

Subp. 67a. **Municipal solid waste combustor ash.** "Municipal solid waste combustor ash" means ash from combustion of mixed municipal solid waste or refuse-derived fuel at a waste combustor. Municipal solid waste combustor ash does not include ash from waste combustors which accept hazardous waste except in household quantities as allowed by part 7045.0120, item A. Municipal solid waste combustor ash which is managed according to parts 7035.2885 to 7035.2915 is a solid waste, and is not subject to regulation under chapter 7045. Ash from a facility that burns a mixture of mixed municipal solid waste or refuse-derived fuel and infectious waste or other nonhazardous wastes such that 20 percent or more of its heat input is from mixed municipal solid waste or refuse-derived fuel is considered municipal solid waste combustor ash. Ash from a facility that burns a mixture of mixed municipal solid waste or refuse-derived fuel with coal or other fuels is considered municipal solid waste combustor ash if the percentage of mixed municipal solid waste or refuse-derived fuel is such that the facility is considered a waste combustor under applicable state and federal rules and statutes.

Subp. 67b. **Municipal solid waste combustor ash land disposal facility.** "Municipal solid waste combustor ash land disposal facility" means a facility used to dispose of municipal solid waste combustor ash in or on the land.

Subp. 68. **Net income.** "Net income" means revenues minus expenses for an accounting period. It is the net increase (net decrease) in owners' equity (assets minus liabilities) of an enterprise for an accounting period from profit directed activities. It is recognized and measured in conformity with generally accepted accounting principles.

Subp. 69. **Net working capital.** "Net working capital" means current assets minus current liabilities.

Subp. 70. **Net worth.** "Net worth" means total assets minus total liabilities and is equivalent to owners' equity.

Subp. 71. **Open burning.** "Open burning" means burning any matter whereby the resultant combustion products are emitted directly to the open atmosphere without passing through an adequate stack, duct, or chimney.

Subp. 72. **Open dump.** "Open dump" means a land disposal site at which solid waste is disposed of in a manner that does not protect the environment, is susceptible to open burning, and is exposed to the elements, flies, rodents, and scavengers.

Subp. 73. **Operator.** "Operator" means the person or persons responsible for the operation of a facility.

Subp. 74. **Owner or facility owner.** "Owner" or "facility owner" means the person or persons who own a facility or part of a facility.

Subp. 75. **Parent corporation.** "Parent corporation" means a corporation that directly owns at least 50 percent of the voting stock of the corporation that is the facility owner or operator; the latter corporation is deemed a subsidiary of the parent corporation.

Subp. 76. **Permeability.** "Permeability" refers to hydraulic conductivity or coefficient of permeability, not intrinsic permeability, and has the dimensions of distance per unit time. Permeability is the measure of the ability of a soil or rock medium to transmit ground water flowing under a hydraulic gradient of one unit of change in head per unit change in length.

Subp. 77. **Permitted waste boundary.** "Permitted waste boundary" means the perimeter or outer limit of the waste fill, leachate piping, and leachate holding and treatment areas at a solid waste land disposal facility, as specified in the permit for the facility issued by the agency.

Subp. 78. **Person.** "Person" means any human being, any municipality or other governmental or political subdivision or other public agency, any public or private corporation, any partnership, firm, association, or other organization, any receiver, trustee, assignee, agent, or other legal representative of any of the foregoing, or any other legal entity, but does not include the Pollution Control Agency.

Subp. 79. **Personnel; facility personnel.** "Personnel" or "facility personnel" means all persons who work at or oversee the operation of a solid waste management facility, and whose actions or failure to act may result in noncompliance with the requirements of parts 7035.0300 to 7035.2875.

Subp. 79a. **Petroleum contaminated soil.** "Petroleum contaminated soil" has the meaning given it in part 7037.0100, subpart 15.

Subp. 79b. **Petroleum contaminated soil land treatment site.** "Petroleum contaminated soil land treatment site" has the meaning given the term "land treatment site" in part 7037.0100, subpart 8.

Subp. 80. **Piezometer.** "Piezometer" means a type of monitoring well or other device that is constructed for the purpose of measuring hydraulic head in ground water.

Subp. 81. **Pollutant.** "Pollutant" has the meaning given it in Minnesota Statutes, section 115.01, subdivision 12.

Subp. 82. **Postclosure; postclosure care.** "Postclosure" and "postclosure care" mean actions taken for the care, maintenance, and monitoring of a facility after closure that will prevent, mitigate, or minimize the threat to public health and environment posed by the closed facility.

Subp. 83. **Postclosure care plan.** "Postclosure care plan" means the plan for postclosure care prepared in accordance with part 7035.2645.

Subp. 84. **Process to further reduce pathogens.** "Process to further reduce pathogens" means high temperature composting, heat drying, heat treatment, thermophilic aerobic digestion, or other methods that will achieve similar levels of pathogen reduction.

Subp. 85. **Property boundary.** "Property boundary" means the line circumscribing parcels of land entirely enclosing the facility.

Subp. 86. **Public water supply.** "Public water supply" has the meaning given in part 4720.0100.

Subp. 87. **Radioactive waste.** "Radioactive waste" has the meaning given it in Minnesota Statutes, section 116C.71, subdivision 6.

Subp. 87a. **Recyclable materials.** "Recyclable materials" refers to marketable materials that are separated from mixed municipal solid waste for the purpose of recycling, including paper, glass, plastics, metals, automobile oil, and batteries. Refuse-derived fuel

or other material that is destroyed by incineration is not a recyclable material. For purposes of part 7035.2860, recyclable materials also refers to marketable materials separated from industrial solid wastes and construction and demolition debris. Recyclable materials may also be referred to as secondary materials.

Subp. 87b. **Recycling.** "Recycling" means the process of collecting and preparing recyclable materials and reusing the materials in their original form or using them in manufacturing processes that do not cause the destruction of recyclable materials in a manner that precludes further use.

Subp. 88. **Recycling facility.** "Recycling facility" means a facility where only recyclable materials are received and prepared for reuse in their original form or for use in manufacturing processes that do not cause the destruction of the materials in a manner that precludes further use. The recyclable materials must:

- A. fit the definition of mixed municipal solid waste prior to separation for recycling;
- B. not include items which have been prohibited by state law from disposal or placement in mixed municipal solid waste, unless approved by the commissioner;
- C. have been separated from other mixed municipal solid waste by the generator prior to collection; and
- D. not be hazardous as defined in chapter 7045, except for household hazardous waste. Recyclable materials that are defined as household hazardous waste in part 7045.0131, subpart 1, and Minnesota Statutes, section 115A.96, subdivision 1, paragraphs (a) and (b), may be accepted at the facility for recycling if they are managed in accordance with part 7045.0310.

"Recycling facility" does not include an individual generator of recyclable materials, such as a homeowner, a business, or a government agency, and it does not include a manufacturer using recyclable materials as feedstock.

Subp. 89. **Refuse.** "Refuse" means putrescible and nonputrescible solid wastes, including garbage, rubbish, ashes, incinerator ash, incinerator residue, waste combustor ash, street cleanings, and market and industrial solid wastes, and including municipal treatment wastes which do not contain free moisture.

Subp. 90. **Refuse collection service.** "Refuse collection service" means a public or private operation engaged in solid waste collection and solid waste transportation.

Subp. 91. **Refuse-derived fuel.** "Refuse-derived fuel" means the product resulting from techniques or processes used to prepare solid waste by shredding, sorting, or compacting for use as an energy source.

Subp. 92. **Regional flood.** "Regional flood" has the meaning given it in Minnesota Statutes, section 103F.111, subdivision 10.

Subp. 93. **Release.** "Release" has the meaning given it in Minnesota Statutes, section 115B.02, subdivision 15.

Subp. 93a. **Rolling data set.** "Rolling data set" means a set of data, such as test results, which represents a specified period of time; at a specified frequency the data set changes to include more recent data and exclude data which are older than the beginning of the specified time period.

Subp. 94. **Rubbish.** "Rubbish" means nonputrescible solid wastes, including ashes, consisting of both combustible and noncombustible wastes, such as paper, cardboard, tin cans, yard clippings, wood, glass, bedding, crockery, or litter of any kind.

Subp. 95. **Run-off.** "Run-off" means any liquid that drains over land from any part of a facility.

Subp. 96. **Run-on.** "Run-on" means any liquid that drains over land onto any part of a facility.

Subp. 96a. **Segregated household hazardous waste.** "Segregated household hazardous waste" means household hazardous waste that is separated from other solid waste or arrives at a solid waste management facility separated from other solid waste.

Subp. 97. **Septage.**"Septage" has the meaning given it in part 7080.0020, subpart 31.

Subp. 98. **Sewage sludge.**"Sewage sludge" has the meaning given it in Minnesota Statutes, section 115A.03, subdivision 29.

Subp. 99. **Sludge.** "Sludge" has the meaning given it in Minnesota Statutes, section 116.06, subdivision 21.

Subp. 100. **Solid waste.** "Solid waste" means garbage, refuse, sludge from a water supply treatment plant or air contaminant treatment facility, and other discarded waste materials and sludges, in solid, semisolid, liquid, or contained gaseous form, resulting from industrial, commercial, mining and agricultural operations, and from community activities, but does not include hazardous waste; animal waste used as fertilizer; earthen fill, boulders, rock; sewage sludge; solid or dissolved material in domestic sewage or other common pollutants in water resources, such as silt, dissolved or suspended solids in industrial waste water effluents or discharges which are point sources subject to permits under section 402 of the Federal Water Pollution Control Act, as amended, dissolved materials in irrigation return flows; or source, special nuclear, or by-product material as defined by The Atomic Energy Act of 1954, as amended.

Subp. 101. **Solid waste collection.** "Solid waste collection" means the gathering of solid waste from public or private places.

Subp. 102. **Solid waste land disposal facility.** "Solid waste land disposal facility" means a facility used to dispose of solid waste in or on the land.

Subp. 103. **Solid waste management facility.** "Solid waste management facility" means a facility for the storage, collection, transportation, processing or reuse, conversion, or disposal of solid waste.

Subp. 104. **Solid waste storage.** "Solid waste storage" means the holding of solid waste for more than 48 hours in quantities equal to or greater than ten cubic yards.

Subp. 105. **Solid waste transportation.** "Solid waste transportation" means the conveying of solid waste from one place to another, by means of vehicle, rail car, water vessel, conveyor, or other means.

Subp. 106. **Stabilization test.** "Stabilization test" refers to a series of physical or chemical measurements taken during the pumping of a monitoring well at single well-volume intervals to determine the point at which stagnant water within the monitoring well has been removed.

Subp. 107. **State.** "State" means the state of Minnesota.

Subp. 108. **Sum of the current cost estimates.** "Sum of the current cost estimates" means the sum of the current cost estimates for closure, postclosure care, and corrective actions.

Subp. 109. **Surface water compliance boundary.** "Surface water compliance boundary" means the designated vertical plane located between a solid waste management facility and a surface water body at which compliance with agency standards to protect surface water is measured.

Subp. 110. **Tangible net worth.** "Tangible net worth" means the assets that remain after deducting liabilities, not including intangible assets such as good will and rights to patents or royalties.

Subp. 110a. **Tipping floor.** "Tipping floor" means an area onto which solid waste is unloaded and staged for reloading into processing equipment or transport vehicles, or for removal of recyclable materials. Tipping floor includes containers or trucks when used to consolidate waste for future transport.

Subp. 111. **Transfer facility.** "Transfer facility" means a facility in which solid waste from collection vehicles is compacted or rearranged for subsequent transport. A transfer facility may be fixed or mobile.

Subp. 111a. **Treatment.** "Treatment" means the physical or chemical change of a waste for the purpose of reducing or controlling pollution or the release of contaminants into the environment.

Subp. 111b. **Unadulterated wood.** "Unadulterated wood" means wood that does not contain contaminants present as a result of manufacturing or use of the wood. Examples of contaminants include paints, varnishes, stains, glues, resins, or chemicals used to prevent rotting.

Subp. 112. **Waste.** "Waste" has the meaning given it in Minnesota Statutes, section 115A.03, subdivision 34.

Subp. 113. **Waste boundary.** "Waste boundary" means the perimeter around the area permitted for filling with waste at a disposal facility.

Subp. 114. **Waste by-products.** "Waste by-products" means the liquids or gases or other residues resulting from waste disposal, processing, or treatment activities.

Subp. 115. **Waste collection service.** "Waste collection service" means a public or private operation engaged in solid waste collection and transportation.

Subp. 115a. **Waste combustor.** "Waste combustor" means any stationary source, emissions unit, or emission facility where waste or refuse-derived fuel is combusted, and includes incinerators, energy recovery facilities, or other combustion devices.

Subp. 116. **Waste containment system.** "Waste containment system" means the system used to control the movement of solid waste, gas, and leachate generated from the solid waste disposed of at a land disposal facility.

Subp. 117. **Water monitoring system.** "Water monitoring system" means a system of monitoring points in the vicinity of a facility that is used to determine the quality or physical characteristics of ground water, surface water, and water in the unsaturated zone.

Subp. 118. **Water table.** "Water table" means the surface of the ground water at which the pressure is atmospheric. Generally this is the top of the saturated zone.

Subp. 119. **Wetland.** "Wetland" means a surface water feature classified as a wetland in the publication entitled "Classification of Wetlands and Deep Water Habitats of the United States," written and published by the United States Fish and Wildlife Service Biological Services Program, FWS 035-71/31, December 1979, which is incorporated by reference. The publication is not subject to frequent change.

Subp. 120. **Working face.** "Working face" means that portion of the land disposal facility where waste is discharged and is spread and compacted prior to the placement of cover material.

Subp. 121. **Yard waste.** "Yard waste" means the garden wastes, leaves, lawn cuttings, weeds, and prunings generated at residential or commercial properties.

Statutory Authority: *MS s 115.03; 115A.97; 116.07*

History: *L 1987 c 186 s 15; 13 SR 1150; 15 SR 2106; 16 SR 2321; 17 SR 1279; 17 SR 2914; 19 SR 2330; 28 SR 1086; 30 SR 529*

7035.0350 SOLID WASTE MANAGEMENT HIERARCHY.

The waste management goal of the state is to foster an integrated waste management system in a manner appropriate to the characteristics of the waste stream and thereby protect the state's land, air, water, and other natural resources and the public health. The agency supports the management of solid waste in accordance with the goals stated in Minnesota Statutes, section 115A.02, paragraph (a), which emphasize reducing toxicity and volume of wastes. In recognition that wastes may have value and should be viewed as a resource, the goal of solid waste management should be to use wastes for their highest and best value

and to dispose of them only after other feasible options have been evaluated or for environmental protection.

Statutory Authority: *MS s 116.07*

History: *28 SR 1086*

7035.0400 GENERAL REQUIREMENTS.

Subpart 1. **General.** All solid waste must be stored, collected, transferred, transported, used, processed, and disposed of, or reclaimed in a manner consistent with requirements of parts 7035.0300 to 7035.2915, except that:

A. petroleum contaminated soil stored or land treated at a petroleum contaminated soil land treatment site must be managed under chapter 7037; and

B. the commissioner may grant an exemption from this chapter to expedite the proper management of solid waste and to prevent, abate, or control pollution if the commissioner determines that such an exemption is necessary as an immediate response to an emergency.

Subp. 2. **State and local responsibilities.** The agency is responsible for enforcement of this chapter and encourages cooperation of local units of government which may adopt this chapter for use in local laws, ordinances, or regulations. Local units of government may adopt additional restrictions in accordance with local solid waste plans or other authority.

Statutory Authority: *MS s 115.03; 115A.97; 116.07*

History: *13 SR 1150; 16 SR 2321; 17 SR 2914; 28 SR 1086*

7035.0450 DEMONSTRATION/RESEARCH PROJECTS.

Subpart 1. **General.** This part establishes regulatory oversight for demonstration/research projects. If a demonstration/research project receives approval under this part, the commissioner may, as part of that approval, allow noncompliance with permit and rule conditions on a temporary basis to allow collection of information and data. However, the commissioner shall not allow noncompliance with federal standards contained in Code of Federal Regulations, title 40, part 258, unless allowed under federal law and in accordance with procedures provided by federal law. Commissioner approval or completion of a demonstration/research project does not obligate the agency to change rules, grant variances, issue or change permit conditions, make beneficial use determinations, or take any other action.

Subp. 2. **Information submittal.** A proposal for a demonstration/research project must be submitted to the agency for review and receive written approval prior to its initiation. At a minimum, the following items must be addressed in any proposal submitted for review and approval:

A. detailed descriptions of the solid waste, the manner in which it is generated, and the solid waste management technology or process to be evaluated;

B. results of appropriate chemical and physical characterization of the solid waste done in accordance with part 7035.2861;

C. goals and objectives of the demonstration/research project;

D. scope of the demonstration/research project including length of time from the beginning of the project to completion, location, and quantity of solid waste involved;

E. an outline of information that will be contained in a final report prepared at the end of the demonstration/research project;

F. review of literature related to the project;

G. experimental design;

H. proposed monitoring;

I. evaluation of possible environmental impacts from the demonstration/research project and a description of safeguards proposed to protect human health and the environment during the project and after its completion;

J. verification that local units of government have been notified in writing of the intent to carry out the demonstration/research project within their jurisdiction and have been provided information on whom to contact at the agency to provide comments on the project if desired;

K. verification that residents within a one-mile radius of the demonstration/research project have been notified prior to submitting the proposal to the agency. The verification must consist of a copy of a notice placed in the local paper or a copy of any letter mailed to these residents. The notice or letter must include a brief description of the demonstration/research project and information on how to contact the agency to provide input or comments on the project; and

L. when applicable, information required by Code of Federal Regulations, title 40, part 258, for a research, development, and demonstration permit.

Subp. 3. **Agency actions and approval.** Upon completing review of the proposal, the agency shall accept or reject the proposal based on the project's potential to impact human health and the environment and whether the project will result in development of useful information related to solid waste management. The agency shall give priority to proposals that have the potential to prevent pollution or that reduce or utilize solid wastes.

Upon agency approval of a demonstration/research project, the agency shall take one of the following actions:

A. issue a permit in accordance with chapters 7001 and 7035 and Code of Federal Regulations, title 40, part 258; or

B. prepare an agreement that must be signed by the proposer before the project may be initiated. The agreement must contain requirements including the following items:

- (1) length of time the activity can take place;
- (2) maximum quantities of solid waste involved;
- (3) incorporation of proposal elements by reference; and
- (4) any other requirements the agency determines are necessary to ensure

that the demonstration/research project does not cause harm to human health or the environment.

The signed agreement is legally binding and provides the agency with the authority to enforce its conditions. Violations of the agreement may result in termination of the agreement and possible enforcement action.

Subp. 4. **Termination.** A demonstration/research project or agreement may be terminated by actions of the agency or the parties responsible for the project.

A. The agency may terminate a signed agreement for one of the following reasons:

- (1) the agency discovers that terms of the agreement are not being met;
- (2) the agency determines that the project is not generating useful information; or

(3) there is evidence that allowing the project to continue would pose risks to human health or the environment.

B. If the demonstration/research project is terminated by the parties responsible for conducting the project prior to its completion for any reason, the agency must be notified in writing immediately.

C. If an agreement is terminated, the project must be discontinued until a solid waste permit or variance from the solid waste management rules is obtained.

Subp. 5. **Reporting.** Within six months after completion of the demonstration/research project, the final report as outlined in subpart 2, item E, must be submitted to the

agency. In addition, more frequent reporting may be specified as a condition of an agreement or permit and must be submitted in accordance with the signed agreement or permit.

Statutory Authority: *MS s 116.07*

History: *28 SR 1086*

7035.0500 [Repealed, 13 SR 1150]

7035.0600 VARIANCES.

Any person who applies for a variance from any requirement of parts 7035.0300 to 7035.2915 shall comply with part 7000.7000. An application for a variance must be acted upon by the agency according to Minnesota Statutes, section 116.07, subdivision 5, and part 7000.7000. However, no variance may be granted that would result in noncompliance with applicable federal rules and regulations for solid waste.

Statutory Authority: *MS s 115.03; 115A.97; 116.07*

History: *13 SR 1150; 16 SR 2321; 19 SR 1310*

7035.0605 AVAILABILITY OF REFERENCES.

The documents needed for analyzing and classifying soils as required in parts 7035.0300 to 7035.2915 may be obtained by contacting the Engineering Library of the University of Minnesota, through the Minitex interlibrary loan system, and requesting the standards from the American Society for Testing and Material, in the Annual Book of ASTM Standards, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.

The publication for classification of wetlands, titled "Classification of Wetlands and Deep Water Habitats of the United States," may be obtained through the Minitex interlibrary loan system or by requesting the publication from the Superintendent of Documents, United States Government Printing Office, Washington, D.C. 20402.

Test Methods for Evaluating Solid Waste, EPA SW-846, Third Edition, November 1986, issued by the United States Environmental Protection Agency (EPA), is incorporated by reference. Sections of this document which are directly relevant to parts 7035.2885 to 7035.2915 are available through the Minitex interlibrary loan system. The entire document is available from EPA Environmental Monitoring and Support Laboratory, Cincinnati, Ohio, 45268. It is not subject to frequent change.

The document Standard Number 54: Flexible Membrane Liners, May 1990, issued by the National Sanitation Foundation, is incorporated by reference. It is available through the Minitex interlibrary loan system. It is not subject to frequent change.

EPA Document 600/4-79-020 Methods for Chemical Analyses of Water and Wastes, appearing in Code of Federal Regulations, title 40, part 136, 1990, is incorporated by reference. The document is available through the Minitex interlibrary loan system and EPA Environmental Monitoring and Support Laboratory, Cincinnati, Ohio, 45268. It is not subject to frequent change.

EPA Method 1312: the Synthetic Precipitation Leach Test for Soils (draft document, no date available) is incorporated by reference. The method is available through the Minitex interlibrary loan system. A copy of the method may also be obtained from the commissioner. The draft method is not subject to frequent change.

EPA Method 8290, November 1990, is incorporated by reference. The method is available through the Minitex interlibrary loan system and EPA Office of Solid Waste, Characterization and Assessment Division, Technical Assessment Branch, OS-331, Washington, D.C., 20460. The method is not subject to frequent change.

American Society for Testing and Materials (ASTM) Methods D3173 and D3174 are incorporated by reference. These methods are published in the Annual Book of ASTM Standards: Part 26, Gaseous Fuels; Coal and Coke; Atmospheric Analysis, 1981 Edition.

This publication is available through the Minitex interlibrary loan system. The methods are not subject to frequent change.

Statutory Authority: *MS s 115.03; 115A.97; 116.07*

History: *13 SR 1150; 16 SR 2321*

INDIVIDUAL PROPERTIES

7035.0700 STORAGE OF SOLID WASTE AT INDIVIDUAL PROPERTIES.

Subpart 1. **Owner's or occupant's duty.** The owner and occupant of any premises, business establishment, or industry is responsible for the satisfactory storage of all solid waste accumulated at that premise, business establishment, or industry.

Subp. 2. **Garbage.** Garbage and similar putrescible waste must be stored in:

A. durable, rust resistant, nonabsorbent, watertight, rodent proof, and easily cleanable containers, with close fitting, fly-tight covers and having adequate handles or bails to facilitate handling; or

B. other types of containers acceptable to the municipality and conforming to the intent of this part; and

C. the size and allowable weight of the containers may be determined by the refuse collection service subject to requirements of the municipality.

Subp. 3. **Refuse.** Refuse must be stored in durable containers or as otherwise provided in this part. Where garbage and similar putrescible wastes are stored in combination with nonputrescible refuse, containers for the storage of the mixture must meet the requirements for garbage containers in subpart 2.

Subp. 4. **Containers.** All containers for the storage of solid waste must be maintained in such a manner as to prevent the creation of a nuisance or menace to public health. Containers that are broken or otherwise fail to meet requirements of this part must be replaced with acceptable containers.

Subp. 5. **Oversize waste.** Solid waste objects or materials too large or otherwise unsuitable for storage containers must be stored in a pollution and nuisance free manner and in compliance with the regulations of federal, state, and local governments, and their regulatory agencies.

Subp. 6. **Municipal solid waste combustor ash.** Municipal solid waste combustor ash must be stored in a manner which minimizes the emission of fugitive dust and escape of liquid which has been in contact with ash. Liquid that drains from the ash must be collected and reused at the facility, unless the commissioner finds that reuse of the liquid is not feasible based on the design of the facility, in which case the commissioner may approve another management method. Floor or surface drains serving ash collection, storage, and handling areas must not be connected to uncontaminated storm water runoff drains. Except for ash samples collected and stored according to part 7035.2910, a municipal solid waste combustor may not store ash for more than five calendar days after the date the ash was generated. The maximum amount of ash stored at the facility must not exceed five days of daily production. The commissioner shall approve storage of a larger quantity of ash or storage for a longer period of time if the waste is kept in a contained area meeting the requirements of a solid waste storage facility under part 7035.2885.

Statutory Authority: *MS s 115.03; 115A.97; 116.07*

History: *13 SR 1150; 16 SR 2321*

7035.0800 COLLECTION AND TRANSPORTATION OF SOLID WASTE.

Subpart 1. **Owner's or occupant's duty.** The owner and occupant of any premises, business establishment, or industry and/or the refuse collection service are responsible for the satisfactory collection and transportation of all solid waste accumulated at a premise, business establishment, or industry to a solid waste disposal, transfer, or processing facility that is authorized to accept the waste.

Subp. 2. **Containers or vehicles.** Vehicles or containers used for the collection and transportation of garbage and similar putrescible wastes, or refuse containing such materials, must be covered, leakproof, durable, and of easily cleanable construction. They must be cleaned to prevent nuisances, pollution, or insect breeding, and must be maintained in good repair.

Vehicles or containers used for the transportation of municipal solid waste combustor ash must be covered to prevent fugitive dust emissions and constructed to prevent leaking of fluid which has been in contact with ash.

Subp. 3. **Spills.** Vehicles or containers used for the collection and transportation of any solid waste must be loaded and moved in a manner that does not allow the contents to fall, leak, or spill therefrom, and must be covered when necessary to prevent blowing of material. Where spillage does occur, the material must be picked up immediately by the collector or transporter and returned to the vehicle or container and the area properly cleaned.

Statutory Authority: *MS s 115.03; 115A.97; 116.07*

History: *13 SR 1150; 16 SR 2321; 30 SR 529*

7035.0805 RENOVATION AND DEMOLITION.

Subpart 1. **Scope.** This part applies to persons engaged in the renovation, moving, and demolition of structures, or portions of structures, including demolition by burning for the purpose of disposal, where authorized by law, or fire training. The purpose of this part is to ensure that hazardous materials or items present in structures are removed prior to the commencement of renovation or demolition and that the hazardous materials or items generated as a result are properly characterized and disposed of or recycled.

Subp. 2. **Definitions.** For purposes of this part:

A. "Commencement of renovation or demolition" means to take any action that results in the physical alteration of the interior or exterior of a structure for the purpose of renovating or removing the structure, and includes alteration or removal of walls, ceilings, floors, or roofs or associated structural components such as porches and garages. Physical alterations necessary to comply with this part, for example, removal of a wall as needed to remove a hydraulic oil tank, do not constitute commencement of renovation or demolition, provided that the physical alteration does not result in the disturbance of items listed in subpart 5 other than the targeted item. Actions that do not result in physical alteration of the structure, such as grubbing or removal of sidewalks, parking surfaces, or uncontaminated soil, do not constitute commencement of renovation or demolition.

B. "Structures" includes buildings used or formerly used for residential, recreational, governmental, agricultural, commercial, or industrial purposes and other buildings of a relatively permanent nature such that they may contain fixtures and devices associated with electrical, plumbing, heating, cooling, safety, or lighting systems.

Subp. 3. **Removal requirements.** The owner, person authorizing the renovation or demolition, and person conducting the renovation or demolition shall ensure that the items and materials listed in subpart 5 are removed from the structure being demolished or from the portion of the structure being renovated prior to the commencement of renovation or demolition.

Subp. 4. **NESHAP facilities.**

A. For persons conducting demolition of a facility, as defined under Code of Federal Regulations, title 40, section 61.141, and regulated under part 7011.9920, the items and materials must be removed two working days prior to the start date identified on the most recently submitted ten working day notification form submitted as required under Code of Federal Regulations, title 40, section 61.145, paragraph (b).

B. For purposes of this subpart, "working days" means Monday through Friday and includes holidays that fall on any of the days Monday through Friday.

Subp. 5. **All items and materials to be removed before renovation and demolition.** All items and materials removed must be properly characterized, tested, managed, and disposed of and reused or recycled in accordance with applicable standards. The following items and materials must be removed prior to the commencement of renovation or demolition:

A. mixed municipal solid waste, including furniture, carpeting unattached to the substrate, bedding, mattresses, clothing, small appliances, food, and food waste;

B. household hazardous waste as defined in Minnesota Statutes, section 115A.96, subdivision 1, including automotive fluids, lawn and garden chemicals, pest control products, household cleaners, paint, and home improvement products;

C. materials that constitute industrial solid waste or hazardous waste;

D. waste tires as defined in Minnesota Statutes, section 115A.90, subdivision 11;

E. appliances that meet the definition of "major appliances" in Minnesota Statutes, section 115A.03, subdivision 17a;

F. items that contain elemental mercury, including:

(1) batteries found in smoke detectors, emergency lighting systems, elevator control panels, exit signs, and security systems and alarms;

(2) lighting, including fluorescent lights and high intensity discharge lights, such as metal halide, high pressure sodium, mercury vapor, and neon;

(3) switches;

(4) thermostats and similar devices, including aquastats, pressurestats, firestats, manometers, and thermometers;

(5) devices associated with boilers, furnaces, heaters, and tanks, including mercury flame sensors by pilot lights, manometers, thermometers and gauges, pressure-trol, float, or level controls, and space heater controls;

(6) devices associated with electrical systems, including load meters and supply relays, phase splitters, microwave relays, and mercury displacement relays; and

(7) miscellaneous devices that may contain mercury;

G. items that contain polychlorinated biphenyls (PCBs), including transformers, transistors, capacitors in old appliances and electronic equipment, heat transfer equipment, and light ballasts;

H. items that contain chlorofluorocarbons (CFCs) as defined in Minnesota Statutes, section 116.70, subdivision 3, including fire extinguishers; both portable and installed halon suppression systems; rooftop, room, and central air conditioners; walk-in coolers for refrigeration or cold storage areas; water fountains and dehumidifiers; refrigerators, freezers, and chillers; heat pumps; vending machines; and food display cases;

I. oils, including used oil, hydraulic oils in door closers and elevator-related tanks and piping, and oils located in heating oil tanks, piping, sumps, and traps;

J. lead-containing items, including lead-acid batteries, lead pipes, lead sheeting, lead flashing in roof vents, and lead paint that is not firmly adhered to the substrate. For purposes of this item, "lead paint" means a coating that contains one-half of one percent (0.5 percent) or more or 5,000 parts per million (5,000 ppm) or more of total lead by weight in the dried film, as determined by acid digestion and analysis, or contains one milligram per square centimeter (1.0 mg/cm²) or more of lead, as determined by X-ray fluorescence analyzer;

K. electronic products containing a cathode ray tube, as described in Minnesota Statutes, section 115A.9565, including televisions and computers;

L. electronic products containing a circuit board;

M. asbestos that is required to be removed under part 7011.9920;

N. material trapped in sumps and traps, unless characterized as nonhazardous and nonliquid;

O. radioactive waste as defined in Minnesota Statutes, section 116C.71, subdivision 6; and

P. other materials or items that are prohibited from disposal at the facility intended to receive the renovation or demolition waste for processing or disposal.

Subp. 6. Exemption.

A. The requirement to remove items or materials listed in subpart 5 prior to commencement of renovation or demolition does not apply under the following circumstances:

(1) the structure is unsafe to enter as determined by a local government authority;

(2) the items and materials uncovered during the course of renovation or demolition could not have been reasonably identified prior to commencement;

(3) the items or materials that are within components of the structure, such as elevators, vertical lifts, or lighting, that are being used during the course of renovation or demolition, provided that the items or materials are removed after use of the component is no longer required for renovation or demolition work; or

(4) the items or materials cannot be removed in a timely manner due to the fact that the demolition or renovation is being performed in response to an emergency maintenance situation. For purposes of this subpart, an "emergency maintenance situation" means demolition or renovation that is necessary due to a sudden and unexpected event, such as an equipment failure, that if not immediately attended to presents a safety or health hazard or is necessary to protect the structure or items within the structure from costly damage.

B. If the removal of hazardous materials or items is not required as provided under this subpart, the owner, person who will authorize renovation or demolition, and person who will conduct the renovation or demolition must comply with the requirements of this part by removing the items and materials listed in subpart 5 that are accessible before or after renovation or demolition.

Subp. 7. Duties under other law. Other federal and state laws establish requirements for the management of asbestos, CFCs, tank systems, and waste, and other federal, state, and local laws establish requirements governing noise, air emissions, storm water controls, and worker safety. Nothing in this part shall be construed as relieving any person from the duty to comply with any applicable federal, state, or local requirement. In particular, nothing in this part shall be construed as relieving any person of requirements under state or federal law governing inspection and removal of regulated asbestos-containing materials. Nothing in this part shall be construed as relieving any person of duties related to the proper management of solid or hazardous waste or CFCs. Nothing in this part shall be construed as relieving any person of duties related to the prevention of fugitive emissions.

Subp. 8. Debris characterization. If the owner, person authorizing renovation or demolition, or person conducting the renovation or demolition knows or has reason to know that portions of the structure may be contaminated by hazardous substances or petroleum as defined in Minnesota Statutes, section 115C.02, subdivision 10, based on past uses of the structure, such as a medical building, laboratory, or manufacturing facility, the owner, person authorizing renovation or demolition, or person conducting the renovation or demolition shall, prior to the commencement of renovation or demolition, obtain appropriate samples and receive results from laboratory analysis as necessary to ensure the proper management and disposal of contaminated structural elements and any resulting debris generated.

Subp. 9. Stop work order. If conditions exist that pose an imminent and substantial danger to the health and welfare of the people of the state, or any of them, as a result of the failure to comply with this part, the agency reserves the right to issue an emergency order to direct the immediate discontinuance of the renovation or demolition or the abatement

7035.0805 SOLID WASTE

586

of the pollution without notice and without a hearing as provided in Minnesota Statutes, section 116.11.

Statutory Authority: *MS s 116.07*

History: *33 SR 2124*

7035.0900 [Repealed, 13 SR 1150]

7035.1000 [Repealed, 13 SR 1150]

7035.1100 [Renumbered 9215.0100]

7035.1101 [Renumbered 9215.0110]

7035.1102 [Renumbered 9215.0120]

7035.1103 [Renumbered 9215.0130]

7035.1104 [Renumbered 9215.0140]

7035.1105 [Renumbered 9215.0150]

7035.1106 [Renumbered 9215.0160]

7035.1107 [Renumbered 9215.0170]

7035.1108 [Renumbered 9215.0180]

7035.1109 [Renumbered 9215.0190]

7035.1110 [Renumbered 9215.0200]

7035.1111 [Renumbered 9215.0210]

7035.1112 [Renumbered 9215.0220]

7035.1113 [Renumbered 9215.0230]

7035.1114 [Renumbered 9215.0240]

7035.1115 [Renumbered 9215.0250]

7035.1500 [Repealed, 13 SR 1150]

INDUSTRIAL SOLID WASTE LAND DISPOSAL FACILITIES**7035.1590 INDUSTRIAL SOLID WASTE LAND DISPOSAL FACILITY DESIGN.**

The owner or operator of an industrial solid waste land disposal facility must design, construct, and operate the facility in accordance with parts 7035.1590 to 7035.2500, and an agency-issued permit. If the owner or operator determines that the requirements of parts 7035.1590 to 7035.2500 do not apply, the owner or operator shall submit to the agency for approval documentation supporting the owner's or operator's determination. The agency's approval or disapproval of the owner's or operator's determination will be based on the hydrogeologic setting, waste characteristics, fill size, soil conditions, operating practices, and the potential for harm to human health or the environment.

Statutory Authority: *MS s 115.03; 116.07*

History: *13 SR 1150*

7035.1600 PROHIBITED AREAS FOR INDUSTRIAL SOLID WASTE LAND DISPOSAL FACILITIES.

The fill and trench areas of industrial solid waste land disposal facilities are prohibited within the following areas:

- A. 1,000 feet from the normal high water mark of a lake, pond, or flowage;
- B. 300 feet from a stream;

- C. a regional floodplain;
- D. wetlands;
- E. within 1,000 feet of the nearest edge of the right-of-way of any state, federal, or interstate highway or of the boundary of a public park or of an occupied dwelling. Permission may be granted under this item, without these distance requirements, at the discretion of the commissioner, taking into consideration such factors as noise, dust, litter, and other aesthetic and environmental considerations;
- F. locations considered hazardous because of the proximity of airports; and
- G. an area which is unsuitable because of topography, geology, hydrology, or soils.

Statutory Authority: *MS s 115.03; 116.07*

History: *L 1987 c 186 s 1; 13 SR 1150*

7035.1700 REQUIRED PRACTICES FOR MAINTENANCE AND OPERATION OF INDUSTRIAL SOLID WASTE LAND DISPOSAL FACILITIES.

Any person who maintains or operates an industrial solid waste land disposal facility or permits the use of property for such a facility, must maintain and operate the facility in conformance with the following practices unless otherwise allowed by the agency in issuing the required permit:

- A. Open burning is prohibited.
- B. Industrial solid waste must not be deposited in a manner that allows material or leachings therefrom to cause pollution of ground water or surface water.

Proposed separation between the lowest portion of the facility and the high water table elevation must be a minimum of five feet. This requirement does not render inoperative any other requirements specified herein and additional ground water protection must be provided.

C. Dumping of industrial solid waste must be limited to as small an area as practicable and with appropriate facilities to confine wind-blown material within the area. At the conclusion of each day of operation, all wind-blown material resulting from the operation must be collected and returned to the area by the owner or operator.

D. Industrial solid waste must be compacted as densely as practicable and covered after each day of operation, or as specified by the commissioner, with a compacted layer of at least six inches of suitable cover material. All previously filled areas must be maintained with at least six inches of suitable cover material.

If disposal areas will be exposed to the elements for a period of 120 days or longer, an intermediate cover totaling at least 12 inches of compacted, suitable cover material must be provided and maintained.

There must be an available supply of suitable cover material, which, if necessary, must be stockpiled and protected to allow for compliance with the requirements contained in item D including during periods of inclement weather or winter operation.

The industrial solid waste land disposal facility must be constructed and cover material graded to promote surface water runoff without excessive erosion.

E. Surface water drainage must be diverted around and away from the facility operating area.

F. A minimum separation distance of 20 feet, or greater as specified by the commissioner, must be maintained between the disposal operation and the adjacent property line.

G. Effective means must be taken if necessary to control flies, rodents, and other insects or vermin.

H. The approach road to the disposal site and the access road on the site must be of all-weather construction and maintained in good condition so that they will be passable at all times for any vehicle using the site.

I. Adequate dust control on the site must be provided.

J. Equipment must be available for adequate operation of the site. The equipment must be provided with adequate safety devices and adequate noise control devices.

K. Equipment must be provided and kept at the site during the hours of operation to control accidental fires and arrangements must be made with the local fire protection agency to immediately acquire their services when needed.

L. Adequate communication facilities must be provided for emergency purposes.

M. Sanitary facilities and shelter must be available for site personnel.

N. Scavenging must be prohibited to avoid injury and prevent interference with operations.

O. The site must be adequately screened by existing or provided means.

P. A certified operator must be present at the facility at all times while it is open for use.

Q. Access to the site must be controlled. A gate must be provided at the entrance to the site and kept locked when an attendant is not on duty.

R. A permanent sign, identifying the operation and showing the permit number of the site, and indicating the hours and days the site is open for use, rates, the penalty for nonconforming dumping, and other pertinent information, must be posted at the site entrance.

S. A water monitoring program must be constructed and operated to determine whether industrial solid waste or leachate therefrom is causing pollution of ground water or surface water. The drilling and construction of all site wells, including those used for monitoring purposes, must be done in compliance with chapter 4725.

The conditions of monitoring, including the frequency and the analysis of water monitoring samples, must be determined by the commissioner and may be changed at the commissioner's discretion.

T. Approved leachate collection and treatment systems must be used where required to protect ground water and surface water.

U. Decomposition gases must not be allowed to migrate laterally from the facility. They must be vented into the atmosphere directly through the cover material, or into cutoff trenches, or into the atmosphere by forced ventilation, or by other means approved by the commissioner so that explosive concentrations are prevented.

V. The following are not acceptable for deposit in industrial solid waste land disposal facilities except as approved by the commissioner:

(1) Liquids;

(2) Any of the following: digested sewage sludges, lime sludges, grit chamber cleanings, bar screenings, and other sludges, unless approved by the commissioner. Approval will be based on consideration of such factors as chemical composition, free moisture content, and workability;

(3) In no case will infectious waste, raw sewage sludge, raw animal manure, or septic tank pumpings be acceptable; or

(4) Other substances that may be deemed unacceptable by the agency.

W. When disposed of at an industrial solid waste land disposal facility, certain demolition and construction type wastes may be disposed of in a separate area, as specified by the commissioner.

X. The permittee must properly complete the agency operational report form and submit it monthly to the agency, whether or not the permitted facility is yet constructed or whether or not it is in operation.

Y. Within one month after final termination of a site, or a major part thereof, the area must be covered with at least two feet of compacted earth material, graded to a minimum two percent slope to promote surface water runoff without excessive erosion.

The finished surface of the filled area must be covered and maintained with adequate top soil and seeded to provide suitable vegetation immediately upon completion, or immediately in the spring on areas terminated during winter conditions. If necessary, seeded slopes must be covered with straw or similar material to prevent erosion.

Prior to completion of an industrial solid waste land disposal facility, the agency must be notified in order that a site investigation may be conducted by the agency staff before earth moving equipment is removed from the property.

After completion of an industrial solid waste land disposal facility, a detailed description, including a plat, must be recorded with the county recorder. The description must include general types and location of wastes, depth of fill, and other information of interest to future land owners.

If the completed site is to be cultivated, the integrity of the finished surface must not be disturbed by agricultural cultivation activities. If cultivated, a sufficient depth of cover material to allow cultivation and to support vegetation must be maintained.

Statutory Authority: *MS s 115.03; 116.07*

History: *L 1987 c 186 s 15; 13 SR 1150*

7035.1800 PERMIT APPLICATION AND REQUIRED PLANS FOR INDUSTRIAL SOLID WASTE LAND DISPOSAL FACILITIES.

Plans, including a permit application, report, and drawings must be prepared by a registered engineer of Minnesota. Four complete sets of the plans shall be submitted to the agency. The submitted plans must include the following:

- A. A completed permit application form.
- B. An engineering report including:
 - (1) General information;
 - (2) Site analysis including consideration of each item in part 7035.1600 along with data and supplementary reports, including soil boring data and a hydrogeologic study. Attention to this requirement must include consideration of surface features, underground formations, soil boring data from soil borings of which at least one is to a minimum depth of 50 feet below proposed excavation and lowest elevation of the facility, water table profile, direction of ground water flow, initial quality of water resources in the potential zone of influence of the facility, use of water resources in the potential zone of influence of the facility, need and availability of cover material, and existing refuse deposits. Also considered must be climate, average rates of precipitation based on average monthly rates from records of rain gauge stations, evapotranspiration, runoff, and infiltration;
 - (3) Proposed operating procedures including consideration of each item in part 7035.1700;
 - (4) Equipment to be used for operation of the facility.
- C. Drawings, folded to 8-1/2 inch by 11 inch size, including:
 - (1) An existing conditions plan of the area showing land use and zoning within one-fourth mile of the proposed facility boundary. The plan must show all buildings, lakes, ponds, watercourses, wetlands, sinkholes, rock outcroppings, roads, public parks, and other applicable details and shall indicate the general topography with contours and drainage patterns. An on-site bench mark must be indicated and a north arrow drawn. A

location insert map and a U.S.G.S. topographic map of the area must be included. The scale of the existing conditions plan must not be greater than 300 feet per inch;

(2) A development plan of the site and immediately adjacent area showing dimensions, contours, at contour intervals of two feet or less, soil boring locations with surface elevations and present and planned pertinent features, including but not limited to roads, screening, buffer zone, fencing, gate, shelter and equipment buildings, surface water diversion and drainage, and water monitoring system. The development plan must show progressive development of trench and/or area fills and any phase construction. The scale of the development plan must not be greater than 200 feet per inch.

The development plan must include consideration of the ultimate land use, for example, preplanned building islands, not to be used for a disposal area;

(3) Cross sections plan including a minimum of two cross sections of each phase, perpendicular to one another, showing existing grade, excavation grade, final grade, any additional ground water protection, high water table profile and profile of a separation line five feet above, profile and identity of soils, and profile and identity of underlying geology;

(4) An ultimate land use plan showing the land use after the site is completed, final contours, at contour intervals of two feet or less, and surface water drainage. Consideration must be given in the design of an ultimate land use plan to gas control, erosion, and differential settlements. The scale of the ultimate land use plan must not be greater than 200 feet per inch.

Statutory Authority: *MS s 115.03; 116.07*

History: *13 SR 1150*

**7035.1900 BASIC PERMIT, CERTIFICATION, AND COMPLIANCE
REQUIREMENTS FOR INDUSTRIAL SOLID WASTE LAND
DISPOSAL FACILITIES.**

An industrial solid waste land disposal facility must not be opened or placed into operation until:

A. An agency permit has been issued.

B. A construction certification has been approved by the commissioner. The certification, signed by the project engineer, must certify, with any exceptions listed, that the construction has been completed in accordance with the plans and agency permit. The engineer must certify that an agency-approved water monitoring system is functional and include an analysis of background water monitoring samples.

If any construction has been scheduled in the plans for phase development subsequent to the initial operation, then a similar certification must be approved for each phase before it is operated.

C. The facility is consistent with the county solid waste management system plan.

Statutory Authority: *MS s 115.03; 116.07*

History: *L 1987 c 186 s 15; 13 SR 1150*

7035.2000 [Repealed, 13 SR 1150]

7035.2100 [Repealed, 13 SR 1150]

7035.2200 [Repealed, 13 SR 1150]

7035.2300 [Repealed, 13 SR 1150]

7035.2400 [Repealed, 13 SR 1150]

**7035.2500 INDUSTRIAL SOLID WASTE LAND DISPOSAL FACILITY
ABANDONMENT.**

Subpart 1. **Scope.** This part applies to all industrial solid waste land disposal facilities.

Subp. 2. **Duty to close the facility.** The person or persons, as defined in part 7035.0300, having the responsibility for the operation of the facility must accomplish the closure of the facility.

Subp. 3. **Closure procedure.** The closure of the facility must include the following procedures:

- A. Close access to the facility and prohibit waste disposal.
- B. Eradicate rodents.
- C. Provide measures to protect ground water and surface water.
- D. Divert surface water drainage around and away from the disposal area.
- E. Compact the waste and cover with a minimum of two feet of compacted earth material.
- F. Establish and maintain final grade to promote surface water runoff without excessive erosion. Seed to provide suitable vegetation.
- G. Record a detailed description, including a plat, with the county recorder. The description must include general types and location of wastes, depth of fill, and other information of interest to potential land owners.
- H. An authorized official must properly complete the disposal site closure record and submit it to the agency.

Statutory Authority: *MS s 115.03; 116.07*

History: *13 SR 1150*

SOLID WASTE MANAGEMENT FACILITY GENERAL TECHNICAL REQUIREMENTS

7035.2525 SOLID WASTE MANAGEMENT FACILITIES GOVERNED.

Subpart 1. **General requirements.** Parts 7035.2525 to 7035.2915 apply to owners and operators of all facilities that treat, transfer, store, process, or dispose of solid waste except as specifically provided otherwise in this part.

Subp. 2. **Exceptions.** Parts 7035.2525 to 7035.2915 do not apply to the following solid waste management facilities or persons, except as indicated:

- A. backyard compost sites;
- B. recycling facilities in compliance with part 7035.2845 must only comply with parts 7035.2535, subparts 1, 2, and 3, 7035.2545, 7035.2555, 7035.2565, 7035.2595, 7035.2605, and 7035.2625, subparts 1 and 2;
- C. recycling drop-off sheds, divided roll-off boxes, separate dumpsters, and other containers or small structures where recyclable materials that have been separated from mixed municipal solid waste by the generator in order to avoid contaminating the materials or to expedite the collection or processing of them for recycling are collected in total volumes not exceeding 40 cubic yards, at any one time, must only comply with part 7035.2845, subpart 3;
- D. individual generators of recyclable materials, such as homeowners, businesses, and government agencies;
- E. manufacturers using recyclable materials as feedstock;
- F. industrial solid waste land disposal facilities;
- G. solid waste from the extraction, beneficiation, and processing, of ores and minerals stored, collected, transferred, transported, utilized, processed, and disposed of or reclaimed, provided the facility is permitted for such use under part 7001.0020, item D, and chapter 6130;
- H. permit-by-rule transfer facilities in compliance with part 7001.3050, subpart 3, item A, must only comply with parts 7035.2535, subparts 1, 2, 3, 4, items A, B, D, and E,

7035.2525 SOLID WASTE

592

and 5; 7035.2545; 7035.2555; 7035.2565, subparts 1, 3, and 4; 7035.2575, subparts 1 and 2; 7035.2585; 7035.2595; 7035.2605; 7035.2625; 7035.2635; 7035.2855; and 7035.2870, subparts 2 and 5;

I. mobile transfer facilities in compliance with part 7001.3050, subpart 2, item G, must only comply with parts 7035.2535, subpart 1; 7035.2565, subparts 1, 3, and 4; and 7035.2870, subpart 2;

J. temporary community cleanup event transfer facilities in compliance with part 7001.3050, subpart 2, item H, must only comply with parts 7035.2535, subpart 1; 7035.2565, subparts 1, 3, and 4; and 7035.2870, subpart 2; and

K. limited collection transfer facilities in compliance with part 7001.3050, subpart 2, item I, must only comply with parts 7035.2535, subpart 1; 7035.2555; 7035.2565, subparts 1, 3, and 4; and 7035.2870, subpart 2.

Statutory Authority: *MS s 115.03; 115A.97; 116.07*

History: *13 SR 1150; 16 SR 2321; 19 SR 2330; 21 SR 1642; 30 SR 529*

7035.2535 GENERAL SOLID WASTE MANAGEMENT FACILITY REQUIREMENTS.

Subpart 1. **Unacceptable wastes.** The owner or operator of a solid waste management facility must not accept the following wastes for treatment, storage, processing, transfer, or disposal:

A. hazardous wastes, categorized according to Minnesota Statutes, chapters 115B and 116, and Minnesota Rules, chapter 7045, or wastes that have not been evaluated pursuant to parts 7045.0214 to 7045.0217;

B. sewage sludge, septic tank pumpings, sewage sludge compost, or sewage unless treated to meet the Class B pathogen reduction standards of chapter 7041;

C. infectious wastes, unless approved by the agency;

D. used oil, except as provided in subpart 5, item B;

E. radioactive waste;

F. wastes containing free liquids; or

G. free liquids.

Subp. 2. **Required notices.** The owner or operator of a solid waste management facility must notify the agency before transferring ownership or operation of a solid waste management facility during its operating life or during the postclosure care period. The owner or operator must also notify the new owner or operator in writing of the requirements of parts 7035.2525 to 7035.2915 and existing permit conditions. No ownership or operation transfer may occur without a permit modification as required in part 7001.0190, subpart 2. The facility must be in substantial compliance with all agency rules before the agency will approve a transfer.

Subp. 3. **Security.** During the active life of the solid waste management facility, the closure period, and postclosure care period, as required, the owner or operator must prevent, by use of a fence or similar device, the unauthorized entry of persons or livestock onto the facility, unless the owner or operator demonstrates to the commissioner that:

A. physical contact with the waste, structure, or equipment at the facility will not injure unknowing or unauthorized persons or livestock that could enter the facility; and

B. disturbance of the waste or equipment will not cause a violation of parts 7035.2525 to 7035.2915.

Subp. 4. **General inspection requirements.** General inspection requirements include the information required in items A to E.

A. The owner or operator must inspect the facility for malfunctions, deterioration, or discharges that may result in either the release of pollutants to the environment or a threat

to human health. The owner or operator must conduct these inspections according to the schedule developed under item B.

B. The owner or operator must develop and follow a written schedule for inspecting monitoring equipment, safety and emergency equipment, security devices, and operating and structural equipment used to prevent, detect, or respond to environmental or human health hazards. The owner or operator must retain a copy of the schedule at the facility. The schedule must identify the types of problems to look for during the inspection including inoperative sump pumps, damaged well casings, clogged leachate collection systems, eroding dikes, and damaged survey markers.

C. The owner or operator shall submit the inspection schedule with the permit application. The commissioner must evaluate the schedule to ensure that it will result in protection of human health and the environment. The owner or operator must revise the schedule when conditions at the site warrant revisions and whenever the facility design is modified.

D. The owner or operator must remedy any deterioration or malfunction of equipment or structure within two weeks after an inspection, or as approved by the commissioner based on the nature of the problem, availability of materials, and other factors that influence repair efforts.

E. The owner or operator must record inspections in an inspection log or summary and must keep these records for at least five years after the date of inspection. If the owner or operator is involved in an enforcement action, all records must be retained until the action is resolved. The records must include the date and time of the inspection, the name of the inspector, the observations made, and the date and nature of any repairs or other actions taken.

Subp. 5. **Industrial solid waste management.** All industrial solid waste delivered to a solid waste management facility must be managed by the owner or operator to protect human health and the environment. The industrial solid waste management plan required under part 7001.3300 must address items A to C, except that the industrial solid waste management plan for a municipal solid waste combustor ash land disposal facility need not comply with items B and C.

A. The plan must include a discussion of how the owner or operator will manage all industrial solid wastes received at the facility. The owner or operator must specify:

(1) a procedure for notifying industrial solid waste generators of the facility operating requirements and restrictions, including the requirements imposed on haulers serving the facility, the steps required of generators submitting a request for waste management, and the measures to be taken to inform haulers and generators of the facility requirements;

(2) a procedure for evaluating waste characteristics, including the specific analyses that may be required for specific wastes, and the criteria used to determine when analyses are necessary, the frequency of testing, and the analytical methods to be used;

(3) a procedure for managing the waste and for identifying any special management requirements, and the rationale for accepting or rejecting a waste based on its analysis, volume, and characteristics;

(4) a procedure for inspecting industrial solid waste as it is delivered and the rationale for accepting or requiring further information and review of previously approved and unapproved waste as it is delivered.

B. The plan must address how the following categories of waste will be managed to comply with the requirements of item A, subitems (2) to (4):

(1) empty pesticide containers;

(2) asbestos;

- (3) waste containing polychlorinated biphenyls at a concentration less than 50 ppm;
- (4) spilled nonhazardous materials;
- (5) rendering and slaughterhouse wastes;
- (6) wastes that could spontaneously combust or that could ignite other waste because of high temperatures;
- (7) foundry waste;
- (8) ash from incinerators, resource recovery facilities, and power plants;
- (9) paint residues, paint filters, and paint dust;
- (10) sludges, including ink sludges, lime sludge, wood sludge, and paper sludge;
- (11) fiberglass, urethane, polyurethane, and epoxy resin waste;
- (12) spent activated carbon filters; and
- (13) any other wastes that can be identified.

C. The owner or operator must indicate in the plan any wastes in item B or D that will not be accepted at the facility.

D. The owner or operator need not address the following wastes in the plan:

- (1) paper and cardboard wastes from manufacturing processes or packaging;
- (2) food and beverage packaging and handling materials;
- (3) food not containing free liquids;
- (4) aluminum, iron, steel, glass, wood, and hardened, cured plastic waste;
- (5) dewatered sewage sludge that meets the Class B pathogen reduction standards in part 7041.1300, subpart 3;
- (6) compost including sewage sludge compost produced in accordance with part 7035.2836;
- (7) grit and bar screenings from a wastewater treatment plant; and
- (8) ash from boilers and incinerators using only wood as a fuel source.

E. The owner or operator must amend the plan whenever the management practices or wastes identified in items A and B have changed. The owner or operator shall submit the amended plan to the commissioner for approval or disapproval.

Subp. 6. **Household hazardous waste management.** A solid waste management facility operator, not including a transfer facility operator, must develop a plan by June 30, 1992, addressing household hazardous wastes and must include in the plan an explanation of how it will comply with the requirements of items A to C.

A. The facility operator must provide a summary of the approved county plan for household hazardous waste education programs and management and a discussion of how the operator will participate in county activities and coordinate with that plan.

B. The facility operator shall participate with the operator's county in education programs or projects which will promote the identification and reduction of household hazardous waste in the home and which will promote the proper handling and disposal of this waste. Such projects undertaken by the facility operator must be coordinated with county projects whenever possible and literature or other public information must be consistent with the county's household hazardous waste public education programs. In addition to activities conducted in conjunction with the county's program, facility activities must include:

- (1) providing public information on dates and times of household hazardous waste collections in the facility's service area;
 - (2) providing public information to help identify household hazardous waste;
- and

(3) providing public information on ways to reduce household hazardous waste generation.

The information in subitems (1) to (3) must be made available at the facility for public use, for the county, and for other entities that are associated with solid waste management in the facility's service area.

C. Household hazardous waste that is segregated from other solid waste and managed at the facility must be managed according to part 7045.0310 or applicable hazardous waste generator standards.

Statutory Authority: *MS s 115.03; 115A.97; 116.07*

History: *13 SR 1150; 15 SR 2106; 16 SR 2321; 20 SR 715; 21 SR 327; 21 SR 1642; 28 SR 1086; 30 SR 529*

7035.2545 PERSONNEL TRAINING.

Subpart 1. **General.** Solid waste management facility personnel must successfully complete a program of classroom instruction or on-the-job training. The program must prepare facility personnel to maintain compliance with parts 7035.2525 to 7035.2915. Personnel must complete all training within six months after November 15, 1988, or within six months after the date of employment. The owner or operator must record all personnel training on the facility operating record and submit the dates of training in the annual report.

Subp. 2. **Owner or operator of a land disposal facility.** Certified owners or operators must be present at a land disposal facility as required by parts 7048.0100 to 7048.1300. A certified operator must be present at a land disposal facility during operating hours.

Subp. 3. **Minimum program requirements.** The training program must include training of solid waste management facility personnel about procedures relevant to their positions including contingency action plan implementation. The program must train facility personnel to deal effectively with problems at the site including:

- A. using, inspecting, repairing, and replacing facility emergency and monitoring equipment;
- B. activating communication and alarm systems;
- C. activating automatic waste feed cutoff systems;
- D. responding to fires;
- E. responding to facility failures, including erosion and failure of liners or monitoring devices;
- F. responding to ground water or surface water pollution incidents;
- G. accepting and managing waste other than mixed municipal solid waste approved for storage or disposal at the facility;
- H. rejecting waste not permitted at the facility; and
- I. water sampling.

Subp. 4. **Training update.** The training program must establish procedures for an annual review of the initial training required in subparts 1 to 3 and for training as the facility is modified.

Statutory Authority: *MS s 115.03; 115A.97; 116.07*

History: *13 SR 1150; 16 SR 2321*

7035.2555 LOCATION STANDARDS.

Subpart 1. **Floodplains.** An owner or operator may not locate a new solid waste management facility in a floodplain.

7035.2555 SOLID WASTE

596

Subp. 2. **Other location standards.** An owner or operator may not establish or construct a solid waste management facility in the following areas:

- A. within a shoreland or wild and scenic river land use district governed by chapters 6105 and 6120;
- B. within a wetland; or
- C. within a location where emissions of air pollutants would violate the ambient air quality standards in chapters 7005, 7007, 7009, 7011, 7017, 7019, and 7028 and parts 7023.0100 to 7023.0120.

Statutory Authority: *MS s 115.03; 115A.97; 116.07*

History: *13 SR 1150; 16 SR 2321*

7035.2565 GROUNDWATER QUALITY, SURFACE WATER QUALITY, AND AIR QUALITY AND SOIL PROTECTION.

Subpart 1. **Duty to protect water.** Solid waste management facilities must be located, designed, constructed, and operated to contain sediment, solid waste, and leachate and to prevent pollution of groundwater and surface water. The owner or operator must take corrective action as necessary to end continuing releases and to minimize or abate any resulting ground water or surface water pollution. As required by parts 7050.0150 and 7060.0600, the owner or operator must monitor the facility, surface water, and groundwater as directed by the agency.

Subp. 2. **Designation of compliance boundaries, standards, intervention limits.** The commissioner shall designate compliance boundaries, standards, and intervention limits for mixed municipal solid waste land disposal facilities in the permit, order, or stipulation agreement, as required in part 7035.2815, subpart 4. The commissioner shall designate compliance boundaries, standards, and intervention limits for other solid waste facilities, including demolition debris land disposal facilities and compost facilities, if a release could pollute or degrade ground water or surface water.

Subp. 3. **Air quality protection.** A person who operates or maintains a solid waste management facility or permits the use of property for such, must operate and maintain the site in conformance with the agency air pollution control rules. Open burning is prohibited, unless a permit is obtained as provided in Minnesota Statutes, section 88.17, and the material to be burned complies with Minnesota Statutes, section 88.171.

Subp. 4. **Soil protection.** Solid waste management facilities must be located, designed, constructed, and operated to minimize the contamination of soils from solid waste. For this subpart, soil contamination does not include soil liners.

Statutory Authority: *MS s 115.03; 116.07*

History: *13 SR 1150; 16 SR 865; 30 SR 529*

7035.2575 OPERATING RECORD.

Subpart 1. **Record requirement.** The owner or operator must keep a written operating record at the facility, as specified in subpart 2.

Subp. 2. **Record information.** The owner or operator of a solid waste management facility must record and maintain the following information in the operating record for a minimum of five years after closure of the facility or until any pending enforcement action is resolved:

- A. The amount by volume or weight of mixed municipal solid waste received for each day, the management techniques used, and the date received. The amount of waste received may be reported by weight, if the facility design includes scales for this purpose.

- B. The amount and description of industrial solid waste received each day, the generator's name, the point of generation, the method of handling, and the date received. The record must list separately the amount of each type of waste received.

C. For land disposal facilities, the location, including the horizontal and vertical dimension in the phase, and quantity of industrial solid waste received in quantities greater than ten cubic yards at a time.

D. Summary reports and details of incidents that require implementing the contingency plan specified in part 7035.2615, subpart 3.

E. Records and results of inspections required by part 7035.2535, subpart 4.

F. Monitoring, testing, or analytical data required by parts 7035.2815 to 7035.2875.

G. For a municipal solid waste combustor ash land disposal facility, the amount by volume or weight of municipal solid waste combustor ash received for each day from each ash generator which delivers ash to the facility, and the date received.

Statutory Authority: *MS s 115.03; 115A.97; 116.07*

History: *13 SR 1150; 16 SR 2321*

7035.2585 ANNUAL REPORT.

The owner or operator of a solid waste management facility shall prepare and submit a single copy of an annual report to the commissioner no later than February 1 for the preceding calendar year. A report form and instructions may be obtained from the commissioner. The annual report must cover all facility activities during the previous calendar year and must include the following information:

A. the permit number, name, and address of the solid waste management facility;
 B. the year covered by the report;
 C. the quantity of each type of waste handled at the solid waste management facility;

D. the remaining capacity for storage or disposal of waste at the facility based on the amount of waste received and the original site capacity approved;

E. the rates charged at the solid waste management facility and anticipated changes in the rate for the next year;

F. the most recent closure cost estimate prepared under part 7035.2625, the most recent contingency action cost estimate under part 7035.2615, and, for land disposal facilities, the most recent postclosure cost estimate under part 7035.2645;

G. an assessment of the adequacy of the closure, postclosure, and contingency action plans;

H. the summary evaluation of the groundwater monitoring program required under parts 7035.2815, subpart 14, item Q; and 7035.2885, subpart 16;

I. the summary evaluation reports required for the specific solid waste management facilities in parts 7035.2825, subpart 9; 7035.2836, subparts 3, item D, and 6, items J and K; 7035.2845, subpart 4a; and 7035.2875, subpart 5;

J. the personnel training information required by part 7035.2545, subpart 1;

K. a certification by the owner or operator of the solid waste management facility;
 and

L. for transfer facilities operating under an extended permit term, the information required in part 7001.3410, subpart 2.

Waste facilities that do not dispose of waste need not include items D, H, and I.

Statutory Authority: *MS s 115.03; 115A.97; 116.07*

History: *13 SR 1150; 16 SR 2321; 19 SR 2330; 21 SR 327; 30 SR 529*

7035.2595 EMERGENCY PREPAREDNESS AND PREVENTION.

Subpart 1. **Design and operation of a solid waste management facility.** The owner or operator must design, construct, maintain, and operate a solid waste management facility to

7035.2595 SOLID WASTE

598

minimize the possibility of a fire, explosion, or any release to air, land, or water of pollutants that threaten human health and the environment.

Subp. 2. **Required equipment.** The owner or operator must equip the solid waste management facility with the following, unless the owner or operator demonstrates to the commissioner that none of the hazards posed by the waste requires the particular equipment specified below:

A. a communications device, such as a telephone or a hand-held two-way radio, which is immediately available and is capable of summoning emergency assistance from local police departments or fire departments; and

B. fire control contracts and devices for the class of fire expected to occur at the facility.

Subp. 3. **Testing and maintenance of equipment.** All communication and fire control equipment must be tested at least annually and maintained to ensure proper operation in time of emergency.

Subp. 4. **Arrangements with local authorities for emergencies.** The owner or operator of a solid waste management facility must make prior arrangements with local police and fire departments for services that may be needed at the facility.

Subp. 5. **Procedural manual.** The owner or operator of a solid waste management facility must prepare and maintain at the facility a procedural manual for facility personnel to use in time of emergency. The manual must contain:

A. a list of names and telephone numbers of local fire and police departments;

B. a list of the equipment available at the site such as fire extinguishers, communication and alarm systems, earthmoving equipment, and a brief description as to when and how the equipment is to be used;

C. a description of the procedures to be followed from discovery until the situation is corrected or the contingency action plan is activated, including a facility coordinator, notification procedures to local authorities and the agency, control measures, and cleanup; and

D. a description of prior arrangements made with local police and fire departments.

Subp. 6. **Assessment of hazards.** The owner or operator of the solid waste management facility must assess the possible hazards to human health and the environment from a release, explosion, or fire. The owner or operator of the facility must notify the commissioner within 48 hours of any release, explosion, or fire.

Statutory Authority: *MS s 115.03; 116.07*

History: *13 SR 1150*

7035.2605 EMERGENCY PROCEDURES.

Subpart 1. **Containment measures.** During an emergency, the owner or operator must take all reasonable measures to ensure that fires, explosions, and releases do not occur, recur, or spread. The owner or operator must also contain, recover, and treat liquids that come in contact with the waste during an emergency response action.

Subp. 2. **Report.** The owner or operator shall submit to the commissioner within two weeks after an emergency a written report describing the emergency and the procedures followed to minimize potential hazards to human health and the environment. After the owner or operator completes emergency procedures to control any possible hazards resulting from the release, explosion, or fire, the owner or operator must refer to the contingency

action plan to determine the necessary follow-up actions. The owner or operator must assess the adequacy of the emergency procedural manual and make appropriate changes to correct any inadequacies.

Statutory Authority: *MS s 115.03; 116.07*

History: *13 SR 1150*

7035.2610 CONSTRUCTION CERTIFICATION.

A new facility or any new design feature at an existing facility may not be opened or placed into operation until a construction certification has been approved by the commissioner. The construction certification must be signed by an engineer registered in Minnesota and the owner or operator. The construction certification must address the features modified during construction and the features constructed as approved in the permit. The certification must indicate the facility is operational. The certification must contain as-built plans, samples taken, test results, and an explanation why the facility or any part was modified. The commissioner must conduct site inspection before construction is certified.

Statutory Authority: *MS s 115.03; 116.07*

History: *13 SR 1150*

7035.2615 CONTINGENCY ACTION PLAN.

Subpart 1. **General requirements.** An owner or operator must prepare and maintain a contingency action plan at the solid waste management facility. The contingency action plan must identify occurrences that would endanger human health and the environment and must establish procedures that would minimize hazards to human health and the environment. The contingency action plan must contain the information in subpart 3 and the contingency requirements for the particular facility.

Subp. 2. **Implementation of plan.** Within the period specified in the approved contingency action plan, the owner or operator must implement the provisions of the plan that would minimize the adverse effects to human health or the environment from vandalism, fires, explosions, failure or collapse of artificial or natural dikes, or liners, water quality violations, surface drainage problems, air emission violations, and other releases.

Subp. 3. **Content of contingency action plan.** The contingency action plan must contain the following:

- A. an identification of the possible events that may require corrective actions such as violations of intervention limits or water quality standards, failure of design features, settlement of completed areas, and surface drainage problems;
- B. a description of the actions, the sequence and the timetable in which they will be taken, and the costs associated with each corrective action;
- C. the equipment needed to repair each condition and the on-site and off-site availability of the equipment;
- D. any prior arrangements with contractors;
- E. scheduled and unscheduled down times for maintenance at the facility; and
- F. an estimated cost for each action, for the most severe action that may be needed, and all actions.

Subp. 4. **Amendment of contingency action plan.** The owner or operator must review and amend the contingency action plan whenever:

- A. the solid waste management facility permit is reissued;
- B. a failure or release occurs for which the plan did not provide an appropriate response; or
- C. the design, construction, operation, or maintenance of the solid waste management facility changes so that the response needed to a failure or release changes.

7035.2615 SOLID WASTE

600

Subp. 5. **Copies of contingency action plan.** A copy of the contingency action plan and revisions to the plan must be submitted to the commissioner with the permit application. After modification or approval, compliance with the plan must be a condition of any permit issued, and the plan must be retained at the solid waste management facility.

Statutory Authority: *MS s 115.03; 116.07*

History: *13 SR 1150*

7035.2625 CLOSURE.

Subpart 1. **Closure.** The owner or operator of a solid waste management facility must cease to accept waste and must immediately close the facility in compliance with this part and parts 7035.2635 and 7035.2815 to 7035.2915, when:

- A. the owner or operator declares the solid waste management facility closed;
- B. for a land disposal facility, all fill areas reach permitted final grade;
- C. an agency permit held by the facility expires, and renewal of the permit is not applied for, or is applied for and denied;
- D. an agency permit for the facility is revoked;
- E. an agency order to cease operations is issued;
- F. the facility is an existing unpermitted land disposal site;
- G. the capacity for the county or facility certified under Minnesota Statutes, section 115A.917 or 473.823 is exceeded;
- H. the required financial assurance for closure, postclosure care, or corrective actions is not maintained with the proper payment or substitute instrument;
- I. the facility is unpermitted, is not a land disposal site, or is required to be permitted under parts 7001.0010 to 7001.1220 and 7001.1400 to 7001.3550 and the owner or operator has not applied for a permit within 180 days after November 15, 1988; or
- J. the facility is a transfer facility operating under an extended permit term and was required by the agency to apply for a permit and failed to do so or applied for the permit as required by the agency and was denied.

Subp. 2. **Closure performance standard.** The owner or operator must close the solid waste management facility in a manner that eliminates, minimizes, or controls the escape of pollutants to ground water or surface waters, to soils, or to the atmosphere during the postclosure period.

Subp. 3. **Submittal and contents of closure plan.** The owner or operator of a solid waste management facility shall submit a closure plan with the permit application, or as required by a closure document, or in order to establish financial assurance mechanisms in accordance with part 7035.2695. For unpermitted land disposal sites, the owner or operator shall submit a closure plan within 90 days after November 15, 1988. The agency shall approve the closure plan as part of the permit issuance procedure or as part of a submittal required by a closure document or other enforcement action. Compliance with the approved closure plan must be a condition of any permit, order, closure document, or stipulation agreement issued for the facility. The closure plan must be consistent with subparts 2, 4, and 5, part 7035.2635, and the applicable closure requirements of parts 7035.2665; 7035.2815, subpart 16; and 7035.2825 to 7035.2915.

A copy of the approved closure plan, and all revisions to the plan, must be kept at the facility until closure is completed and certified under part 7035.2635. Except for transfer facilities and other facilities that will not have waste present following closure, the agency will issue a closure document in accordance with part 7001.3055. The plan must identify steps needed to close each fill phase, if appropriate, and the entire site at the end of its operating life. The closure plan must include:

- A. A description of how and when each fill phase and the entire facility will be closed. The description must identify how the requirements of subparts 2 and 5, parts

7035.2635; and 7035.2815 to 7035.2915 will be complied with. The description must include the estimated year of closure and a schedule for completing each fill phase.

B. An estimate of the maximum quantity of wastes in storage at any time during the life of the facility.

C. A cost estimate including an itemized breakdown for closure of each fill phase, for land disposal facilities and the total cost associated with closure activities at solid waste management facilities.

Subp. 4. **Amendment of plan.** The owner or operator may amend the closure plan any time during the life of the facility. The owner or operator must amend the plan whenever changes in the operating plan or facility design affect the closure procedures needed and whenever the expected year of closure changes. If a permit modification as authorized in part 7001.3550 is needed, the owner or operator shall submit an amended closure plan with the modification request. In all other cases, the owner or operator must request a modification of the plan, or, for transfer facilities operated under an extended permit term, make a modification to the plan as provided under part 7001.3410, subparts 1, item D, and 2, within 60 days of any change or event that affects the closure plan.

Subp. 5. **Notification of final facility closure.** The owner or operator shall notify the commissioner at least 90 days before final facility closure activities are to begin. If the permit for the facility has been terminated and a closure document has been issued, this requirement does not apply. However, the owner or operator must close the facility in accordance with procedures established in the closure plan and closure document.

Statutory Authority: *MS s 115.03; 115A.97; 116.07*

History: *13 SR 1150; 16 SR 2321; 18 SR 614; 30 SR 529*

7035.2635 CLOSURE PROCEDURES.

Subpart 1. **Completion of closure activities.** Within 30 days after receiving the last shipment of waste, the owner or operator must begin the final closure activities outlined in the approved closure plan for the solid waste management facility or closure document. Closure activities must be completed according to the approved closure plan. The commissioner may approve a longer period if the owner or operator demonstrates that the closure activities will take longer due to adverse weather or other factors not in the control of the owner or operator.

Subp. 2. **Closure procedures.** If one or more of the conditions of part 7035.2625, subpart 1 exists, the owner or operator must:

A. Complete the appropriate activities outlined in the approved closure plan, closure document, stipulation agreement, and parts 7035.2815 to 7035.2915, as appropriate.

B. Complete final closure activities consisting of at least:

(1) posting a notice of closure at least 60 days before closure at the entrance by signs indicating the date of closure and alternative solid waste management facilities;

(2) publishing a notice of closure in a local newspaper 30 days before closure and providing a copy of the notice to the commissioner within ten days after the date of publication; and

(3) submitting to the county recorder and the commissioner a detailed description of the waste types, including mixed municipal, industrial, and demolition debris, accepted at the facility and what the facility was used for, together with a survey plat of the site. The plat must be prepared and certified by a land surveyor registered in Minnesota. The landowner must record a notation on the deed to the property or on some other instrument normally examined during a title search, that will in perpetuity notify any potential purchaser of the property of any special conditions or limitations for use of the site, as set out in the closure plan and closure document.

Subp. 3. **Certification of closure.** For solid waste disposal facilities, when the final facility or fill phase closure is completed, the owner shall submit to the commissioner certification by the owner and an engineer registered in Minnesota that the facility or phase has been closed in accordance with subpart 2. The certification must contain: a completed and signed Site Closure Record and as-built plans showing changes from the original design plans; testing results indicating compliance with final cover, waste removal, equipment decontamination, and other closure requirements; and other forms of documentation such as pictures showing the construction techniques used during closure. The final facility closure certification must include a copy of the notation filed with the county recorder and carrying the recorder's seal. For all other facilities, the owner or operator shall submit to the commissioner a document including certification under part 7001.0070, demonstrating that all steps in the closure plan have been completed.

Statutory Authority: *MS s 115.03; 115A.97; 116.07*

History: *13 SR 1150; 16 SR 2321; 30 SR 529*

7035.2645 POSTCLOSURE.

Subpart 1. **Submittal of postclosure plan.** The landowner and the owner of a solid waste disposal facility shall submit a postclosure plan with the permit application. The agency must approve the plan in accordance with part 7001.3055 as part of the permit issuance procedure or as a submittal required by a closure document, stipulation agreement, or other enforcement action. Compliance with the approved postclosure plan shall be a condition of any permit or closure document issued.

Subp. 2. **Postclosure plan.** The landowner and the facility owner must keep a copy of the approved plan and amendments at the facility until the postclosure care period begins. During the postclosure care period, the plan must be kept by the contact person identified in item C. This plan must identify the activities to be carried on during the postclosure care period and the frequency of these activities, and must include at least:

A. A description, schedule, and estimated costs of planned monitoring activities to comply with parts 7035.2815, subparts 10 and 14, and 7035.2885, subpart 16, during the postclosure care period.

B. A description, schedule, and estimated costs of the inspection and maintenance activities planned to ensure the integrity of the final cover and other containment systems according to parts 7035.2815, subpart 13, and 7035.2885, subpart 15, and the function of the facility monitoring equipment according to parts 7035.2815, subpart 14, and 7035.2885, subpart 16.

C. The name, address, and telephone number of the person or office to contact about the facility during the postclosure care period. This person or office must keep an updated postclosure plan during the postclosure care period.

Subp. 3. **Amendment to plan.** The landowner and the facility owner may amend the postclosure plan at any time during the active life of the facility or during the postclosure care period. The landowner and the facility owner must amend the plan whenever changes in the operating plans, or facility design, or other events during the active life of the facility or the postclosure period affect the postclosure plan. The landowner and the facility owner must amend the plan whenever there is a change in the expected year of closure. The amended plan must be approved by the commissioner.

When a permit modification is requested to authorize a change in operating plans or facility design that will affect the postclosure plan, the landowner and facility owner must modify the postclosure plan at the same time. In all cases, the landowner or facility owner must request a modification of the plan within 60 days of any change or event that affects the postclosure plan.

Statutory Authority: *MS s 115.03; 115A.97; 116.07*

History: *13 SR 1150; 16 SR 2321; 30 SR 529*

7035.2655 POSTCLOSURE CARE AND USE OF PROPERTY.

Subpart 1. **Postclosure care requirements.** Postclosure care requirements apply to solid waste disposal facilities and are as follows:

A. Postclosure care must continue for at least 20 years after the date of completing closure.

B. During the postclosure care period, based on the results of sampling, analysis, and other pertinent information, the commissioner may reevaluate and modify the closure document to the extent postclosure care is needed at a facility based on compliance with the requirements of item C; subpart 2; parts 7035.2565, and 7035.2815 to 7035.2915; and gas, leachate, or ground and surface water monitoring results.

C. All postclosure care activities must be in accordance with the approved post-closure plan.

Subp. 2. **Postclosure use of property.** The landowner must not allow postclosure use of the facility property to disturb the integrity of final covers, liners, or any other components of any containment system, or the function of the facility's monitoring system, unless the commissioner determines that the disturbance:

A. is necessary to the proposed use of the property and will not cause a violation of the standards outlined in parts 7035.2565 and 7035.2815, subpart 4; and

B. is necessary to remedy a violation of the standards in parts 7035.2565 and 7035.2815, subpart 4.

Statutory Authority: *MS s 115.03; 115A.97; 116.07*

History: *13 SR 1150; 16 SR 2321; 30 SR 529*

**SOLID WASTE MANAGEMENT FACILITIES
FINANCIAL REQUIREMENTS**

7035.2665 SCOPE.

Parts 7035.2685 to 7035.2805 apply to owners and operators of mixed municipal solid waste land disposal facilities and municipal solid waste combustor ash land disposal facilities.

Statutory Authority: *MS s 115.03; 115A.97; 116.07*

History: *13 SR 1150; 16 SR 2321*

7035.2685 COST ESTIMATES FOR CLOSURE, POSTCLOSURE CARE, AND CORRECTIVE ACTION.

Subpart 1. **Cost estimate requirements.** The following provisions apply to cost estimates.

A. The owner or operator shall make a written estimate, in current dollars, of the cost of closing the facility in accordance with part 7035.2625 and applicable closure requirements in part 7035.2635. The estimate must be calculated according to subitems (1) and (2).

(1) The closure cost estimate must equal the cost of closure at the point in the facility's operating life when the extent and manner of its operation would make closure the most expensive, as indicated by its closure plan.

(2) An owner or operator who establishes a trust under part 7035.2705 or 7035.2715 or a dedicated long-term care trust fund under part 7035.2720 may make the closure cost estimate in present value terms, provided that interest earned from investment becomes part of the fund.

The method used to calculate a present value for closure cost estimates must have the following form:

$$P = \frac{F}{(1 + i)^n}$$

- in which:
- P = the present value,
 - F = the estimated cost of facility closure as calculated under subitem (1),
 - i = the interest rate, and
 - n = the time period in which the design capacity of the facility is filled, expressed as the number of years after the date on which the cost estimate is made.

The interest rate used must be the Federal Reserve Bank discount rate in effect at the Federal Reserve Bank in Minneapolis, Minnesota.

B. The owner or operator of a facility subject to postclosure monitoring or maintenance requirements shall make a written estimate, in current dollars, of the annual cost of monitoring and maintenance of the facility in accordance with the applicable postclosure requirements in part 7035.2645. The estimate must be calculated according to subitems (1) and (2).

(1) The owner or operator must calculate the postclosure cost estimate by multiplying the annual postclosure cost estimate by the number of years of postclosure care required under part 7035.2655. The postclosure cost estimate must include a contingency element that accounts for inflation expected to occur after site closure.

(2) An owner or operator who establishes a trust under part 7035.2705 or 7035.2715 or a dedicated long-term care trust fund under part 7035.2720 may make the postclosure cost estimate in present value terms, provided that interest earned from investment becomes part of the fund.

A present value must be reported for each year of the postclosure care period. The time periods used must begin the year after facility closure. The method used to calculate a present value must have the following form:

$$P = \frac{F}{(1 + i)^n}$$

- in which:
- P = the present value,
 - F = the estimated cost of postclosure care and maintenance during the year in which cost will be incurred as calculated under subitem (1),
 - i = the interest rate, and
 - n = the time period in which the cost will be incurred, expressed as the number of years after the date on which the cost estimate is made.

The interest rate used must be the Federal Reserve Bank discount rate in effect at the Federal Reserve Bank in Minneapolis, Minnesota.

C. The owner or operator shall make a written estimate, in current dollars, of the cost of performing contingency action. The contingency action cost estimate must equal the expected value of implementing the contingency action plan required under part 7035.2615. The owner or operator of a new facility may use method (1) or (2) to calculate the expected value of implementing the contingency action plan. The owner or operator of an existing

facility must use method (2) to calculate the expected value of implementing the contingency action plan.

(1) The expected value may be based on probability analyses unique to the facility. These analyses must determine the probability of occurrence of each event described in the contingency action plan. The expected value of a single event is its implementation cost times its probability of occurrence. The expected value of implementing the entire contingency action plan is the sum of the expected values of each event described in the plan. If an owner or operator chooses this alternative, the owner or operator shall provide the commissioner with details of the cost and probability analyses sufficient to allow the commissioner to evaluate the plan.

(2) The expected value calculations may assume that the probabilities of occurrence of the events described in the contingency action plan are normally distributed. These calculations will assign probabilities to events according to the following formula:

$$f(x) = \left(\frac{1}{\sqrt{2\pi}\sigma} \right) e^{-(x - \mu)^2 / (2\sigma^2)}$$

where $f(x)$ = the probability of occurrence of event x ;

μ = the mean (or average) value of the normal random variable x ;

= $\Sigma x/n$;

n = the number of times x is evaluated;

σ = the standard deviation of x ;

$$= \sqrt{\frac{\sum (x - \mu)^2}{(n - 1)}}$$

π = 3.1416;

e = 2.7183; and

x = a specified dollar interval that controls the number of times x will be evaluated within the range defined by zero and the worst case series of events.

- (a) The probabilities derived must sum to at least 1.0.
- (b) The probability of the most costly series of events must be at least four times greater than the probability of no contingency action costs.
- (c) The probability of the most costly series of events must be at least 0.01.
- (d) The last value of x evaluated must equal the value of the most costly series of events.

Subp. 2. **Yearly update of cost estimate.** During the operating life of the facility, the owner or operator shall adjust the cost estimates required in subpart 1 for inflation annually before the anniversary of the date on which the first cost estimates were prepared. The adjustment must be made using an inflation factor derived from the annual Implicit Price Deflator for Gross National Product as found in the Survey of Current Business issued by the United States Department of Commerce. The inflation factor is the result of dividing the latest published annual deflator by the deflator for the previous year. The commissioner shall inform the owner or operator of the inflation factor needed to adjust cost estimates. Adjustments must be made by multiplying the latest cost estimate by the inflation factor. The result is the adjusted cost estimate.

In addition to any yearly update made under this subpart, the owner or operator must revise the cost estimates whenever a change in site conditions increases the cost of closure,

7035.2685 SOLID WASTE

606

postclosure care, or corrective action. The revised cost estimates must be adjusted for inflation as specified in this subpart.

Subp. 3. **Record retention.** The owner or operator must keep at the facility during the operating life of the facility: the latest cost estimates prepared in accordance with subpart 2, and, when the estimates have been adjusted in accordance with subpart 2, the latest adjusted cost estimates.

Statutory Authority: *MS s 115.03; 116.07*

History: *13 SR 1150; 15 SR 2308*

7035.2695 FINANCIAL ASSURANCES REQUIRED.

The owner or operator of a facility shall establish financial assurance for closure, post-closure care and corrective action at the facility by using one or more of the financial assurance mechanisms specified in parts 7035.2705 to 7035.2750.

Statutory Authority: *MS s 115.03; 116.07*

History: *13 SR 1150*

7035.2705 TRUST FUND.

Items A to M apply to trust funds:

A. An owner or operator may satisfy the requirements of part 7035.2695 by establishing a trust fund that conforms to the requirements of items A to M and by submitting to the commissioner an originally signed duplicate of the trust agreement. The trustee shall be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a federal or Minnesota state agency.

(1) An owner or operator of a new facility shall submit the originally signed duplicate of the trust agreement to the commissioner with the final permit application for the facility.

(2) An owner or operator of an existing facility with a remaining capacity of more than five years or 500,000 cubic yards shall submit the originally signed duplicate of the trust agreement to the commissioner within 180 days of November 15, 1988.

(3) An owner or operator of an existing facility that does not meet the criterion in subitem (2) shall submit the originally signed duplicate of the trust agreement to the commissioner within a year of November 15, 1988.

(4) If the owner or operator cannot meet the requirements of subitem (1), (2), or (3) because the needed cost estimates have not been completed, the commissioner will provide the owner or operator with cost estimates. The owner or operator must then submit to the commissioner an originally signed duplicate of the trust agreement and make first payment into the trust account within 60 days after the owner or operator receives the cost estimates. The commissioner will also make appropriate revisions, until the owner or operator submits the required plans and cost estimates.

B. The wording of the trust agreement must be identical to the wording specified in part 7035.2805, subpart 1, and must be accompanied by a formal certification of acknowledgment as shown in part 7035.2805, subpart 2. The trust agreement must be updated within 60 days after a change in the amount of the current cost estimates covered by the agreement.

C. The owner or operator must make monthly payments into the trust fund over the term of the pay-in period. The payments into the trust fund must be made as described in subitems (1), (2), and (3).

(1) The owner or operator of a new facility must make the first payment before the initial receipt of waste for disposal. The owner or operator must submit to the commissioner a receipt from the trustee for the first payment before the initial receipt of waste. The first payment must be determined by this formula:

MINNESOTA RULES 2011

607

SOLID WASTE 7035.2705

$$\text{payment} = \frac{\text{CE}}{\text{Y} \times 12}$$

where CE is the sum of the current cost estimates and Y is the number of years remaining in the operating life of the site. Subsequent payments must be made no later than the last day of the month following the previous payment. The amount of each subsequent payment must be determined by this formula:

$$\text{payment} = \frac{\text{CE} - \text{CV}}{\text{Y} \times 12}$$

where CE is the sum of the current cost estimates, CV is the current value of the trust fund, and Y is the number of years remaining in the operating life of the site.

The operating life of the site must be determined by the following formula:

$$\text{Y} = \frac{\text{DC}}{\text{A} \times \text{W} \times (1+\text{B})}$$

where:

DC = the design capacity of the site,

A = the ratio of loose to compacted waste volume achieved at the site,

B = the ratio of the volume of cover material (both intermittent and final) to waste receipts at the site, and

W = the weighted five-year moving average of reported annual waste receipts.

The weights applied to the annual waste receipts are:

previous year = .50

two years ago = .25

three years ago = .15

four years ago = .07

five years ago = .03

(2) For an existing facility, the first payment must be made no later than one year after November 15, 1988. The owner or operator must submit to the commissioner a receipt from the trustee for this payment within ten days after the payment is made. Payments into the trust fund must be determined by the formula in subitem (1).

(3) If an owner or operator previously has established a trust fund and the value of that trust fund is less than the sum of the current cost estimates when a permit is issued to the facility, the amount of the sum of the current cost estimates still to be paid into the trust fund must be paid in over the operating life of the site. The first payment must be made within 30 days of the permit issuance. Subsequent payments must be made no later than the last day of the month following the previous payment. The amount of each payment must be determined by the formula contained in subitem (1).

(4) The owner or operator must make annual revisions of the estimated operating life of the site. The revisions must be made no later than the anniversary date of the first payment into the trust fund.

(5) The pay-in amount per cubic yard need not exceed the previous year's tipping fee per cubic yard. If the owner or operator does not charge a tipping fee, then the pay-in amount per cubic yard need not exceed the statewide average tipping fee, as determined and communicated by the commissioner.

D. The owner or operator may make payments less than those calculated under item C under the following conditions:

(1) For privately owned sites, the owner or operator must show that the payment calculated under item C exceeds, on an annual basis, the facility's current cash flow minus 150 percent of current depreciation expenses. The facility's cash flow consists of net income plus depreciation costs plus amortizations of intangible assets. The information presented in support of this demonstration must include at least:

- (a) balance sheets for the past three years;
- (b) income statements for the past three years;
- (c) funds statements for the past three years; and
- (d) a certified public accountant's written opinion that the statements are

accurate.

(2) For publicly owned sites, the owner or operator must show that the payment calculated under item C exceeds, on an annual cost per capita basis, 0.1 percent of per capita income within the owner's or operator's jurisdiction. The annual cost per capita will be derived by dividing the total annual cost of payments calculated under item C by the population in the facility's service area. The information provided in support must be the latest income data compiled by the state demographer.

(3) If the owner or operator has shown that the trust fund payment exceeds the criterion set in subitem (1) or (2), the commissioner shall determine, in consultation with the owner or operator, whether it is possible for the facility to generate enough revenue to develop a trust fund that will cover the current cost estimates. The information that will inform the decision must be provided by the owner or operator and must consist of:

- (a) current measurements and future estimates, for at least ten years, of waste flow into the facility;
- (b) ten-year pro forma statements of operating income and expense;
- (c) estimates, for at least ten years, of demographic and economic trends in the facility's service area;
- (d) compilations and analyses supporting the information provided under units (a), (b), and (c); and
- (e) any further information the owner or operator believes relevant to the matter.

(4) If the commissioner determines that the site cannot generate enough revenue to satisfy the criteria set in subitem (1) or (2), then the owner or operator must either:

- (a) make payments into the trust fund larger than the payment calculated under item C, so that these payments will be large enough to develop a trust fund equal to the current cost estimates; or
- (b) schedule the closure procedures described in parts 7035.2625 and 7035.2635.

E. The owner or operator may accelerate payments into the trust fund or may deposit the full amount of the sum of the current cost estimates at the time the fund is established. However, the owner or operator shall maintain the value of the fund at no less than the value that the fund would have if annual payments were made as specified in item C.

F. If the owner or operator establishes a trust fund after having used one or more alternate financial assurance mechanisms specified in parts 7035.2705 to 7035.2750, the first payment into the trust fund must be at least the amount that the fund would contain if the trust fund were established initially and monthly payments made according to specifications of this part.

G. If the sum of the current cost estimates changes, the owner or operator shall compare the new estimates with the trustee's most recent annual valuation of the trust fund. If the value of the fund is less than the amount of the new estimates, the owner or operator, within 60 days after the change in the cost estimates, shall either change the trust fund pay-in schedule so that it incorporates the changes in the sum of the current cost estimates and submit evidence of this change to the commissioner, or establish other financial assurance mechanisms as specified in parts 7035.2705 to 7035.2750 to cover the difference.

H. During the operating life of the facility, if the value of the trust fund is greater than the sum of the current cost estimates, the owner or operator may submit a written request together with supporting documents to the commissioner for release of the amount in excess of the sum of the current cost estimates covered by the trust fund.

I. If an owner or operator substitutes other financial assurance mechanisms as specified in parts 7035.2705 to 7035.2750 in place of all or part of the trust fund, the owner or operator may submit a written request to the commissioner for release of the amount in excess of the sum of the current cost estimates covered by the trust fund.

J. Within 60 days after receiving a request from the owner or operator for release of funds as specified in item H or I, the commissioner shall instruct the trustee to release to the owner or operator funds in excess of the current cost estimates covered by the trust fund.

K. The trustee shall notify the owner or operator and the commissioner by certified mail within ten days if a payment is not made on the required date. The owner or operator must then stop accepting waste until the required payment is made. If the required payment is not made within 60 days of the commissioner's receipt of the nonpayment notice, the owner or operator shall close the facility as provided in part 7035.2635.

L. After beginning actions at the facility that are specified in closure, postclosure care or contingency action plans, an owner, operator, or other person authorized to perform those actions may request reimbursement for expenditures on completed work by submitting itemized bills to the commissioner. Within 90 days after receiving bills for closure activities, postclosure care or contingency actions, the commissioner shall determine whether the expenditures are in accordance with the appropriate plan or are needed to ensure proper closure, postclosure care or corrective action. The commissioner shall then instruct the trustee to make reimbursement in the amounts the commissioner specifies in writing. If the commissioner determines that the total cost incurred will be significantly greater than the value of the trust fund, the commissioner may withhold reimbursement of the amounts as deemed prudent until it is determined, in accordance with part 7035.2775, that the owner or operator is no longer required to maintain financial assurance.

The commissioner shall decide whether to withhold reimbursement based on changes in unit costs incurred. If costs per unit incurred at the site exceed contingency allowances made in cost estimates, the commissioner may withhold reimbursement. The commissioner shall, within 30 days of the decision, provide the owner or operator with written reasons for withholding reimbursement.

M. The commissioner shall agree to termination of the trust if:

(1) an owner or operator substitutes alternate financial assurance as specified in parts 7035.2705 to 7035.2750; or

(2) the agency releases the owner or operator from the requirements of this part in accordance with part 7035.2775.

Statutory Authority: *MS s 115.03; 116.07*

History: *13 SR 1150*

7035.2715 TRUST FUND FOR UNRELATED SITES.

Items A to E apply to trust funds which receive payments from more than one owner or operator for financial assurance at different sites. Such trust funds shall operate like the trust funds specified in part 7035.2705, except that:

A. The trustee shall maintain a separate account for each site and shall evaluate each account annually as of the day of creation of the trust.

B. The trustee shall annually notify each owner or operator and the commissioner of the evaluation of each owner's or operator's account.

C. The trustee shall release excess funds as required from the account for each site.

D. The trustee shall reimburse the owner or operator or other person authorized to perform closure, postclosure care or corrective action only from the account for that site.

E. The agency may direct the trustee to withhold payments only from the account for the site for which it has reason to believe the cost of closure, postclosure care, or corrective action will be greater than the value of the account.

Statutory Authority: *MS s 115.03; 116.07*

History: *13 SR 1150*

7035.2720 DEDICATED LONG-TERM CARE TRUST FUNDS.

Subpart 1. **Application.** Subparts 1 to 15 apply to dedicated long-term care trust funds.

Subp. 2. **Trust fund allowed.** An owner or operator of a facility owned by a political subdivision may satisfy the requirements of part 7035.2695 by establishing by resolution a dedicated long-term care trust fund for the facility. The fund trustee who is designated by the resolution incurs a fiduciary responsibility for the fund and is responsible for reporting to the commissioner the information required under this part.

A. An owner or operator of a new facility shall submit the originally signed duplicate of the resolution which orders establishment of the fund to the commissioner with the final permit application for the facility.

B. An owner or operator of an existing facility with a remaining capacity of more than five years or 500,000 cubic yards shall submit the originally signed duplicate of the resolution which orders establishment of the fund to the commissioner within 180 days after November 15, 1988.

C. An owner or operator of an existing facility that does not meet the criterion in item B shall submit the originally signed duplicate of the resolution which orders establishment of the fund to the commissioner within a year after November 15, 1988.

D. If the owner or operator cannot meet the requirements of item A, B, or C because the required cost estimates have not been completed, the commissioner will provide the owner or operator with cost estimates. The owner or operator must then submit to the commissioner an originally signed duplicate of the resolution and make first payment into the fund within 60 days after the owner or operator receives the cost estimates. The commissioner shall also make appropriate revisions to the cost estimates until the owner or operator submits the required plans and cost estimates.

E. The owner or operator of a facility owned by a political subdivision must substitute another financial assurance mechanism as specified in parts 7035.2705 to 7035.2750 if:

(1) at any time after November 15, 1988, the owner or operator does not respond on time to agency orders to perform activities which are described in the facility permit or other compliance documents and which relate to facility closure, postclosure care and maintenance, and/or corrective action;

(2) the reports required under subpart 3 indicate that the owner or operator has not managed the dedicated long-term care trust fund according to the requirements of this part; or

(3) the owner or operator rescinds or changes the resolution required under subpart 4 without having first obtained written permission from the commissioner.

The commissioner shall notify the owner or operator when any of the conditions described in this item occurs. Within 60 days after receiving the notice, the owner or operator shall provide the commissioner with evidence that a substitute financial assurance mechanism has become effective. If the required substitution is not made within 60 days after the owner or operator receives notice, the owner or operator shall close the facility as provided in part 7035.2635.

Subp. 3. **Submission to commissioner.** The owner or operator shall send the following items to the commissioner to demonstrate that the dedicated long-term care trust fund is being developed in compliance with this part:

A. A copy of the owner's or operator's financial statements for the latest completed fiscal year. The owner or operator shall send the financial statements prepared in accordance with Minnesota Statutes, section 375.17, 471.697, or 471.698. The statements must clearly report the status of the dedicated long-term care trust fund.

B. A report from an independent certified public accountant stating that the status of the dedicated long-term care trust fund conforms to the requirements of this part.

The initial submission to the commissioner of the materials required under items A and B is due one year after submission of the originally signed duplicate of the resolution. After the initial submission of materials specified in items A and B, the owner or operator must send updated information to the commissioner within 90 days after the close of each succeeding fiscal year.

Subp. 4. **Resolution language.** The wording of the resolution that establishes the dedicated long-term care trust fund must be identical to the wording in part 7035.2805, subpart 9.

Subp. 5. **Monthly payments required.** The owner or operator must make monthly payments into the dedicated long-term care trust fund over the term of the pay-in period. The payments into the fund must be made as described in items A, B, and C.

A. The owner or operator of a new facility must make the first payment before the initial receipt of waste for disposal. The owner or operator must submit to the commissioner a certification from the trustee for the first payment before the initial receipt of waste. The first payment must be determined by this formula:

$$\text{payment} = \frac{\text{CE}}{\text{Y} \times 12}$$

where CE is the sum of the current cost estimates and Y is the number of years remaining in the operating life of the site. Subsequent payments must be made no later than the last day of the month following the previous payment. The amount of each subsequent payment must be determined by this formula:

$$\text{payment} = \frac{\text{CE} - \text{CV}}{\text{Y} \times 12}$$

where CE is the sum of the current cost estimates, CV is the current balance of the fund, and Y is the number of years remaining in the operating life of the site.

The operating life of the site must be determined by the following formula:

$$Y = \frac{DC}{A \times W \times (1+B)}$$

where:

DC = the design capacity of the site,

A = the ratio of loose to compacted waste volume achieved at the site,

B = the ratio of the volume of cover material (both intermittent and final) to waste receipts at the site, and

W = the weighted five-year moving average of reported annual waste receipts.

The weights applied to the annual waste receipts are:

previous year = .50

two years ago = .25

three years ago = .15

four years ago = .07

five years ago = .03

B. For an existing facility, the first payment must be made no later than one year after November 15, 1988. The owner or operator must submit to the commissioner a certification from the trustee for this payment within ten days after the payment is made. Payments into the fund must be determined by the methods in item A.

C. If an owner or operator previously has established a fund and the value of that fund is less than the sum of the current cost estimates when a permit is issued for the facility, the portion of the sum of the current cost estimates still to be paid into the fund must be paid in over the operating life of the site. The first payment must be made within 30 days of the permit issuance. Subsequent payments must be made no later than the last day of the month following the previous payment. The amount of each payment must be determined by the second formula contained in item A.

D. The owner or operator must make annual revisions of the estimated operating life of the facility. The revisions must be made no later than the anniversary date of the first payment into the trust fund.

E. The pay-in amount per cubic yard need not exceed the previous year's tipping fee per cubic yard. If the owner or operator does not charge a tipping fee, then the pay-in amount per cubic yard need not exceed the statewide average tipping fee, as determined and communicated by the commissioner.

Subp. 6. **Exceptions to calculation method.** The owner or operator may make payments less than those calculated in accordance with subpart 5 under the following conditions:

A. The owner or operator must show that the payment calculated under subpart 5 exceeds, on an annual cost per capita basis, 0.1 percent of per capita income within the owner's or operator's jurisdiction. The annual cost per capita will be derived by dividing the total annual cost of payments calculated under subpart 5 by the population in the facility's service area. The information provided must be the latest income data compiled by the state demographer.

B. If the owner or operator has shown that the trust fund payment exceeds the criterion in item A, the commissioner shall determine, in consultation with the owner or operator, whether it is possible for the facility to generate enough revenue to develop a trust fund that will cover the current cost estimates. The information that will inform the decision must be provided by the owner or operator and must consist of:

(1) current measurements and future estimates, for at least ten years, of waste flow into the facility;

- (2) ten-year pro forma statements of income and expense;
- (3) estimates, for at least ten years, of demographic and economic trends in the facility's service area;
- (4) compilations and analyses supporting the information provided under subitems (1), (2), and (3); and
- (5) any further information the owner or operator believes relevant to the matter.

C. If the commissioner determines that the site cannot generate enough revenue to satisfy the criterion in item A, then the owner or operator must either:

- (1) make payments into the trust fund larger than the payment calculated under subpart 5, so that these payments will be large enough to develop a trust fund equal to the current cost estimates; or
- (2) schedule the closure procedures described in parts 7035.2625 and 7035.2635.

Subp. 7. **Accelerated payment allowed.** The owner or operator may accelerate payments into the fund or may deposit the full amount of the sum of the current cost estimates at the time the fund is established. However, the owner or operator shall maintain the value of the fund at no less than the value that the fund would have if monthly payments were made as specified in subpart 5.

Subp. 8. **Minimum alternate payment.** If the owner or operator establishes a dedicated long-term care trust fund after having used one or more alternate financial assurance mechanisms specified in parts 7035.2705 to 7035.2750, the first payment into the fund must be at least the amount that the fund would contain if the fund were established initially and monthly payments made according to specifications of this part.

Subp. 9. **Increase in cost estimate.** If the sum of the current cost estimates changes, the owner or operator shall compare the new estimates with the trustee's most recent annual valuation of the fund. If the value of the fund is less than the amount of the new estimates, the owner or operator, within 60 days after the change in the cost estimates, shall either change the fund pay-in schedule so that it incorporates the changes in the sum of the current cost estimates and submit evidence of this change to the commissioner, or establish other financial assurance mechanisms as specified in parts 7035.2705 to 7035.2750 to cover the difference.

Subp. 10. **Increase in trust fund value.** During the operating life of the facility, if the value of the dedicated long-term care trust fund is greater than the sum of the current cost estimates, the owner or operator may submit a written request together with supporting documents to the commissioner for permission to release the amount in excess of the sum of the current cost estimates covered by the fund.

Subp. 11. **Excess in other financial mechanisms.** If an owner or operator substitutes other financial assurance mechanisms as specified in parts 7035.2705 to 7035.2750 in place of all or part of the dedicated long-term care trust fund, then the owner or operator may submit a written request to the commissioner for permission to release the amount in excess of the sum of the current cost estimates covered by the fund.

Subp. 12. **Release of excess funds.** Within 60 days after receiving a request from the owner or operator for release of funds as specified in subpart 10 or 11, the commissioner shall instruct the trustee to release to the owner or operator funds in excess of the latest cost estimates covered by the fund.

Subp. 13. **Late payment; effect.** The trustee shall notify the owner or operator and the commissioner by certified mail within ten days if a payment is not made on the required date. The owner or operator must then stop accepting waste until the required payment is made. If the required payment is not made within 60 days of the commissioner's receipt of the nonpayment notice, the owner or operator shall close the facility as provided in part 7035.2635.

Subp. 14. **Trust fund disbursements.** After beginning actions at the facility that are specified in closure, postclosure care, or contingency action plans, the owner or operator must request and receive the commissioner's permission before the trustee may authorize any disbursements from the dedicated long-term care trust fund. The owner or operator must provide itemized bills in support of the request for permission to make payments from the fund.

Within 90 days after receiving a request to authorize a disbursement from the fund, the commissioner shall determine whether the expenditures are in accordance with the appropriate plan or are needed to ensure proper closure, postclosure care, or corrective action. The commissioner shall then authorize the trustee to make payments from the fund in amounts specified in writing. If the commissioner determines that the total cost incurred will be significantly greater than the value of the fund, the commissioner may withhold permission until it is determined, in accordance with part 7035.2775, that the owner or operator is no longer required to maintain financial assurance.

The commissioner shall decide whether to withhold permission to make payment based on changes in unit costs incurred. If costs per unit incurred at the site exceed contingency allowances made in cost estimates, the commissioner may withhold permission to make payment. The commissioner shall, within 30 days of the decision, provide the owner or operator with written reasons for withholding permission to make payment.

Subp. 15. **Termination of trust fund.** The commissioner shall agree to termination of the dedicated long-term care trust fund if:

A. the owner or operator substitutes alternate financial assurance as specified in parts 7035.2705 to 7035.2750; or

B. the agency releases the owner or operator from the requirements of this part in accordance with part 7035.2775.

Statutory Authority: *MS s 115.03; 116.07*

History: *13 SR 1150*

7035.2725 SURETY BOND GUARANTEEING PAYMENT INTO A TRUST FUND.

Items A to I apply to surety bonds that guarantee payment into a trust fund:

A. An owner or operator may satisfy the requirements of part 7035.2695 by obtaining a surety bond that conforms to the requirements of this part and by submitting the bond to the commissioner. The surety company issuing the bond must be among those listed as acceptable sureties on federal bonds in Circular 570, issued by the United States Department of the Treasury, as published annually in the Federal Register on July 1.

(1) An owner or operator of a new facility shall submit the bond to the commissioner along with the final permit application. The bond must be effective before the initial receipt of waste.

(2) An owner or operator of an existing facility with a remaining capacity of more than five years or 500,000 cubic yards shall submit the bond to the commissioner, within 180 days of November 15, 1988.

(3) An owner or operator of an existing facility that does not meet the criterion in subitem (2) shall submit the bond to the commissioner within a year of November 15, 1988.

B. The wording of the surety bond must be identical to the wording specified in part 7035.2805, subpart 3.

C. The owner or operator who uses a surety bond to satisfy the requirements of part 7035.2695 shall also establish a standby trust fund. Under the terms of the bond, the surety will deposit all payments made under the bond directly into the standby trust fund in accordance with instructions from the commissioner. This standby trust fund must meet the requirements in part 7035.2705 or 7035.2715, except that an originally signed duplicate of the trust agreement must be submitted to the commissioner with the surety bond. The trust

must meet the requirements specified in subitems (1) to (4) if the standby trust is funded under this part:

- (1) payments into the trust fund as specified in part 7035.2705;
- (2) updating of Schedule A of the trust agreement to show the sum of the current cost estimates;
- (3) annual valuations as required by the trust agreement; and
- (4) notices of nonpayment as required by the trust agreement.

D. The bond must guarantee that the owner or operator will:

(1) fund the standby trust fund an amount equal to the penal sum of the bond before the beginning of closure of the facility;

(2) pay into the standby trust fund in an amount equal to the penal sum within 15 days after an order to close the facility is issued by the commissioner, the agency, or a court of competent jurisdiction; or

(3) provide alternate financial assurance as specified in parts 7035.2705 to 7035.2750 and obtain the commissioner's written approval of the assurance provided, within 90 days after receipt by both the owner and operator and the commissioner of a notice of cancellation of the bond from the surety.

E. Under the terms of the bond, the surety will become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond.

F. The penal sum of the bond must equal the sum of the current cost estimates.

G. Whenever the sum of the current cost estimates becomes greater than the penal sum, the owner or operator, within 60 days after the increase, shall either increase the penal sum to an amount at least equal to the sum of the current cost estimates and submit evidence of the increase to the commissioner, or obtain other financial assurance as specified in parts 7035.2705 to 7035.2750 to cover the increase. Whenever the sum of the current cost estimates decreases, the penal sum shall be reduced to the amount of the sum of the current cost estimates following written approval by the commissioner.

H. Under the terms of the bond, the surety may cancel the bond by sending notice of cancellation by certified mail to the owner or operator and to the commissioner. However, cancellation is not effective until 120 days after the commissioner has received the notice of cancellation, as evidenced by return receipt.

I. The owner or operator may cancel the bond if the commissioner has given prior written consent based on the commissioner's receipt of evidence of alternate financial assurance as specified in parts 7035.2705 to 7035.2750.

Statutory Authority: *MS s 115.03; 116.07*

History: *13 SR 1150*

7035.2735 SURETY BOND GUARANTEEING PERFORMANCE.

Items A to J apply to surety bonds that guarantee performance:

A. An owner or operator may satisfy the requirements of part 7035.2695 by obtaining a surety bond that conforms to the requirements of items A to J and by submitting the bond to the commissioner. The surety company issuing the bond must be among those listed as acceptable sureties on federal bonds in Circular 570, issued by the United States Department of the Treasury, as published annually in the Federal Register on July 1.

(1) An owner or operator of a new facility shall submit the bond to the commissioner along with the final permit application. The bond must be effective before the initial receipt of waste.

(2) An owner or operator of an existing facility with a remaining capacity of more than five years or 500,000 cubic yards shall submit the bond to the commissioner within 180 days of November 15, 1988.

7035.2735 SOLID WASTE

616

(3) An owner or operator of an existing facility that does not meet the criterion in subitem (2) shall submit the bond to the commissioner within a year of November 15, 1988.

B. The wording of the surety bond must be identical to the wording specified in part 7035.2805, subpart 4.

C. The owner or operator who uses a surety bond to satisfy the requirements of part 7035.2695 shall also establish a standby trust fund. Under the terms of the bond, the surety will deposit all payments made under the bond directly into the standby trust fund in accordance with instructions from the commissioner. This standby trust must meet the requirements specified in part 7035.2705, except that an originally signed duplicate of the trust agreement must be submitted to the commissioner with the surety bond. The requirements in subitems (1) to (4) must be met if the standby trust fund is funded under this part:

- (1) payments into the trust fund as specified in part 7035.2705;
- (2) updating of Schedule A of the trust agreement to show current cost estimates;
- (3) annual valuations as required by the trust agreement; and
- (4) notices of nonpayment as required by the trust agreement.

D. The bond must guarantee that the owner or operator will:

(1) perform closure, postclosure care, or corrective action in accordance with the appropriate plans and other requirements of the permit for the facility whenever required to do so; or

(2) provide alternate financial assurance as specified in parts 7035.2705 to 7035.2750 and obtain the commissioner's written approval of the assurance provided, within 90 days after receipt by the commissioner of a notice of cancellation of the bond from the surety.

E. Under the terms of the bond, the surety will become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond. Following a determination by the commissioner that the owner or operator has failed to perform final closure, postclosure care, or corrective action in accordance with the appropriate plan and other permit requirements when required to do so, under the terms of the bond the surety shall deposit the amount of the penal sum into the standby trust fund.

F. The penal sum of the bond must at least equal the sum of the current cost estimates.

G. Whenever the sum of the current cost estimates becomes greater than the penal sum, the owner or operator, within 60 days after the increase, shall either increase the penal sum to the sum of the current cost estimates and submit evidence of the increase to the commissioner, or obtain other financial assurance as specified in parts 7035.2705 to 7035.2750. Whenever the sum of the current cost estimates decreases, the penal sum shall be reduced to the sum of the current cost estimates following written approval by the commissioner.

H. Under the terms of the bond, the surety may cancel the bond by sending notice of cancellation by certified mail to the owner or operator and to the commissioner. However, cancellation is not effective until 120 days after the commissioner has received the notice of cancellation, as evidenced by the return receipt.

I. The owner or operator may cancel the bond if the commissioner has given prior written consent. The commissioner shall provide such written consent if:

- (1) an owner or operator substitutes alternate financial assurance as specified in parts 7035.2705 to 7035.2750; or
- (2) the agency releases the owner or operator from the requirements of part 7035.2695 in accordance with part 7035.2775.

J. The surety will not be liable for deficiencies in the performance of closure, postclosure care, or corrective actions by the owner or operator after the agency releases

the owner or operator from the requirements of part 7035.2695 in accordance with part 7035.2775.

Statutory Authority: *MS s 115.03; 116.07*

History: *13 SR 1150*

7035.2745 LETTER OF CREDIT.

Items A to J apply to letters of credit:

A. An owner or operator may satisfy the requirements of part 7035.2695 by obtaining an irrevocable letter of credit which conforms to the requirements of items A to J, and by submitting the letter to the commissioner. The issuing institution must be an entity which has the authority to issue letters of credit. Its letter-of-credit operations must be regulated and examined by a federal or state agency.

(1) An owner or operator of a new facility shall submit the letter of credit to the commissioner along with the final permit application before the date on which waste is first received for disposal. The letter of credit must be effective before the initial receipt of waste.

(2) An owner or operator of an existing facility with a remaining capacity of more than five years or 500,000 cubic yards shall submit the letter of credit to the commissioner within 180 days of November 15, 1988.

(3) An owner or operator of an existing facility that does not meet the criterion in subitem (2) shall submit the letter of credit to the commissioner within a year of November 15, 1988.

B. The wording of the letter of credit must be identical to the wording in part 7035.2805, subpart 5.

C. An owner or operator who uses a letter of credit to satisfy the requirements of part 7035.2695 shall also establish a standby trust fund. Under the terms of the letter of credit, the issuing institution will deposit all amounts paid directly into the standby trust fund in accordance with instructions from the commissioner. This standby trust fund must meet the requirements in part 7035.2705 or 7035.2715 except that an originally signed duplicate of the trust agreement must be submitted to the commissioner with the letter of credit. The requirements in subitems (1) to (4) must be met if the standby trust fund is funded under this part:

- (1) payments into the trust fund as specified in part 7035.2705;
- (2) updating of Schedule A of the trust agreement to show current cost estimates;
- (3) annual valuations as required by the trust agreement; and
- (4) notices of nonpayment as required by the trust agreement.

D. The letter of credit must be accompanied by a letter from the owner or operator referring to the letter of credit by number, issuing institution, and date, and providing the following information: the identification number, name, and address of the facility, and the amount of funds assured for closure, postclosure care, or corrective action at the facility by the letter of credit.

E. The letter of credit must be irrevocable and issued for a period of at least one year. The letter of credit must provide that the expiration date will be extended automatically for a period of at least one year unless, at least 120 days before the current expiration date, the issuing institution notifies both the owner or operator and the commissioner by certified mail of a decision not to extend the expiration date. Under the terms of the letter of credit, the 120 days will begin on the date when the commissioner has received the notice, as evidenced by the return receipt.

F. The letter of credit must be issued in an amount at least equal to the sum of the current cost estimates.

7035.2745 SOLID WASTE

618

G. Whenever the sum of the current cost estimates becomes greater than the amount of the credit, the owner or operator, within 60 days after the increase, shall either cause the amount of the credit to be increased so that it at least equals the sum of the current cost estimates and shall submit evidence of the increase to the commissioner or obtain other financial assurance as specified in parts 7035.2705 to 7035.2750 to cover the increase. Whenever the sum of the current cost estimates decreases, the amount of the credit shall be reduced to the amount of the current cost estimate following written approval by the commissioner.

H. Following a determination by the commissioner that the owner or operator has failed to perform final closure, postclosure care, or corrective action in accordance with the appropriate plan and other permit requirements when required to do so, the commissioner shall draw on the letter of credit.

I. The commissioner shall draw on the letter of credit if the owner or operator does not establish alternate financial assurance as specified in parts 7035.2705 to 7035.2750 and obtain written approval of alternate assurance from the commissioner within 90 days after the commissioner receives notice from the issuing institution that it has decided not to extend the letter of credit beyond the current expiration date. The commissioner may delay the drawing if the issuing institution grants an extension of the term of the credit. During the last 30 days of any extension the commissioner shall draw on the letter of credit if the owner or operator has failed to provide alternate financial assurance as specified in parts 7035.2705 to 7035.2750 and obtain written approval of the assurance from the commissioner.

J. The commissioner shall return the letter of credit to the issuing institution for termination if:

(1) an owner or operator substitutes alternate financial assurance as specified in parts 7035.2705 to 7035.2750; or

(2) the agency releases the owner or operator from the requirements of part 7035.2705 in accordance with part 7035.2775.

Statutory Authority: *MS s 115.03; 116.07*

History: *13 SR 1150*

7035.2750 SELF-INSURANCE.

The provisions of items A to M apply to self-insurance.

A. An owner or operator may satisfy the requirements of part 7035.2695 by providing proof that the owner or operator meets the criteria of one of the financial tests in item B. An owner or operator who wants to self-insure must also send to the commissioner one of three forms of approved security, unsubordinated debentures, municipal bonds, or warrants drawn on the owner's or operator's municipal treasury. The market value of the unsubordinated debentures and municipal bonds, and the face value of the warrants must equal or exceed the sum of the current cost estimates.

(1) An owner or operator of a new facility shall submit the self-insurance demonstrations and the securities to the commissioner along with the final permit application before the date on which waste is first received for disposal.

(2) An owner or operator of an existing facility with a remaining capacity of more than five years or 500,000 cubic yards shall submit the self-insurance demonstrations and the securities to the commissioner within 180 days of November 15, 1988.

(3) An owner or operator of an existing facility that does not meet the criterion in subitem (2) shall submit the self-insurance demonstrations and the securities to the commissioner within a year of November 15, 1988.

B. The owner or operator must meet the criteria of subitem (1), (2), or (3) to pass the financial test.

(1) The owner or operator of a privately owned facility must have:

(a) two of the following three ratios: a ratio of total liabilities to net worth less than 2.0; a ratio of the sum of net income plus depreciation, depletion, and amortization to total liabilities greater than 0.1; or a ratio of current assets to current liabilities greater than 1.5;

(b) net working capital and tangible net worth each at least six times the current cost estimates for all owned or operated waste facilities;

(c) tangible net worth of at least \$10,000,000; and

(d) assets in the United States amounting to at least 90 percent of the owner's or operator's total assets or at least six times the current cost estimates for all owned or operated waste facilities.

(2) As an alternative to subitem (1), the owner or operator of a privately owned facility must have:

(a) a current rating for its most recent bond issuance of AAA, AA, A, or BBB as issued by Standard and Poor's or Aaa, Aa, A, or Baa as issued by Moody's;

(b) tangible net worth at least six times the sum of the current cost estimates for all owned or operated facilities covered;

(c) tangible net worth of at least \$10,000,000; and

(d) assets located in the United States amounting to at least 90 percent of the owner's or operator's total assets or at least six times the sum of the current cost estimates for all facilities covered.

(3) The owner or operator of a publicly owned facility must have:

(a) a current rating for its most recent bond issuance of AAA, AA, A, or BBB as issued by Standard and Poor's or Aaa, Aa, A, or Baa as issued by Moody's;

(b) a surplus of the net debt limit imposed by Minnesota Statutes, section 475.53 over existing debt that exceeds the sum of the current cost estimates;

(c) current tax levies that do not exceed the levy limits imposed by Minnesota Statutes, section 275.51; and

(d) a certification by an appropriate official that no foreseeable conditions in the coming year will cause the owner or operator to fail to meet the criteria outlined in units (a), (b), and (c).

C. To demonstrate that the criteria in the financial test are met, the owner or operator shall submit the following items to the commissioner:

(1) A letter certifying that the owner or operator passes one of the tests in item B. The owner or operator of a privately owned facility shall send a letter worded as specified in part 7035.2805, subpart 6, and signed by the owner's or operator's chief financial officer. The owner or operator of a publicly owned facility shall send a letter worded as specified in part 7035.2805, subpart 8, and signed by the owner's or operator's independent auditor and the head of the elected body responsible for the land disposal facility permit.

(2) A copy of an analysis of the owner's or operator's financial statements for the latest completed fiscal year. The owner or operator of a privately owned facility shall send an independent certified public accountant's report on examination of the financial statements. The owner or operator of a publicly owned facility shall send the financial statements prepared in accordance with Minnesota Statutes, section 371.17 or 471.69.

(3) Special reports from an independent certified public accountant stating that:

(a) the accountant has compared the data in the letter submitted under subitem (1) with the amounts in the financial statements;

(b) in connection with that procedure, no matters came to the accountant's attention that caused the accountant to believe that the specified data should be adjusted; and

(c) the total value of the bonds or warrant sent to the commissioner under item A equals or exceeds the sum of the current cost estimates.

(4) After the initial submission of the information specified in subitems (1), (2), and (3), the owner or operator shall send updated information to the commissioner within 90 days after the close of each succeeding fiscal year. If the owner or operator no longer meets the requirements of the financial test, the owner or operator shall send notice to the commissioner that it has either repaired the defect in the self-insurance demonstration or established alternate financial assurance. The notice must be sent by certified mail within 90 days after the end of the fiscal year for which the year-end financial data show that the owner or operator no longer meets the requirements.

(5) The commissioner shall not allow the use of self-insurance if:

(a) the accountant's opinions required in subitem (3) include an adverse opinion or a disclaimer of opinion;

(b) the opinion includes qualifications that relate to the numbers that are used in the gross revenue test or the financial test; or

(c) in light of the qualifications, the owner or operator has failed to demonstrate that it meets the gross revenue or the financial test.

(6) An owner or operator may satisfy the financial assurance requirements of this part by obtaining a written guarantee, hereafter referred to as a corporate guarantee. If the owner or operator makes the self-insurance demonstration through the use of a corporate guarantee, the parent corporation must be the entity that issues the bonds that are sent to the commissioner.

The guarantor must be the parent corporation of the owner or operator. The guarantor must meet the requirements for facility owners or operators in this part and must comply with the terms of the corporate guarantee. The wording of the corporate guarantee must be identical to the wording in part 7035.2805, subpart 7. The corporate guarantee must accompany the items sent to the commissioner as specified in item C. The terms of the corporate guarantee must provide that:

(a) If the owner or operator of a facility covered by the corporate guarantee fails to perform closure, postclosure care, or corrective action in accordance with the appropriate plan and other permit requirements whenever required to do so, the guarantor shall do so or establish a trust fund as specified in part 7035.2705 in the name of the owner or operator.

(b) The corporate guarantee remains in force unless the guarantor sends notice of cancellation by certified mail to the owner or operator and to the commissioner. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by the commissioner, as evidenced by return receipt.

(c) If the owner or operator fails to provide alternate financial assurance as specified in this part and fails to obtain the written approval of alternate financial assurance from the commissioner within 90 days after receipt by the commissioner of a notice of cancellation of the corporate guarantee from the guarantor, the guarantor shall provide alternate financial assurance in the name of the owner or operator.

D. The bonds sent to the commissioner under item A must be readily saleable in secondary bond markets. The market value of the bonds must equal or exceed the sum of the current cost estimates. The commissioner shall give the owner or operator a receipt for the bonds. The commissioner shall have the bonds kept by the commissioner of management and budget until the bonds must either be sold or returned to the owner or operator. The owner or operator of a privately owned facility shall send bonds that are registered, unsubordinated debentures. The owner or operator of a publicly owned facility shall send

bonds that are registered municipal bonds and that meet the requirements of Minnesota Statutes, chapters 400 and 475. The bonds must mature at the following times:

(1) Bonds used to self-insure closure costs must mature two years after the estimated closure date, as determined in the closure plan developed under part 7035.2625.

(2) Bonds used to self-insure postclosure care and contingency action costs must mature two years after the end of the postclosure care period, as determined in the postclosure plan developed under part 7035.2645, or thirty years after the date of issue, whichever is less.

(3) If either of the maturity dates required under subitem (1) or (2) exceeds 30 years, the owner or operator of a publicly owned facility may submit bonds with 30-year maturities and, thereafter, annually submit new 30-year bonds for the bonds held by the commissioner of management and budget. The substitutions must continue until the maturities required under subitems (1) and (2) equal the maturities of the bonds that the commissioner of management and budget holds.

E. Warrants sent to the commissioner under item A must be issued in compliance with chapters 383, 384, 385, and 427. The value of a warrant sent by an owner or operator must equal or exceed the sum of the current cost estimates. The commissioner shall give the owner or operator a receipt for the warrant. The commissioner shall have the warrant kept by the commissioner of management and budget until the warrant must either be submitted for payment or returned to the owner or operator.

F. The owner or operator who uses self-insurance to satisfy the requirements of part 7035.2695 shall also establish a standby trust fund. This standby trust fund must meet the requirements in part 7035.2705 or 7035.2715, except that an originally signed duplicate of the trust agreement must be submitted to the commissioner with the bonds or warrant. The trust must meet the requirements specified in subitems (1) and (2) if the standby trust is funded under this part:

(1) updating of Schedule A of the trust agreement to show the sum of the current cost estimates; and

(2) annual valuations as required by the trust agreement.

G. If the sum of the current cost estimates changes, the owner or operator shall compare the new estimate with the most recent annual valuation of the bonds or the value of the warrant. If the total market value of the bonds or the value of the warrant is less than the amount of the new estimates, the owner or operator, within 60 days after the change in the cost estimates, shall send the commissioner either enough bonds or another warrant to make up the deficiency or establish other financial assurance mechanisms as specified in parts 7035.2705 to 7035.2750. If the owner or operator sends more bonds, the bonds must be accompanied by an independent certified public accountant's report that the new issues have a market value that equals or exceeds the amount of the deficiency.

H. The owner or operator may request to exchange new issues of bonds or warrants for bonds or warrants held by the commissioner of management and budget on the commissioner's behalf. The new issues must have a market value equal to the bonds for which they are exchanged. New warrants must be equal in value to the warrants for which they are exchanged. The owner's or operator's request for a bond exchange must be accompanied by an independent certified public accountant's report that the new issues have a market value equal to the bonds for which they are exchanged. The commissioner shall make the exchange after receiving the request, the warrants or bonds and the accountant's report that must accompany the bonds. The commissioner and the owner or operator shall provide each other with receipts appropriate to document the exchange.

I. During the operating life of the facility, if the total market value of the bonds exceeds the sum of the current cost estimates by an amount greater than the market value of any single bond, the owner or operator may submit a written request together with supporting documents to the commissioner for return of bonds whose total value is not greater than the excess amount. If the value of warrants submitted exceeds the sum of the current

cost estimates, the owner or operator may substitute a warrant with a value equal to the sum of the current cost estimates, provided that supporting documents justify the substitution.

J. If the owner or operator substitutes other financial assurance mechanisms as specified in parts 7035.2705 to 7035.2750 in place of self-insurance, the owner or operator may submit a written request to the commissioner for return of the bonds or warrants along with evidence that the substitute mechanisms have taken effect.

K. Within 60 days of receiving a request from the owner or operator for return of bonds or warrants as specified in item I or J and if supporting documents justify the request, the commissioner shall return the warrants or appropriate number of bonds. The owner or operator shall give the commissioner an appropriate receipt for all warrants or bonds returned.

(1) If the owner or operator asks for an adjustment under item I, the commissioner shall:

- (a) return all warrants in exchange for warrants of the correct value; or
- (b) return bonds whose total market value does not exceed the difference between the sum of the previous cost estimates and the sum of the revised cost estimates.

(2) If the owner or operator asks for a return of securities under item J when a partial substitution of other financial assurance mechanisms for self-insurance has been made, the commissioner shall:

- (a) return all warrants in exchange for warrants of the correct value; or
- (b) return bonds whose total market value does not exceed the difference between the sum of the current cost estimates and the amount of financial assurance offered by the substitute mechanisms.

(3) If the owner or operator asks for a return of securities under item J when a full substitution of other financial assurance mechanisms has been made, the commissioner shall return all warrants or bonds.

L. If the owner or operator or guarantor, after proper orders from the commissioner, fails or refuses to perform actions specified in the closure plan, the postclosure care plan, or the contingency action plan, the commissioner shall seek authorization from the agency to sell bonds or submit warrants for payment. The commissioner shall also seek authorization if the owner or operator fails to meet the criteria of the financial test and fails to provide alternate financial assurance within 90 days, as provided in item C. The commissioner shall have the proceeds from bond sales or warrant payments deposited in the standby trust fund established under item F.

M. The commissioner shall return the bonds or warrants to the owner or operator and receive appropriate receipts if the agency releases the owner or operator from the requirements of this part in accordance with part 7035.2775.

Statutory Authority: *MS s 115.03; 116.07*

History: *13 SR 1150; L 2003 c 112 art 2 s 50; L 2009 c 101 art 2 s 109*

7035.2755 USE OF MULTIPLE FINANCIAL ASSURANCE MECHANISMS.

An owner or operator may satisfy the requirements of part 7035.2695 by establishing more than one mechanism for financial assurance per facility. These mechanisms are limited to trust funds, surety bonds guaranteeing payment into a trust fund, self-insurance, and letters of credit. The mechanisms must be established as specified in parts 7035.2705, 7035.2715, 7035.2720, 7035.2725, 7035.2745, and 7035.2750, except that it is the combination of mechanisms, rather than a single mechanism, which must provide financial assurance for an amount at least equal to the sum of the current cost estimates. If an owner or operator uses a trust fund in combination with a surety bond or a letter of credit, the owner or operator may use the trust fund as the standby trust fund for the other mechanisms. A

single standby trust fund may be established for two or more mechanisms. The commissioner may use any or all of the mechanisms to provide for closure, postclosure care, or corrective action at the facility.

Statutory Authority: *MS s 115.03; 116.07*

History: *13 SR 1150*

7035.2765 USE OF FINANCIAL ASSURANCE MECHANISM FOR MULTIPLE FACILITIES.

An owner or operator may use a financial assurance mechanism specified in parts 7035.2705 to 7035.2750 to meet the requirements of part 7035.2695 for more than one facility. Evidence of financial assurance submitted to the commissioner must include a list showing, for each facility, the identification number, name, address, and the amount of funds for closure, postclosure care, or corrective action assured by the mechanism. The amount of funds available through the mechanism must be no less than the sum of funds that would be available if a separate mechanism had been established and maintained for each facility. In directing funds available through the mechanism for closure, postclosure care, or corrective action at any of the facilities covered by the mechanism, the commissioner may direct only the amount of funds designated for that facility, unless the owner or operator agrees to the use of additional funds available under the mechanism.

Statutory Authority: *MS s 115.03; 116.07*

History: *13 SR 1150*

7035.2775 RELEASE OF OWNER OR OPERATOR FROM FINANCIAL REQUIREMENTS.

Subpart 1. **Release from closure requirements.** Within 90 days after receiving certifications from the owner or operator and an independent engineer registered in Minnesota that closure has been accomplished in accordance with the closure plan, the agency shall notify the owner or operator in writing that he or she is no longer required by part 7035.2695 to maintain financial assurance for closure of the particular facility, unless the agency has reason to believe that closure has not been accomplished in accordance with the closure plan.

Subp. 2. **Release from postclosure requirements.** When an owner or operator has completed, to the satisfaction of the agency, all postclosure care requirements in accordance with the postclosure plan, the agency will, at the request of the owner or operator, notify the owner or operator in writing that he or she is no longer required by part 7035.2695 to maintain financial assurance for postclosure care of the particular facility, unless the agency has reason to believe that postclosure care has not been accomplished in accordance with the postclosure care plan.

Subp. 3. **Release from corrective action requirements.** Within 90 days after the end of the postclosure care period or after termination of corrective action in accordance with part 7035.2695, whichever is later, the agency shall notify the owner or operator in writing that he or she is no longer required to maintain financial assurance for corrective action for the particular facility, unless the agency has reason to believe that corrective action has not been accomplished in accordance with the contingency action plan.

Statutory Authority: *MS s 115.03; 116.07*

History: *13 SR 1150*

7035.2785 USE OF A SINGLE MECHANISM FOR FINANCIAL ASSURANCE OF CORRECTIVE ACTION, CLOSURE, AND POSTCLOSURE CARE.

An owner or operator may satisfy the requirements for financial assurance for corrective action, closure, and postclosure care, or any combination thereof, for one or more facilities by using a trust fund, surety bond or letter of credit that meets the specifications for the mechanism in parts 7035.2705 to 7035.2750. The amount of funds available through the mechanism must be no less than the sum of funds that would be available if a separate

7035.2785 SOLID WASTE

624

mechanism had been established and maintained for financial assurance of corrective action, closure, and postclosure care.

Statutory Authority: *MS s 115.03; 116.07*

History: *13 SR 1150*

7035.2795 INCAPACITY OF OWNERS OR OPERATORS, GUARANTORS, OR FINANCIAL INSTITUTIONS.

Subpart 1. **Notification of bankruptcy.** An owner or operator shall notify the commissioner by certified mail of the commencement of a voluntary or involuntary bankruptcy proceeding naming the owner or operator as a debtor, within ten days after commencement of the proceeding.

Subp. 2. **Incapacity of financial institutions.** An owner or operator who fulfills the requirements of part 7035.2695 by obtaining a trust fund, surety bond, or letter of credit will be considered to be without the required financial assurance in the event of bankruptcy of the trustee or issuing institution, or a suspension or revocation of the authority of the trustee to act as trustee or the institution issuing the surety bond or letter of credit to issue these instruments. The owner or operator shall establish other financial assurance within 60 days after such an event.

Statutory Authority: *MS s 115.03; 116.07*

History: *13 SR 1150*

7035.2805 LANGUAGE REQUIRED FOR FINANCIAL INSTRUMENTS.

Subpart 1. **Trust agreement.** A trust agreement for a trust fund as specified in part 7035.2705 must be worded as specified in this subpart, except that instructions in brackets must be replaced with the relevant information and the brackets deleted.

TRUST AGREEMENT

Trust Agreement, the "Agreement," entered into on [date] by [name of the owner or operator], a [name of state] [insert "corporation," "partnership," "association," or "proprietorship"], the "Grantor," and [name of corporate trustee,], [insert "incorporated in the state of _____" or "a national bank"], the "Trustee."

The Minnesota Pollution Control Agency (Agency), an agency of the state of Minnesota, has established rules applicable to the Grantor, requiring that an owner or operator of a solid waste management facility shall provide assurance that funds will be available when needed for closure and/or postclosure care of, and/or contingency action for, the facility.

The Grantor has chosen a trust to provide the financial assurance for the facilities identified herein.

The Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this agreement, and the Trustee is willing to act as trustee.

The Grantor and the Trustee agree as follows:

Section 1. Definitions. As used in this Agreement:

- a. The term "Grantor" means the owner or operator who enters into this Agreement and any successors or assigns of the Grantor.
- b. The term "Trustee" means the Trustee who enters into this Agreement and any successor Trustee.
- c. The term "Beneficiary" means the Minnesota Pollution Control Agency and any successor agency.

Section 2. Identification of Facilities and Cost Estimates. This agreement pertains to the facilities and cost estimates, if any, identified on attached Schedule A [on Schedule A, for each facility list the identification number, name, address, and the current contingency action, closure, and/or postclosure cost estimates, or portions thereof, for which financial assurance is demonstrated by this Agreement].

Section 3. Establishment of Fund. The Grantor and the Trustee hereby establish a trust fund, the "Fund," for the benefit of the Agency. The Grantor and the Trustee intend that no third party have access to the Fund except as herein provided. The Fund is established initially as consisting of the property, which is acceptable to the Trustee, described in Schedule B attached hereto. This property and any other property subsequently transferred to the Trustee is referred to as the Fund, together with all earnings, and profits on earnings, less any payments or distributions made by the Trustee under this Agreement. The Fund shall be held by the Trustee, IN TRUST, as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the Grantor, any payments necessary to discharge any liabilities of the Grantor established by the Agency.

Section 4. Payment for Contingency Action, Closure, and Postclosure Care. The Trustee shall make payments from the Fund as the Agency Commissioner shall specify, in writing, to provide for the payment of the costs of contingency action, closure, and/or postclosure care of the facilities covered by this Agreement. The Trustee shall reimburse the Grantor or other persons as specified by the Agency Commissioner from the Fund for contingency action, closure, and postclosure expenditures in amounts the Agency Commissioner shall specify in writing. In addition, the Trustee shall refund to the Grantor the amounts the Agency Commissioner specifies in writing. Upon refund, these funds shall no longer constitute part of the Fund as defined herein.

Section 5. Payments Comprising the Fund. Payments made to the Trustee for the Fund shall consist of cash or securities acceptable to the Trustee.

Section 6. Trustee Management. In investing, reinvesting, exchanging, selling, and managing the Fund, the Trustee shall discharge his or her duties with respect to the trust fund solely in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstances then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; except that:

a. securities or other obligations of the Grantor, or any other owner or operator of the facilities, or any of their affiliates as defined in the Investment Company Act of 1940, United States Code, title 15, section 80a-2(a), shall not be acquired or held, unless they are securities or other obligations of the federal or state government;

b. the Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the federal or state government; and

c. the Trustee is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon.

Section 7. Commingling and Investment. The Trustee is expressly authorized in its discretion:

a. to transfer from time to time any or all of the assets of the Fund to any common, commingled, or collective trust fund created by the Trustee in which the Fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of others participating therein; and

b. to purchase shares in any investment company registered under the Investment Company Act of 1940, United States Code, title 15, sections 80a-1 et seq. including one which may be created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

Section 8. Express Powers of Trustee. Without in any way limiting the powers and discretions conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

a. To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No person dealing with the Trustee may be bound to see to the application of the purchase money or to inquire into the validity or expediency of a sale or other disposition.

b. To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted.

c. To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing the securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of the securities in a qualified central depository even though, when so deposited, the securities may be merged and held in bulk in the name of the nominee of the depository with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a federal reserve bank, but the books and records of the Trustee shall at all times show that all these securities are part of the Fund.

d. To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the federal or state government.

Section 9. Taxes and Expenses. All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements of the Trustee shall be paid from the Fund.

Section 10. Annual Valuation. The Trustee shall annually, at least 30 days prior to the anniversary date of establishment of the Fund, furnish to the Grantor and to the Agency Commissioner a statement confirming the value of the Trust. Any securities in the fund shall be valued at market value as of no more than 60 days prior to the anniversary date of establishment of the Fund. The failure of the Grantor to object in writing to the Trustee within 90 days after the statement has been furnished to the Grantor and the Agency Commissioner shall constitute a conclusively binding assent by the Grantor, barring the Grantor from asserting any claim or liability against the Trustee with respect to matters disclosed in the statement.

Section 11. Advice of Counsel. The trustee may from time to time consult with counsel, with respect to any question arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

Section 12. Trustee Compensation. The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the Grantor.

Section 13. Successor Trustee. The Trustee may resign or the Grantor may replace the Trustee, but the resignation or replacement shall not be effective until the Grantor has appointed a successor trustee and this successor accepts the appointment. The successor trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reasons the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee shall specify the date on which it assumes administration of the trust in a writing sent to the Grantor, the Agency Commissioner and the present Trustee by certified mail ten days before the change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this Section shall be paid as provided in Section 9.

Section 14. Instructions to the Trustee. All orders, requests, and instructions by the Agency to the Trustee shall be in writing, signed by the Agency Commissioner; and the

MINNESOTA RULES 2011

627

SOLID WASTE 7035.2805

Trustee shall act and shall be fully protected in acting in accordance with the orders, requests, and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor or the Agency hereunder has occurred. The Trustee shall have no duty to act in the absence of orders, requests, and instructions from the Agency Commissioner, except as provided herein.

Section 15. Notice of Nonpayment. The Trustee shall notify the Grantor and the Agency Commissioner by certified mail within ten days if no payment is received from the grantor by the end of the month. After the pay-in period is completed, the Trustee shall not be required to send a notice of nonpayment.

Section 16. Amendment of Agreement. This agreement may be amended by an instrument in writing executed by the Grantor, the Trustee, and the Agency Commissioner, or by the Trustee and the Agency Commissioner if the Grantor ceases to exist.

Section 17. Irrevocability and Termination. Subject to the right of the parties to amend this Agreement as provided in Section 13 and in Section 16, this Trust shall be irrevocable and shall continue until terminated at the written agreement of the Grantor, the Trustee, and the Agency Commissioner, or by the Trustee and the Agency Commissioner, if the Grantor ceases to exist. Upon termination of the Trust, all remaining trust property, less final trust administration expenses, shall be delivered to the Grantor or to any successors or assigns of the Grantor.

Section 18. Immunity and Indemnification. The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Agency Commissioner issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor or from the Trust Fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide a defense.

Section 19. Choice of Law. This Agreement shall be administered, construed, and enforced according to the laws of the state of Minnesota.

Section 20. Interpretation. As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each Section of this Agreement shall not affect the interpretation or the legal efficacy of this Agreement.

In Witness Whereof the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals to be hereunto affixed and attested as of the date first above written. The parties below certify that the wording of this Agreement is identical to the wording specified in Minnesota Rules, part 7035.2805, subpart 1, as such rules were constituted on the date of signing.

[SIGNATURE OF GRANTOR]

[TITLE]

Attest:

[TITLE]

[SEAL]

[SIGNATURE OF TRUSTEE]

Attest:

[TITLE]

[SEAL]

Subp. 2. **Certification of acknowledgment.** This part contains an example of the certification of acknowledgment which must accompany the trust agreement for a trust fund as specified in part 7035.2705.

CERTIFICATION OF ACKNOWLEDGMENT

State of _____

County of _____

On this [date], before me personally came [owner or operator] to me known, who, being by me duly sworn, did depose and say that she/he resides at [address], that she/he is [title] of [corporation, proprietorship, local government entity], the entity described in and which executed the above instrument; [that she/he knows the seal of said [corporation, local government entity]; that the seal affixed to the instrument is the [corporate, local government entity's] seal; that it was so affixed by order of the [Board of Directors, Board of Commissioners, City Council] of said [corporation, local government entity], and that she/he signed her/his name thereto by like order:

(signature of Notary Public)

Subp. 3. **Surety bond guaranteeing payment into a trust fund.** A surety bond guaranteeing payment into a trust fund as specified in part 7035.2725 must be worded as described in this part, except that instructions in brackets must be replaced with the relevant information and the brackets deleted.

FINANCIAL GUARANTEE BOND

Date bond executed: _____

Effective date: _____

Principal: [Legal name and business address of owner or operator]

Type of organization: [insert "individual," "joint venture," "partnership," or "corporation"]

State of incorporation: _____

Surety(ies): [name(s) and business address(es)]

Identification number, name, address and contingency action, closure, and/or postclosure amount(s) for each facility guaranteed by this bond (indicate contingency action, closure, and postclosure amounts separately): \$ _____

Total penal sum of bond: \$ _____

Surety's bond number: _____

The Principal and Surety(ies) are firmly bound to the Minnesota Pollution Control Agency (hereinafter called Agency), in the above penal sum for the payment we bind ourselves to, our heirs, executors, administrators, successors, and assigns jointly and severally; provided that, where the Surety(ies) are corporations acting as cosureties, we, the Sureties, bind ourselves in the sum "jointly and severally" only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of the sum only as is set forth opposite the name of the Surety; but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sum.

The Principal is required to have a permit in order to own or operate each waste facility identified above, and

The Principal is required to provide financial assurance for closure; closure and post-closure care; closure and contingency action; or closure, postclosure care and contingency action as a condition of the permit, and

The Principal shall establish a standby trust fund as required when a surety bond is used to provide financial assurance:

If the Principal shall faithfully, before the beginning of final closure of each facility identified above, fund the standby trust fund in the amount(s) identified above for the closure and/or postclosure care of the facility,

Or, if the Principal shall fund the standby trust fund in the amount(s) identified above for closure and/or postclosure care of the facility within 15 days after an order to begin closure is issued by the Agency Commissioner, the Agency, or court of competent jurisdiction,

MINNESOTA RULES 2011

629

SOLID WASTE 7035.2805

Or, if the Principal shall faithfully, before beginning contingency action at any facility identified above, fund the standby trust fund in the amount identified above for contingency action at the facility,

Or, if the Principal shall fund the standby trust fund in the amount identified above for contingency action at the facility within 15 days after an order to begin contingency action is issued by the Agency Commissioner, the Agency, or a court of competent jurisdiction,

Or, if the Principal shall provide alternate financial assurance, as authorized in part 7035.2725, and obtain the Agency Commissioner's written approval of assurance within 90 days after the date notice of cancellation is received by both the Principal and the Agency Commissioner from the Surety(ies), then this obligation shall be null and void, otherwise it is to remain in full force and effect.

The Surety(ies) shall become liable on this bond obligation only when the Principal has failed to fulfill the conditions described above. Upon notification by the Agency Commissioner that the Principal has failed to perform as guaranteed by this bond, the Surety(ies) shall place funds in the amount guaranteed for the facility(ies) into the standby trust fund as directed by the Agency Commissioner.

The liability of the Surety(ies) shall not be discharged by any payment or succession of payments hereunder, unless and until payment or payments shall amount in the aggregate to the penal sum of the bond, but in no event shall the obligation of the Surety(ies) hereunder exceed the amount of said penal sum.

The Surety(ies) may cancel the bond by sending notice of cancellation by certified mail to the Principal and to the Agency Commissioner, provided, however, that cancellation shall not occur during the 120 days beginning on the date of receipt of the notice of cancellation by the Agency Commissioner, as evidenced by the return receipts.

The Principal may terminate this bond by sending written notice to the Surety(ies) provided, however, that no such notice shall become effective until the Surety(ies) receive(s) written authorization for termination of the bond by the Agency Commissioner.

(The following paragraph is an optional rider that may be included but is not required.)

Principal and Surety(ies) agree to adjust the penal sum of the bond yearly so that it guarantees a new contingency action, closure and/or postclosure amount, provided that the penal sum does not increase by more than 20 percent in any one year, and no decrease in the penal sum takes place without the written permission of the Agency Commissioner.

The Principal and Surety(ies) have signed this Financial Guarantee Bond on the date set forth above.

The persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the Principal and Surety(ies) and that the wording of this surety bond is identical to the wording specified in Minnesota Rules, part 7035.2805, subpart 3, as the rules were constituted on the date this bond was executed.

Principal

[SIGNATURE(S)]

[NAMES(S)]

[TITLE(S)]

[CORPORATE SEAL]

Corporate Surety(ies)

[NAME AND ADDRESS]

State of incorporation: _____

Liability limit: \$ _____

[SIGNATURE(S)]

[NAME(S) AND TITLE(S)]

[CORPORATE SEAL]

MINNESOTA RULES 2011

7035.2805 SOLID WASTE

630

[For every cosurety, provide signature(s), corporate seal, and other information in the same manner as for Surety above.]

Bond premium: \$ _____

Subp. 4. **Surety bond guaranteeing performance.** A surety bond guaranteeing performance of contingency action, closure and/or postclosure care, as specified in part 7035.2735, must be worded as specified in this part, except that the instructions in brackets must be replaced with the relevant information and the brackets deleted.

PERFORMANCE BOND

Date bond executed: _____

Effective date: _____

Principal: [legal name and business address of owner or operator]

Type of organization: [insert "individual," "joint venture," "partnership," or "corporation"]

State of incorporation: _____

Surety(ies): [name(s) and business address(es)]

Identification number, name, address and contingency action, closure, and/or postclosure amount(s) for each facility guaranteed by this bond [indicate contingency action, closure, and postclosure amounts separately]: \$ _____

Total penal sum of bond: \$ _____

Surety's bond number: _____

The Principal and Surety(ies) hereto are firmly bound to the Minnesota Pollution Control Agency (hereinafter called Agency), in the above penal sum for the payment of which we bind ourselves, our heirs, executors, administrators, successors, and assigns jointly and severally; provided that, where the Surety(ies) are corporations acting as cosureties, we, the Sureties, bind ourselves in the sum "jointly and severally" only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of the sum only as is set forth opposite the name of the Surety, but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sum.

The Principal is required to provide financial assurance for closure; closure and postclosure care; closure and contingency action; or closure, postclosure care, and contingency action as a condition of the permit; and

The Principal shall establish a standby trust fund as is required when a surety bond is used to provide financial assurance.

The conditions of this obligation are such that if the Principal faithfully performs closure, whenever required to do so, of each facility for which this bond guarantees closure, in accordance with the closure plan and other requirements of the permit as the plan and permit may be amended, pursuant to all applicable laws, statutes, rules, and regulations, as these laws, statutes, rules, and regulations may be amended,

And, if the Principal faithfully performs postclosure care of each facility for which this bond guarantees postclosure care, in accordance with the postclosure plan and other requirements of the permit, as the plan and permit may be amended, pursuant to all applicable laws, statutes, rules, and regulations, as these laws, statutes, rules, and regulations may be amended,

And, if the Principal faithfully performs contingency action for each facility for which this bond guarantees contingency action, when required by and in accordance with the contingency action plan and other requirements of the permit, as the plan and permit may be amended, pursuant to all applicable laws, statutes, rules, and regulations, as such laws, statutes, rules, and regulations may be amended,

Or, if the Principal provides alternate financial assurance as specified in Minnesota Rules, parts 7035.2705 to 7035.2750, and obtains the Agency Commissioner's written approval of the assurance, within 90 days after the date notice of cancellation is received by

MINNESOTA RULES 2011

631

SOLID WASTE 7035.2805

both the Principal and the Agency Commissioner from the Surety(ies), then this obligation shall be null and void, otherwise it is to remain in full force and effect.

The Surety(ies) shall become liable on this bond obligation only when the Principal has failed to fulfill the conditions described above.

Upon notification by the Agency Commissioner that the Principal has been found in violation of the closure requirements of Minnesota Rules, part 7035.2635 for a facility for which this bond guarantees performance of closure, the Surety(ies) shall place the closure amounts guaranteed for the facility into the standby trust fund as directed by the Agency Commissioner.

Upon notification by the Agency Commissioner that the Principal has been found in violation of the postclosure requirements of Minnesota Rules, part 7035.2655 for a facility for which this bond guarantees performance of postclosure care the Surety(ies) shall place the postclosure amount guaranteed for the facility into the standby trust fund as directed by the Agency Commissioner.

Upon notification by the Agency Commissioner that the Principal has been found in violation of contingency action requirements of Minnesota Rules, part 7035.2615 for a facility for which this bond guarantees performance of contingency action, the Surety(ies) shall place the contingency action amount guaranteed for the facility into the standby trust fund as directed by the Agency Commissioner.

Upon notification by the Agency Commissioner that the Principal has failed to provide alternate financial assurance as specified in Minnesota Rules, part 7035.2735 and obtain written approval of the assurance from the Agency Commissioner during the 90 days following receipt by both the Principal and Agency of a notice of cancellation of the bond, the Surety(ies) shall place funds in the amount guaranteed for the facility(ies) into the standby trust fund as directed by the Agency Commissioner.

The Surety(ies) hereby waive(s) notification of amendments to closure, postclosure, and contingency action plans, permits, applicable laws, statutes, rules, and regulations and agrees that no amendment shall in any way alleviate its (their) obligation on this bond.

The liability of the Surety(ies) shall not be discharged by any payment or succession of payments hereunder, unless and until the payment or payments shall amount in the aggregate to the penal sum of the bond, but in no event shall the obligation of the Surety(ies) hereunder exceed the amount of said penal sum.

The Surety(ies) may cancel the bond by sending notice of cancellation by certified mail to the owner or operator and to the Agency Commissioner, provided however, that cancellation shall not occur during the 120 days beginning on the date of receipt of the notice of cancellation by both the Principal and the Agency Commissioner, as evidenced by the return receipts.

The Principal may terminate this bond by sending written notice to the Surety(ies), provided, however, that no notice shall become effective until the Surety(ies) receive(s) written authorization for termination of the bond by the Agency Commissioner.

(The following paragraph is an optional rider that may be included but is not required.)

Principal and Surety(ies) agree to adjust the penal sum of the bond yearly so that it guarantees a new contingency action, closure, and postclosure amount, provided that the penal sum does not increase by more than 20 percent in any one year, and no decrease in the penal sum takes place without the written permission of the Agency Commissioner.

The Principal and Surety(ies) have signed this Performance Bond on the date set forth above.

The persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the Principal and Surety(ies) and that the wording of this surety bond is identical to the wording in Minnesota Rules, part 7035.2805, subpart 4, as the rule was constituted on the date this bond was executed.

Principal

MINNESOTA RULES 2011

7035.2805 SOLID WASTE

632

[SIGNATURE(S)]

[NAMES(S)]

[TITLE(S)]

[CORPORATE SEAL]

Corporate Surety(ies)

[NAME AND ADDRESS]

State of incorporation: _____

Liability limit: \$ _____

[SIGNATURE(S)]

[NAME(S) AND TITLE(S)]

[CORPORATE SEAL]

[For every cosurety, provide signature(s), corporate seal, and other information in the same manner as for Surety above.]

Bond premium: \$ _____

Subp. 5. **Letter of credit.** A letter of credit, as specified in part 7035.2745, must be worded as specified in this part, except that the instructions in brackets must be replaced with the relevant information and the brackets deleted.

IRREVOCABLE STANDBY LETTER OF CREDIT

[Agency Commissioner]

Minnesota Pollution Control Agency

Dear Sir or Madam:

We hereby establish our Irrevocable Standby Letter of Credit No. _____ in your favor, at the request and for the account of [owner's or operator's name and address] up to the aggregate amount of [in words] U.S. dollars \$ _____, available upon presentation of:

1. your sight draft, bearing reference to this letter of Credit No. _____, and
2. your signed statement reading as follows: "I certify that the amount of the draft is payable pursuant to the solid waste rules, Minnesota Rules, parts 7035.0300 to 7035.2875."

This letter of credit is effective as of [date] and shall expire on [date at least one year later], but the expiration date shall be automatically extended for a period of [at least one year] on [date] and on each successive expiration date, unless, at least 120 days before the current expiration date, we notify both you and [owner's or operator's name] by certified mail that we have decided not to extend this letter of credit beyond the current expiration date. In the event you are so notified, any unused portion of the credit shall be available upon presentation of your sight draft for 120 days after the date of receipt by you, as shown on the signed return receipt.

Whenever this letter of credit is drawn on under and in compliance with the terms of this credit, we shall duly honor the draft upon presentation to us and we shall deposit the amount of the draft directly into the standby trust fund of [owner's or operator's name] in accordance with your instructions.

We certify that the wording of this letter of credit is identical to the wording specified in Minnesota Rules, part 7035.2805, subpart 5, as the rules were constituted on the date shown immediately below.

[SIGNATURE(S) AND TITLE(S) OF OFFICIAL(S) OF ISSUING INSTITUTION]

[DATE]

This credit is subject to (insert "the most recent edition of the Uniform Customs and Practice for Documentary Credits, published by the International Chamber of Commerce," or "the Uniform Commercial Code published in chapter 336").

Subp. 6. **Letter from the chief financial officer of a private firm.** A letter from the chief financial officer of a private firm as specified in part 7035.2750 must be worded as specified in this subpart, except that the instructions in brackets must be replaced with the relevant information and the brackets deleted.

LETTER FROM CHIEF FINANCIAL OFFICER

[Agency Commissioner]

Minnesota Pollution Control Agency

Dear Sir or Madam:

I am the chief financial officer of _____. This letter is in support of this firm's use of the financial test to demonstrate financial assurance, as specified in Minnesota Rules, parts 7035.0300 to 7035.2875.

[Fill out the following four paragraphs regarding facilities and associated cost estimates. If your firm has no facilities that belong in a particular paragraph, write "None" in the space indicated. For each facility, include its identification number, name, address, and current corrective action, closure, or postclosure cost estimates. Identify each cost estimate as to whether it is for corrective action, closure, or postclosure care.]

1. This firm is the owner or operator of the following facilities for which financial assurance for corrective action, closure, or postclosure care is demonstrated through the financial test specified in Minnesota Rules, parts 7035.0300 to 7035.2875, and other rules applicable to other types of waste facilities. The current corrective action, closure, or postclosure cost estimates for the facilities covered by the text of this letter are shown for each facility:

2. This firm guarantees, through the corporate guarantee specified in Minnesota Rules, parts 7035.0300 to 7035.2875, and other rules applicable to other types of waste facilities, the corrective action, closure, or postclosure care of the following facilities owned or operated by subsidiaries of this firm. The current cost estimates for the corrective action, closure, or postclosure care guaranteed are shown for each facility:

3. In states other than Minnesota, this firm, as owner or operator or guarantor, is demonstrating financial assurance for the corrective action, closure, or postclosure care of the following facilities either to the United States Environmental Protection Agency through the use of the financial tests specified in Code of Federal Regulations, title 40, part 264 or 265, subpart H, or to an authorized state through the use of a test equivalent or substantially equivalent to the specified financial test. The current corrective action, closure, or postclosure cost estimates covered are shown for each facility:

4. This firm owns or operates, or owns subsidiaries that own or operate, the following waste management facilities for which financial assurance for corrective action, if required, closure, or, if a disposal facility, postclosure care, is not demonstrated either to the United States Environmental Protection Agency or a state through a financial test or any other financial assurance mechanism specified in relevant federal or state regulations. The current corrective action, closure, or postclosure cost estimates not covered by such financial assurance are shown for each facility:

This firm [insert "is required" or "is not required"] to file a form 10K with the Securities and Exchange Commission (SEC) for the latest fiscal year.

The fiscal year of this firm ends on [month, day]. The figures for the following items marked with a single asterisk are derived from this firm's independently audited, year-end financial statements for the latest completed fiscal year, ended [date].

MINNESOTA RULES 2011

7035.2805 SOLID WASTE

634

I have enclosed with this letter the bonds that provide collateral for the [closure, post-closure care, corrective action] expenses that will be incurred at the sites listed in paragraphs numbered 1 and 2 above.

[Fill in Alternative I if the criteria of Minnesota Rules, part 7035.2750, item B, subitem (1), are used. Fill in Alternative II if the criteria of Minnesota Rules, part 7035.2750, item B, subitem (2), are used.]

Alternative I

1. Sum of the current cost estimates (total of all cost estimates shown in the four numbered paragraphs above) \$ _____

Current values of the bonds used to demonstrate financial assurance:

	Maturity date	Estimated market values	Face values
2. Closure	_____	\$ _____	\$ _____
3. Postclosure care	_____	\$ _____	\$ _____
4. Corrective action	_____	\$ _____	\$ _____
5. TOTALS		\$ _____	\$ _____

[Indicate the source of the market value estimates and provide details of estimating methods]: _____

*6. Total liabilities (if any portion of the cost estimates is included in total liabilities, you may deduct the amount of that portion from this line and add that amount to lines 7 and 8) \$ _____

*7. Tangible net worth \$ _____

*8. Net worth \$ _____

*9. Current assets \$ _____

*10. Current liabilities \$ _____

11. Net working capital (line 9 minus line 10) \$ _____

*12. The sum of net income plus depreciation depletion and amortization \$ _____

*13. Total assets in U.S. (required only if less than 90 percent of firm's assets are located in U.S.) \$ _____

YES NO

14. Is the market value total on line 5 at least equal to the total costs listed in line 1 above? _____

15. Is line 8 at least \$10,000,000? _____

16. Is line 8 at least six times line 1? _____

17. Is line 11 at least six times line 1? _____

*18. Are at least 90 percent of the firm's assets located in the U.S.? If not, complete line 19. _____

19. Is line 13 at least six times line 1? _____

MINNESOTA RULES 2011

635

SOLID WASTE 7035.2805

- 20. Is line 6 divided by line 8 less than 2.0? _____
- 21. Is line 12 divided by line 6 greater than 0.1? _____
- 22. Is line 9 divided by line 10 greater than 1.5? _____

Alternative II

1. Sum of the current cost estimates (total of all cost estimates shown in the four numbered paragraphs above) \$ _____

Current values of the bonds used to demonstrate financial assurance:

	Maturity date	Estimated market values	Face values
2. Closure	_____	\$ _____	\$ _____
3. Postclosure care	_____	\$ _____	\$ _____
4. Corrective action	_____	\$ _____	\$ _____
5. TOTALS		\$ _____	\$ _____

[Indicate the source of the market value estimates and provide details of estimating methods]: _____

6. Current bond rating of the most recent issuance of this firm and the name of the rating service: _____

7. Date of issuance of bonds [if the bonds are different than those listed in lines 2 to 4]: _____

8. Date of maturity of bonds [if different than lines 2 to 4]: _____

*9. Tangible net worth [if any portion of the corrective action, closure, or postclosure cost estimates is included in "total liabilities" on your firm's financial statements, you may add the amount of that portion to this line] \$ _____

*10. Total assets in U.S. (required only if less than 90 percent of the firm's assets are located in the U.S.) \$ _____

YES NO

11. Is the market value total on line 5 at least equal to the total costs listed in line 1 above? _____

12. Is line 9 at least \$10,000,000? _____

13. Is line 9 at least six times line 1? _____

*14. Are at least 90 percent of the firm's assets located in the U.S.? If not, complete line 5. _____

15. Is line 10 at least six times line 1? _____

I hereby certify that the wording of this letter is identical to the wording specified in Minnesota Rules, part 7035.2805, subpart 6, as such rules were constituted on the date shown immediately below.

Signature

Typed name

Chief financial officer

Date

Subp. 7. **Corporate guarantee for corrective action, closure, or postclosure care.** A corporate guarantee, as specified in part 7035.2750, item C, must be worded as specified in this subpart, except that instructions in brackets must be replaced with relevant information and the brackets deleted.

CORPORATE GUARANTEE FOR CORRECTIVE ACTION, CLOSURE, OR
POSTCLOSURE CARE

Guarantee made this [date] by [name of guaranteeing entity], a business corporation organized under the laws of the state of [insert name of state], herein referred to as guarantor, to the Minnesota Pollution Control Agency (Agency), obligee, on behalf of our subsidiary [facility owner or operator] of [business address].

Recitals:

1. Guarantor meets or exceeds the financial test criteria and agrees to comply with the reporting requirements for guarantors specified in Minnesota Rules, part 7035.2750, item C.

2. [Facility owner or operator] owns or operates the following solid waste disposal facilities covered by this guarantee: [List for each facility: identification number, name, and address. Indicate for each whether the guarantee is for corrective action, closure, postclosure care, or any combination of the three.]

3. "Closure plans," "postclosure plans," and "contingency action plans" as used below refer to the plans maintained as required by Minnesota Rules, parts 7035.2615, 7035.2625, and 7035.2645 for the closure, postclosure care, and corrective action needs of facilities identified above.

4. For value received from [facility owner or operator], guarantor guarantees to the Agency that in the event the [facility owner or operator] fails to perform [insert "corrective action," "closure," "postclosure care," or any combination of the three] of the above facilities in accordance with the corrective action, closure, or postclosure plans and other permit requirements whenever required to do so, the guarantor shall do so or establish a trust fund as specified in Minnesota Rules, part 7035.2705, in the name of [facility owner or operator] in the amount of the current corrective action, closure, or postclosure cost estimates as specified in Minnesota Rules, part 7035.2705.

5. Guarantor guarantees that if, at the end of any fiscal year before termination of this guarantee, the guarantor fails to meet the financial test criteria, guarantor shall send within 90 days, by certified mail, notice to the agency and [facility owner or operator] that he or she intends to provide financial assurance as specified in Minnesota Rules, parts 7035.2665 to 7035.2805, as applicable, in the name of [facility owner or operator]. Within 120 days after the end of the fiscal year, the guarantor shall establish financial assurance unless [facility owner or operator] has done so.

MINNESOTA RULES 2011

637

SOLID WASTE 7035.2805

6. The guarantor agrees to notify the Agency Commissioner by certified mail of a voluntary or involuntary proceeding under title 11 or title 7 of the United States Bankruptcy Code, naming guarantor as debtor, within ten days after commencement of the proceeding.

7. Guarantor agrees that within 30 days after being notified by the Agency Commissioner of a determination that guarantor no longer meets the financial test criteria or that he or she is disallowed from continuing as a guarantor of corrective action, closure, or postclosure care, guarantor shall establish alternate financial assurance as specified in Minnesota Rules, parts 7035.2665 to 7035.2805, as applicable, in the name of [facility owner or operator] unless [facility owner or operator] has done so.

8. Guarantor agrees to remain bound under this guarantee notwithstanding any or all of the following: amendment or modification of the corrective action, closure, or postclosure plan; amendment or modification of the permit; extension or reduction of the time of performance of corrective action, closure, or postclosure care; or any other modification or alteration of an obligation of the facility owner or operator pursuant to Minnesota Rules, parts 7001.0200 to 7001.1220; and 7001.1400 to 7001.3550; or 7035.0300 to 7035.2875.

9. Guarantor agrees to remain bound under this guarantee for so long as [facility owner or operator] must comply with the applicable financial assurance requirements of Minnesota Rules, parts 7035.2665 to 7035.2805, for the above-listed facilities, except that guarantor may cancel this guarantee by sending notice by certified mail to the Agency Commissioner and [facility owner or operator], the cancellation to become effective no earlier than 120 days after receipt of notice by the Agency Commissioner, as evidenced by return receipt.

10. Guarantor agrees that if [facility owner or operator] fails to provide alternate financial assurance as specified in Minnesota Rules, parts 7035.2665 to 7035.2805, as applicable, and obtain written approval of such assurance from the Agency Commissioner within 90 days after a notice of cancellation by the guarantor is received by the Agency Commissioner, guarantor shall provide alternate financial assurance in the name of [facility owner or operator].

11. Guarantor expressly waives notice of acceptance of this guarantee by the Agency or by [facility owner or operator]. Guarantor also expressly waives notice of amendments or modifications of the contingency action, closure, or postclosure care plan and of amendments or modifications of the facility permits.

I hereby certify that the wording of this guarantee is identical to the wording specified in Minnesota Rules, part 7035.2805, subpart 7, as such rules were constituted on the date first above written.

Effective date: _____

[NAME OF GUARANTOR]

[AUTHORIZED SIGNATURE FOR GUARANTOR]

[NAME OF PERSON SIGNING]

[TITLE OF PERSON SIGNING]

[SIGNATURE OF WITNESS OR NOTARY]

Subp. 8. **Letter from the head of an elected or publicly appointed body.** A letter from the head of an elected or publicly appointed body as specified in part 7035.2750 must be worded as specified in this subpart, except that the instructions in brackets must be replaced with the relevant information and the brackets deleted.

LETTER FROM THE HEAD OF AN ELECTED OR PUBLICLY APPOINTED BODY

[Agency commissioner]

Minnesota Pollution Control Agency

Dear Sir or Madam:

I am the [chair, mayor] of [the _____ County Board of commissioners, city of _____, the _____ landfill authority, the

MINNESOTA RULES 2011

7035.2805 SOLID WASTE

638

_____ sanitary district]. This letter is in support of this [county's, city's, authority's, district's] use of the financial test to demonstrate financial assurance as specified in Rules, parts 7035.0300 to 7035.2875. This letter is to demonstrate financial assurance for the following sites:

Operator _____

Name _____

Address _____

City _____

Current cost estimates:

Closure _____

Postclosure care _____

Corrective action _____

TOTAL _____

Operator _____

Name _____

Address _____

City _____

Current cost estimates:

Closure _____

Postclosure care _____

Corrective action _____

TOTAL _____

Operator _____

Name _____

Address _____

City _____

Current cost estimates:

Closure _____

Postclosure care _____

Corrective action _____

TOTAL _____

I have enclosed with this letter the [bonds, warrant] that provide(s) collateral for the [closure, postclosure care, corrective action] expenses that will be incurred at the site(s) listed above.

Financial Test

1. Sum of the current cost estimates (total of all cost estimates shown in the paragraphs above) \$ _____

Current value(s) of the [bonds, warrant] used to demonstrate financial assurance:

	Issuance and Maturity dates	Estimated market value(s)	Face value(s)
2. Closure	_____	\$ _____	\$ _____
3. Postclosure care	_____	\$ _____	\$ _____
4. Corrective action	_____	\$ _____	\$ _____
5. TOTALS		\$ _____	\$ _____

MINNESOTA RULES 2011

639

SOLID WASTE 7035.2805

[Indicate the source of the market value estimates and provide details of estimating methods]: _____

- 6. Current bond rating of the most recent issuance of the county and the name of the rating service _____
 - 7. Date of issuance of the bond _____
 - 8. Date of maturity of the bond (if different than lines 2 to 4 above) _____
 - 9. Total assessed value of the [county, city] _____
 - 10. Limit on total debt, as calculated under Minnesota Statutes, section 475.53 \$ _____
 - 11. Current total long-term debt \$ _____
 - 12. Total ad valorem taxes levied for the current fiscal year \$ _____
 - 13. Limit on current total ad valorem taxes, as calculated under Minnesota Statutes, section 275.51 \$ _____
- | | YES | NO |
|---|-------|-------|
| 14. Is line 10 minus line 11 greater than the total face value on line 5? | _____ | _____ |
| 15. For bonds:
Is the market value total on line 5 at least equal to line 1? | _____ | _____ |
| For warrants:
Is the face value total on line 5 at least equal to line 1? | _____ | _____ |
| 16. Is line 13 minus line 12 greater than zero? | _____ | _____ |
| 17. Will any circumstances expected in the coming year change the answers on lines 14 to 16? (provide evidence in support of this answer) | _____ | _____ |

I hereby certify that the wording of this letter is identical to the wording specified in Minnesota Rules, part 7035.2805, subpart 8, as such rules were constituted on the date shown below.

Signature

Typed name

(Chair, Mayor)

Date

Signature

Typed name

MINNESOTA RULES 2011

7035.2805 SOLID WASTE

640

(Auditor, City Manager)

(County, City) seal

Date

Subp. 9. **Resolution establishing a dedicated long-term care trust fund.** A resolution establishing a dedicated long-term care trust fund, as specified in part 7035.2720, must be worded as specified in this part, except that the instructions in brackets must be replaced with the relevant information and the brackets deleted.

RESOLUTION ESTABLISHING A DEDICATED
LONG-TERM CARE TRUST FUND

WHEREAS the [county, city, authority] of [name], as [owner, operator] of the [facility name] mixed municipal solid waste land disposal facility, is required under Minnesota Statutes, section 116.07, subdivision 4h, and Minnesota Rules, part 7035.2695, to provide evidence of financial assurance for the [name(s)] mixed municipal solid waste land disposal facility, and the [county, city, authority] of [name] acknowledges the jurisdiction of the Minnesota Pollution Control Agency in this matter;

NOW THEREFORE BE IT RESOLVED that there is created in the [name] [county, city, authority] treasury a dedicated long-term care trust fund, and that money in this fund shall be held in trust and may only be used to pay for closure, postclosure care, or contingency actions as specified in Minnesota Rules, parts 7035.2605 to 7035.2655, and in the permit(s) that apply to the facility(ies) referenced above, and that deposits into the fund shall conform with the requirements of Minnesota Rules, part 7035.2720, and that no disbursements from the fund shall be made without the written permission of the commissioner of the Minnesota Pollution Control Agency, and that the [county, city, authority] of [name] is bound to reimburse the Minnesota Pollution Control Agency for any legal and administrative costs incurred in actions taken to force the [county, city, authority] to act on this resolution, and that the money needed to make such reimbursements shall not be taken from the dedicated long-term care trust fund, and that [name and title] and [his, her] successors in office shall be the fund's trustee and shall be responsible for making all reports required under Minnesota Rules, part 7035.2720.

[title]

STATE OF MINNESOTA

[County, city, authority] of [name]

I, [name], [title] of [name] [county, city, authority] certify that the above resolution was adopted at the regular meeting of the [name] [county, city, authority] [name of appropriate body, e.g., Board of Commissioners] on the ____ day of _____, 20__.

Attest: _____

[name]

[title]

Statutory Authority: *MS s 115.03; 116.07*

History: *13 SR 1150; 18 SR 614; L 1998 c 254 art 1 s 107; 30 SR 529*

**SOLID WASTE MANAGEMENT FACILITY
SPECIFIC TECHNICAL REQUIREMENTS****7035.2815 MIXED MUNICIPAL SOLID WASTE LAND DISPOSAL FACILITIES.**

Subpart 1. **Scope.** The requirements of subparts 2 to 16 apply to landowners and owners and operators of facilities that dispose of mixed municipal solid waste in or on the land, except as provided in part 7035.2525, subpart 2.

Subp. 2. **Location.** Land disposal facilities must be located in accordance with items A to C and part 7035.2555:

A. A facility must be located only in an area where:

(1) the topography, geology, and ground water conditions allow the facility to be designed, operated, constructed, and maintained in a manner that minimizes environmental impacts;

(2) ground water flow paths and variations in soil or bedrock conditions are known in sufficient detail to enable reliable tracking of pollutant movement in the event of a release from the facility;

(3) it is feasible to construct a monitoring system with sufficient monitoring points to assure that pollutants can be detected and tracked in the event of a release from the facility; and

(4) in the event of a release from a facility, pollutants can be contained and corrective actions taken to prevent adverse impacts on water supplies and to return the facility to compliance with ground water and surface water quality standards.

B. Unless the owner or operator provides an engineered secondary containment system, a facility cannot be located in an area where the hydrologic or topographic conditions would allow rapid or unpredictable pollutant migration, impair the long-term integrity of the facility, or preclude reliable monitoring. The additional engineering must be approved by the commissioner and must consist of at least:

(1) a second liner with a collection system between the two liners;

(2) an in-place, operational ground water containment and treatment or disposal system that can be activated immediately if ground water pollution is detected; or

(3) another method of secondary containment backing up the liner providing additional protection equivalent to subitem (1) or (2) and backing up the cover system.

C. A land disposal facility must not be located on a site where:

(1) there are karst features, such as sinkholes, solution channels, disappearing streams, and caves, which may cause failures of the leachate management system or prevent effective monitoring or containment of a release of leachate;

(2) there are other unstable soil or bedrock conditions that may cause failures of the leachate management system; or

(3) an airport runway used or scheduled for use by turbojet aircraft is located within 10,000 feet of the waste boundary, or an airport runway used or scheduled for use by piston type aircraft only is located within 5,000 feet of the waste boundary, unless approval is obtained from the Federal Aviation Administration.

Subp. 3. **Hydrogeologic evaluation.** The owner or operator must complete a hydrogeologic evaluation in accordance with items A to I.

A. The owner or operator of a mixed municipal solid waste land disposal facility must investigate and define the hydrogeologic conditions at the facility. The hydrogeologic evaluation is required to obtain or retain a facility permit, and must be included in the application for a permit under parts 7001.3275, 7001.3300, and 7001.3475. The owner or operator must provide updates and revisions to the hydrogeologic evaluation as needed to clarify and define changes in the hydrogeologic conditions.

The owner or operator may use previous data and field installations to help fulfill the hydrogeologic evaluation requirements. If the commissioner determines that portions of this previous work are reliable, well-documented, and comparable in information content, they may be substituted for the corresponding type and number of work items required in this subpart.

B. The hydrogeologic evaluation must be conducted in phases, in which the work done under each of the items E to I makes use of the results of the work required under the preceding items.

(1) Before conducting each phase, the owner or operator shall submit for the commissioner's approval a detailed description of the work proposed for that phase and a report of the findings from the previous phase, accompanied by documentation of information sources and methods and procedures used, boring and monitoring point logs, test data, and sample calculations. The commissioner may require additional work plans, if necessary, to enable review between successive stages of field and laboratory investigations.

(2) Soil and rock samples must be retained for at least 90 days after submittal of the report containing the boring logs.

C. The owner or operator must define the hydrogeologic conditions within at least the following areas:

(1) beneath the waste fill area and leachate management system;

(2) sufficient distances beyond the waste fill area and leachate management system, based on the directions and rates of ground water flow, to define the soil and ground water conditions that would control pollutant migration from the facility;

(3) within areas in which corrective actions would be implemented to contain, recover, or treat leachate or polluted ground water; and

(4) within the following vertical zones:

(a) the unsaturated zone;

(b) any perched saturated zone;

(c) the zone of continuous saturation, from the water table, through the uppermost aquifer, the next aquifer below it, and any intervening units; and

(d) for facilities that have affected ground water quality to a depth greater than that given in unit (c), the zone of continuous saturation, from the water table to and including both the lowest affected aquifer and the next aquifer below it. As used in this item, the lowest affected aquifer means the lowest aquifer in which one or more pollutants originating from the facility exceed the intervention limits or alternative intervention limits under subpart 4; and

(e) any additional aquifers used locally as major sources of water supply.

The commissioner may approve a minimum depth shallower than required in subitem (4) if there is little likelihood that ground water pollutants originating from the facility will migrate below this designated level.

D. Where drilling methods, testing methods, minimum quantities or depths, and reporting requirements are specified in items E to I, the owner or operator may propose alternative procedures if subsurface conditions indicate a need for these procedures. The commissioner may approve or require changes from the requirements in items E to I for good cause, including cases where:

(1) subsurface conditions are shown to be uniform, or the requirements are otherwise unnecessary or excessive for site conditions;

(2) a requirement is infeasible for a particular site or hydrogeologic condition;

(3) an alternative procedure would produce more or better information or would reduce the chance of pollutant migration between connecting aquifers; or

(4) the required procedures are insufficient to produce the information required in item G.

In all cases, alternative procedures are acceptable only if the subsurface conditions are thoroughly defined and the uncertainty of monitoring and corrective action is not increased.

E. In the first phase of the hydrogeologic evaluation, the available published and unpublished information about the facility site and surrounding area must be evaluated. The report for this phase must include at least the following information wherever it is available or can be developed from available sources:

(1) A description of previous investigations of the site and surrounding area, and a discussion of the reliability and completeness of this information.

(2) Descriptions, maps, and aerial photographs depicting the site and surrounding area's geologic history, stratigraphic sequence, soils, topography, vegetation, climate, surface water hydrology, area water usage, regional hydrogeologic setting, ground water occurrence at the site, aquifers and aquitards, hydrogeologic parameters such as transmissivity and storage coefficient, recharge and discharge areas, rates and directions of ground water movement, and water quality.

(3) One or more geologic columns or sections.

(4) Cross-sections, oriented along and perpendicular to the directions of ground water flow.

(5) An inventory and a plan map of all active, unused, and abandoned wells within one mile of the facility, and of high-capacity wells and community water supply wells within three miles of the facility. The inventory must include well logs and all other available information on well construction, water levels, and well usage, and it must be based on thorough reviews of state and local collections of water well logs and, if required by the commissioner, interviews or surveys of well owners. The commissioner may require interviews and surveys of well owners if needed well logs are not available through other sources.

(6) For existing facilities, preliminary evaluations of the adequacy of the water monitoring system; the monitoring points' compliance with chapter 4725, Department of Health Water Well Construction Code; and the water quality monitoring data.

F. In the second phase of the hydrogeologic evaluation, the owner or operator must evaluate in detail the distribution and properties of the earth materials underlying the site and the ground water conditions beneath the site.

(1) The investigation must be sufficient to identify the soil and bedrock units beneath the site, delineate their areal and vertical extent, determine their water transmitting properties, identify perched saturated zones, define vertical and horizontal components of ground water flow, predict pollutant movement in the event of releases from the facility, and provide the information needed for the report under item G.

(2) The work plan required for this phase must describe the methods and quality control measures to be used in drilling, logging, piezometer installation, boring and piezometer abandonment, and soils, bedrock, and ground water testing; and the hydrogeologic basis for the investigation, including specific subsurface conditions the investigations are likely to encounter and will seek to define. The work plan must describe the planned numbers, locations, depths and sequence of borings, test pits, geophysical or other measurements, sampling sites, and testing sites.

(3) Sufficient soil borings must be done to define the soil and bedrock conditions within the areas required in item C. The initial drilling must include borings positioned throughout the site; within each geomorphic feature including ridges, knolls, depressions, and drainage swales; and within any geophysical anomalies already identified. The minimum required number of borings for this initial drilling is as follows:

Size of Site	Number of Borings
0-10 acres	15
10-20	Add one boring per additional acre
20	25
20-40	Add one boring per additional two acres
40	35
more than 40	Add one boring per additional four acres

Additional borings, geophysical investigations, or both must be done, where needed, to delineate the thickness, extent, and properties of the soil and bedrock units identified in the initial drilling. The commissioner may require test pits for examination of the near-surface soils. In bedrock, the commissioner shall require core samples if necessary to identify the stratigraphic position of the uppermost bedrock or to determine the water-bearing and water-transmitting properties of the bedrock.

(4) Soil borings must comply with chapter 4725 and must not create pathways for pollutant migration. They must be permanently sealed using the procedures given in parts 4725.2700 to 4725.3100. Except where the soil boring is converted to an active piezometer or monitoring point or where the Minnesota Department of Health approves alternative methods, soil and bedrock borings must be sealed with grout, bentonite, or other impermeable material in a manner that minimizes the potential for future pollutant movement along the borehole.

(5) Soil samples must be collected using procedures conforming to American Society for Testing and Materials (ASTM) standards D1586 (split-barrel), D1587 (thin-walled tube), D3550 (ring-lined barrel), or equivalent methods approved by the commissioner. Within each boring, soil samples must be collected at maximum five-foot intervals and at changes in soil type distinguishable through changes in drilling characteristics, examination of cuttings, or other means. At least one boring per ten acres of proposed waste fill must be continuously sampled below the elevation of the base of the fill. Wherever necessary to determine detailed stratigraphy, the commissioner shall require smaller intervals between samples, additional continuously-sampled borings, borehole geophysical logging, or other procedures. Samples must be preserved and transported in accordance with ASTM standard D4220.

(6) The soils and bedrock must be described and classified using information from field drilling observations, any geophysical logs, and laboratory examination and testing. Soil descriptions must include textural classification, primary and secondary structures, voids, and other properties that may affect soils correlations and influence pollutant movement. Rock cores or samples must be described and classified using accepted geologic classification systems and nomenclature.

(7) Based on the descriptions and testing required in subitems (6), (8), and (9), the soils and bedrock must be classified and, to the extent feasible, correlated over the site.

(8) For each soil unit identified on the site, a series of soil samples from different borings and elevations within the unit must be laboratory-tested. The owner or operator must develop a procedure and supporting rationale to select samples for this testing that are representative of the unit or are critically located within the unit. Together with the in-field testing required in subitem (9), the laboratory testing must determine the water-bearing and water-transmitting properties including, as appropriate, particle size distribution, porosity, vertical permeability, and clay mineral content or cation exchange capacity. Samples must not be combined into composites for classification or testing. Samples used to test permeability must not be compacted, and disturbance of samples must be minimized. Testing

and quality assurance must conform with methods approved by the American Society for Testing and Materials or other standard methods.

(9) A program to determine in-place permeabilities must be developed including criteria for the placement of test wells or piezometers. Test locations must be at or adjacent to logged borings and must be suitably distributed to characterize the variation in the permeabilities of soil or bedrock units.

(10) Ground water flow conditions must be defined in detail within the zone specified in item C. A series of piezometers complying with subpart 10, item R, must be installed to map hydraulic head within this zone. The range of fluctuation in hydraulic head must be determined through historical records and a series of on-site measurements over time, unless the commissioner approves alternative methods to estimate the importance of fluctuations. The effects of pumping from high-capacity wells must be evaluated.

(11) Logs of all soil and bedrock borings must be submitted to the commissioner. The soil and bedrock logs must contain the information generated under subitems (3) to (8) and a scale drawing of the soil types encountered. At a minimum, the logs must contain the following: date of the boring; name and address of the driller and testing firm; drilling and sampling methods; surveyed elevation of the ground surface above mean sea level; surveyed location referenced to permanent benchmarks; soil and rock classifications and narrative descriptions, contacts between strata or units, sample depths, blow counts, and test data; observations during drilling; water level measurements; any geophysical logs; and sealing procedures.

(12) The well inventory, plan map, and supporting information required under item E, subitem (5), must be field-checked and updated to include all wells within the prescribed distances. Owners of structures or facilities that may have wells must be contacted directly to supplement the information previously obtained.

G. The report for the second phase of the hydrogeologic evaluation must contain at least the following information generated under item F:

(1) logs developed under item F, subitem (11), for borings and under subpart 10, items O to R, for piezometers and monitoring wells;

(2) descriptions of the soil and bedrock units and of the properties that may influence water movement including:

(a) texture and classification;

(b) particle size distributions;

(c) mineral composition, cementation, and soil structure;

(d) geologic structure, including strike, dip, folding, faulting, and jointing;

(e) permeabilities, including vertical permeabilities, and porosity; and

(f) lenses and other discontinuous units, voids, solution openings, layering, fractures, other heterogeneity, and the scale or frequency of this heterogeneity;

(3) one or more detailed geologic columns;

(4) descriptions of the hydrologic units within the saturated zone, including their thicknesses; hydraulic properties; the role and effect of each as an aquifer, aquitard, or perched saturated zone; and the actual or potential use of the aquifers as water supplies;

(5) plan-view maps and a series of cross-sections, spaced no more than 500 feet apart, oriented at a minimum in directions parallel to and perpendicular to the predominant directions of ground water flow, and showing the areal and vertical extent of the soil and bedrock units, the position of the water table, measured values of hydraulic head, equipotential lines and inferred ground water streamlines, soil or bedrock borings, locations and construction of piezometers and monitoring points, and locations of any geophysical measurements used to prepare the cross-sections;

(6) description and evaluation of the ground water flow system, specifically addressing the following components and discussing their significance with respect to ground water and pollutant movement:

- (a) local, intermediate, and regional flow systems;
- (b) ground water recharge and discharge areas, interactions of ground water with perennial or intermittent surface waters, and how the facility affects recharge rates;
- (c) existing or proposed ground water and surface water withdrawals;
- (d) the effect of heterogeneity, fractures, or directional differences in permeability on ground water movement;
- (e) directions of ground water movement including vertical components of flow, specific discharge rates, and average linear velocities within the hydrologic units described in subitem (4); and
- (f) seasonal or other temporal fluctuations in hydraulic head;

(7) an analysis of potential impacts on ground water quality, surface water quality, and water users in the event of a release from the facility including projected paths and rates of movement of both water-soluble and low-solubility components of leachate; and

(8) if mathematical or analog models are used to simulate ground water flow or contaminant migration, the report must thoroughly describe the model and its capabilities and limitations, state all assumptions or approximations made in using the model, identify quantities or values derived from the model that are not confirmed by direct measurement, and evaluate the reliability and accuracy of the results.

H. In the third phase of the hydrogeologic evaluation, the water monitoring system must be designed and installed based on the information obtained under items E to G. The monitoring system must comply with the requirements of subpart 10.

(1) The work plan for this phase must include:

- (a) a description of the proposed monitoring system; monitoring point locations, design, and installation procedures; and a thorough evaluation of the suitability of any existing monitoring points proposed for inclusion in the monitoring system, including any deficiencies with respect to the requirements of subpart 10;
- (b) an explanation of how the proposed monitoring system addresses the hydrogeologic conditions identified under items E to G; and
- (c) a preliminary version of the monitoring protocol required under subpart 14.

(2) The report for this phase must include:

- (a) the monitoring point construction and installation records required under subpart 10, items O to S;
- (b) a description of any changes from the locations, design, and installation procedures identified in the work plan; and
- (c) an evaluation of any differences from previously reported soils and bedrock conditions, water levels, or ground water flow conditions.

I. In the fourth phase of the hydrogeologic evaluation, water quality information must be collected from the monitoring system and interpreted. Water quality monitoring must comply with the requirements of subpart 14.

(1) The work plan for this phase must include the proposed monitoring protocol required in subpart 14; schedule of background or initial sampling dates; proposed analytical constituents and measurements; and methods of data analysis and interpretation.

(2) The report for this phase must contain the monitoring and quality assurance data, analysis of water quality trends, and identification of constituents that exceed

ground water performance standards of subpart 4 or surface water quality standards of chapter 7050.

Subp. 4. **Ground water performance standards.** The owner or operator must design, construct, operate, and maintain the facility to achieve compliance with items A to J.

A. A compliance boundary must be established at each facility in accordance with items B and C. If the conditions in item D or E apply, a lower compliance boundary and surface water compliance boundary may also be established. Ground water quality must comply with items E, F, and H at the locations given in item F. If an intervention limit established under items E, F, and H is exceeded in ground water at any location, the owner or operator must take the actions specified in item G.

B. The owner or operator must propose the locations of the compliance boundary. The owner or operator shall submit the proposed locations to the commissioner for review and approval, together with the rationale for the selected locations, supporting information, and any additional information the commissioner may require to describe the locations of the boundaries in the facility permit.

C. The compliance boundary must be established in accordance with subitems (1) and (2).

(1) The compliance boundary must surround the waste fill area and leachate management system. It must be located on the facility property, with a sufficient setback from the property boundary to enable the installation of monitoring points and, if necessary, ground water control features. The following factors shall also be considered in establishing the location of the compliance boundary:

(a) hydrogeologic factors, including attenuation and dilution characteristics; ground water quantity, quality, flow rates, and flow directions; and anticipated rates and directions of pollutant movement;

(b) the feasibility of ground water monitoring at the compliance boundary;

(c) the feasibility of corrective actions to maintain compliance with ground water quality standards at the compliance boundary;

(d) the volume, composition, and physical and chemical characteristics of the leachate;

(e) the proximity and withdrawal rates of ground water users, and the availability of alternative water supplies; and

(f) any other public health, safety, and welfare effects.

(2) The distance between the compliance boundary and the permitted waste boundary must be no greater than 200 feet. The commissioner may require a smaller separation distance if ground water flow rates are very slow or where necessary to provide additional protection to ground water, including sites with downward ground water flow. At existing facilities, including expansion areas, the commissioner may allow a separation distance greater than 200 feet if the following conditions are met:

(a) the commissioner determines that the owner or operator has provided sufficient monitoring to assure reliable detection and tracking of pollutant migration within the area enclosed by the compliance boundary, and that the larger separation presents no greater risk to water quality and water use than a separation distance of 200 feet or less;

(b) the hydrogeologic evaluation under subpart 3 is complete or will be completed according to a compliance schedule; and

(c) the owner or operator revises the cost estimate for contingency action under part 7035.2615 to reflect any greater costs for additional monitoring; ground water containment, removal, and treatment; and other contingency actions, and provides evidence of financial assurance to pay for the increased costs.

D. In addition to the compliance boundary required of all facilities under item C, the commissioner shall designate a lower compliance boundary at any facility where there is a potential for substantial pollutant migration downward to a deeper aquifer used locally as a source of water supply. The lower compliance boundary shall be designated at a contact between soil or hydrogeologic units, or other definable surface within the saturated zone, and shall be located to prevent adverse effects on water supplies.

E. The commissioner may designate a surface water compliance boundary if it is determined, by the analysis under subpart 3, item G, subitem (7) or otherwise, that pollutants entering the ground water from the facility may migrate to surface water at concentrations that could adversely affect the quality of surface water.

(1) The surface water compliance boundary must be designated as a vertical plane extending downward from the land surface or as some other readily definable plane located between the land disposal facility and the surface water.

(2) The surface water compliance boundary may either replace a portion of the compliance boundary or be designated in addition to the compliance boundary. The surface water compliance boundary may be substituted entirely for a portion of the compliance boundary only if the facility is within 500 feet of the surface water and the commissioner determines that all pollutants entering the ground water from the facility will discharge into that surface water.

(3) The commissioner shall establish standards and intervention limits for the surface water compliance boundary in the facility permit based on the applicable provisions of chapter 7050. If the surface water in turn recharges an aquifer used as a water supply, the commissioner shall establish standards and intervention limits protective of both surface water and drinking water.

(4) The commissioner shall require submission of any facility and site information needed to establish standards and intervention limits for the surface water compliance boundary, including low-flow stream discharge rates, mixing characteristics and rates, biological communities, and chemical composition of the surface water and leachate.

F. Except as provided in items E and H and this item, pollutant concentrations in ground water must not exceed the standards listed in this item at or beyond the compliance boundary and at or below the lower compliance boundary. The standards and intervention limits for these two boundaries are as follows:

Substance	Standard or intervention limit (in micrograms per liter unless otherwise noted)
(1) Acrylamide	0.025
(2) Acrylonitrile	0.17
(3) Alachlor	2.5
(4) Aldicarb	2.3
(5) Aldrin	0.0075
(6) Allyl chloride	7.35
(7) Arsenic	12.5
(8) Asbestos	1800000 medium and long (greater than 10 microns) fibers per liter
(9) Barium	375
(10) Benzene	3

MINNESOTA RULES 2011

649	SOLID WASTE 7035.2815	
(11) Bis(2-chloroethyl)ether		0.078
(12) Cadmium		1.25
(13) Carbofuran		9
(14) Carbon tetrachloride		0.67
(15) Chlordane		0.055
(16) Chlorobenzene (monochlorobenzene)		15
(17) Chloroform		1.3
(18) Chromium		30
(19) Copper		325
(20) DDT		0.25
(21) Dibromochloropropane (DBCP)		0.063
(22) 1,2-Dibromoethane (Ethylene dibromide, EDB)		0.002
(23) 1,2-Dichlorobenzene (ortho-)		155
(24) 1,3-Dichlorobenzene (meta-)		155
(25) 1,4-Dichlorobenzene (para-)		18.8
(26) 3,3'-Dichlorobenzidine		0.052
(27) 1,2-Dichloroethane		0.95
(28) 1,1-Dichloroethylene		1.8
(29) 1,2-Dichloroethylene (cis-)		17
(30) 1,2-Dichloroethylene (trans-)		17
(31) Dichloromethane (methylene chloride)		12
(32) 2,4-Dichlorophenoxyacetic acid (2,4-D)		17
(33) 1,2-Dichloropropane		1.5
(34) Dieldrin		0.0025
(35) 2,4-Dinitrotoluene		0.27
(36) 1,2-Diphenylhydrazine		0.11
(37) Epichlorohydrin		8.9
(38) Ethylbenzene		170
(39) Heptachlor		0.025
(40) Heptachlor epoxide		0.0015
(41) Hexachlorobenzene		0.053
(42) Hexachlorobutadiene		1.1
(43) Hexachlorocyclohexane (alpha-)		0.0075
(44) Hexachlorocyclohexane (beta-)		0.047
(45) Hexachlorocyclohexane (gamma-)(Lindane)		0.05

MINNESOTA RULES 2011

7035.2815 SOLID WASTE	650
(46) Hexachlorodibenzodioxin	0.000015
(47) Hexachloroethane	6.2
(48) Lead	5.0
(49) Mercury	0.75
(50) Methyl ethyl ketone	43
(51) Methoxychlor	85
(52) Nickel	38
(53) Nitrate (as Nitrogen)	2500
(54) Nitrite (as Nitrogen)	250
(55) N-Nitrosodimethylamine	0.0035
(56) N-Nitrosodiphenylamine	17.8
(57) Total carcinogenic polynuclear aromatic hydrocarbons (PAH)	0.007
(58) Polychlorinated biphenyls (PCB's)	0.02
(59) Pentachlorophenol	55
(60) Selenium	11
(61) Styrene	35
(62) 2,3,7,8-Tetrachlorodibenzo-p-dioxin (-TCDD)	0.0000005
(63) 1,1,2,2-Tetrachloroethane	0.44
(64) Tetrachloroethylene	1.7
(65) Toluene	500
(66) Toxaphene	0.075
(67) 1,1,1-Trichloroethane	50
(68) 1,1,2-Trichloroethane	1.5
(69) Trichloroethylene	7.8
(70) 2,4,6-Trichlorophenol	4.4
(71) 2,4,5-TP (Silvex)	13
(72) Vinyl chloride	0.037
(73) Xylene	110

G. If an intervention limit established under items E, F, and H is exceeded in ground water at any location where the facility's impacts are monitored, the owner or operator must take the following actions:

- (1) immediately notify the commissioner in writing;
- (2) immediately resample if previous samples at the facility did not exceed the intervention limits;
- (3) evaluate the need to resample if previous samples exceeded the intervention limits;

(4) evaluate the significance of the exceedance and the source or cause of the constituents exceeding the intervention limits;

(5) evaluate the need for immediate corrective action to prevent pollutant concentrations from approaching or exceeding standards at the compliance boundary, surface water compliance boundary, or lower compliance boundary;

(6) evaluate the need for changes in water monitoring, including sampling frequencies, constituents analyzed, and installation of additional monitoring points;

(7) within 30 days after obtaining the sample results in which an intervention limit was exceeded, submit a written report to the commissioner describing the evaluations and conclusions under subitems (2) to (6) and the actions taken or planned under subitem (8); and

(8) take other actions described in the facility's contingency action plan and as required in subpart 15 and part 7035.2615.

H. In lieu of the intervention limits and standards under items E and F, the commissioner may establish alternative standards and intervention limits in the facility permit as follows:

(1) If the concentration of any constituent in the background ground water at a facility is greater than a standard or intervention limit established in this subpart, the background concentration of the constituent must be used as the standard or intervention limit. For purposes of this subitem, background refers to the condition of ground water that has experienced no change in quality due to migration of constituents from the facility. If the background water quality is inadequately defined, the commissioner may require additional evaluation including sampling, statistical analysis of sampling data, and installation of additional monitoring points. The commissioner may alter the alternative standards or intervention limits if background water quality is changing due to actions or events occurring outside the facility property and beyond the owner's or operator's control.

(2) Upon request by the owner or operator, the commissioner may establish alternative limits for some or all substances for portions of a facility filled before November 15, 1988. Unless approved by the agency, or by the commissioner as provided in subitem (1), the alternative limits must not exceed four times the concentrations given in item F. The owner or operator must have completed a remedial investigation study evaluating the extent and severity of ground water pollution at the facility and a feasibility study evaluating the feasibility and the environmental and economic costs, risks, and benefits of the possible alternative corrective actions. The alternative approaches must include corrective actions intended to achieve compliance with the standards under items E and F and at least one additional approach intended to maintain ground water concentrations lower than four times the concentrations under item F. The feasibility study also must evaluate the pollutant concentrations that would remain in ground water after corrective action and the extent to which the use of these alternative limits may adversely affect the immediate and future use of ground water downgradient from the facility.

(3) If the quality of a public water supply is potentially affected by migration of leachate from a facility, and if the maximum contaminant level for a substance as defined and established under either chapter 4720 or under the National Primary Drinking Water Regulations, Code of Federal Regulations, title 40, part 141, is a lower concentration than the standard under items E and F, the commissioner may use the maximum contaminant level as the alternative standard and alternative intervention limit for that substance.

(4) If a substance is present in ground water at a facility, and if that substance is known to impart undesirable taste or odor to drinking water, the commissioner may upon the recommendation of the Minnesota commissioner of health establish alternative limits to avoid these taste and odor effects.

(5) If a substance not listed in item F is present in ground water at a facility and is determined by the Minnesota commissioner of health to be potentially harmful to health, the commissioner may establish alternative limits for that substance. Except as

provided elsewhere in this subpart, the alternative limits shall be 25 percent of the concentration given in unit (a) or (b):

(a) For a substance not classified by the United States Environmental Protection Agency as Group A (human carcinogen) or Group B (probable human carcinogen), the recommended allowable limit, as determined by the Minnesota commissioner of health; or

(b) For a substance classified by the United States Environmental Protection Agency as a Group A or Group B carcinogen, either the concentration corresponding to a risk of one additional case of cancer per 100,000 adults consuming the water over a lifetime, as estimated by the United States Environmental Protection Agency and the Minnesota commissioner of health, or the recommended allowable limit under unit (a), whichever is lower.

(6) If a substance which has a standard or an alternative standard under subitems (2) to (5) is present in ground water at a facility, and if the recommended allowable limit or the concentration corresponding to the one-in-100,000 cancer risk under subitem (5) is changed, the commissioner may establish alternative limits for that substance. The alternative limits shall be 25 percent of the concentration given in subitem (5), unit (a) or (b), whichever is applicable.

I. If a substance is not detected in a sample and the limit of detection is higher than the intervention limit or standard for that substance, the intervention limit or standard will not be assumed to have been attained or exceeded.

J. The commissioner, after investigation and evaluation, may require the owner or operator to implement the facility contingency action plan and to take corrective action under the following circumstances, even if a standard or intervention limit established under this subpart is not being exceeded:

(1) in the event of a substantial release of leachate that the commissioner may reasonably expect to result in a violation of water quality standards; or

(2) based on the additive carcinogenicity or toxicity of a combination of pollutants in the ground water, in lieu of the limits for individual substances under items E, F, and H. The additive carcinogenicity or toxicity must be computed using the approach given in "Guidelines for the Health Risk Assessment of Chemical Mixtures," Federal Register, Volume 51, pages 34014-34025, September 24, 1986. Where quantification using this approach is feasible, the commissioner may require response actions if the sum total risk of consuming the water over a lifetime would exceed either 2.5 additional cases of cancer in a population of 1,000,000 persons or for noncarcinogens, 25 percent of the acceptable concentration for long-term consumption.

Subp. 5. **Design requirements.** The design requirements for a mixed municipal solid waste land disposal facility are as follows:

A. The owner or operator must develop an engineering report for the site. The report must include specifications for site preparation. The report shall be submitted with the final permit application required under part 7001.3300. These specifications as they relate to phase development of the facility must be established in the engineering report. Site preparations include clearing and grubbing for disposal areas and building locations, topsoil stripping and storage, cover material excavation, other excavations, berm construction, drainage control structures, leachate collection and treatment system, ground water monitoring system, gas monitoring and collection system, entrance and access roads, screening, fencing, and other special design features.

B. The owner or operator must develop the site in phases. Each phase must contain individual cells that will provide for filling in a manner to achieve final waste elevations as rapidly as possible. The phases must be designed and constructed to minimize moisture infiltration into the fill areas while maintaining stable slopes and appropriate operating conditions. The owner or operator must consider seasonal phases in order to accommodate the differences between wet and dry and warm and cold weather operations. The owner or

operator must bring each phase to the final waste contours, as shown on the ultimate site development plan, and close the phase according to the approved facility closure plan.

C. Any new fill area at a land disposal facility must be located at least 200 feet from the nearest property line, unless otherwise approved by the commissioner based on existing filling procedures, existing site structures, the facility design, compliance boundaries, and existing land restrictions.

D. The owner or operator must divert surface water drainage around and away from the site operating area. A drainage control system, including changes in the site topography, ditches, berms, sedimentation ponds, culverts, energy breaks, and erosion control measures, must take into consideration at least the following features:

- (1) the expected final contours for the site and the planned drainage pattern;
- (2) the drainage pattern of the surrounding area and the possible effects on and by the regional watershed;
- (3) the need for temporary structures as filling progresses at the site;
- (4) the base of each fill area and the top of each lift graded at a minimum two percent slope; and
- (5) the area's ten-year, 24-hour rainfall.

E. The owner or operator must design and maintain slopes and drainageways to prevent erosion, particularly of liner and final cover materials. Slopes greater than 200 feet long must include diversion drainageways unless the commissioner approves a greater distance based on sedimentation run-off calculations, proposed design features and sedimentation control devices. Where water runs off top slopes onto steeper side slopes, the owner or operator must evaluate the need for drainageways around the perimeter of the top slope and flumes or drop structures to prevent erosion of the cover. Drainageways must include energy breaks and concrete or rip rap reinforcement necessary to prevent erosion.

F. The owner or operator must provide a sediment settling pond if run-off would otherwise carry excessive sediment off the facility property. The commissioner may require monitoring of water quality within or beneath a sedimentation pond and corrective actions if adverse water quality effects are detected.

G. The final contours for the fill area must be a minimum three percent and a maximum 20 percent slope unless the commissioner approves other contours based on existing site topography, design plans, and operating conditions.

H. The facility design must include:

- (1) a cover system in accordance with subpart 6;
- (2) a liner system in accordance with subpart 7;
- (3) a leachate collection and treatment system in accordance with subpart 9;
- (4) a water monitoring system in accordance with subpart 10; and
- (5) a gas monitoring and collection system in accordance with subpart 11 unless determined to be unnecessary by the commissioner based on the location, waste characteristics, and site characteristics.

Subp. 6. **Intermittent, intermediate, and final cover system.** The owner or operator of a mixed municipal solid waste land disposal facility must design and maintain a cover system capable of minimizing infiltration of precipitation into the fill areas, preventing surface water ponding on fill areas, controlling gas movement, preventing erosion of surface and side slopes, reducing wind erosion and wind blown litter, minimizing the creation and movement of dust, retaining slope stability, reducing effects of freeze-thaw and other weather conditions, maintaining vegetative growth while minimizing root penetration

of the low permeability cover layer, and discouraging vector and burrowing animal intrusion into the site. A complete cover system must consist of intermittent, intermediate, and final covers as outlined in items A to E.

A. The owner or operator must place an intermittent cover upon all exposed solid waste in accordance with the approved operation and maintenance manual for the site. The owner or operator shall submit to the commissioner for approval a proposed cover system that addresses the frequency and depth of placement and the material to be used as cover. The frequency of placement may be no less than once per week. The cover depth must be sufficient to cover the waste completely and must be at least six inches if soil or similar material is used. The commissioner, in approving the proposed cover system, must consider the characteristics of the proposed cover material, the characteristics of the solid waste, the leaching potential of the solid waste, the design and operation of the facility, and the potential for nuisance conditions if other than daily cover is proposed.

B. The owner or operator must place intermediate cover on all filled surfaces of the facility where no additional solid waste will be deposited within 30 days. The intermediate cover must consist of compacted material of sufficient depth, at least 12 inches if soil or similar material is used, to cover the waste completely, and graded to prevent surface water ponding.

C. The owner or operator of an existing mixed municipal solid waste land disposal facility must comply with the final cover requirements of subitems (1) to (4) if, within 18 months after November 15, 1988, waste will no longer be received and the facility will be closed.

(1) The final cover system must be compatible with the end use for the site.

(2) The final cover system must be graded to prevent surface water ponding and must have a minimum slope of two percent and a maximum slope no greater than 25 percent.

(3) The final cover system must consist of a barrier layer at least 24 inches thick of materials having a permeability not greater than 2×10^{-6} centimeters per second overlain by 12 inches of material of which at least six inches is topsoil capable of sustaining a vegetative cover. A barrier consisting of synthetic materials at least 30/1000 of an inch thick may be used in place of the barrier layer described above.

(4) The vegetative cover must consist of shallow rooted perennial grasses or other suitable vegetation that will not penetrate the barrier layer.

D. The owner or operator of a new mixed municipal solid waste land disposal facility or an existing facility or portions thereof that will close or reach final permitted waste elevations more than 18 months after November 15, 1988, must comply with the requirements of subitems (1) to (9).

(1) The final cover system must be compatible with the end use for the site.

(2) The final cover system must be designed and constructed to contain or reject at least 90 percent of the precipitation falling on the system.

(3) A final cover system comprised of soils or amended soils must consist of at least three layers; a barrier layer, a drainage layer, and a top layer. The barrier layer must be at least 24 inches thick if it consists of soils or amended soils. The drainage layer must be at least six inches thick. The top layer must be at least 18 inches thick, of which at least six inches is topsoil, and of sufficient depth to contain the vegetative roots and have an available water-holding capacity to promote vegetative growth.

(4) The barrier layer must have a maximum permeability no greater than 2×10^{-6} centimeters per second.

(5) A synthetic membrane may be used as the barrier layer. The membrane must be at least 30/1000 of an inch thick and meet the physical property standards for the material type developed by the National Sanitation Foundation and reproduced in the United States Environmental Protection Agency Manual, "Lining of Waste Impoundment

and Disposal Facilities", SW-870, March 1983, Office of Research and Development, Cincinnati, Ohio.

(6) The layer of topsoil must be capable of sustaining vegetative cover consisting of shallow-rooted perennial grasses or other suitable vegetation that will not penetrate the barrier layer.

(7) In designing the drainage for the final cover system, the owner or operator must consider the need for drainage ditches, pipes, and collection areas to prevent erosion and excessive sediment movement off site. The owner or operator must also consider design and construction techniques needed to maintain the drainage layer in place on the barrier layer.

(8) The barrier layer must be placed upon a buffer material covering the waste to protect the barrier layer from damage.

(9) The owner or operator must grade the final cover system to achieve a minimum three percent and a maximum 20 percent slope, unless the commissioner approves otherwise. The commissioner's approval must consider the ability of the proposal to minimize infiltration and prevent erosion, the design and operational specifications, and the ultimate use for the site. The final cover system must maximize surface water run-off and prevent ponding of surface water.

E. The owner or operator must place all cover material for the barrier, buffer, and drainage layers in lifts of no more than six inches and compact the lifts within zero to five percent of optimum moisture content to achieve 95 percent Standard Proctor of maximum density according to the compaction test of subpart 8. The owner or operator must not compact the uppermost six inches to this specification.

Subp. 7. **Liner requirements.** Any previously unfilled portion of an existing mixed municipal solid waste land disposal facility or any portion of a new mixed municipal solid waste land disposal facility must be lined. An extension of 18 months from November 15, 1988, may be granted by the commissioner to the owner or operator of an existing mixed municipal solid waste land disposal facility provided the owner or operator shows that the liner is unnecessary for that time based on: subsurface geologic conditions; ground water and surface water flow patterns; ground water and surface water quality; depth to ground water; distance to surface water; remaining site capacity; design and construction techniques to be used to mitigate leachate generation; and other site conditions that exist and will minimize impacts on the environment.

A liner is not required for existing disposal areas at existing mixed municipal solid waste land disposal facilities that will be expanded vertically. However, a permit for a vertical expansion may be granted by the commissioner only if the owner or operator shows that the expansion will not increase the potential for harm to human health or the environment. The owner or operator shall submit to the commissioner an engineering and hydrogeologic report containing a detailed analysis of the impact the expansion would have on the environment and human health. The report must also contain the design and construction modifications to be used at the facility to minimize impacts on the environment. The report must include a hydrogeologic evaluation as outlined in subpart 3; a feasibility study on minimizing leachate generation, controlling leachate movement, and on treating ground water and surface water pollution; an evaluation of long-term monitoring; and an appropriate adjustment to the financial instruments in place for the facility.

The liner installed at a mixed municipal solid waste land disposal facility must comply with the requirements of items A to N. The lined portion of the disposal area must be separated from any existing fill area by low permeability material to the extent practicable, be designed to collect the additional water movement from the old fill area to the new fill area, and prevent movement of water from the new fill area to the old fill area.

A. The liner system in combination with the cover system must achieve an overall site efficiency of 98.5 percent collection or rejection of the precipitation that falls on the

disposal area and minimize the amount of leachate leaving the fill site to the soil and ground water system below the site.

B. The liner system must be compatible with the waste and leachate.

C. The liner must maintain its integrity for the operating life of the facility and the postclosure care period.

D. The liner system must consist of at least the following:

(1) a smooth, stable subgrade for placement of the barrier liner by means of the placement of protective material over the existing subgrade, the removal of abrasive objects, organic matter, and vegetation in the subgrade, and regrading;

(2) a barrier liner capable of containing leachate generated at the facility and surface water that has come in contact with waste; and

(3) a drainage layer above the barrier liner to rapidly convey surface water and leachate from the fill area, and to protect the barrier layer from puncture or other disturbances that might disrupt the integrity of the barrier liner.

E. A natural soil barrier liner must be at least four feet thick. A synthetic membrane must be at least 60/1000 of an inch thick for an unreinforced membrane or 30/1000 of an inch thick for a reinforced membrane. A synthetic membrane must meet the specifications of the National Sanitation Foundation, Standard Number 4, Flexible Membrane Liners, November 1983, Ann Arbor, Michigan. The synthetic membrane must be placed over a natural soil barrier liner at least two feet thick. The drainage layer must consist of at least 12 inches of suitable soil material or an equivalent synthetic material.

F. The barrier liner must have a permeability no greater than 1×10^{-7} centimeters per second. The drainage layer must have a permeability of 1×10^{-3} centimeters per second or greater throughout.

G. The base of the liner must be graded to a minimum two percent and a maximum ten percent slope and the side slopes must be no steeper than 50 percent.

H. The barrier layer must be compacted in lifts no greater than eight inches.

I. The drainage layer must cover the base liner and the side slopes.

J. The liner must be designed to have a leachate collection efficiency of at least 95 percent of the precipitation falling on the fill area. The efficiency calculation must consider the liner thickness, the liner slope, the saturated hydraulic conductivity of the liner and drainage layer, the drainage layer thickness, the permeability of the drainage layer and liner, the porosity of the drainage layer, the flow distance to collection pipes, and the amount of leachate to be generated and collected based on annual infiltration and ground water inflow.

K. An alternative liner system design may be used when approved by the commissioner. The commissioner's approval shall be based on the ability of the proposed liner system to control leachate migration, meet performance standards, and protect human health and the environment.

L. The owner or operator of a mixed municipal solid waste land disposal facility must discuss the design of the liner system in the engineering report required in part 7001.3475, item D and must address at least the following:

(1) the source and quantity of natural soils capable of meeting the requirements of this subpart;

(2) the likelihood and consequences of failures caused by puncture, tear, creep, freeze-thaw, thermal stress, abrasion, swelling, extraction, oxidative degradation, exposure to ultraviolet radiation, acidic conditions, concentration of ions, organic constituents, pressure, and the presence of gases, rodents, microbes, and root penetration;

(3) the composition of the drainage layer and liner including the soil gradations, percent fines, mineral composition, and solubility under acidic conditions and when in contact with solvents; and

(4) the calculations and assumptions used in choosing the particular design proposed for the facility.

M. The liner system must be protected from damage during operation of the facility by a method approved by the commissioner.

N. The installation of the liner must comply with the construction specifications developed under subpart 12.

Subp. 8. **Cover and liner evaluation.** Soils intended for use as cover or liner material must be evaluated for the following properties as appropriate:

A. particle size distribution according to ASTM D421, ASTM D422, and ASTM D2217;

B. percent fines according to ASTM D1140;

C. Atterberg limits according to ASTM D423, ASTM D424, and ASTM D427;

D. specific gravity according to ASTM D854;

E. soil description according to ASTM D2488;

F. soil classification according to ASTM D2487;

G. water content according to ASTM D2216 and ASTM D3017;

H. compaction according to ASTM D698 or ASTM DM1557;

I. consolidation according to ASTM D2435;

J. permeability according to ASTM D2434;

K. mineralogy according to the American Society of Agronomy and American Society for Testing and Materials;

L. unconfined compression according to ASTM D2166;

M. triaxial compression according to ASTM D2850;

N. cation exchange capacity according to Methods of Soil Analysis, Agronomy Monograph No. 9, C.A. Black, editor, American Society of Agronomy, Madison, Wisconsin, 1965; and

O. the nutrient content, pH, and percent organic matter for topsoils used to grow vegetation.

Alternative test methods may be used upon written approval by the commissioner.

Subp. 9. **Leachate detection, collection, and treatment system.** The facility design must include a leachate detection, collection, and on-site or off-site treatment system. The detection system must monitor the level of leachate build-up in the fill area and the effectiveness of the liner system. The collection and treatment system must collect the leachate for proper treatment. If leachate treatment will take place off-site, the owner or operator must provide pretreatment of the leachate, if necessary. The system must comply with items A to K.

A. The owner or operator must install the detection system at the lowest elevation of the fill area and throughout the fill area, as necessary, to monitor leachate build-up and for use as a part of the collection system. The detection system must be capable of monitoring leachate build-up in the fill area and consist of collection lysimeters and standpipes capable of monitoring, detecting, and collecting leachate movement through the liner. The detection system must consist of materials compatible with the leachate. The commissioner may approve a detection system without collection lysimeters or standpipes provided the owner or operator shows either to be unnecessary based on the liner system, subsurface soil conditions, ground and surface water flow patterns, depth to ground water, and the amount of leachate generated. The detection system must be designed and constructed to monitor the effectiveness of the leachate storage area.

B. The owner or operator must construct a clean-out system capable of cleaning the entire collection system. Clean-out structures must be spaced no more than 500 feet apart.

C. The owner or operator must design the size of the collection system in accordance with subitems (1) to (4).

(1) The owner or operator must complete a water balance calculation based upon the amount of precipitation, evapotranspiration, surface run-off, soil and waste moisture storage capacity, root zone depth, surface slope, subsurface lateral drainage, and average monthly temperature. The owner or operator must derive the leachate generation rate by calculating the amount of water that percolates through the cover each month using actual data from an average weather year and a year when the precipitation exceeds the average precipitation by at least 20 percent. The engineering design report must contain all calculations and assumptions made during the water balance calculation.

(2) The size of the fill area the collection system will serve must be considered in determining pipe and storage area sizing.

(3) The amount of leachate to be collected must relate to the water balance calculated in subitem (1) and the site efficiency as calculated in subpart 7.

(4) In sizing sump pumps to remove leachate from the fill area, the owner or operator must use the storage capacity anticipated in the waste and leachate collection system, the anticipated amount of leachate to be generated, and the amount of leachate moving to the holding area by gravity drains. The pumps must be compatible with the leachate.

(5) The storage area must be designed and constructed to drain the system back into the overall leachate collection system to minimize the potential for overflowing of the storage area. The storage design must be capable of detecting leaks, containing the leaks, and minimizing the need for corrective actions.

D. The height of free standing liquid over the liner in the fill area must not exceed one foot.

E. The unintercepted leachate flow distance along the drainage layer must not exceed 100 feet.

F. The design of the collection system must include collection pipes of sufficient diameter to handle the flow and allow cleaning. The pipes must be capable of handling loads experienced during construction and disposal of solid waste. The engineering design report must contain the buckling capacity and compressive strength of the pipe. The pipes must be placed in lined trenches and covered with a suitable filter material or geotextile membrane designed and constructed to encourage flow to the pipe and prevent infiltration of fine-grained soils. The geotextile membrane must not be placed in contact with the collection pipe.

G. The collection pipes must be trenched into the barrier liner with the same thickness of liner beneath the pipes as exists elsewhere or be constructed under a positive projection condition.

H. The collection system must consist of pipes resistant to chemical and biological breakdown as a result of contact with the leachate.

I. The design and construction of the collection system must be coordinated with the planned phase development for the site and the amount and timing of leachate generation.

J. The collection system must be designed to allow the collection of leachate samples for chemical analysis.

K. The owner or operator must design and construct the collection system to transport leachate into a holding area for testing and treatment prior to disposal, if the holding area is necessary. The owner or operator must design any holding area or treatment system

compatible with the leachate and capable of preventing releases of leachate to the environment. The treatment and disposal of leachate must comply with parts 7001.0010 to 7001.0210, and 7001.1000 to 7001.1100. The design and construction of a leachate treatment and disposal system must be completed in accordance with a feasibility study conducted by the owner or operator and approved by the commissioner.

Subp. 10. **Water monitoring systems.** The owner or operator must design, install, and maintain a water monitoring system in compliance with items A to T.

A. A water monitoring system must be installed at a mixed municipal solid waste land disposal facility and must be designed, constructed, and operated:

(1) to yield samples that are representative of the water quality in the portions of the ground water, surface water, or unsaturated zone the individual monitoring points are intended to sample;

(2) to allow ground water or surface water quality potentially affected by the facility to be distinguished from background water quality;

(3) to allow early detection of the release of pollutants from a facility;

(4) to allow determination of the composition, areal and vertical extent, concentration distribution, and highest concentrations of pollutants in the ground water or surface water; and

(5) to allow determination of whether the facility complies with the ground water performance standards of subpart 4.

B. The owner or operator must demonstrate the adequacy of the water monitoring system to reliably detect pollution and to comply with the requirements of this subpart. The numbers, types, locations, and depths of monitoring points, and the separation distances between them, must be designed based on:

(1) an evaluation of potential sources of leachate releases, including the leachate collection system, critical or higher-risk areas of the liner, areas of greatest potential buildup of leachate on the liner, leachate tanks, and leachate treatment and holding areas;

(2) an evaluation of the hydrogeologic conditions at the facility, including the variability of water quality and the projected paths and rates of migration of leachate from the potential sources identified under subitem (1). This analysis must include both water-soluble and low-solubility components of leachate; and

(3) a consideration of the location of any potentially impacted water supply wells, other points of water use, and surface waters.

C. Water monitoring systems must include monitoring points situated as follows:

(1) Monitoring points must be installed upgradient and downgradient from the facility, with upgradient monitoring points in each aquifer that has a downgradient monitoring point.

(2) All monitoring systems must be sufficient at a minimum to allow early detection of the release of leachate from each of the potential sources identified under item B, subitem (1).

(3) If pollutants originating from the facility are detected in ground water, the owner or operator shall provide additional monitoring points as necessary to delineate the polluted zone and to measure the facility's compliance with the ground water performance standards of subpart 4.

(4) Monitoring points must be installed within aquitards, confining units, and aquifers, as needed, to meet the requirements of this subpart.

(5) The commissioner shall require water quality monitoring beneath an aquifer or aquitard that is already affected by leachate unless there is little or no risk to the deeper ground water.

(6) Where changes in land use, water use, or other factors have altered ground water flow, the commissioner shall require necessary changes in the monitoring system.

D. The owner or operator shall provide monitoring points or instrumentation other than conventional monitoring wells if these installations are needed to fulfill the requirements of this subpart. The commissioner shall require separate monitoring points whenever necessary to monitor conditions other than ground water quality, including hydraulic head, ground water or surface water flow, and leachate quality and movement in the unsaturated zone.

E. Before any monitoring point is constructed, sealed, rebuilt, or redeveloped, the owner or operator must submit the design and description of the proposed actions to the commissioner for review and approval. Approval must first be obtained from the Minnesota Department of Health, as required in part 4725.1860, before constructing a monitoring well that extends into any aquifer below the aquifer nearest the ground surface.

F. Monitoring wells and piezometers must be designed, constructed, maintained, and sealed in compliance with this subpart and with chapter 4725, Department of Health Water Well Construction Code.

G. Monitoring wells must be designed and constructed to function properly over the intended operating life of the well, to prevent vertical movement of ground water and pollutants within and along the well and drill hole, and to be pressure tight without leakage at casing joints.

(1) Materials used in well casings, screens, and annular seals must comply with chapter 4725 and must be resistant to corrosion, chemical attack, and other deterioration and must not be subject to penetration by pollutants.

(2) The casing and screen must be centered in the drill hole to ensure a continuous seal around the casing.

(3) When granular filter packs are used around well screens, they must be of insoluble, nonreactive mineral composition and they must be sized, graded, and washed specifically for use in filter packs. Silica sand must be used for filter packs except where this is infeasible and the commissioner approves other materials.

H. The owner or operator must ensure that in all phases of monitoring well construction, drilling, installation, and completion, the methods and materials used do not introduce substances that may interfere with water quality analysis.

(1) Drilling fluids, muds, foams, dispersants, disinfectants, other additives, and water from outside the well may be used only if approved by the commissioner. The commissioner may approve their use if they do not interfere with water quality analyses, or if there are no reasonable alternative methods and all feasible methods are used to remove them from the drill hole.

(2) Drilling tools and cables and well construction materials must be clean and free of oils, greases, and other contaminants.

(3) Equipment contaminated by contact with pollutants in the soil or ground water must be thoroughly cleaned before drilling to greater depths or in other locations.

I. Where well construction materials are unsuitable for sampling some substances, the commissioner may allow the owner or operator to install two or more adjacent monitoring points constructed of different materials to allow testing of all required substances.

J. Monitoring wells and filter packs must be designed based on the site hydrogeologic characteristics including the permeability and particle size distribution of the formation material at the screen or intake interval.

(1) An owner or operator proposing a screen or intake area longer than five feet, or ten feet if the water table intersects the screen or intake, must provide a written justification for the additional length.

(2) Monitoring wells must be designed, constructed, and developed to minimize the time needed for water levels to recover after the well is evacuated, to allow water to flow readily into the screen or intake area with low flow velocities through the screen, and to minimize the entry of soil particles into the well.

K. Monitoring wells must be clearly and permanently marked with a Minnesota Unique Well Number and, if different from the unique number, the identifying well name or number used in the facility plans, permit, and water quality data records.

L. Monitoring wells must be protected from damage and unauthorized access as required under part 4725.1860, subpart 5, except that a locked metal cap must be used. Caps must be kept locked when the well is not being monitored.

M. A monitoring well must be developed after installation and, if necessary to minimize the entry of soil particles into the well or to restore well yield, during its operating life. After development, the owner or operator must analyze unfiltered water samples from the monitoring well for suspended solids, and must measure the depth of the well to verify that the well is free of accumulated sediment. The commissioner may require additional measures including additional development or installation of a new monitoring well, where necessary to reduce the entry of sediment into the monitoring well.

N. After development, the owner or operator must conduct a stabilization test, recovery rate test, or other appropriate procedure to estimate the rate and length of time the well must be pumped and the volume of water that must be removed before each sampling to ensure that water samples are representative of actual ground water quality.

O. Accurate records must be kept of the soil or rock types encountered while installing a monitoring point. The soils logging procedures must meet the requirements for soil borings contained in subpart 3, item F, except that the commissioner may approve alternative procedures upon written request by the owner or operator if these soil logging requirements are unnecessary or infeasible for a particular monitoring point. Where conditions during drilling result in an unanticipated change to a drilling method that does not provide the required soils information, the owner or operator must notify the commissioner and request approval of a change as soon as possible and must submit an explanation of the reason for the change with the construction and installation record required under item P.

P. Within 30 days after installing or sealing a monitoring point, the owner or operator shall submit to the commissioner a record of the monitoring point construction or sealing. The record must state the dates when the work was done.

(1) For monitoring wells, the construction record must include the soils and well construction log required under item Q; the Minnesota Unique Well Number; a copy of any water well record submitted to the commissioner of health as required by part 4725.6700; logs from any geophysical testing done on the well; well development data; stabilization or recovery rate testing data; suspended solids analyses; any other measurements or testing done on the well including pumping, drawdown, yield, or flow direction tests; and a dated, signed, revised landfill plan sheet showing the surveyed location coordinates of the monitoring well to the nearest foot.

(2) The well sealing record must contain the well name, surveyed location, casing diameter and material type, and a Minnesota Unique Well Number; the depth of the well measured immediately before sealing the well; the type and quantity of well seal material used; and how the well seal was installed. If all this information is contained in the report required in part 4725.2700, a copy of this report will suffice.

(3) The accuracy and completeness of the records submitted must be verified by a water well contractor licensed under parts 4725.0500 to 4725.1800, or an engineer registered under part 4725.1850. This statement must be accompanied by the individual's name, signature, company, and license or registration number.

Q. Unless the commissioner has approved alternative methods under item O, the soils and well construction log must contain the soils information required in subpart 3, item F. The soils and well construction logs may be combined onto one log if the required

information can be clearly shown. The well construction log must include a drawing of the well in vertical cross-section, the identification and location of the well, and the following information regarding the well's construction:

(1) well casing material type, inside diameter, and casing schedule number, standard dimension ratio, or wall thickness;

(2) well screen material type, product name, and description; type and direction of alignment of openings (horizontal or vertical); opening or slot width; and type of screen bottom;

(3) the methods and materials used to join sections of casing and screen, casing to screen, and well bottom to screen;

(4) granular filter pack manufacturer and, if applicable, product name or number; mineral composition including carbonates or other soluble or reactive minerals; gradations; and quantity of filter pack material used;

(5) type of grout or other approved annular seal material, manufacturer and product name, proportions of water and solids in the grout mix, and quantity used;

(6) elevation of the top of each casing, surveyed to the nearest 0.01 foot;

(7) elevations of the ground surface, protective concrete slab, bottom of the drill hole, top and bottom of any dedicated pump or sampling or measuring device, top and bottom of the screen or intake interval and of each different size or type of casing, each change in the diameter of the drilled hole, and each change in filter pack, annular seal, or other backfill material, as verified by depth measurement of the top of each backfill material;

(8) methods of drilling and installation, including type of drilling rig; how the well, filter packs, and grout were installed; description of drilling fluids used; and procedures for cleaning materials or equipment;

(9) observations during drilling and installation, including any problems encountered and conditions that may affect the performance of the monitoring well; and

(10) type of dedicated pump, sampling device or measuring device including manufacturer and model number, pumping capacity, dimensions, location of intake area, how secured at the desired elevation, type of material used for connecting lines or hoses, and type and location of power source.

R. Piezometers that will not be used to measure water quality must comply with items E to G, J to M, O to R, and T. They must be designed and constructed to accurately measure hydraulic head in the portion of the aquifer or formation immediately surrounding the screen or intake area and to minimize the time lag between fluctuations in head outside the piezometer and the inside water level. If the time lag is too large, the commissioner may require pressure transducers or other alternative designs to be used.

S. Surface water monitoring points must comply with the following requirements:

(1) A permanent marker must be installed on land adjacent to the sampling location. The marker must clearly identify the monitoring station. The commissioner may approve an alternate procedure if a sampling location is outside the permitted property and permission cannot be obtained to install a marker.

(2) Monitoring stations in a river or stream must be located upstream of the area of ground water discharge, downstream where the discharge has mixed with the stream flow, and within the area of maximum projected pollutant concentrations in the discharging ground water.

(3) Within 30 days after establishing a surface water monitoring station, the owner or operator shall submit to the commissioner a revised landfill plan sheet showing the location and identification of the sampling station and marker.

T. Sampling personnel must inspect monitoring points and markers each time the monitoring point is measured or sampled. The owner or operator must inspect monitoring points and markers at least annually. The owner or operator must correct damaged or

obstructed monitoring points, or other conditions that interfere with the proper functioning of the monitoring point within the time periods required for monitoring wells in part 4725.1860, subpart 5, item E. The owner or operator must resurvey the elevation of the top of the casing immediately after any change or repair that may have altered its elevation. The owner or operator must revise the well construction log, the monitoring protocol under subpart 14, item H, and the facility plans to show the new elevations, previous elevations, and the date of each change in elevation and submit the revised log and plans to the commissioner within 30 days after the change or repair.

Subp. 11. **Gas monitoring, collection, and treatment system.** The concentration of any explosive gas must not exceed its lower explosion limit at the property boundary or 25 percent of its lower explosion limit in and around facility structures or any other on-site monitoring point. A gas monitoring, collection, and treatment system must be designed to meet the requirements of items A to G.

A. The gas monitoring system, at a minimum, must be capable of monitoring gas build-up in a facility structure and at the property boundary. The commissioner shall establish monitoring requirements (including water quality parameters that indicate gas migration) in the permit, closure document, order, or stipulation agreement. Field inspection to detect odors and signs of vegetative stress, and portable or in-place probes to monitor explosive gases must be included in the monitoring system.

B. Gas monitoring probes must be placed between the disposal site and on-site structures or property lines. The probes must be placed no closer to the property line than the compliance boundary defined in subpart 4, item C, to allow for installation of control measures. If the owner or operator believes that monitoring probes are unnecessary or infeasible, the owner or operator shall submit reasons to the commissioner to support this belief. The commissioner will decide on the need for monitoring probes based on the waste characteristics, fill size, surrounding soils, the water table, and the proximity to occupied buildings.

C. Probe depths and locations must be based on the soils, site geology, depth of fill, water table, and depth of frost.

D. At a minimum, each mixed municipal solid waste land disposal facility must be designed and constructed with gas vents. The number and placement of the gas vents must release gas pressure in the fill area to prevent ruptures of the cover system and to encourage vertical gas migration.

E. The gas control systems must extend below the facility to the water table or to a subsurface soil capable of impeding the movement of gas. The gas control system must be located adjacent to the fill area.

F. The size of the gas collection system must be based on the volume and type of waste to be received at the site. The owner or operator must determine the need for a gas collection system and discuss in the engineering report how the need was determined. The commissioner shall review the determination during the permit review process and again at closure. Approval of a gas monitoring system without collection at the time of permitting shall not limit future requirements determined necessary by the commissioner based on the volume of gas generated at the facility, the proximity to residential or business property, or problems experienced at the facility in maintaining vegetative growth or accumulation of gas in site structures.

G. A gas monitoring program must include sampling and analysis for the amount and type of gas generated. The monitoring program must be included in the operations manual for the facility. The program must account for variation in gas generation and migration due to climatic conditions, variation in the amount of waste in place at the facility, and the length of time the waste has been in place. The operations manual must include the techniques to be used to monitor gas at the site.

Subp. 12. **Construction requirements.** The construction requirements in items A to M must be incorporated into the project specifications for all major design features, at a minimum.

A. The owner or operator must notify the commissioner at least seven days before the day construction is expected to begin on the major design features, including phase excavation, phase construction, liner installation, monitoring well installation, and the placement of final cover.

B. The construction firm's inspector must record all procedures completed during construction at a mixed municipal solid waste land disposal facility. The record must document that design features were constructed in accordance with parts 7035.2525 to 7035.2815 and 7035.2855. This record must include pictures, field notes, and all test results.

C. The owner or operator must install a permanent benchmark on-site and show its location on the facility as-built plan.

D. The owner or operator must complete tests for compaction, Atterberg limits, grain size distribution, lab and field permeability, and field moisture density, at a minimum, on liners and final covers constructed at the facility to ensure the requirements of subparts 5 to 9 are met. The owner or operator must retain a portion of the field-molded and field-compacted samples of liners and the final cover layers until the construction certification is complete.

E. Unless otherwise noted in subparts 5 to 9, the minimum permissible cover slope is three percent and the maximum permissible cover slope is 20 percent.

F. As horizontal phases are installed, the liner must be joined to existing liners.

G. Flexible membranes must be installed during dry conditions. The seams joining membrane panels must be inspected as construction proceeds. Seams must be air tested and field seams must be tested for tensile strength. All flexible membranes must be protected after placement. The natural layer above and below the barrier layer must be free of roots, sharp objects, rocks, or other items that might puncture the liner.

H. Barrier liners constructed of in situ soils must be formed by scarifying and recompacting these soils.

I. All pipe used in constructing the leachate collection system must be tested for deformations. The allowable pipe deflection is five percent.

J. All pipes exiting the lined area must be fitted with antiseep collars.

K. Vegetative growth on liners must be prevented.

L. The liner and cover slopes must be surveyed and staked during placement.

M. A quality control/quality assurance program must be established for all construction projects. The program must include the tests to be completed during construction. The program also must establish the frequency of inspection and testing, the accuracy and precision standards for the tests, procedures to be followed during inspections and sample collection, and the method of documentation for all field notes including testing, pictures, and observations.

Subp. 13. **Operation and maintenance requirements.** A mixed municipal solid waste land disposal facility must be operated by a certified operator, as defined in parts 7048.0100 to 7048.1300. A certified operator must be present during the time that the facility is open to accept waste. The facility operations must meet the requirements of items A to W, at a minimum.

A. Solid waste must be spread and compacted in layers two feet or less in depth.

B. All mixed municipal solid waste must be sloped to promote drainage off the fill area.

C. The waste must be covered in accordance with the approved intermittent cover system required in subpart 6.

D. When no solid waste will be placed on a fill area for 30 days or more, intermediate cover, as defined in subpart 6, item B, must be spread and compacted over the waste.

E. Each fill phase, upon reaching final permitted waste elevations, must be covered in accordance with subpart 6, item C or D, as appropriate.

F. Each fill phase must be outlined with grade stakes and approved by the commissioner in accordance with subpart 12 before the deposition of any waste.

G. Resource recovery operations must be confined to the designated areas approved in the facility permit. Storage areas must be kept as small as practical, must be marked with signs, and must not interfere with normal mixed municipal solid waste disposal operations.

H. A mixed municipal solid waste land disposal facility must not be used to store more than 10,000 waste tires above ground or to process more than 500 waste tires unless a waste tire facility permit is obtained by the owner or operator as required under Minnesota Statutes, sections 115A.90 to 115A.914.

I. The facility must be inspected in accordance with the schedule approved by the commissioner for at least the following items: uncontrolled vegetative growth, soil erosion on slopes and completed areas, vandalism on the monitoring systems, rodents and burrowing animals, malfunctions in the leachate and gas detection and collection systems, and settlement in completed areas.

J. All leachate must be sampled and analyzed in accordance with subparts 9 and 14.

K. The leachate collection system must be cleaned annually.

L. The amount of leachate collected must be monitored and recorded.

M. Corrective actions must be implemented to repair any conditions not in compliance with parts 7035.2525 to 7035.2815.

N. Dead animals must be disposed of under chapter 35.

O. Demolition debris and construction waste may be deposited in an area separate from the mixed municipal solid waste.

P. Sampling and analysis of ground water must be completed in accordance with subparts 10 and 14.

Q. Gas monitoring must be completed in accordance with subpart 11.

R. Procedures for operating the facility during wet weather conditions must provide protection for liners, covers, and other design features that might be disrupted by additional loads in a saturated condition.

S. The fill area must be surveyed annually before November 1 by a land surveyor registered in Minnesota. An updated existing conditions plan must be submitted with the annual report required in part 7035.2585. The plan must show the elevations of completed fill areas, areas partially filled, and all design features that changed in elevation due to facility operations or settlement. The remaining fill capacity must be calculated and shown on the plan.

T. All trenches or area fills must be staked with permanent markers.

U. All lined areas must have at least six feet of solid waste in-place on the liner by December 31 of each year. No disposal may take place on uncovered areas after December 31 without testing the liner integrity and approval granted by the commissioner.

V. All closure costs expended under part 7035.2625, all postclosure care cost expenditures made under part 7035.2645, and all corrective action expenditures made under part 7035.2615 must be recorded and maintained in the operating record.

W. The sequence and direction of below-grade operations must be conducted to prevent surface water from entering the fill area.

Subp. 14. **Sampling and analysis.** The owner or operator must ensure that sampling and analyses for pollutants are conducted in compliance with items A to Q.

A. The owner or operator must monitor ground water quality and, where required in permits, orders, and stipulation agreements, surface water quality and leachate quality. This monitoring must comply with parts 7035.2525 to 7035.2875, 7050.0150, and 7060.0800, and the agency issued facility permit.

B. The commissioner shall establish the requirements for monitoring water quality and leachate quality for each facility, including sampling locations, sampling schedule, constituents to be analyzed, and other necessary sampling procedures. The owner or operator must provide information needed to establish the requirements and to support any conditions proposed by the owner or operator. In establishing the monitoring requirements, the commissioner must consider at least the following factors:

(1) the presence of pollutants in previous samples, the extent and severity of ground water and surface water effects from the facility, the facility's compliance with water quality standards, including the ground water performance standards of subpart 4, and the evaluation under subpart 4, item F, subitem (5), if applicable; and

(2) facility location, design, operation, composition of the waste stream and leachate, ground water flow directions and rates, aquifer thickness, depth, and degree of natural protection, seasonal variations in water quality, surface water flow conditions, and downgradient or downstream water resources and water users.

C. Until the commissioner has established facility-specific monitoring requirements under item B, the owner or operator must comply with the monitoring requirements of this item. Water quality monitoring points at the facility must be sampled at least three times per year at the times specified in the facility permit. For one of the three sampling events, the owner or operator must provide the field measurements, laboratory analyses, and field and laboratory observations listed in subitems (1) and (2) for all ground water monitoring points. For the other two sampling events, the owner or operator must provide only the measurements and observations listed in subitem (2) for all ground water monitoring points. Where existing monitoring points may be unsuitable for sampling some or all of the listed substances, the commissioner may make appropriate changes in the monitoring requirements.

(1) Table 1:

- (a) Alkalinity, total as calcium carbonate;
- (b) Ammonia Nitrogen;
- (c) Arsenic, dissolved;
- (d) Cadmium, dissolved;
- (e) Calcium, dissolved;
- (f) Chloride;
- (g) Chromium, total dissolved;
- (h) Copper, dissolved;
- (i) Dissolved Solids, total;
- (j) Eh (oxidation potential) (a);
- (k) Iron, dissolved;
- (l) Lead, dissolved;
- (m) Magnesium, dissolved;
- (n) Manganese, dissolved;
- (o) Mercury, dissolved;
- (p) Nitrate + Nitrite, as N;
- (q) Potassium, dissolved;

- (r) Sodium, dissolved;
 - (s) Sulfate;
 - (t) Suspended Solids, total;
 - (u) Zinc, dissolved; and
 - (v) Cation-anion balance.
- (2) Table 2:
- (a) Appearance (b);
 - (b) pH (a);
 - (c) specific conductance (a);
 - (d) Temperature (a);
 - (e) Water elevation (c); and
 - (f) Volatile organic chemicals, halogenated and nonhalogenated (d):

Halogenated

Allyl chloride
 Bromodichloromethane
 Bromoform
 Bromomethane
 Carbon tetrachloride
 Chlorobenzene (monochlorobenzene)
 Chloroethane
 Chloroform
 Chloromethane
 1,2-Dichlorobenzene
 1,3-Dichlorobenzene
 1,4-Dichlorobenzene
 Dichlorodifluoromethane
 1,1-Dichloroethane
 1,2-Dichloroethane
 1,1-Dichloroethylene
 cis-1,2-Dichloroethylene
 trans-1,2-Dichloroethylene
 Dichlorofluoromethane
 Dichloromethane (methylene chloride)
 1,2-Dichloropropane
 1,1,2,2-Tetrachloroethane
 Tetrachloroethylene
 1,1,1-Trichloroethane

1,1,2-Trichloroethane
 Trichloroethylene
 Trichlorofluoromethane
 1,1,2-Trichlorotrifluoroethane
 Vinyl Chloride

Nonhalogenated

Acetone
 Benzene
 Cumene
 Ethylbenzene
 Ethyl ether
 Methyl ethyl ketone
 Methyl isobutyl ketone
 Tetrahydrofuran
 Toluene
 m-Xylene
 o-Xylene
 p-Xylene

Footnotes:

- (a) Two measurements: in field, immediately after obtaining sample, and in laboratory.
- (b) Visual observation, in field and laboratory, noting conditions such as the following, if present: color, cloudiness, floating films, other liquid or gas phases, odor.
- (c) As measured in field before pumping or bailing.
- (d) Purge and trap method.

D. In addition to the constituents listed in item C, the commissioner may require monitoring of:

- (1) substances with standards or alternative standards under subpart 4 or other constituents that can, if consumed or contacted, adversely affect public health, public safety, or the environment;
- (2) constituents that can adversely affect the taste, odor, or appearance of water or otherwise adversely affect the public welfare;
- (3) major dissolved ions;
- (4) constituents or properties of water that may be indicators of water pollution;
- (5) substances that may cause analytical interference or otherwise affect water quality determinations;
- (6) properties related to the movement of pollutants, including hydraulic head in the saturated or unsaturated zones;
- (7) in surface waters, bed sediments, aquatic organisms, and other media, and stream discharge rates; and

(8) leachate composition and leachate release rates in the unsaturated zone beneath a land disposal facility.

E. The owner or operator must determine the initial water quality in new monitoring points and monitoring systems, including the range of seasonal variation in water quality. The commissioner shall establish sampling frequencies, analytical constituents, and other conditions for the initial water quality monitoring based on the site's ground water flow conditions and known water quality. For new facilities and expansions, background monitoring must be continued at least quarterly until waste disposal activity begins.

F. The owner or operator shall submit only samples collected by persons who have received training in ground water sampling and, if applicable, surface water sampling. This training must cover the procedures established under items G to L for the required classes of analytical constituents, such as volatile organics or dissolved metals.

G. The owner or operator of a mixed municipal solid waste land disposal facility must develop and keep current a written monitoring protocol for the facility and must ensure the protocol is followed during sampling and sample analysis.

(1) The monitoring protocol must describe in detail the sampling and sample transportation procedures under items H to L and the analytical procedures under items M to O.

(2) The monitoring protocol must be submitted for the commissioner's approval and must be included in a section of the operations manual required under part 7001.3475.

(3) The protocol must be revised immediately to reflect any changes in the monitoring system, field or analytical procedures, sampling personnel, or analytical laboratory. The monitoring protocol must be reviewed at least annually by the owner or operator, sampling personnel, and analytical laboratory and revised as needed. Revisions of the monitoring protocol must be submitted to the commissioner upon written request or as specified in the facility permit, order, or stipulation agreement. Dated records of past protocol language must be retained throughout the operating life of the facility and the postclosure period.

(4) If necessary to assure confidence in the monitoring results, the commissioner shall establish specific procedures and quality control requirements to be used at the facility and incorporated into the monitoring protocol, including as appropriate:

(a) acceptable limits for precision, accuracy, and other measures of the reliability of the field procedures and analytical results;

(b) conditions for and frequencies of use of quality control samples, measurements, or procedures in the field or analytical laboratory; and

(c) the use of gas chromatograph/mass spectrometer or other analytical procedures to achieve positive identification and quantification of analytical constituents.

H. At a minimum, the field portions of the monitoring protocol must include the following:

(1) monitoring point locations and elevations, and the order in which monitoring points are to be sampled;

(2) all tests, measurements, and procedures needed at each monitoring point, and the order in which these procedures will be carried out;

(3) equipment and containers to be used, procedures and precautions for their use; precautions to avoid introducing contaminants from outside sources into monitoring wells or samples; and when and how equipment must be cleaned between uses;

(4) procedures for evacuating each monitoring well before each sampling;

(5) if required, procedures for sampling surface water monitoring points, including exact sampling locations and depths, and for sampling leachate;

(6) quality control procedures to identify outside sources of contamination and sampling error, including types and numbers of quality control samples to be used in the field and during transport and handling procedures for these samples;

(7) procedures and criteria for field filtration of samples;

(8) sample preservation, including preservatives and temperature control requirements;

(9) procedures for sample labeling, sample handling and storage at the facility, and transport to the laboratory;

(10) chain of custody procedures; and

(11) procedures, measurements, and observations to be recorded as required under item L.

I. The equipment, materials, and procedures used in well evacuation, sampling, and subsequent sample handling must minimize contamination, turbulence, water contact with air, gas exchange, depressurization, adsorption, desorption, chemical reaction, or other alteration of the composition of the water sample.

J. Before evacuating and sampling a monitoring well, the elevation of the water surface or potentiometric surface must be measured to the nearest 0.01 foot. Before sampling, the well must be evacuated using a stabilization or recovery rate test or other procedure developed based on the initial testing done under subpart 10, item N.

K. The commissioner shall require filtration of samples wherever necessary to obtain sediment-free samples representative of actual ground water conditions. Filtration must be done at the monitoring point location using in-line methods or other procedures that minimize the loss of dissolved constituents from solution.

L. At the time of sampling, the persons conducting the sampling must record their procedures, measurements, and the condition of the monitoring point. The field records must be sufficient to document whether the procedures under items G to K have been followed. The records must contain the names of the persons conducting the sampling, the time and date each monitoring point was sampled, water elevations and other required field measurements, and the evacuation procedures and test results before sampling. The owner or operator must retain the field records throughout the operating life of the facility and the postclosure period.

M. Water quality analyses must be performed using methods acceptable to the commissioner based on their performance record, reliability, sensitivity, precision, and accuracy. Analytical methods and quality control procedures must be chosen to yield accurate results within the range of concentration and composition of the samples analyzed. All appropriate actions must be taken to minimize error and to assure the reliability, precision, and accuracy of the analytical results. Where the limit of detection or the limit of quantitation for a substance is higher than the concentration of concern, including the standard or alternative standard established under subpart 4, the commissioner may investigate the feasibility of attaining lower analytical limits and must require lower limits if necessary and feasible.

N. The monitoring protocol must contain the analytical and quality assurance procedures that will be followed for all samples originating from the facility. The protocol must include written procedures covering the following areas:

(1) responsibilities of laboratory personnel;

(2) sample containers and preservatives, cleaning of sample containers and sampling equipment, shipment and storage of samples, and sample holding times;

(3) analytical methods and laboratory equipment used;

(4) for each analytical constituent, the laboratory's measurements of precision and accuracy over a range of concentrations, limit of detection, limit of quantitation, and an explanation of how these quantities were measured;

- (5) methods used to identify and prevent contamination of samples in the laboratory and during transport;
 - (6) analytical quality control procedures, as required in item O;
 - (7) methods of reviewing and assessing all data for completeness and accuracy;
 - (8) sample retention times after analyses are completed;
 - (9) inspection, testing, and preventive maintenance programs for all laboratory equipment;
 - (10) chain-of-custody procedures;
 - (11) procedures for documentation and retention of quality control results;
- and
- (12) continuing education requirements for analytical personnel.

O. The quality assurance program under item N must include quality control procedures to assess the reliability, precision and accuracy of the analytical results. The monitoring protocol must describe and state the conditions for and frequencies of use of field and trip blanks, laboratory blanks, calibration standards, internal and external laboratory control samples, laboratory spikes, laboratory duplicates, laboratory replicates, and other quality control procedures.

P. The owner or operator shall submit monitoring results to the commissioner by the dates specified by permit, order, or stipulation agreement. The monitoring results must be accompanied by information sufficient to establish the reliability, precision, and accuracy of the reported values, including the following:

- (1) a certification signed by the sampling personnel, analytical laboratory, and owner or operator stating whether all procedures, from obtaining the samples through completion of the analyses, were performed as described in the approved monitoring protocol; describing any departures from these procedures; and explaining why these departures were necessary;
- (2) water elevations and other required field measurements and observations, dates and times when each sample was collected and received by the analytical laboratory, and the date each sample was analyzed;
- (3) analytical results from all blanks;
- (4) retention times and peak sizes for unidentified substances; and
- (5) if required by the commissioner, additional information needed to establish the validity of the analytical results, including precision and accuracy data from the batch of samples in which each sample was analyzed, limits of quantitation, limits of detection, and results from other quality control procedures; chain-of-custody records; and field records under item L.

Q. Once a year, in accordance with part 7035.2585, the owner or operator shall submit to the commissioner a summary and discussion of the monitoring results. This annual summary must identify recent and long-term trends in the concentrations of monitored constituents and in water elevations, tabulate the analytical results to date and highlight those that exceeded the ground water performance standards of subpart 4 or surface water quality standards, evaluate the effect the facility is having on ground water and surface water quality, and suggest any additions, changes, or maintenance needed in the monitoring system.

Subp. 15. **Contingency action.** The owner or operator must implement the actions necessary to repair site features or to control, recover, or treat polluted ground or surface waters and explosive or toxic gases. The actions must include the measures dictated by the situation and outlined in the contingency action plan developed under part 7035.2615. The contingency action plan developed under part 7035.2615 must include the repair of clogged collection systems, repair of monitoring wells or probes, repair of cover systems,

and the repair of liners or holding areas. If the contingency action plan did not anticipate the level of effort required to protect human health and the environment, actions to bring the facility into compliance with parts 7035.2525 to 7035.2805 must include any necessary work beyond that identified in the contingency action plan.

Subp. 16. **Closure and postclosure care.** Closure and postclosure care requirements are as follows:

A. Closure of each fill phase must be started within 30 days after reaching final permitted waste elevations. After closure of each fill phase, the owner or operator shall submit a closure certification that complies with part 7035.2635, subpart 3, indicating that closure has been completed in accordance with parts 7035.2625 and 7035.2635.

B. After final closure, the owner or operator must comply with all postclosure requirements contained in parts 7035.2645 and 7035.2655, including maintenance and monitoring throughout the postclosure care period specified in part 7035.2655 and the closure document. The owner or operator must:

(1) restrict access to the facility by use of gates, fencing, or other means to prevent further disposal at the site, unless the site's final use allows access;

(2) maintain the integrity and effectiveness of the final cover, including making repairs to the final cover system as necessary to correct the effects of settling, subsidence, gas and leachate migration, erosion, root penetration, burrowing animals, or other events;

(3) maintain and monitor the gas and ground water monitoring systems and comply with all other applicable requirements of subparts 11 and 14;

(4) continue to operate the leachate collection and removal system;

(5) prevent run-on and runoff from eroding or otherwise damaging the final cover;

(6) protect and maintain surveyed benchmarks used in complying with subpart 12;

(7) survey the facility at least annually to determine the extent of settling, subsidence, erosion, or other events;

(8) submit an annual report to the commissioner as required in part 7035.2585 describing the present conditions and corrective actions taken or needed for subitems (1) to (7); and

(9) complete repair work within 30 days of discovery.

Statutory Authority: *MS s 115.03; 116.07*

History: *13 SR 1150*

7035.2825 DEMOLITION DEBRIS LAND DISPOSAL FACILITIES.

Subpart 1. **Scope.** The requirements of subparts 2 to 6 apply to owners and operators of demolition debris land disposal facilities granted permit-by-rule status under part 7001.3050, subpart 3. The requirements of subparts 7 to 14 apply to owners and operators of demolition debris land disposal facilities required to obtain a permit under part 7001.3050.

Subp. 2. **Location standards for permit-by-rule facilities.** Demolition debris land disposal facilities permitted-by-rule must not be located:

A. on a site with karst features including sinkholes, disappearing streams, and caves;

B. within wetland areas;

C. within a floodplain area;

D. within a shoreland area; and

E. with a water table within five feet of the lowest fill elevation.

Subp. 3. **Design requirements for permit-by-rule facilities.** Demolition debris land disposal facilities permitted-by-rule must be designed in the following manner:

A. Site preparation must allow for orderly development of the site. Initial site preparations must include clearing and grubbing, topsoil stripping and stockpiling, fill excavation, if appropriate, drainage control structures, and other design features necessary to construct and operate the facility.

B. The site must be developed in phases to achieve final fill elevations as rapidly as possible. The design of each phase must take into account weather conditions, site drainage, and the waste flow pattern into the site.

C. Surface water drainage must be diverted around and away from the fill areas.

D. Slopes and drainageways must be designed to prevent erosion. Slopes longer than 200 feet must be interrupted with drainageways.

E. Final slopes for the fill area must be a minimum two percent and a maximum 20 percent.

F. Final cover must consist of at least two feet of soil with the top 12 inches capable of sustaining vegetative growth.

G. Final contours must be consistent with the planned ultimate use for the site.

Subp. 4. **Operation and maintenance requirements for permit-by-rule facilities.** A demolition debris land disposal facility must be operated by a certified operator in accordance with parts 7048.0100 to 7048.1300. The certified operator must be present during the time the facility is open to accept waste. The facility operations must meet the following requirements:

A. The waste must be spread and compacted to the extent possible.

B. The waste must be covered at least monthly.

C. Suitable cover material must be maintained at the site.

D. Each phase must be staked for proper grading and filling.

E. A minimum separation distance of 50 feet must be maintained between the fill boundaries and the site property line.

F. Only demolition debris may be placed in the fill area.

G. Waste at the site must be stored in accordance with part 7035.2855.

Subp. 5. **Closure and postclosure care for permit-by-rule facilities.** The owner or operator must close each phase as it reaches final waste elevations. The cover must consist of at least two feet of soil capable of sustaining vegetative growth and minimizing erosion. After closure, the site must be inspected at least once each year between June and September for settlement and erosion problems. All problems at the site must be corrected within 30 days of the inspection. A site closure record must be completed after closure and submitted to the commissioner. A notation must also be placed on the property deed indicating the site use and location of the waste.

Subp. 6. **Notification of permit-by-rule facilities.** The owner or operator of an existing demolition debris land disposal facility shall submit a letter notifying the commissioner of the facility's existence within 30 days after November 15, 1988. The owner or operator of a new facility shall submit such a letter before operations begin. The notification must include the initial date of operation, the type of waste accepted, the capacity of the site, the location of the site, the users of the facility, and the expected date of closure.

Subp. 7. **Location standards for permitted facilities.** The owner or operator of a permitted demolition debris land disposal facility must not locate the facility on a site:

A. with active karst features including sinkholes, disappearing streams, and caves;
or

B. where the topography, geology, or soil is inadequate for protection of ground or surface water.

Subp. 8. **Design requirements for permitted facilities.** The owner or operator of a permitted demolition debris land disposal facility must include the following items in the facility design.

A. Specifications for the site preparation must be included in the permit application completed in accordance with part 7001.3300. Site preparation must allow for the orderly development of the facility. Site preparation specifications must address clearing and grubbing, topsoil stripping and storage, cover material excavation, drainage control structures, and all other design features needed to prepare the site for operation.

B. The site must be developed in phases. Each phase must contain individual cells that will provide for filling to final waste elevations. The owner or operator must consider seasonal differences in weather and amount of waste received in determining the length and size of each phase. The owner or operator must bring each phase to the final waste elevations shown on the ultimate development plans and the approved facility closure plan.

C. Surface water drainage must be diverted around and away from the site operating area. The drainage control system must take into consideration the expected final contours, site drainage pattern, the need for temporary structures, and other site conditions that might affect site operations.

D. Slopes and drainageways must be designed to prevent erosion. Slopes greater than 200 feet must be interrupted with diversion drainageways.

E. The final contours of the fill area must be a minimum two percent and a maximum 20 percent slope.

F. A cover system must be included in the facility design and must meet the requirements of subpart 11.

G. The design must address the need and the specifications developed for a water monitoring system.

Subp. 9. **Operation and maintenance requirements for permitted facilities.** An operator certified under parts 7048.0100 to 7048.1300 must be present at the facility during operating hours. The facility operations must meet the requirements of items A to K, at a minimum.

A. All wastes must be completely covered on a monthly basis, at a minimum, unless the commissioner requires a different frequency of cover based on the wastes accepted, site operations, and site conditions.

B. All wastes must be spread and compacted.

C. Suitable cover material must be maintained at the site. If suitable cover is not available on-site, cover material must be delivered to and stockpiled at the site.

D. Each fill phase, upon reaching final waste contours, must be covered in accordance with subpart 11.

E. Each fill phase must be staked for proper grading and filling.

F. The facility must be constructed, operated, and maintained to promote surface water run-off without erosion.

G. Surface water drainage must be diverted around and away from the active portion of the facility.

H. A minimum separation distance of 50 feet must be maintained between the fill boundaries and the property line.

I. Corrective actions must be implemented to repair any conditions not in compliance with parts 7035.2525 to 7035.2605.

J. Sampling and analysis of ground or surface water must be completed in accordance with subpart 12.

K. The disposal area must be surveyed annually prior to November by a land surveyor registered in Minnesota. An updated plan shall be submitted with the annual report

required in part 7035.2585. The plan must show the elevations of completed fill areas, partially filled areas, and all pertinent structures.

Subp. 10. **Hydrogeologic evaluation.** If a hydrogeologic evaluation is required, the hydrogeologic evaluation must determine the types of soils found on-site, the depth to water, and the general geologic setting. Soil borings must be completed in accordance with part 7035.2815, subpart 3. The commissioner shall base the decision to require a hydrogeologic evaluation on the waste to be disposed of in the facility, the amount of waste disposed of, the size of the facility, known soil conditions, and the known hydrogeologic conditions at the site.

Subp. 11. **Cover design.** The cover system must be designed and maintained to prevent erosion of surface and side slopes due to surface water, reduce wind erosion, minimize particulate matter, retain slope stability, and maintain vegetative growth, as appropriate. The cover system must consist of a final cover as outlined in items A to C.

- A. The final cover must be compatible with the intended end use of the site.
- B. The final cover must be capable of sustaining vegetative growth, as appropriate.
- C. The final cover must contain materials consistent with the overall site design.

Subp. 12. **Water quality monitoring.** The commissioner may require water quality monitoring for a permitted demolition debris land disposal facility based on the types of waste accepted, site location, site hydrogeology, length of operating life, size of facility, past and existing operational practices, and potential for human health or environmental harm.

Subp. 13. **Financial assurance.** The commissioner may require the owner or operator of a permitted demolition debris land disposal facility to obtain financial assurance for the proper operation, closure, postclosure care, and corrective actions at the facility. The commissioner's determination shall be based on the size, site hydrogeology, operating life, past and existing operational practices, and types of waste accepted at the facility.

Subp. 14. **Closure and postclosure care of permitted facilities.** The owner or operator must close each phase and the entire facility in compliance with the closure and postclosure care plans developed under parts 7035.2625 to 7035.2655.

Statutory Authority: *MS s 115.03; 116.07*

History: *13 SR 1150*

7035.2835 [Repealed, 21 SR 327]

7035.2836 COMPOST FACILITIES.

Subpart 1. **Scope.** The requirements of subparts 4 to 7 apply to the owner and operator of a facility used to compost solid waste, including source separated compostables except as provided in part 7035.2525, subpart 2. The owner or operator of a yard waste compost facility must comply with subparts 2 and 3 only.

Subp. 2. **Notification.** The owner or operator of a yard waste compost facility shall submit a notification form to the commissioner on a form prescribed by the commissioner before beginning facility operations. The notification must include: the facility location; the name, telephone number, and address of the contact person; the facility design capacity; the type of yard waste to be received; and the intended distribution of the finished product.

Subp. 3. **Operation requirements for yard waste compost facility.**

A. Odors emitted from the facility shall comply with the applicable provisions of any agency odor rules.

B. Composted yard waste offered for use must be produced by a process that includes turning of the yard waste on a periodic basis to aerate the yard waste, maintain temperatures, and reduce pathogens.

C. Compost will not contain greater than three percent inert materials (dry weight) that are greater than or equal to four millimeters as determined by the testing procedure under subpart 5, item J, subitem (3).

D. By-products, including residuals and recyclables, must be stored in a manner that prevents vector problems and aesthetic degradation. Materials that are not composted must be stored and removed at least weekly.

E. Surface water drainage runoff must be controlled to prevent leachate leaving the facility. Surface water drainage run-on must be diverted from the compost and storage areas.

F. The facility shall be constructed and operated to prevent discharge of yard waste, leachate, residuals, and the final product into waters of the state.

G. The facility operator shall submit an annual report to the commissioner by March 1 of each year for the preceding calendar year that includes the type and quantity, by weight or volume, of yard waste received at the compost facility; the quantity, by weight or volume, of compost produced; an average of the inert test results; the quantity, by weight or volume, of compost removed from the facility; and a market description.

Subp. 4. Design requirements for solid waste compost facility. The owner or operator of a compost facility shall submit an engineering design report to the commissioner for approval with the facility permit application. The engineering report must comply with the design requirements in items A to G.

A. Site preparations must include clearing and grubbing for the compost operating and storage areas, building locations, topsoil stripping, excavations, berm construction, drainage control structures, leachate collection system, access roads, screening, fencing, and other special design features.

B. Access to the facility must be controlled by a perimeter fence and gate or enclosed structures.

C. Surface water drainage must be diverted around and away from the site operating area. A drainage control system, including changes in the site topography, ditches, berms, sedimentation ponds, culverts, energy breaks, and erosion control measures, must comply with part 7035.2855, subpart 3, items C to E.

D. The composting, curing, and storage areas for immature compost must be located on a liner capable of minimizing migration of waste or leachate into the subsurface soil, groundwater, and surface water. The liner must have a permeability no greater than 1×10^{-7} centimeters per second and, if constructed of natural soils, be at least two feet thick. The liner must comply with part 7035.2855, subparts 3, item A; 4; and 5.

E. Liquid in contact with waste, immature compost, and residuals must be diverted to a leachate collection and treatment system. The leachate collection and treatment system must comply with part 7035.2855, subpart 3, item B, and the applicable portions of part 7035.2815, subpart 9, items B to K.

F. The facility must be designed for collection of residuals and must provide for the final transportation and proper disposal of residuals.

G. The facility must be designed and operated to control odors in compliance with the applicable provisions of any agency odor rules.

Subp. 5. Operation requirements for solid waste compost facility. The owner or operator of a compost facility shall submit an operation and maintenance manual to the commissioner for approval with the facility permit application. The manual must include a personnel training program plan, a leachate management plan, and a compost sampling plan and must comply with the operation requirements in items A to L.

A. All access points must be secured when the facility is not open for business or when no authorized personnel are on site.

B. The personnel training program plan must address the requirements of part 7035.2545, subparts 3 and 4, and the specific training needed to operate a compost facility in compliance with this subpart and subparts 6 and 7.

C. All wastes delivered to the facility must be confined to a designated delivery area and processed or removed at least once a week to prevent nuisances such as odors, vector intrusion, and aesthetic degradation.

D. All salvageable and recyclable materials must be containerized or stored and removed from the facility in a manner that prevents nuisances such as odors, vector intrusion, and aesthetic degradation.

E. All compost residuals must be stored to prevent nuisances such as odors, vector intrusion, and aesthetic degradation. The residuals must be removed and properly disposed of at least once a week.

F. The leachate management plan must describe how the facility will store, reuse, or dispose of collected leachate. If leachate is to be recirculated into the compost, it must be added prior to initiating the PFRP process described in item I.

G. Odors emitted by the facility must comply with any applicable agency odor rules.

H. The owner or operator must cover or otherwise manage the waste to control wind dispersion of any particulate matter.

I. Compost must be produced by a process to further reduce pathogens (PFRP). The temperature and retention time for the material being composted must be monitored and recorded each working day. Three acceptable methods of a PFRP are described in subitems (1) to (3):

(1) The windrow method for reducing pathogens consists of an unconfined composting process involving periodic aeration and mixing. Aerobic conditions must be maintained during the compost process. A temperature of 55 degrees Celsius must be maintained in the windrow for at least three weeks. The windrow must be turned at least once every three to five days.

(2) The static aerated pile method for reducing pathogens consists of an unconfined composting process involving mechanical aeration of insulated compost piles. Aerobic conditions must be maintained during the compost process. The temperature of the compost pile must be maintained at 55 degrees Celsius for at least seven days.

(3) The enclosed vessel method for reducing pathogens consists of a confined compost process involving mechanical mixing of compost under controlled environmental conditions. The retention time in the vessel must be at least 24 hours with the temperature maintained at 55 degrees Celsius. A stabilization period of at least seven days must follow the enclosed vessel retention period. Temperature in the compost pile must be maintained at least at 55 degrees Celsius for three days during the stabilization period.

J. The owner or operator must comply with the compost sampling and testing plan approved by the commissioner. Proposed changes to sampling equipment or procedures must be submitted to the commissioner for review and approval. Testing must be conducted when each batch of compost matures. The plan must include the sampling and testing requirements in subitems (1) to (6).

(1) The compost maturity must be determined using testing protocol described in the sampling plan. "Mature" means more than 60 percent decomposition has been achieved as determined by an ignition-loss analysis and one test method approved by the commissioner including, but not limited to, the following:

Test Method	Maturity Standard
(a) Carbon/nitrogen ratio - U.S. EPA Method 9060A: Total Organic Carbon and Dumas	In the range of 10:1 to 20:1
(b) Dewar Self-Heating Method	Temperature rise above ambient in C°, range of 0° - 20° Celsius
(c) Respiration Rate, CO ₂ Analysis	<2-5 (mg. CO ₂ -C/g compost carbon-day)
(d) U of M Z-test - Soil and Crop Research on Municipal Solid Waste Class I Compost Utilization in Minnesota, April 10, 1994	The weight of the worms in the cellulose treatment increases and that of the worms in the noncellulose treatment remains the same
(e) Cress Seed Germination - Recommended Test Methods, The Composting Council	Germination index in the range of 1.0 - 0.8

(2) Each batch of compost that has been determined to be mature must be analyzed for the metal contaminants listed in subpart 6, item A, subitem (1), using the U.S. EPA test methods in EPA SW-846. PCBs in the compost must be extracted using either method 3540 or 3550 and analyzed with method 8080.

(3) The amount of inert material in each batch of compost that has been determined to be mature must be determined using testing protocol described in the sampling plan. Inert content greater than four millimeters shall be determined by passing four replicates of 250 cc oven-dried (70 degrees Celsius) samples of compost through a four millimeter sieve. Material remaining on the sieve shall be visually inspected and inerts, including glass, metal, and plastic, shall be separated and weighed. The weight of the separated inert material divided by the weight of the total sample, multiplied by 100, shall be the percent dry weight of the inert material content.

(4) The mature compost must be analyzed for the following parameters using the testing protocol described in the sampling plan:

- (a) pH;
- (b) moisture content;
- (c) particle size;
- (d) NPK ratio; and
- (e) soluble salt content.

(5) The sampling plan must contain techniques for collecting and processing the samples required in subitems (1) to (4), including:

- (a) the training and experience qualifications of persons who collect samples;
- (b) equipment used to collect, process, and store samples;
- (c) sampling equipment cleaning procedures and other actions taken to prevent sample contamination;
- (d) the location or locations where samples are collected;
- (e) procedures used to collect grab samples;
- (f) procedures used to process grab samples to form composite samples;
- (g) chain-of-custody and sample storage procedures; and
- (h) compost sampling quality assurance and quality control measures.

(6) The sampling plan must describe how the test results from the samples required in subitems (1) to (4) will be utilized to define the compost at distribution, and must include:

(a) a description of the batch process, statistical average, or other method used to classify the compost, and assign it physical and chemical properties; and

(b) a description of the method used to calculate the cumulative and annual pollutant loading rates for Class II compost.

K. An annual report complying with part 7035.2585 must be submitted to the commissioner by March 1 of each year for the preceding calendar year. A record of the following information must be maintained at the facility and included in the annual report:

(1) the quantity of source-separated compostables or solid waste delivered to the facility;

(2) the quantity and general material breakdown of recyclables and rejects removed from the waste;

(3) the sources and quantities of other materials used in the compost process, such as nutrient or bulking agents;

(4) a summary of temperature and retention time for all compost produced verifying that the process, set out in item I, to further reduce pathogens is being met;

(5) the quantity and classification of all compost produced;

(6) a summary of all lab analyses conducted according to the sampling plan approved under item J;

(7) a record of each Class II compost distribution, including the following:

(a) a copy of the information sheet or label accompanying all Class II compost distributions according to subpart 7;

(b) the name of the compost user and a legal description of the application site location, including the quantity of compost and acreage over which it was distributed;

(c) copies of the letters of notification to the local governments; and

(d) a copy of the United States Geological Survey map of the application site and the surrounding areas showing contours and surface waters.

L. If, for any reason, the facility becomes inoperable, the owner or operator of the facility must notify the commissioner within 48 hours and implement the contingency action plan developed under part 7035.2615.

Subp. 6. **Compost classification.** Compost produced at a solid waste compost facility must be classified as Class I or Class II compost based on the criteria outlined in items A and B. Compost test results shall be used to classify the compost according to the approved sampling plan under subpart 5, item J, the maturity standard in subpart 5, item J, subitem (1), and the PFRP requirement in subpart 5, item I.

A. Class I compost must meet the following criteria:

(1) Class I compost cannot exceed the contaminant concentrations in milligram per kilogram on a dry weight basis as listed in the following table or Code of Federal Regulations, title 40, section 503.13(b)(3), as amended, with the exception of mercury, which cannot exceed contaminant concentrations of five milligrams per kilogram.

Contaminant	Concentration (mg/kg)
Arsenic (As)	41
Cadmium (Cd)	39
Copper (Cu)	1,500

MINNESOTA RULES 2011

7035.2836 SOLID WASTE

680

Lead (Pb)	300
Mercury (Hg)	5
Molybdenum (Mo)	18
Nickel (Ni)	420
Selenium (Se)	100
PCB	6
Zinc (Zn)	2,800

(2) Class I compost must not contain greater than three percent inert materials (dry weight) greater than or equal to four millimeters as determined by tests according to the approved sampling plan under subpart 5, item J, subitems (1) to (5).

B. Class II compost consists of any compost that fails to meet the Class I standards and meets the criteria in subitems (1) and (2):

(1) Class II compost must meet the following pollutant loading rates and have a PCB concentration that does not exceed six milligrams per kilogram.

Pollutant	Cumulative Pollutant Loading Rate	
	(lbs/acre)	(kg/hectare)
Arsenic	37	41
Cadmium	34	39
Copper	1,338	1,500
Lead	267	300
Mercury	5	5
Molybdenum	16	18
Nickel	374	420
Selenium	89	100
Zinc	2,497	2,800

Pollutant	Annual Pollutant Loading Rate (for a containerized compost)	
	(lbs/acre)	(kg/hectare)
Arsenic	1.8	2
Cadmium	1.7	1.9
Copper	66.8	75
Lead	13.3	15
Mercury	0.25	0.25
Molybdenum	0.5	0.5
Nickel	18.7	21
Selenium	4.5	5
Zinc	124.6	140

(2) Class II compost must not contain greater than four percent inert materials (dry weight) greater than or equal to four millimeters as determined by tests according to the approved sampling plan under subpart 5, item J, subitems (3) and (5).

Subp. 7. **Compost distribution and end use.** The owner or operator of a solid waste compost facility shall submit a compost distribution plan to the commissioner for approval with the facility permit application. The plan must comply with the requirements in items A to C.

A. Compost distributed or marketed as a fertilizer, specialty fertilizer, soil amendment, or plant amendment, as defined in Minnesota Statutes, section 18C.005, must be registered with the Minnesota Department of Agriculture.

B. The allowable end uses for the compost must be listed and described in the plan.

C. Class I compost may be distributed for unrestricted use. Class II compost may be distributed on a restricted basis. The commissioner or a compost operator trained as required in subpart 5, item B, shall determine the appropriate distribution for a Class II compost used in land application. Compost proposed to be distributed for end uses other than land application may be distributed with the commissioner's approval or as part of the approved facility compost distribution plan under this subpart. All Class II compost distributed must be accompanied by an information sheet or label describing the compost product and its physical and chemical quality, including at least the following information:

- (1) the name and address of the generator;
- (2) a statement from the generator certifying that the compost meets the Class II classification standards under subpart 6, item B, and providing the standards;
- (3) a list of best management practices to use when applying the compost;
- (4) the annual or cumulative application rate calculated according to the testing and reporting methods approved under subpart 5, item J, subitem (6);
- (5) the compost maturity tested and reported according to subpart 5, item J, subitem (1);
- (6) the compost inert content tested and reported according to subpart 5, item J, subitem (3); and
- (7) a statement of the compost parameter values tested and reported according to subpart 5.

Statutory Authority: *MS s 116.07*

History: *21 SR 327*

7035.2845 RECYCLING FACILITIES.

Subpart 1. **Scope.** The owner or operator of a recycling facility must comply with subparts 2 to 6.

Subp. 2. **Notification.** The owner or operator of a recycling facility shall submit a notification form to the commissioner on a form prescribed by the commissioner prior to beginning facility operations. The owner or operator shall notify the commissioner no later than 30 days after the effective date when the owner or operator relocates the facility. The owner or operator shall notify the commissioner at least 30 days before the effective date when ceasing operations.

Subp. 3. **Design requirements.** The owner or operator of a recycling facility shall design and construct the facility to prevent surface water drainage through recyclable and residual materials, to control dispersion of the recyclable materials and residuals by wind, to contain any spills or releases that could harm human health or the environment, to provide for the storage of recyclable materials so as to protect the recyclability of the materials, and to provide for the storage and removal of residuals. Storage of waste on-site must comply with part 7035.2855.

Subp. 4. **Operation.** The owner or operator of a recycling facility shall effectively control dust, windblown material, vermin populations, and other nuisance conditions at the

facility and shall remove all putrescible materials at least once a week. All other residuals must be removed at least once a month.

Subp. 4a. **Annual report.** By March 1 of each year, the owner or operator of a recycling facility shall submit an annual report to the commissioner, on a form prescribed by the commissioner, indicating the name and address of the recycling facility, the year covered by the report, the type and weight of materials handled at the facility; and the distribution of materials by weight, i.e., what weight of recyclable material received went to an end market, a broker/processor, or was managed as mixed municipal solid waste.

Subp. 4b. **Storage.** All of the recyclable materials that are delivered to or are stored at the recycling facility must be removed from the facility within three years after the date of receipt. The owner or operator must notify the commissioner annually, in the annual report required in subpart 4a, if recyclable materials are stored longer than one year. The annual report must identify the type and approximate weight of material being stored. Recyclable materials that are stored longer than one year must be stored in such a way that the recyclability is retained.

Subp. 4c. **Inspections.** The owner or operator of a recycling facility must inspect the facility, at least every 30 days, for malfunctions, deterioration, or discharges that may result in either the release of pollutants to the environment or a threat to human health. The owner or operator must develop and follow a written schedule for inspecting monitoring equipment, safety and emergency equipment, security devices, and operating and structural equipment used to prevent, detect, or respond to environmental or human health hazards. The owner or operator must retain at the facility a copy of the schedule which must identify the types of problems to look for during the inspection. The owner or operator must remedy any deterioration or malfunction of equipment or structure no later than two weeks after an inspection. If the owner or operator is unable to remedy the deterioration or malfunction within two weeks due to the nature of the problem, availability of materials, or other factors that influence repair efforts, the owner or operator must remedy the problem as soon as possible and must keep a current summary report of the incident and the steps being taken to remedy the situation.

Subp. 4d. **Operating record.** The owner or operator of a recycling facility must keep a written operating record at the facility until April 1 of each year for the preceding calendar year. The owner or operator must record the type and weight of recyclable materials received for each quarter and their distribution by weight. The operating record must also include summary reports and details of incidents that require implementing the contingency action plan specified in subpart 5, and records and results of inspections required by subpart 4c.

Subp. 5. **Contingency action plan.** The owner or operator of a recycling facility shall prepare and maintain a contingency action plan for the recycling facility. The plan must address what actions the owner or operator will take if a fire, spill, or release occurs at the facility and what backup system exists if the owner or operator closes the facility for any period of time.

Subp. 6. **Closure.** At least 30 days prior to the effective date of closure, the owner or operator of a recycling facility must post a notice of closure at the entrance by signs indicating the date of closure, and must publish a notice of closure in a local newspaper. No later than 30 days after ceasing operations, the owner or operator of a recycling facility must properly remove and treat or dispose of all waste and contaminated soil or structures at the facility.

Statutory Authority: *MS s 115.03; 116.07*

History: *13 SR 1150; 19 SR 2330*

7035.2855 SOLID WASTE STORAGE STANDARDS.

Subpart 1. **Scope.** The requirements of subparts 2 to 6 apply to owners and operators of facilities that store solid waste, except as part 7035.2525, subpart 2, provides or as otherwise provided in this subpart.

A. Owners and operators of facilities that store solid waste prior to its beneficial use in accordance with part 7035.2860 must meet the standards in subparts 2, 6, and 7 and are exempt from subparts 3, 4, and 5. If any portion of the solid waste stored at a given location is not beneficially used the storage standards in subparts 2 to 6 apply. Solid wastes stored in Minnesota prior to beneficial use in another state that are not the subject of a beneficial use determination under part 7035.2860, subpart 4 or 5, must submit the following information to the agency prior to use of the storage facility using the beneficial use criteria:

(1) information required by part 7035.2860, subpart 5, items A, B, and H;
and

(2) verification that the standards for beneficial use in the state where the beneficial use is occurring are being met and the name, address, and telephone number of that state's contact person.

B. Facilities that store only waste tires are exempt from this part.

C. The owner or operator of a facility where solid waste is stored inside or within a structure so that neither runoff nor leachate is generated and no liquid wastes or wastes with free liquids are added to the storage area, is not subject to subparts 3 and 4, or part 7035.2565 if:

(1) the storage area is protected from surface water run-on by the structure or in some other manner;

(2) the storage area is designed and operated to control dispersion of the waste by wind by means other than wetting; and

(3) the solid waste will not generate leachate or gases through decomposition or other reactions.

D. Owners and operators of facilities permitted for the processing of construction debris and demolition debris for the primary purpose of extracting recoverable portions of the waste stream for beneficial use and recycling must meet the storage standards in subparts 2, 6, and 7. These facilities are exempt from the standards in subparts 3, 4, and 5 provided that the materials that cannot be accepted for disposal at a demolition debris land disposal facility such as asbestos, caulk tubes, waste paint, waste solvents, glues, tars, adhesives, and mixed municipal solid waste are removed from the waste within 48 hours of delivery to the facility.

Subp. 2. **Locational requirements.** Locational requirements are as follows:

A. The locational standards in part 7035.2555 must be met.

B. The storage area must not be located in an area characterized by karst features, including sinkholes, caves, and disappearing streams.

C. The storage area, including any underlying liner, must be located entirely above the high water table.

Subp. 3. **Design and operation requirements.** The design and operation requirements of a solid waste storage area are as follows:

A. A storage area must have a liner that is designed, constructed, and operated to prevent any migration of waste or leachate into the adjacent subsurface soil, ground water, or surface water at any time during the active life, or the closure period, of the facility. The liner must:

(1) be constructed of materials that have appropriate chemical properties and sufficient strength and thickness to prevent failure due to pressure gradients, including static

head and external hydrogeologic forces, physical contact with the waste or leachate to which it is exposed, climatic conditions, the stress of installation, and the stress of daily operation;

(2) have a permeability no greater than 1×10^{-7} centimeters per second and if constructed of natural soils be at least two feet thick;

(3) be placed upon a foundation or base capable of providing support to the liner and resistance to pressure gradients above and below the liner; and

(4) be installed to cover all earth that may contact the waste or leachate.

B. The storage area must have a leachate collection and removal system that is designed, constructed, maintained, and operated to collect and remove leachate from the area. The leachate depth over the liner must not exceed one foot. The leachate collection and removal system must be:

(1) constructed of materials that are chemically resistant to the waste managed in the storage area and the leachate expected to be generated, and are of sufficient strength and thickness to prevent collapse under the pressures exerted by overlying wastes, waste cover materials, and any equipment used at the site; and

(2) designed and operated to function without clogging through the scheduled closure period.

C. The owner or operator must design, construct, operate, and maintain a run-on control system capable of preventing flow onto the storage area during peak discharge from at least a 24-hour, ten-year storm.

D. The owner or operator must design, construct, operate, and maintain a run-off management system to collect and control at least the water volume resulting from a 24-hour, ten-year storm.

E. Collection and holding facilities, such as tanks or basins, associated with the run-on and run-off control systems must be emptied or otherwise managed after storms to maintain the design capacity of the system.

F. If the storage area contains any particulate matter that may be subject to wind dispersion, the owner or operator must cover or otherwise manage the waste to control wind dispersion.

Subp. 4. **Inspection of liners.** Requirements for the inspection of liners are as follows:

A. While the storage area is in operation, it must be inspected weekly and after storms to detect evidence of any of the following:

(1) deterioration, malfunctions, or improper operation of run-on and run-off control systems;

(2) the presence of leachate in and proper functioning of leachate collection and removal systems; and

(3) improper functioning of wind dispersal control systems.

B. The waste in the storage area must be removed at least annually. When the waste is removed, the liner must be inspected for deterioration, cracks, or other conditions that may result in leaks. The frequency of inspection must be specified in the inspection schedule required in part 7035.2535, subpart 4, and must be based on the potential for the liner and base to crack or otherwise deteriorate under conditions of operation, such as waste type, rainfall, loading rates, and subsurface stability. The inspection must include a view of the liner for failures due to puncture, cracking, tearing, or other physical damage from equipment used to place waste in or on the pile or to clean and expose the liner surface for inspection.

C. If deterioration, cracks, or other conditions are identified as causing or capable of causing a leak, the owner or operator must notify the commissioner of the condition in writing within seven days after detecting the condition and:

(1) repair or replace the liner and obtain a certification from an engineer registered in Minnesota that the liner has been repaired and leakage will not occur; or

(2) comply with the requirements of part 7035.2615 within the time period specified in the permit.

Subp. 5. **Construction inspection.** Construction inspection requirements are as follows:

A. Liner and cover systems must be inspected during construction or installation for uniformity, damage, and imperfections. Immediately after construction or installation:

(1) synthetic liners and covers must be inspected to ensure tight seams and joints and the absence of tears, punctures, or blisters; and

(2) soil based and admixed liners and covers must be inspected for imperfections including lenses, cracks, channels, root holes, material variability, or other structural nonuniformities.

B. The construction of the liner must be certified by an engineer registered in Minnesota in compliance with the approved plans and specifications.

Subp. 6. **Closure.** At closure, all solid waste and contaminated portions of the storage area must be removed and properly disposed of or recycled.

Subp. 7. **Storage of solid waste prior to beneficial use.** Owners or operators of facilities used for solid waste storage prior to its beneficial use must comply with the requirements in items A to F.

A. Prior to operation of a storage facility, owners and operators must obtain a written certification from an engineer licensed in Minnesota stating that the storage facility is designed and constructed to meet the requirements of this part. A copy of this certification must be maintained on file by the owner or operator and made available to the agency upon request.

B. Prior to operation of a storage facility, the owner or operator of the facility must evaluate the potential for migration of contaminants into adjacent subsurface soil, groundwater, or surface water from the stored solid waste. This evaluation must take into consideration the characteristics of the solid waste, the quantity of solid waste to be stored, and the length of time the solid waste will be stored. Based on this evaluation, the owner or operator of the facility must design, construct, and operate the storage facility to meet the requirements in subitems (1) to (3):

(1) Migration of contaminants into the adjacent subsurface soil, groundwater, or surface water at any time during the active life, or the closure period, of the facility must be prevented.

(2) Run-on and runoff of storm water must be controlled. The owner or operator must implement management practices designed to control run-on and runoff of storm water from the storage area. In cases where solid waste will be stored continuously or intermittently at the same location, the owner or operator must design, construct, operate, and maintain a storm water management system capable of collecting and controlling the volume of contaminated storm water resulting from a 24-hour, 25-year storm unless otherwise directed by the agency.

(3) Collection and holding facilities, such as tanks or basins, associated with the run-on and runoff control systems must be managed to maintain the design capacity of the system. Disposal of wastes and wastewaters generated from these facilities must be managed appropriately.

C. The maximum quantity of solid waste stored at any one location at any given time is limited to a reasonable quantity based on the type of waste and its end use. A

7035.2855 SOLID WASTE

686

reasonable quantity is the amount of solid waste needed for completion of the projects for which it is being accumulated. Records must be kept that verify that the quantity of solid waste stored at any one location does not result in accumulation of solid waste in quantities that exceed its use.

D. The solid waste must not be stored at any one location for more than three years without being processed or utilized.

E. If the storage area contains any particulate matter that may be subject to wind dispersion, the owner or operator must cover or otherwise manage the waste to control wind dispersion.

F. Nuisance conditions resulting from the storage of solid waste must be controlled and managed by the facility owner or operator.

Statutory Authority: *MS s 115.03; 116.07*

History: *13 SR 1150; 28 SR 1086*

7035.2860 BENEFICIAL USE OF SOLID WASTE.

Subpart 1. **Applicability.** This part establishes a procedure for determining when use of a material classified as a solid waste is a beneficial use. The uses listed in subpart 4 as standing beneficial use determinations have been reviewed and determined to be beneficial uses of solid waste by the agency. All other proposed uses of solid wastes must obtain case-specific beneficial use determinations in accordance with the procedures in subpart 5. The following exemptions are provided:

A. Beneficial uses authorized to occur by an agency permit or legally binding document issued prior to March 15, 2004, are exempt from this part. Upon expiration of the authorization, the procedure for obtaining a case-specific beneficial use determination in subpart 5 must be followed.

B. Recyclable materials recycled in accordance with part 7035.2845 and Minnesota Statutes, section 115A.03, subdivision 25, are exempt from this part.

C. Recyclable materials that are not exempt under item B are exempt from the requirement to obtain a case-specific beneficial use determination under subpart 5 when they are incorporated into a manufactured product as defined by part 7035.0300, subpart 62a.

D. Composts that are used in accordance with the standards contained in part 7035.2836 are exempt from this part.

Subp. 2. **Beneficial use standards.** To constitute a beneficial use under this part, the following standards must be met:

A. the solid waste must not be stored in anticipation of speculative future markets;

B. the solid waste must be adequately characterized in accordance with part 7035.2861;

C. the solid waste must be an effective substitute for an analogous material or a necessary ingredient in a new product;

D. the use of the solid waste does not adversely impact human health or the environment; and

E. the solid waste must not be used in quantities that exceed accepted engineering or commercial standards. Excess use of solid waste is not authorized by this part and is considered disposal.

Subp. 3. **Regulatory exemption.** Unless specified otherwise by the agency in a beneficial use determination or permit, a material remains a solid waste until it is incorporated into a manufactured product or utilized in accordance with a standing or a case-specific beneficial use determination. Until the time this regulatory exemption occurs, the material must be stored in compliance with part 7035.2855 and managed as a solid waste in accordance with this chapter.

Subp. 4. **Standing beneficial use determinations.** A standing beneficial use determination means that the generator or end user of a material can do so in accordance with this subpart without contacting the agency. Only those specific solid wastes and the uses designated in items A to Q have been given standing beneficial use determinations. Any other uses of the solid waste are not authorized and must follow the procedure outlined in subpart 5.

A. Unadulterated wood, wood chips, bark, or sawdust when these materials are used as mulch, landscaping, animal bedding, erosion control, wood fuel production, a bulking agent at a compost facility operated in compliance with part 7035.2836, or as a substitute for wood.

B. Unadulterated newspaper and newsprint when used as animal bedding, insulation, or as a substitute for paper products.

C. Uncontaminated glass when used as a sandblast agent.

D. Unusable latex paints, characterized as high solid content, off-specification colors, sour, frozen, or poor quality, when used to produce processed latex pigment for use as an additive for the production of ASTM-specified specialty cement.

E. Reclaimed glass and porcelain fixtures when used as a substitute for conventional aggregate or subgrade applications in accordance with Minnesota Department of Transportation Standard Specifications for Construction 2000 Edition, 3138.2 A2.

F. Crumb rubber when used in asphalt paving or applications where it is used as a substitute for rubber or similar elastic material.

G. Tire shreds when used as lightweight fill in the construction of public roads in accordance with Minnesota Statutes, section 115A.912, subdivision 4.

H. Tire chips when used as a substitute for conventional aggregate in construction applications when the ratio of this substitution is no greater than one to one by volume. This does not include use of tire chips as general construction fill or clean fill.

I. Uncontaminated recognizable concrete, recycled concrete and concrete products, and brick when used for service as a substitute for conventional aggregate.

J. Salvaged bituminous when used as a substitute for conventional aggregate in accordance with Minnesota Department of Transportation Standard Specifications for Construction 2000 Edition, 3138.2 A2.

K. Coal combustion slag when used as a component in manufactured products such as roofing shingles, ceiling tiles, or asphalt products.

L. Coal combustion slag when used as a sand blast abrasive.

M. Coal combustion fly ash as defined by ASTM C 618 when used as a pozzolan or cement replacement in the formation of high-strength concrete.

N. Coal combustion fly ash or coal combustion gas scrubbing by-products when used as an ingredient for production of aggregate that will be used in concrete or concrete products. This does not include use in flowable fill.

O. Foundry sand when used as a feed material for the manufacture of Portland cement.

P. Uncontaminated by-product limes when used as agricultural liming materials and distributed in accordance with chapter 1508 and Minnesota Statutes, sections 18C.531 to 18C.575. Application rates for by-product limes must be based on the lime recommendations of the University of Minnesota Extension Service and cannot cause the soil pH to exceed 7.1 after application. Site-specific application rates for by-product lime must be determined by an individual that has a background and understanding of crop nutrient management such as a crop consultant or University of Minnesota Extension Specialist. Recommended rates for lime can be obtained from the University of Minnesota Extension Service publication "Fertilizer Recommendations for Agronomic Crops in Minnesota" BU-06240-S, and the Minnesota Department of Agriculture publication

"Ag-Lime Recommendations in Pounds ENP per acre" available on their Web site at <http://www.mda.state.mn.us/lime>.

Q. Manufactured shingle scrap and ground tear-off shingle scrap when used in asphalt pavement or road subbases.

Subp. 5. **Case-specific beneficial use determinations.** For uses of a solid waste not identified in subpart 4, the agency shall make a case-by-case determination on whether the proposed management option for the specific solid waste is a beneficial use. This determination must be based on information submitted in accordance with this subpart. In cases where the information required by this subpart is not available, a demonstration/research project designed to provide the missing information may be proposed in accordance with part 7035.0450. Unless otherwise directed by the agency, proposals must include the following information at a minimum:

A. a description of the solid waste, manner in which it is generated, quantity generated, quantity to be utilized, and its proposed end use;

B. results of chemical and physical characterization of the solid waste done in accordance with part 7035.2861;

C. an evaluation of the human health and environmental impacts the proposed use may have and a comparison of these impacts with those from other management alternatives for the solid waste;

D. verification that the end product complies with industry standards and specifications for its intended use and a comparison of the chemical and physical characteristics of the solid waste proposed for use with the material it will replace;

E. a description of the routine sampling and analysis that will be conducted of the solid waste to ensure that the information submitted for review is representative and the solid waste has consistent characteristics. The description must include the procedure and frequency of sampling and analysis, parameters to be analyzed, analysis methods, and laboratory reporting limits to be used;

F. a copy of a contract to purchase or use the proposed product or other documentation proving that a market for the proposed product or use exists;

G. a detailed description of how and where the product will be distributed. This should also include a detailed description of how the solid waste will be managed from the time it is generated until the time it will be utilized and the management practices that will be in place to ensure that human health and the environment are protected;

H. the following information related to the management of solid waste stored prior to its use:

(1) a complete description of the types of storage to be used prior to beneficial use; and

(2) a description of how the solid waste will be managed to meet the requirements in part 7035.2855;

I. a description of any wastes that will need to be managed as a result of beneficially using the solid waste;

J. verification that local units of government with authority to regulate the proposed process or use of the solid waste have received a copy of this application and have been provided information on who to contact at the agency to provide comments on the proposed beneficial use activity; and

K. a proposal for notification of interested or affected parties. The agency shall review this proposal and make a determination on the appropriate notification procedures.

Subp. 6. **Agency actions.** Upon completing review of the information submitted under subpart 5, the commissioner will take one of the following actions:

A. request additional information for evaluation of the proposal;

B. notify the proposer in writing, that a beneficial use determination has been made and the commissioner agrees the proposed use of the solid waste is beneficial. If the determination is conditional, the notification must include the conditions; or

C. deny the request for a case-specific beneficial use determination.

If the request is denied, the proposer must obtain a permit or variance before the solid waste can be managed in the manner proposed. If a permit is required, the type of permit issued may be a state disposal system or a solid waste management facility permit depending on the type of environmental concerns that need to be addressed by the permit.

Subp. 7. Reporting requirements. Proposers that have applied for and received case-specific beneficial use determinations according to subpart 5 must submit a report to the county in which the solid waste is generated annually by January 31. The report must contain a description of the type and quantity of solid waste beneficially used during the time period from January 1 to December 31 of the previous year. The Minnesota Pollution Control Agency will provide a format for submitting this report.

Subp. 8. Modification of a beneficial use determination. The commissioner may modify conditions attached to any beneficial use determination made under subpart 5 if the commissioner finds, on the basis of new information, that new conditions are necessary to protect human health and the environment.

Subp. 9. Revocation of a beneficial use determination. The commissioner may revoke any beneficial use determination made under subpart 5 if the commissioner finds, on the basis of new information, the standards in subpart 2 are not being met. If the commissioner revokes a beneficial use determination, use of the solid waste can only continue if authorized by a permit and/or a variance is obtained. The commissioner shall provide a reasonable amount of time for the proposer to apply for a permit or variance or to terminate the regulated activity.

Subp. 10. Public information. The agency shall post all case-specific beneficial use determinations made by the agency on its Web site.

Statutory Authority: *MS s 116.07*

History: *28 SR 1086; L 2005 1Sp1 art 2 s 161*

7035.2861 CHARACTERIZING SOLID WASTES FOR DEMONSTRATION/RESEARCH PROJECTS AND FOR BENEFICIAL USE.

Subpart 1. Scope. This part sets out the procedures for characterization of a solid waste. The agency shall use the results from characterization of a solid waste when evaluating demonstration/research projects and beneficial use proposals.

Subp. 2. Characterization procedures. Unless otherwise directed by the agency, a person seeking to characterize a solid waste must follow the steps in items A through C.

A. The solid waste must be evaluated to determine if it is hazardous as provided in part 7045.0214. If the waste is determined to be hazardous, no further characterization is necessary because under this chapter no demonstration/research project or beneficial use determination will apply to hazardous waste.

B. A list of potential chemical constituents present in the solid waste must be developed by evaluation of the processes at the facility that resulted in production of the waste; and review of material safety data sheets, ingredient labels, and other pertinent information.

C. The solid waste must be analyzed in accordance with the methods provided in subpart 3, to provide the following information on its chemical and physical properties:

- (1) potential chemical constituents identified in item B; and
- (2) physical properties that affect the use or management of the solid waste.

Subp. 3. Methods of analysis. The analysis methods used for characterization must be consistent with the management option or beneficial use being proposed. In most cases,

total compositional analysis is needed. Depending on how the solid waste will be managed prior to its beneficial use, leaching procedures may also be required. Approved methods of analysis are found in Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, EPA Publication SW-846. Equivalent analytical methods may be allowed with commissioner approval.

Statutory Authority: *MS s 116.07*

History: *28 SR 1086*

7035.2862 INCORPORATIONS BY REFERENCE.

The documents in items A to D are incorporated by reference for purposes of parts 7035.2860 and 7035.2861. They are not subject to frequent change.

A. The Minnesota Department of Transportation Standard Specifications for Construction (2000 edition). It is published by the Minnesota Department of Transportation, and is available at the following Web site: www.dot.state.mn.us/tecsup/spec/index.html.

B. American Society for Testing and Materials (ASTM) Method C618-01. These methods are published annually in the Annual Book of ASTM Standards: part C618-01: Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use as a Mineral Admixture in Concrete, 2002 edition. This publication is available through the Minitex interlibrary loan system.

C. University of Minnesota Extension Service Publication: "Fertilizer Recommendations for Agronomic Crops in Minnesota" BU-06240-S, Revised 2001. It is available from the following Web site: www.extension.umn.edu. Copies can be purchased at University of Minnesota Extension Service Distribution Center, 405 Coffey Hall, 1420 Eckles Avenue, St. Paul, MN 55108 or can be ordered by e-mail: order@extension.umn.edu or telephone: (800) 876-8636.

D. Minnesota Department of Agriculture publication "Ag-Lime Recommendations in Pounds ENP per acre" is available on the department's Web site at www.mda.state.mn.us/lime.

Statutory Authority: *MS s 116.07*

History: *28 SR 1086*

7035.2865 [Repealed, 30 SR 529]

7035.2870 SOLID WASTE TRANSFER FACILITIES.

Subpart 1. **Scope.** The requirements of this part apply to the owners or operators of transfer facilities operating under a permit or in extended permit status, or as otherwise provided in this chapter or chapter 7001. In addition, permitted facilities must comply with the conditions in their permits. Nothing in this part relieves the owner or operator of the duty to comply with other applicable requirements, including, but not limited to, local ordinances or codes.

Subp. 2. **Delivery of solid waste.** No waste may be transported from a transfer facility unless the owner or operator has reasonable belief that the person or facility receiving the waste may lawfully do so under applicable federal, state, or local rules. Reasonable belief means that the owner or operator has verified that the person or facility receiving the waste holds a valid license, permit, or other approval, or that no such approval is required.

Subp. 3. **Applicability.** This part applies to the applicability of design requirements for transfer facilities operating and accepting waste under a permit issued under parts 7001.0010 to 7001.0200 prior to November 30, 2005. The design requirements of subpart 4 do not apply to a facility constructed prior to November 30, 2005, unless the owner or operator intends to make a major modification to the facility. In that case, the design requirements in subpart 4 apply to all modified portions of the facility, unless otherwise provided in the agency permit. The commissioner shall require compliance with the design requirements in subpart 4 unless the owner or operator demonstrates that the existing

facility design is adequately protective of the environment considering the change in waste volume, type, or other operating parameters.

Subp. 4. **Design standards.** An owner or operator of a permitted transfer facility must ensure that all buildings and roads are designed and constructed in accordance with this subpart, unless exempt under subpart 3.

A. The waste transfer or tipping floor area must have adequate capacity for the projected through-put and storage of waste and other materials, including recyclables and unacceptable materials. The area must be adequate to support activities related to the segregation of recyclable, processable, and unacceptable materials from waste.

B. Intrafacility roads must be all-weather and suitable for the volume and types of collection vehicles or other transportation equipment that will be used to move waste from the entrance gate to loading and unloading areas. The vehicle and equipment traffic areas must bear the expected frequency and weight of vehicles and equipment navigating the surface without failure. Downward sloped vehicle ramps must be less than a ten percent grade, and upward sloped vehicle ramps shall be less than a six percent grade, unless the commissioner approves an alternative design in the permit. The commissioner shall approve an alternative design if the owner or operator demonstrates that fully loaded vehicles can utilize the ramps without compromising safety. Roadway widths, number of lanes, and turning radii must be adequate considering the design traffic volume and vehicle types expected to use the facility.

C. The facility must include an area designed for the storage of bulky items such as mattresses and large appliances, if accepted. The facility must also include an area where unacceptable materials may be safely stored in compliance with applicable standards prior to removal from the facility.

D. If the facility will use walls, pushwalls, or barriers for the management or containment of waste, the structures must be designed so that failure will not occur, taking into account the type of waste, bearing pressure, and the method of operation, including the equipment that will be used to move waste at the facility.

E. The facility must be designed to control litter.

F. The facility must include access control structures such as gates to prevent unauthorized access during hours when the facility is not open.

G. Noncontainerized waste stored outdoors must be stored in an area that meets the solid waste storage standards in part 7035.2855.

H. If waste management activities will take place within a structure, the structure must meet the following criteria:

(1) the minimum interior clearance height must be 28 feet, unless the commissioner approves a different height based on the equipment that is anticipated to be used at the facility during its expected life;

(2) the building door must be a minimum width of 16 feet and a minimum height of 25 feet to allow safe passage of traffic exiting or entering the facility in the unloaded position, unless the commissioner approves a different dimension based on the equipment that is anticipated to be used at the facility during its expected life;

(3) the facility must include floors constructed of high strength concrete capable of bearing 5,000 pounds per square inch as verified by ASTM C 1074-98, ASTM C 39/C 39M-01, or an equivalent test method, unless the commissioner approves an alternative design in the permit. The commissioner shall approve a floor consisting of lower strength concrete provided the owner and operator demonstrate that its durability is consistent with the operational goals of the facility;

(4) the facility floor must include floor joints adequate to prevent cracking of the slab, but floor joints using compressible filler must be minimized and located so as to prevent joint deterioration and release of leachate through the compressible filler. The floor must be treated to increase durability and extend wear life by using a concrete hardener or

other accepted methods that decrease water absorption and increase compressive strength and curing time (see ASTM C 642-97, ASTM C 140-02a, and ASTM C 309-98a);

(5) all surfaces coming into contact with waste must be constructed of a material that is readily cleanable;

(6) if a periodic facility wash-down is specified or identified under the facility's approved operation and maintenance plan, the facility floor must include a trap to collect solids and a sump that has been adequately sized to collect and contain liquids at the facility;

(7) all floors must be sloped such that free moisture from the waste operations is confined to the tipping floor and liquids applied to the surface for cleaning purposes can be collected for treatment or disposal from the tipping floor or from the sump, if present; and

(8) storm water must be routed away from the structure through the use of a leakproof roof, adequate gutters and down spouts, and the building apron must be graded to promote positive drainage away from the building.

American Society of Testing and Materials (ASTM) methods C 1074-98, C 39/C 39M-01, C 642-97, C 140-02a, and C 309-98a, as amended, are incorporated by reference in this subpart. These methods are published in the Annual Book of ASTM Standards: Section 4, Construction, Volume 04.02, Concrete and Aggregates, 2003 Edition and Volume 04.05, Chemical-Resistant Nonmetallic Materials; Vitrified Clay Pipe; Concrete Pipe; Fiber-Reinforced Cement Products; Mortars and Grouts; Masonry; 2003 Edition. This publication is available through the Minitex interlibrary loan system or through ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA 19428-2959, and the methods are not subject to frequent change.

Subp. 5. Operation standards. The owner or operator of a permitted transfer facility or a transfer facility operating under a permit-by-rule as provided in part 7001.3050, subpart 3, item A, must comply with the operational standards in this subpart. For existing transfer facilities subject to this subpart, the owner or operator must comply with this subpart no later than 180 days after the effective date of this part. The owner or operator of a new facility subject to this subpart must comply before accepting waste. The following are the operational standards:

A. roads, gates, doors, and tipping floor areas must be clear of obstructions at all times;

B. an employee who has received training as required by part 7035.2545 must be on duty at all times the facility is open for the purposes of receiving waste;

C. all industrial waste or mixed municipal solid waste at the facility must be transferred or stored in (1) a completely enclosed structure, (2) containers constructed of impervious materials and designed to prevent leakage, or (3) in a designated solid waste storage area meeting the storage standards of part 7035.2855;

D. if the facility has operating doors, they must remain closed except when vehicles are expected to be entering or leaving the facility, and as necessary to minimize odors, noise, and litter;

E. all equipment and the facility must be maintained in good working condition. Routine maintenance must be conducted in accordance with the operations and maintenance plan submitted with the permit application under part 7001.3400 or amendments submitted with the notification under part 7001.3410, subparts 1 and 2. The owner or operator must keep records of maintenance performed at the facility or on facility equipment;

F. all solid waste shall be confined within the tipping floor area or other designated processing and storage areas;

G. all separated salvageable and recyclable materials must be containerized or stored in a designated area where they will not be contaminated by solid waste or other

materials. All separated salvageable and recyclable materials must be removed from the facility when the capacity of the container or designated area is reached;

H. if the facility accepts putrescible industrial waste or mixed municipal solid waste, the tipping floor and storage areas must be cleared of waste and cleaned at least once every seven days unless no waste has been received at the facility during the preceding seven-day period. For facilities that do not accept putrescible industrial waste or mixed municipal solid waste, the tipping floor and waste storage areas must be cleared and cleaned at least once every 30 days;

I. a sign must be posted that is visible to persons using the facility prior to entry that lists the wastes that are or are not accepted at the facility, its hours of operation, a number to call for assistance with disposal of items that are not accepted at the facility, and the agency permit number or agency-assigned permit-by-rule facility identification number;

J. the facility grounds and immediately adjacent property shall be free of litter stemming from facility operations. If litter is found on adjacent property, the operation of the facility shall be modified as necessary to prevent further litter generation by making physical or operational changes. The facility grounds shall be cleared of all litter at least once every seven days;

K. the facility must be managed in compliance with:

(1) the national pollutant discharge elimination system permit requirements located in parts 7001.1000 to 7001.1100; and

(2) part 7011.0150 to prevent particulate matter from becoming airborne;

L. in the event of breakdowns or malfunctions in facility equipment or structures, the owner or operator shall purchase or lease replacement equipment or make repairs as necessary to ensure compliance with this subpart;

M. the owner or operator shall post local fire and police department contact information and arrangements listed in the emergency response plan required under part 7035.2595 in a conspicuous area of the facility accessible by all employees;

N. the plans and schedules listed under part 7001.3410, subpart 1, item D, including all updates as required in part 7001.3410, subpart 2, shall be maintained at the facility site so they are available for employees and inspectors;

O. free liquids that have contacted waste may not be discharged as storm water and must be managed in accordance with law. Acceptable management methods for free liquids that have contacted waste include recapture and redeposit in the waste being managed at the facility provided that the free liquid will be reabsorbed by the waste, absorption of the free liquids using an absorbent material and disposal of that absorbent material with the waste, or discharge to a sanitary sewer if authorized by a publicly owned treatment works as defined by part 7001.1020, subpart 27. If a building is equipped with a trap, the trap must be cleaned of waste each time the facility tipping floors and storage areas are cleaned. If a building is equipped with a sump, the liquid must be removed from the sump before reaching capacity, or more often as necessary to prevent odors;

P. all unacceptable waste inadvertently received at the facility must be properly managed in accordance with applicable standards; and

Q. once a facility is no longer open for the purposes of receiving waste during an operating day, all putrescible waste remaining at the facility must be:

(1) properly disposed of;

(2) stored in an enclosed structure; or

(3) stored in containers constructed of impervious materials and designed to prevent leakage and to prevent precipitation, insects, and other vectors from coming into contact with the waste.

Statutory Authority: *MS s 116.07*

History: *30 SR 529*

7035.2875 REFUSE-DERIVED FUEL PROCESSING FACILITIES.

Subpart 1. **Scope.** The requirements of subparts 2 to 5 apply to the owners and operators of facilities used to produce refuse-derived fuel, unless the exception in part 7035.2525, subpart 2, applies.

Subp. 2. **Design requirements.** The design requirements for a refuse-derived fuel processing facility are as follows:

A. Specifications for site preparation must be included in the design plans developed for the facility. Site preparations must include drainage control structures, entrance and access roads, screening, fencing, and other special design features.

B. Surface water drainage must be diverted around and away from outdoor storage areas.

C. Uncovered waste material, processed or unprocessed, must be stored on a surface liner capable of minimizing or eliminating leachate flow out of the area into the ground water under the site or to the surrounding land surface. The liner permeability must not be greater than 1×10^{-7} centimeters per second and natural soil liners must be at least two feet thick.

D. An odor control system must be included in the facility design.

E. A dust control system must be included in the facility design.

F. The facility must be capable of processing incoming solid waste within 24 hours based on the materials flow and balance calculations for the facility.

G. The facility must be designed to minimize the risk of explosions, spills, leakages, or releases that might harm human health or the environment.

H. The design and performance specifications for all equipment used at the facility must be included in the engineering report.

I. The design must provide for handling waste while the facility is down for maintenance or mechanical failures.

Subp. 3. **Operation and maintenance manual.** The owner or operator of a refuse-derived fuel processing facility must prepare an operation and maintenance manual and keep the manual at the facility. The manual must contain the information needed to operate the facility properly and meet the following requirements:

A. Access to the site must be controlled by a complete perimeter fence and gate. The gate must be locked when the facility is not open for business.

B. By-products, including residuals and metal fractions, must be stored to prevent vector problems and aesthetic degradation. The by-products must be removed or used at least once a week.

Subp. 4. **Contingency plan.** The owner or operator of a refuse-derived fuel processing facility must prepare and maintain a contingency plan. The plan must discuss what actions will be taken if a spill or release occurs at the facility or an explosion or other accident disrupts operations, and what backup system, including contracts, exists if the facility is closed for any period of time.

Subp. 5. **Annual report.** The annual report required under part 7035.2585 must include the types and quantities, by weight, of solid waste accepted at the facility for processing; the quantities, by weight, of refuse-derived fuel processed at the facility and the associated fractions; and a description of the end-product distribution and disposal system.

Statutory Authority: *MS s 115.03; 116.07*

History: *13 SR 1150; 21 SR 693; 22 SR 1237*

7035.2885 MUNICIPAL SOLID WASTE COMBUSTOR ASH LAND DISPOSAL FACILITIES.

Subpart 1. **Scope.** The requirements of subparts 2 to 18 apply to landowners and owners and operators of facilities that dispose of municipal solid waste combustor ash in or on the land, except as provided in subpart 2.

Subp. 2. **Exemptions.** None.

Subp. 3. **Acceptable wastes.** Only municipal solid waste combustor ash and other wastes, excluding municipal solid waste, approved by the commissioner according to the procedures in this subpart may be disposed of in a waste combustor ash land disposal facility.

The owner or operator must submit requests for approval to codispose of other wastes to the commissioner in writing. Requests must state the physical and chemical characteristics of the waste, including results of EPA Method 1311 leach test, EPA Method 1312 leach test, and total composition analysis. The waste must be analyzed for total composition for the parameters in part 7035.2910, subpart 4, item A, tables (1) and (2). Leach test samples must be analyzed for all parameters detected by total composition analysis. The request must also include an assessment of the potential for the waste to affect the leaching potential of waste combustor ash and other wastes previously approved for codisposal. The commissioner shall approve a waste for codisposal in a municipal solid waste combustor ash disposal facility only if the commissioner determines that codisposal of that waste will not significantly increase the movement of leachate generated at the facility, which contaminates outside the codisposal ash phase by leakage, leaching, or fugitive dust emissions.

Subp. 4. **Limitation of leachable contaminants.** After January 1, 1993, the owner or operator of a waste combustor ash land disposal facility may not dispose of ash which exceeds the maximum leachable contaminant levels of subpart 5, unless the facility design either meets or exceeds the requirements of subparts 10, item C, subitem (3); and 11, item O or P, or if the facility is a type II cell which meets or exceeds the requirements in part 7035.2915 and is approved prior to or during the nine-month period immediately following adoption of parts 7001.0040 to 7035.2915, whichever applies. Compliance with this subpart must be based on results of testing ash using EPA Method 1312 as required by part 7035.2910, except as provided by items B to D. Alternatively, the commissioner may approve treatment within the land disposal facility if treatment reduces contaminant mobility so that any pollutants detected in leachate will not exceed the maximum leachable contaminant levels of subpart 5. A request for approval of an in-place treatment method must include results of a pilot scale demonstration of the effectiveness of the treatment method.

A. For the purpose of this subpart, "results" means the upper 80 percent confidence limit of a rolling data set consisting of results of EPA Method 1312, or actual leachate according to items B and C, calculated as follows:

(1) the rolling data set must consist of results of the specified test for the preceding 12 months, or the time period since a change was made in waste combusted, waste combustor operations, or ash processing which significantly alters ash quality, whichever time period is shorter;

(2) if data from only one quarter are used to calculate results, the owner or operator must calculate the upper 80 percent confidence limit for the data using equations for random sampling shown in Table 9-1 of EPA SW-846. Part 7035.0605 incorporates this document by reference and establishes its availability; and

(3) if data from two or more quarters are used to calculate results, the owner or operator must calculate the upper 80 percent confidence limit for the data using equations for stratified random sampling shown in Table 9-1 of EPA SW-846, using each quarter as a stratum. The fraction of the population represented by each stratum (W_k) must be selected based on the number of quarters of data to be used and the relative amounts of ash produced during each quarter.

B. The owner or operator may calculate results as required by item A using actual leachate analyses rather than EPA Method 1312 analyses for ash from a given waste combustor for one or more quarters if the following conditions are all true:

(1) the leachate analyzed was from a land disposal facility phase which was filled to one-half or more of the phase capacity, where a phase is an area of a land disposal facility which is served by a leachate collection system which may be sampled independently;

(2) ash from the waste combustor makes up 90 percent or more of the waste in the phase;

(3) ash generated by the waste combustor during the quarter was disposed in the phase;

(4) the leachate analyzed was collected during the quarter;

(5) samples used to calculate results for consecutive quarters were collected at least 60 days apart; and

(6) the leachate samples were collected according to a water quality and leachate monitoring protocol approved by the commissioner as part of the operations manual required under parts 7001.3480, item G; and 7035.2815, subpart 14, item G.

C. If results of testing leachate as required by subpart 16, item B, exceed the maximum leachable contaminant levels of subpart 5, all new portions of the land disposal facility which accept ash from the same waste combustor or waste combustors must comply with the final cover requirements of subpart 10, item C, subitem (3), and the liner requirements of subpart 11, item O. If results of testing leachate as required by subpart 16, item B, exceed the maximum concentration of contaminants for characteristic of extraction procedure (EP) toxicity established in part 7045.0131, subpart 8, all new portions of the land disposal facility which accept ash from the same waste combustor or waste combustors must comply with the final cover requirements of subpart 10, item C, subitem (3), and the liner requirements of subpart 11, item P. For the purpose of this item, "results" means the upper 80 percent confidence limit of a rolling data set consisting of results of leachate testing for the preceding 12 months. The upper 80 percent confidence limit must be calculated using the equations presented in subpart 3, item A, subitems (1) to (3). The commissioner may approve an exemption from this part if the owner or operator demonstrates that the leachate produced in a new portion of the facility may reasonably be expected to not exceed the limits cited in this subpart, based on changes made such as pretreatment of ash prior to disposal.

D. If an owner or operator demonstrates an inability to meet the requirements of this subpart, the commissioner may grant an extension of up to two years if the commissioner determines that the owner or operator has attempted to meet the requirements of this part, and the agency, through no fault of the owner or operator, has not taken final action on applications for permits or other agency approvals needed to comply with this part.

E. A municipal solid waste combustor ash land disposal facility which accepts ash from a waste combustor which has not completed four or more quarters of ash testing according to part 7035.2910, must place the ash over a liner that complies at a minimum with the design requirements of subpart 11, item P, unless:

(1) the waste combustor ash will be treated before disposal to reduce the leaching potential to such a degree that the treated ash will not exceed the maximum leachable contaminant levels established in subpart 5; or

(2) the owner or operator demonstrates, based on ash testing data from a similar waste combustor, where similarity is based on design, operation, and characteristics of waste combusted, that the ash which has not been tested is not likely to exceed the maximum leachable contaminant levels of subpart 5, and the ash is placed over a liner which complies with the design requirements of subpart 11, item L or N, whichever applies to the type of ash to be disposed of. If this subitem applies, the ash must be considered in storage

and the commissioner shall not approve disposal of the ash until four quarters of ash and leachate testing have been completed. If results of ash or leachate testing for the four quarters exceed the maximum leachable contaminant levels, the ash must be removed from the land disposal facility. For the purpose of this subitem, results must be calculated according to subpart 4, item A, subitems (1) to (3).

Subp. 5. **Maximum leachable contaminant levels.** The maximum leachable contaminant levels are as follows:

Substance	Maximum leachable contaminant level (µg/l)
Arsenic	750
Barium	30,000
Boron	9,000
Cadmium	60
Chromium	1,500
Copper	15,000
Lead	300
Manganese	9,000
Mercury	30
Nickel	2,100
Selenium	300
Silver	300
Tin	60,000
Zinc	21,000

Subp. 6. **Location.** The owner or operator must locate a waste combustor ash land disposal facility according to parts 7035.2555 and 7035.2815, subpart 2.

Subp. 7. **Hydrogeologic evaluations.** The owner or operator must complete a hydrogeologic evaluation of the site according to part 7035.2815, subpart 3.

Subp. 8. **Groundwater performance standards.** The owner or operator must design, construct, operate, and maintain the facility to achieve compliance with part 7035.2815, subpart 4.

Subp. 9. **General design requirements.** A waste combustor ash land disposal facility must meet the design requirements of part 7035.2815, subpart 5, items A, B, D, E, F, and G in addition to the following general design requirements:

A. The fill area at a waste combustor ash land disposal facility must be located at least 200 feet from the nearest property line, unless a shorter distance is approved by the commissioner as sufficient for performing facility monitoring, performing any necessary remedial activities, and minimizing deposition of dust on adjacent property, based on filling procedures, facility design, facility geographic location, existing land restrictions and results of monitoring dust emissions at the facility or a similar existing facility.

B. The facility design must include:

- (1) cover systems according to subpart 10;
- (2) a liner system according to subpart 11;
- (3) a leachate collection and treatment system according to subpart 13; and
- (4) a water monitoring system according to subpart 16.

Subp. 10. **Cover system.** The owner or operator must design and maintain a cover system capable of minimizing infiltration of precipitation into the fill areas, preventing surface water ponding on fill areas, preventing erosion of surface and side slopes, minimizing the creation and movement of dust, retaining slope stability, reducing effects of freeze-thaw and other weather conditions, maintaining vegetative growth while minimizing root penetration of the low permeability cover layer, discouraging vector and burrowing animal intrusion into the site, and attenuating contaminants contained in leachate. A complete cover system must consist of intermittent, intermediate, and final covers as outlined in items A to C.

A. The owner or operator must place intermittent cover on all exposed ash according to the approved operation and maintenance manual for the site and subitems (1) to (4). In all cases, intermittent cover placement must be adequate to prevent fugitive dust emissions.

(1) The owner or operator of a facility which disposes of bottom ash or combined ash must place intermittent cover frequently enough so that the bottom ash or combined ash is not left uncovered for more than 48 hours. The percent moisture of exposed ash must not be less than ten percent at any time. In the active work area, newly delivered waste combustor ash may be used to cover previously placed ash.

(2) The owner or operator of a facility which disposes of fly ash must cover the fly ash immediately after it is placed and compacted. Fly ash must be treated to minimize emission of fugitive dust before it is placed in the land disposal facility.

(3) The commissioner may approve less frequent cover placement based on a demonstration by the owner or operator that the alternative frequency would not increase the potential for damage to human health or the environment. The commissioner, in approving the proposed alternative cover system, must consider the characteristics of the proposed cover material, the characteristics of the waste, the design and operation of the facility, moisture content of the ash, screening or other engineered methods for preventing dust production, and season of the year.

(4) The cover materials used and cover depth must be sufficient to cover the ash completely.

B. The owner or operator must place intermediate cover on all filled surfaces of the facility where no additional ash will be deposited within 30 days. The intermediate cover must be at least six inches deep if soil or similar material is used, cover the ash completely, and be graded to prevent surface water ponding.

C. The owner or operator must place final cover according to the requirements of subitems (1) to (3) and part 7035.2815, subpart 6, item D, subitems (1), (2), and (6) to (9). A final cover system must consist of at least three layers: a barrier layer, a drainage layer, and a top layer.

(1) If the final cover uses a barrier layer constructed of soils or similar materials, the barrier layer must be at least 24 inches thick. The barrier layer must have a maximum permeability no greater than 1×10^{-6} centimeters per second. At least the top six inches after compaction of a barrier layer must not contain waste products which could contaminate water collected by the drainage layer. The drainage layer must be at least six inches thick and have an in-place permeability no less than 1×10^{-2} centimeters per second. The top layer must be at least 42 inches thick, of which at least the top six inches is topsoil, and of sufficient depth to contain the vegetative roots and protect the barrier layer from freezing. The top layer must have an available water-holding capacity that will promote vegetative growth. An alternative cover system may be approved by the commissioner if the owner or operator demonstrates that the barrier layer will be at least 24 inches thick, constructed of soils or similar materials, and have a maximum permeability no greater than 1×10^{-7} centimeters per second. The top layer of the alternative cover system must be at least 18 inches thick.

(2) If the final cover uses a synthetic membrane as the barrier layer, the membrane must be at least 30/1000 of an inch thick and meet the physical property standards

for the material type developed by National Sanitation Foundation, Standard Number 54, Flexible Membrane Liners, May 1990, Ann Arbor, Michigan. Part 7035.0605 incorporates this document by reference and establishes its availability. The drainage layer must be at least six inches thick and have an in-place permeability no less than 1×10^{-2} centimeters per second. The top layer must be at least 18 inches thick, of which at least the top six inches is topsoil, and of sufficient depth to contain the vegetative roots. The top layer must have an available water-holding capacity that will promote vegetative growth.

(3) According to subpart 4, if results of testing the specific combined, bottom, or fly ash which is placed in the land disposal facility phase to be covered or results of analysis of actual leachate from the phase exceed the maximum leachable contaminant levels established under subpart 5, the final cover system must consist of:

(a) a barrier layer consisting of at least 24 inches of compacted soils or similar materials with a permeability no greater than 1×10^{-6} centimeters per second, overlain by a synthetic membrane liner which is at least 30/1000 of an inch thick and meets the physical property standards developed by the National Sanitation Foundation, Standard Number 54, Flexible Membrane Liners, May 1990, Ann Arbor, Michigan;

(b) a drainage layer consisting of at least six inches with a permeability no less than 1×10^{-2} centimeters per second; and

(c) a top layer which is at least 42 inches thick, of which the top six inches is topsoil, and of sufficient depth to contain the vegetative roots and protect the barrier layer from freezing. The top layer must have an available water-holding capacity that will promote vegetative growth.

Subp. 11. **Liners.** All waste combustor ash land disposal facilities must be lined. A liner installed at a waste combustor ash land disposal facility after April 27, 1992, unless otherwise allowed by part 7035.2915, subpart 4, must meet the requirements of items A to K and part 7035.2815, subpart 7, items B, C, F, G, I, K, L, M, and N. In addition, waste combustor ash land disposal facilities must comply with the design standards of item L, M, N, O, or P, based on the requirements identified in Table 1.

Table 1: Identification of Applicable Liner Design Standards

	Bottom Ash	Combined Ash	Fly Ash
Before Jan. 1, 1993:			
(1) Leach results < MLCL	L	N*	N
(2) MLCL < Leach Results < EP	M	N*	P
(3) Leach Results > EP	O	O*	P
After Jan. 1, 1993:			
(1) Leach results < MLCL	L	N*	N
(2) MLCL < Leach results < EP	O	P*	P
(3) Leach Results > EP	P	P*	P

*Leach results must be taken from fly ash only.

Key: Leach results must be determined according to subpart 4.

MLCL means the maximum leachable contaminant levels established in subpart 5.

EP means the maximum concentration of contaminants for the toxicity characteristic established in part 7045.0131, subpart 8, as tested according to subpart 4.

A. If a waste combustor ash land disposal facility is constructed adjacent to a mixed municipal solid waste land disposal facility, the waste combustor ash land disposal

facility must be separated from the mixed municipal solid waste land disposal facility adequately to prevent leachate from the mixed municipal solid waste land disposal facility from entering the waste combustor ash land disposal facility.

B. The liner system must consist of at least the following (listed in order, starting from the lowest layer):

(1) a smooth, stable subgrade for placement of the barrier layer by means of the placement of protective material over the existing subgrade, the removal of abrasive objects, organic matter, and vegetation in the subgrade, and regrading;

(2) where required by items O and P, a secondary liner and leachate collection and leak detection system;

(3) a barrier layer capable of containing leachate generated at the facility and surface water that has come in contact with waste; and

(4) a drainage layer above the barrier layer to rapidly convey surface water and leachate from the fill area, and to protect the barrier layer from puncture or other disturbances that might disrupt the integrity of the barrier layer.

C. The liner system must minimize the amount of leachate leaving the fill site to the soil and groundwater below the site.

D. The liner system must be compatible with waste combustor ash and waste combustor ash leachate.

E. Synthetic membranes used as part of the liner system must meet the specifications of the National Sanitation Foundation, Standard Number 54, Flexible Membrane Liners, May 1990, Ann Arbor, Michigan. Part 7035.0605 incorporates this document by reference and establishes its availability.

F. The owner or operator must construct the facility in accordance with subpart 14 and certify construction in accordance with part 7035.2610.

G. The owner or operator must design, construct, and maintain synthetic membranes in direct continuous contact with the soil layers beneath them to the greatest extent feasible.

H. Drainage layers must consist of at least 12 inches of suitable soil or an equivalent synthetic material. Drainage layers must not contain sharp stones or other sharp objects which may puncture the synthetic membrane, and must be resistant to clogging.

I. The owner or operator must design the liner and leachate collection system to minimize the number of places where the liner is penetrated.

J. When calculating efficiency as required for compliance with items L to P, the owner or operator must consider the liner thickness, the liner slope, the saturated hydraulic conductivity of the liner and drainage layer, the drainage layer thickness, the permeability of the drainage layer and liner, the porosity of the drainage layer, the flow distance to collection pipes, and the amount of leachate to be generated and collected based on annual infiltration and groundwater inflow.

K. In the engineering report required in part 7001.3480, item E, the owner or operator must discuss the design of the liner system and address at least the following:

(1) the source and quantity of natural soils capable of meeting the requirements of this subpart;

(2) the likelihood and consequences of failures caused by puncture, tear, creep, freeze-thaw, thermal stress, abrasion, swelling, extraction, oxidative degradation, exposure to ultraviolet radiation, acidic and alkaline conditions, concentration of ions, organic constituents, pressure, and the presence of gases, rodents, microbes, and root penetration;

(3) the composition of the drainage layer and liner including the soil gradations, percent fines, mineral composition, and solubility under acidic to alkaline conditions; and

(4) the calculations and assumptions used in choosing the particular design proposed for the facility.

L. The liner of an ash land disposal facility, required by table 1 to meet the requirements of this item, must comply with subitems (1) to (3).

(1) The barrier layer must be a composite liner which includes a synthetic membrane which is at least 60/1000 of an inch thick placed over a layer of recompacted clay or other natural material with a permeability of no more than 1×10^{-7} centimeters per second which is at least one foot thick.

(2) The liner system must be designed to have a leachate collection efficiency of at least 95 percent of the precipitation falling on the fill area before final cover placement.

(3) The liner system in combination with the cover system must achieve an overall site efficiency of at least 98.5 percent collection or rejection of the precipitation that falls on the disposal area.

M. The liner of an ash land disposal facility, required by table 1 to meet the requirements of this item, must comply with subitems (1) to (3).

(1) The barrier layer must be a composite liner which includes a synthetic membrane which is at least 60/1000 of an inch thick placed over a layer of recompacted clay or other natural material with a permeability of no more than 1×10^{-7} centimeters per second which is at least two feet thick.

(2) The liner system must be designed to have a leachate collection efficiency of at least 95 percent of the precipitation falling on the fill area before final cover placement.

(3) The liner system in combination with the cover system must achieve an overall site efficiency of at least 98.5 percent collection or rejection of the precipitation that falls on the disposal area.

N. The liner of an ash land disposal facility, required by table 1 to meet the requirements of this item, which accepts ash which does not exceed the maximum leachable contaminant levels of subpart 5 must comply with subitems (1) to (3).

(1) The barrier layer must be a composite liner which includes a synthetic membrane which is at least 60/1000 of an inch thick placed over a layer of recompacted clay or other natural material with a permeability of no more than 1×10^{-7} centimeters per second which is at least three feet thick.

(2) The liner system must be designed to have a leachate collection efficiency of at least 98 percent of the precipitation falling on the fill area before final cover placement.

(3) The liner system in combination with the cover system must achieve an overall site efficiency of at least 99.5 percent collection or rejection of the precipitation that falls on the disposal area.

O. As provided by subpart 4, after January 1, 1993, the liner of a bottom ash or combined ash land disposal facility that accepts ash which exceeds the maximum leachable contaminant levels of subpart 5 must comply with subitems (1) to (3).

(1) The liner must be a double liner which includes at a minimum, from top to bottom:

- (a) a drainage layer which complies with item H;
- (b) a synthetic membrane which is at least 60/1000 of an inch thick;
- (c) a secondary drainage layer which complies with item H;
- (d) a synthetic membrane which is at least 30/1000 of an inch thick; and
- (e) a compacted clay layer which is at least two feet thick with a permeability no greater than 1×10^{-7} centimeters per second.

(2) The liner system must be designed to have a leachate collection efficiency of at least 98.5 percent of the precipitation falling on the fill area before final cover placement.

(3) The liner system in combination with the cover system must achieve an overall site efficiency of at least 99.8 percent collection or rejection of the precipitation that falls on the disposal area.

P. The liner of a waste combustor ash land disposal facility that accepts fly ash which exceeds the maximum leachable contaminant levels of subpart 5, or bottom or combined ash which exceeds the maximum concentration of contaminants for characteristic of extraction procedure (EP) toxicity established in part 7045.0131, subpart 8, must comply with subitems (1) to (3).

(1) The liner must be a double liner which includes at a minimum, from top to bottom:

- (a) a drainage layer which complies with item H;
- (b) a synthetic membrane which is at least 60/1000 of an inch thick;
- (c) a secondary drainage layer which complies with item H;
- (d) a synthetic membrane which is at least 30/1000 of an inch thick; and
- (e) a compacted clay layer which is at least three feet thick with a permeability no greater than 1×10^{-7} centimeters per second.

(2) The liner system must be designed to have a leachate collection efficiency of at least 99 percent of the precipitation falling on the fill area before final cover placement.

(3) The liner system in combination with the cover system must achieve an overall site efficiency of at least 99.9 percent collection or rejection of the precipitation that falls on the disposal area.

Subp. 12. **Cover and liner materials evaluation.** The owner or operator must evaluate soils intended for use as cover or liner material as appropriate for the properties shown in part 7035.2815, subpart 8.

Subp. 13. **Leachate detection, collection, and treatment.** The facility must include a leachate detection, collection, and on-site or off-site treatment system designed in accordance with the requirements of part 7035.2815, subpart 9.

Subp. 14. **Construction requirements.** The owner or operator must follow the construction requirements of items A to C and part 7035.2815, subpart 12. The owner or operator must incorporate all applicable construction requirements into project specifications for all major design features.

A. Clay barrier layers must be compacted in lifts which are not deeper than the feet on the equipment used to compact the liner, or six inches after compaction, whichever is less.

B. Clay barrier layers must be bladed and rolled smooth after the final lift is compacted.

C. An on-site inspector qualified by training and experience must be present during construction of liner systems and final cover.

Subp. 15. **Operation and maintenance requirements.** The owner or operator must operate the facility according to items A to V.

A. A waste combustor ash land disposal facility must be operated by a certified operator, as defined in parts 7048.0100 to 7048.1300. A certified operator must be present during the time that the facility is open to accept ash.

B. Ash must be spread and compacted in layers which are one foot or less in depth before compaction.

C. Appropriate compacting equipment must be used to achieve compaction adequate to prevent settlement.

D. To determine compliance with subpart 10, item A, subitem (1), the moisture content of ash in areas where intermittent cover has not been placed must be tested. The sampling procedures of subitems (1) to (4) must be followed.

(1) Ash moisture content must be tested at least monthly.

(2) Ash moisture content at six or more locations on the exposed ash surface must be tested using random methods to select the horizontal location of moisture testing samples.

(3) If the moisture content of ash samples is not analyzed immediately, samples must be protected from changes in composition due to exposure to precipitation, wind, sun, absorbent materials, and extremes of temperature.

(4) Testing must be performed by persons qualified by training and experience.

E. Ash must be placed and compacted at a moderate slope to promote drainage off the fill area while achieving good compaction.

F. Ash must be covered in accordance with the approved intermittent cover system required in subpart 10, item A.

G. When no ash will be placed on a fill area for 30 days or more, intermediate cover, as defined in subpart 10, item B, must be placed over the ash.

H. Each fill phase must be covered when it reaches final permitted waste elevations, according to subpart 10, item C, as soon as possible, considering limitations such as weather conditions.

I. Each fill phase must be outlined with grade stakes or another marking method before placing waste in the phase.

J. Resource recovery operations, including but not limited to ferrous metal recovery, must be confined to designated areas approved in the facility permit. Storage areas must be kept as small as practical; they must not interfere with normal disposal operations.

K. The facility must be inspected according to the schedule identified in the facility's operations manual and approved by the commissioner for at least the following items: dust emissions, uncontrolled vegetative growth, soil erosion on slopes and completed areas, vandalism on the monitoring systems, rodents and burrowing animals, malfunctions in the leachate detection and collection systems, and settlement in completed areas.

L. Leachate must be sampled and analyzed according to subpart 16.

M. The leachate collection system must be cleaned annually.

N. The amount of leachate collected must be monitored and recorded.

O. Corrective actions must be performed to repair any conditions not in compliance with parts 7035.2525 to 7035.2885.

P. Groundwater must be sampled and analyzed according to subpart 16.

Q. During wet weather conditions liners, covers, and other design features that might be disrupted by additional loads in a saturated condition must be protected.

R. The fill area must be surveyed annually before November 1 by a land surveyor registered in Minnesota. An updated existing conditions plan must be submitted with the annual report required in part 7035.2585. The plan must show the elevations of completed fill areas, areas partially filled, and all design features that changed in elevation due to facility operations or settlement. The remaining fill capacity must be calculated and its location shown on the plan.

S. All fill areas must be marked with permanent markers which clearly show the location of disposed ash.

T. The liner must be protected from freezing. At least three feet of ash or other approved material must be placed above the sand blanket on all lined areas by December 1 of each year to protect the liner from freezing. No disposal may take place after December

1 in areas which have not met this requirement without first testing the liner integrity and receiving approval from the commissioner for the disposal.

U. All closure costs expended under part 7035.2625, all postclosure care cost expenditures made under part 7035.2645, and all corrective action expenditures made under part 7035.2615 must be recorded in the operating record.

V. The sequence and direction of below-grade operations must be conducted to prevent surface water from entering the fill area.

Subp. 16. **Groundwater, surface water, and leachate sampling and analysis.** The owner or operator must design, install, and maintain a water monitoring system in compliance with part 7035.2815, subpart 10. The owner or operator must collect and analyze groundwater samples, leachate samples and, where required in permits, orders, or stipulation agreements, surface water samples, according to part 7035.2815, subpart 14, items A, B, and D to Q.

Until the commissioner has established facility-specific monitoring requirements as required by part 7035.2815, subpart 14, item B, the owner or operator must comply with the monitoring requirements of items A and B.

A. Groundwater quality monitoring points at the facility must be sampled at least three times per year at the times specified in the facility permit. For one of the three sampling events, the owner or operator must provide the field measurements, laboratory analysis, and field and laboratory observations listed in subitems (1) and (2). For the other two sampling events, the owner or operator must provide only the measurements and observations listed in subitem (1) for all groundwater monitoring points. Where existing monitoring points may be unsuitable for sampling some or all of the listed substances, the commissioner may make appropriate changes in the monitoring requirements.

(1) Routine list of groundwater parameters:

- (a) Alkalinity, total as CaCO_3
- (b) Aluminum, dissolved
- (c) Ammonia Nitrogen
- (d) Arsenic, dissolved
- (e) Cadmium, dissolved
- (f) Calcium, dissolved
- (g) Chloride
- (h) Copper, dissolved
- (i) Dissolved Solids, total
- (j) Iron, dissolved
- (k) Lead, dissolved
- (l) Magnesium, dissolved
- (m) Manganese, dissolved
- (n) Mercury, dissolved
- (o) Nickel, dissolved
- (p) Nitrate + Nitrite, as N
- (q) Potassium, dissolved
- (r) Selenium, dissolved
- (s) Sodium, dissolved
- (t) Sulfate
- (u) Suspended Solids, total
- (v) Zinc, dissolved

- (w) Appearance (a)
- (x) pH (b)
- (y) Specific Conductance (b)
- (z) Temperature (b)
- (aa) Water Elevation (c)

In subitems (a) to (aa), (a) means visual observation, in field and laboratory, noting conditions such as the following, if present: color, cloudiness, floating films, other liquid or gas phases, odor; (b) means two measurements: in the field, immediately after obtaining the sample, and in the laboratory; (c) means as measured in the field before pumping or bailing, to the nearest 0.01 foot.

(2) Extended list of groundwater parameters:

- (a) Barium, dissolved
- (b) Boron
- (c) Chromium, total dissolved
- (d) Silver, dissolved
- (e) Tin, dissolved
- (f) Other parameters listed in item B required by the commissioner based

on their detection in leachate

B. Leachate monitoring points at the facility must be sampled at least quarterly at the times specified in the facility permit. For one of the sampling events the owner or operator must provide the field measurements, laboratory analysis, and field and laboratory observations listed in subitems (1) and (2). For at least two years, and thereafter at least every other year or on a schedule determined by the commissioner based on results of previous analyses, the owner or operator must analyze leachate samples from one of the quarterly sampling events for the parameters listed in subitem (3). For the other sampling events, the owner or operator must provide only the measurements and observations listed in subitem (1).

(1) Routine list of leachate parameters:

- (a) Alkalinity, total as CaCO_3
- (b) Aluminum, total
- (c) Ammonia Nitrogen
- (d) Arsenic, total
- (e) Boron
- (f) Barium, total
- (g) Biological Oxygen Demand (BOD)
- (h) Cadmium, total
- (i) Calcium, total
- (j) Chloride
- (k) Chromium, total
- (l) Chemical Oxygen Demand (COD)
- (m) Copper, total
- (n) Dissolved solids, total
- (o) Iron, total
- (p) Lead, total
- (q) Magnesium, total
- (r) Manganese, total

- (s) Mercury, total
- (t) Nickel, total
- (u) Nitrate + Nitrite, as N
- (v) Potassium, total
- (w) Selenium, total
- (x) Silver, total
- (y) Sodium, total
- (z) Sulfate
- (aa) Suspended Solids, total
- (bb) Tin, total
- (cc) Zinc, total
- (dd) Appearance (a)
- (ee) pH (b)
- (ff) Specific Conductance (b)
- (gg) Temperature (b)

In subitems (a) to (gg), (a) means visual observation, in field and laboratory, noting conditions such as the following, if present: color, cloudiness, floating films, other liquid or gas phases, odor; (b) means two measurements: in the field, immediately after obtaining the sample, and in the laboratory.

(2) Extended leachate sampling parameters:

- (a) Benzo(a)pyrene
- (b) Benzo(b)fluoranthene
- (c) Benzo(k)fluoranthene
- (d) Benzo(g,h,i)perylene
- (e) Chrysene
- (f) Hexachlorobenzene
- (g) Indeno(1,2,3-cd)pyrene
- (h) Pyrene
- (i) Pentachlorophenol
- (j) Acetone
- (k) Vinyl Chloride

(3) Dioxins and Furans:

- (a) 2,3,7,8-TCDD
- (b) Tetrachlorodibenzodioxin
- (c) Pentachlorodibenzodioxin
- (d) Hexachlorodibenzodioxin
- (e) Heptachlorodibenzodioxin
- (f) Tetrachlorodibenzofuran
- (g) Pentachlorodibenzofuran
- (h) Hexachlorodibenzofuran
- (i) Heptachlorodibenzofuran

Subp. 17. **Contingency action.** The owner or operator must implement actions necessary to repair site features or to control, recover, or treat polluted ground or surface waters and explosive or toxic gases according to part 7035.2815, subpart 15.

Subp. 18. **Closure and postclosure care.** The owner or operator must comply with the closure and postclosure care requirements of part 7035.2815, subpart 16.

Statutory Authority: *MS s 115A.97*

History: *16 SR 2321*

7035.2910 MUNICIPAL WASTE COMBUSTOR ASH TESTING REQUIREMENTS.

Subpart 1. **Definitions.** As used in subparts 1 to 12, the following terms have the meaning given them in this subpart.

A. "Analysis sample" means a sample which is to be delivered to a laboratory for analysis.

B. "Composite sample" means a sample that is formed by mixing two or more samples together to create a sample which is representative of a longer time period or a greater amount of material.

C. "Grab sample" refers to a sample collected at one time or location.

Subp. 2. **Scope.** Subparts 1 to 12 apply to owners and operators of municipal solid waste combustors.

Subp. 3. **Frequency.** The owner or operator must collect ash samples at least quarterly. Sample collection must be begun within seven days of January 15, April 15, July 15, and October 15, unless otherwise approved by the commissioner. Quarterly samples and an annual composite sample formed from equal portions of the quarterly samples must be analyzed according to subpart 5. Quarterly samples must be analyzed within appropriate sample holding times, or 45 days after sample collection is completed, whichever is less.

Subp. 4. **Test methods.** The owner or operator must analyze samples for total composition, leaching potential, and physical characteristics for the following testing parameters, using test methods issued by the United States Environmental Protection Agency or the American Society for Testing and Materials unless the method is approved as provided by item D. The test methods must obtain detection limits equal to or less than those specified in this subpart.

A. Total composition:

(1) Table 1: Quarterly Testing Parameters:

Parameter	Maximum Detection Limit
(a) Aluminum	2.0 mg/kg
(b) Arsenic	1.7 mg/kg
(c) Cadmium	0.16 mg/kg
(d) Lead	0.8 mg/kg
(e) Manganese	2.4 mg/kg
(f) Mercury	0.08 mg/kg
(g) Nickel	5.6 mg/kg
(h) Selenium	1.3 mg/kg
(i) Zinc	56 mg/kg
(j) Other parameters listed in subitem (2) or (3) which are required by the commissioner based on results of previous testing.	

MINNESOTA RULES 2011

7035.2910 SOLID WASTE

708

(2) Table 2: Annual Testing Parameters:

Parameter	Maximum Detection Limit	
(a) Barium	4	mg/kg
(b) Boron	4	mg/kg
(c) Calcium	40	mg/kg
(d) Chloride	40	mg/kg
(e) Chromium	0.72	mg/kg
(f) Copper	0.8	mg/kg
(g) Iron	0.4	mg/kg
(h) Magnesium	0.4	mg/kg
(i) Silver	0.8	mg/kg
(j) Sodium	4	mg/kg
(k) Strontium	2.0	mg/kg
(l) Sulfate	40	mg/kg
(m) Tin	1.2	mg/kg

(3) Table 3: Special Annual Testing Parameters:

Parameter	Method	Maximum Detection Limit	
(a) Dioxins	EPA 8290	10	ng/kg
(b) Furans	EPA 8290	10	ng/kg

(4) EPA Method 3050 for metals digestion must be used for total composition analysis.

B. Leaching potential: use EPA Method 1312, the Synthetic Precipitation Leach Test for Soils, with extraction fluid no. 2 (pH=5.0) to satisfy the leaching potential testing requirements of this part.

(1) Table 1: Quarterly Testing Parameters:

Parameter	Maximum Detection Limit	
(a) Aluminum	1000	µg/l
(b) Arsenic	25	µg/l
(c) Cadmium	4	µg/l
(d) Lead	20	µg/l
(e) Manganese	20	µg/l
(f) Mercury	2	µg/l
(g) Nickel	20	µg/l

MINNESOTA RULES 2011

709

SOLID WASTE 7035.2910

- (h) Selenium 20 $\mu\text{g/l}$
- (i) Zinc 20 $\mu\text{g/l}$
- (j) pH of ash and of leachate produced by the leach test +/-0.1 pH units
- (k) Other parameters listed in subitem (2) which are required by the commissioner based on results of previous testing.

(2) Table 2: Annual Testing Parameters:

Parameter	Maximum Detection Limit
(a) Alkalinity	1000 $\mu\text{g/l}$
(b) Barium	100 $\mu\text{g/l}$
(c) Boron	100 $\mu\text{g/l}$
(d) Calcium	1000 $\mu\text{g/l}$
(e) Chemical Oxygen Demand	4000 $\mu\text{g/l}$
(f) Chloride	1000 $\mu\text{g/l}$
(g) Chromium	18 $\mu\text{g/l}$
(h) Copper	20 $\mu\text{g/l}$
(i) Iron	10 $\mu\text{g/l}$
(j) Magnesium	10 $\mu\text{g/l}$
(k) Silver	20 $\mu\text{g/l}$
(l) Sodium	100 $\mu\text{g/l}$
(m) Strontium	50 $\mu\text{g/l}$
(n) Sulfate	1000 $\mu\text{g/l}$
(o) Tin	30 $\mu\text{g/l}$

(3) EPA SW-846 Method 3050 must be used for metals digestion.

C. Physical characteristics:

Parameter	Method
(1) Moisture content	ASTM D3173
(2) Percent combustible	ASTM D3174

D. The owner or operator may propose alternative test methods for the commissioner's review and approval. The owner or operator must demonstrate that the proposed alternative methods are equivalent in terms of accuracy and precision to the methods required by this subpart.

E. The owner or operator may move a parameter from the quarterly parameter lists of item A, subitem (1), and item B, subitem (1), to the annual parameter lists of item A, subitem (2), and item B, subitem (2), if the parameter has not been detected above the detection limits specified in this subpart for eight or more consecutive sampling events. The owner or operator must report changes in the parameter lists as part of the annual report required by subpart 10.

Subp. 5. **Number of analyses.** The owner or operator must collect and analyze fly ash and bottom ash samples separately according to item A. In cases where bottom and fly ash are mixed, collect and analyze samples of combined ash according to item B, and fly ash samples according to item A. If ash treatment occurs prior to disposal, collect samples after treatment.

A. Owners and operators of facilities which manage bottom and fly ash separately must test ash quarterly according to subitem (1), and annually according to subitem (2).

(1) At a minimum the following number of samples must be analyzed: four samples of bottom ash and two samples of fly ash for total composition for the parameters listed in subpart 4, item A, subitem (1); three samples of bottom ash and three samples of fly ash for leaching potential for the parameters listed in subpart 4, item B, subitem (1); and three samples of bottom ash and three samples of fly ash for the physical characteristics tests listed in subpart 4, item C.

(2) At a minimum the following number of analyses of the annual composite samples must be performed: four samples of bottom ash and two samples of fly ash for total composition for the parameters listed in subpart 4, item A, subitem (2); two samples of fly ash for total composition for the parameters listed in subpart 4, item A, subitem (3); three samples of bottom ash and three samples of fly ash for leaching potential for the parameters listed in subpart 4, item B, subitem (2), and three samples of bottom ash and three samples of fly ash for moisture content in accordance with subpart 4, item C, subitem (1). For at least the first two years of sampling and analyses performed in accordance with this part, annual composite samples must be analyzed for the quarterly testing parameters listed in subpart 4, item A, subitem (1), and item B, subitem (1), in addition to the annual parameters required by this subitem.

B. Owners and operators of facilities which manage combined ash must test ash quarterly according to subitem (1), and annually according to subitem (2).

(1) At a minimum the following number of samples must be analyzed: six samples for total composition for the parameters listed in subpart 4, item A, subitem (1); six samples for leaching potential for the parameters listed in subpart 4, item B, subitem (1); and six samples for the physical characteristics tests listed in subpart 4, item C.

(2) At a minimum the following number of analyses of the annual composite sample must be performed: six samples for total composition for the parameters listed in subpart 4, item A, subitem (2); two samples for total composition for the parameters listed in subpart 4, item A, subitem (3); six samples for leaching potential for the parameters listed in subpart 4, item B, subitem (2), and six samples for moisture content in accordance with subpart 4, item C, subitem (1). For at least the first two years of sampling and analyses performed in accordance with this part, analyze annual composite samples for the quarterly testing parameters listed in subpart 4, item A, subitem (1) and item B, subitem (1), in addition to the annual parameters required by this subitem.

Subp. 6. **Ash sampling plan.** The owner or operator must perform ash sampling according to an ash sampling plan approved by the commissioner. Proposed changes to sampling equipment or procedures must be submitted to the commissioner for review and approval. The plan must contain at least the following information:

A. specification of the training and experience qualifications of persons who collect ash samples;

B. description of equipment used to collect, process, and store ash samples;

C. identification of sampling equipment cleaning procedures and other actions taken to prevent sample contamination;

D. identification of the location or locations where ash samples are collected;

E. description of procedures used to collect grab samples;

F. description of procedures used to process grab samples to form composite samples;

G. description of chain-of-custody and sample storage procedures; and

H. identification of ash sampling quality assurance and quality control measures.

Subp. 7. **Sampling equipment requirements.** Equipment used for ash sampling must comply with items A to D.

A. Sampling equipment must be constructed of materials which are compatible with ash and will not contaminate samples.

B. Containers which are used to hold analysis samples must be prepared according to standard laboratory procedures identified in EPA SW-846, chapter three, for metallic analytes and chapter four for organic analytes, and EPA Document 600/4-79-020 "Methods for Chemical Analyses of Water and Wastes." Part 7035.0605 incorporates these documents by reference and establishes their availability.

C. Sampling equipment must be cleaned before use each quarter. During the sampling event, equipment must be cleaned before each use or cover it to protect it from exposure between uses.

D. Sampling equipment must be used which is large enough to collect a reasonably complete range of ash particle sizes. The size of the opening of sampling equipment used before screening ash samples must be at least three times the diameter of the largest ash particle or 12 inches, whichever is smaller. Equipment used after samples have been screened must have an opening size of at least two inches.

Subp. 8. **Sample collection methods.** Methods used to collect samples to satisfy the requirements of this part must comply with items A to H.

A. Samples must be collected that represent the average quality of ash produced at the waste combustor during the sampling event. Factors which affect the content of samples, such as timing of fly ash addition to bottom ash and sample collection locations must be considered.

B. Samples must be collected at times and locations which have been selected before sample collection begins for that quarter.

C. Samples must be collected by persons who meet the training and experience qualifications specified in the approved sampling plan.

D. Samples must be protected from changes in composition due to exposure to precipitation, wind, sun, absorbent or reactive materials, and extremes of temperature. Samples must be stored in covered containers.

E. The circulation of air through sampling equipment must be minimized to prevent the loss of fines and moisture. If a cement mixer or similar equipment is used to mix samples as required by subpart 9, items A and G, cover the equipment during mixing.

F. Grab samples must be collected according to subitems (1) to (3). Analysis samples must be taken from composite samples formed by processing and mixing grab samples according to subpart 9.

(1) Samples must be collected over a time period of at least one week. Samples must be collected every day that a facility operates during a week unless the commissioner approves otherwise. If the waste combustor is unable to operate for the entire week, sample collection must be resumed after operation begins so that the final composite sample includes ash collected on each day of the operating week.

(2) Grab samples must be collected at least eight times per day at evenly-spaced intervals of no less than one hour if samples are collected from a conveying system. If samples are collected from a location where ash collects over time, such as a storage building or truck, samples must be collected from different locations so that samples represent ash produced over at least eight hours.

(3) Grab samples must be collected of approximately equal weight. Grab samples of bottom ash or combined ash must consist of a minimum of 15 pounds (seven kilograms) of ash. Grab samples of fly ash must consist of a minimum of one pound (one-

half kilogram) of ash if the waste combustor produces less than ten tons of fly ash in one week, and two pounds (one kilogram) of ash if the waste combustor produces ten tons or more of fly ash per week.

G. A minimum of three pounds (one and one-half kilograms) of each ash composite sample must be retained for at least one year. These samples must be held in moisture-tight containers which are filled as full as possible, protected from sunlight and extremes of temperature, and kept in a secure place.

H. All analysis samples must be refrigerated and the samples retained according to item G.

Subp. 9. **Sample processing.** The owner or operator must process bottom and combined ash samples according to items A to H. Fly ash samples must be processed according to items A and H.

A. Grab samples must be thoroughly mixed together to form one composite sample for each type of ash collected.

B. Samples must be screened using a three-eighths inch screen. All or a portion of the composite sample may be screened. At a minimum, 35 pounds of ash must be screened.

C. The weight of ash which passes through the screen and the weight of ash which does not pass through the screen must be recorded.

D. The size of friable pieces of ash which are larger than three-eighths inch must be reduced.

E. All ash which was caught by the screen initially must be rescreened to separate ash which has been reduced to less than three-eighths inch by the process in item D.

F. The weight of ash which remains on the screen and ash which passes through the screen must be recorded.

G. Ash which passes through the screen after size reduction must be combined and thoroughly mixed with the ash which originally passed through the screen.

H. Bottom and combined ash analysis samples from the composite ash sample formed by the process in item G must be taken. Fly ash analysis samples from the composite sample formed by the process in item A must be taken. Ash which will be retained according to subpart 8, item G, must also be taken from this ash.

Subp. 10. **Annual ash testing report.** The owner or operator must submit an annual ash testing report to the commissioner by March 15 of each year. The report must include the information in items A to F.

A. Results of quarterly and annual analyses of ash as required by this part. Total composition results must be reported on a dry weight basis.

B. Discussion of the data, including identification of trends observed by comparing the most recent year's results with those of previous years. In particular, the owner or operator must assess whether the waste combustor is in compliance with the goals of Minnesota Statutes, section 115A.97, subdivision 1, clause (1).

C. Data quality assurance assessment, including the following:

- (1) precision and accuracy of each method used;
- (2) representativeness of the samples;
- (3) potential effect of any field or laboratory contamination on the sampling results; and
- (4) qualification or rejection of data based on the results of quality control samples.

D. Information summarizing operation of the waste combustor during the ash sampling periods, and data regarding ash sample processing recorded according to subpart 9. Operating information must include an estimate of the quantity and type of wastes other

than mixed municipal solid waste which were combusted at the facility during the ash sampling period. If leachate was added to the waste during the sampling period, the quantity of leachate added and source of the leachate must be noted.

E. Certification by the owner or operator that samples analyzed to fulfill the requirements of this part were collected according to the plan required by subpart 6, and that no actions were taken during the sample collection period to intentionally affect the results of ash sample analysis so that the results would not be representative of ash typically generated by the waste combustor. Such actions may include, for example, altering the type of waste combusted during the sampling period.

F. Identification of any changes in test methods or parameters made in accordance with subpart 4, items D and E.

Subp. 11. **Special requirements for new facilities.** Waste combustors which begin operation after April 27, 1992, must comply with the requirements of this subpart.

A. The ash sampling plan required by subpart 6 must be submitted to the commissioner for review and approval at least 90 days before the first time waste is fired in the combustor.

B. Samples must begin to be collected within 60 days after reaching the maximum continuous rating for the waste combustor, but not more than 180 days after waste is first fired in the combustor.

C. The first four quarterly samples must be analyzed for the parameters listed in subpart 4, item A, subitems (1), (2), and (3), item B, subitems (1) and (2), and item C, subitems (1) and (2).

D. Quarterly testing reports to the commissioner must be submitted for the first four quarters. A report for each quarter within three months after the first day of sample collection for that quarter must be submitted. The contents of the reports must comply with the requirements of subpart 10, items A, C, D, and E.

Statutory Authority: *MS s 115A.97*

History: *16 SR 2321*

7035.2915 REQUIREMENTS FOR TEMPORARY PROGRAM TYPE I AND II STORAGE FACILITIES.

Subpart 1. **Definitions.** As used in subparts 1 to 4, the following terms have the meanings given them in this subpart.

A. "Temporary program" means the Temporary Management Program for Mixed Municipal Solid Waste Incinerator Ash approved by the agency board under the authority of Minnesota Statutes, section 115A.97, subdivision 4.

B. "Type I ash storage facility" means a facility which has been designed according to part 17.0 of the temporary program where municipal solid waste combustor ash is stored for a limited period of time and all ash will be removed from the facility at closure.

C. "Type II ash storage facility" means a facility designed according to part 18.0 of the temporary program which was classified under the temporary program as a storage facility, pending adoption of parts 7035.0300 to 7035.2915.

Subp. 2. **Scope.** Subparts 1 to 3 apply to owners and operators of type I ash storage facilities. Subparts 1, 2, and 4 apply to owners and operators of type II ash storage facilities.

Subp. 3. **Type I ash storage facilities.** The owner or operator must design, maintain, and operate a type I ash storage facility in compliance with item A. Type I ash storage facilities must be closed in compliance with item B.

A. The owner or operator must design, maintain, and operate a type I ash storage facility in compliance with the solid waste storage facility requirements of part 7035.2855, subparts 3 and 4, excluding subpart 4, item B, the requirements of the facility permit, and applicable parts of the temporary program.

7035.2915 SOLID WASTE

714

B. Within 18 months after April 27, 1992, the owner or operator must close a type I ash storage facility according to parts 14 and 15 of the temporary program, the facility permit, the site closure plan and subitems (1) to (4). In cases where requirements of the aforementioned documents conflict with each other, the most recent requirements shall apply.

(1) The owner or operator must notify the director at least 90 days before facility closure activities are to begin.

(2) The owner or operator must remove from the site all municipal solid waste combustor ash and contaminated portions of the storage area, including the liner and underlying or surrounding soils. The owner or operator must take samples of the liner and underlying soils and analyze these samples to determine the extent of contamination according to a plan approved by the commissioner. The owner and operator must submit a liner and soils removal plan to the commissioner for review and approval at least 90 days before closure activities are scheduled to begin. In approving the plan the commissioner shall consider whether the proposed number of samples and parameters to be tested will determine the extent of pollutant migration.

(3) The owner or operator must dispose of, store, or use all removed ash and contaminated portions of the storage area at permitted facilities or locations.

(4) The owner or operator must close the storage facility in a manner that minimizes the release of pollutants to ground water, surface waters, soils, and the atmosphere during the closure and postclosure period. Moisture must be added to the ash or soils if necessary to control fugitive dust emissions.

Subp. 4. **Type II ash storage facilities.** Type II ash storage facilities are classified as municipal solid waste combustor ash land disposal facilities. As such, all operations and new construction other than liner or final cover construction must comply with part 7035.2885 and all other applicable parts of this chapter within 45 days after April 27, 1992. Liners and final cover constructed more than nine months after April 27, 1992, must meet the requirements of part 7035.2885. At least nine months before the anticipated date for beginning construction of a new phase at the facility the owner or operator of a type II ash storage facility must submit to the commissioner for review and approval amendments to the facility's approved engineering plans, engineering reports, and operations manual showing changes necessary to comply with part 7035.2885.

Statutory Authority: *MS s 115A.97*

History: *16 SR 2321*

ABANDONED MOTOR VEHICLES AND SCRAP METAL

7035.3000 SCOPE.

Parts 7035.3000 to 7035.3600 pertain to the disposal and reuse of abandoned motor vehicles and other scrap metal for the protection of the environment, pursuant to Minnesota Statutes, chapters 115, 116, 168B, and 400, as amended. All abandoned motor vehicles and other scrap metal shall be collected, reduced, transported, and processed in a manner consistent with these parts and all other applicable state and federal laws and regulations not inconsistent with these parts.

Statutory Authority: *MS s 116.07; 168B.10*

7035.3100 DEFINITIONS.

Subpart 1. **Abandoned motor vehicle.** "Abandoned motor vehicle" means a motor vehicle, as defined in Minnesota Statutes, section 169.011, that:

- A. has remained for a period of more than 48 hours on public property illegally;
- B. has remained for a period of more than 48 hours on public property and is lacking vital component parts such that it is in an inoperable condition;

C. has remained for a period of more than 48 hours on private property without the consent of the person in control of such property;

D. has remained for a period of more than 48 hours on private property, with or without the consent of the person in control of such property, which is in an inoperable condition such that it has no substantial potential further use consistent with its usual functions, unless it is kept in an enclosed garage or storage building;

E. has been voluntarily surrendered by its owner to a unit of government or a person duly licensed pursuant to Minnesota Statutes, section 168B.10 and these parts.

A classic car or pioneer car, as defined in Minnesota Statutes, section 168.10 shall not be considered an abandoned motor vehicle within the meaning of these parts.

Subp. 2. **Agency.** "Agency" means the Minnesota Pollution Control Agency, its agents, or representatives.

Subp. 3. **Collection.** "Collection" means the gathering or consolidating of abandoned motor vehicles and other scrap metal at regional collection sites.

Subp. 4. **Collector.** "Collector" means a person holding a valid license from the agency to engage in the collection of abandoned motor vehicles and other scrap metal.

Subp. 5. **Disposal contract.** "Disposal contract" means a contract entered into between a unit of government or the agency acting on its behalf and a site operator, disposer, or other qualified person for the purpose of storage, collection, transportation, reduction, scrap processing, or other services necessary to prepare abandoned motor vehicles and other scrap metal for recycling or other methods of disposal.

Subp. 6. **Disposer.** "Disposer" means a person licensed by the agency as a collector, transporter, reducer, or scrap processor.

Subp. 7. **Other scrap metal.** "Other scrap metal" means scrap metal, other than abandoned motor vehicles, including, but not limited to, discarded metal in the form of machinery, appliances, and motor vehicle parts.

Subp. 8. **Reducer.** "Reducer" means a person holding a valid license from the agency to engage in the reduction of abandoned motor vehicles and other scrap metal.

Subp. 9. **Reduction.** "Reduction" means the decrease or diminishment in bulk or mass of abandoned motor vehicles or other scrap metal by methods approved by the agency, including, but not limited to, incineration, crushing, shearing, or baling.

Subp. 10. **Regional collection site.** "Regional collection site" means a location designated by a unit of government with agency approval where abandoned motor vehicles and other scrap metal can be consolidated and stored.

Subp. 11. **Scrap processing.** "Scrap processing" means converting of abandoned motor vehicles and other scrap metal to a form usable in the manufacture of new metal products.

Subp. 12. **Scrap processor.** "Scrap processor" means a person holding a valid license from the agency to engage in processing scrap from abandoned vehicles and other scrap metal.

Subp. 13. **Site operator.** "Site operator" means the operator of a regional collection site, whether the operation be a unit of government or a person under contract with a unit of government to operate the site.

Subp. 14. **Storage.** "Storage" means the holding of abandoned motor vehicles and other scrap metal in regional collection sites.

Subp. 15. **Storage costs.** "Storage costs" means costs of acquisition, rental, construction maintenance, and operation of regional collection sites and facilities.

Subp. 16. **Transporter.** "Transporter" means a person holding a license from the agency to engage in transporting abandoned vehicles and other scrap metal.

Subp. 17. **Unit of government.** "Unit of government" means a state department or agency, special purpose district, county, city, village, borough, town, or other municipality.

7035.3100 SOLID WASTE

716

Subp. 18. **Vital component parts.** "Vital component parts" means those parts of a motor vehicle that are essential to the mechanical functioning of the vehicle, including, but not limited to, the motor, drive train, and wheels.

Statutory Authority: *MS s 116.07; 168B.10*

7035.3200 SEVERABILITY.

If any provision of any rule or the application thereof to any person or circumstances is held to be invalid, such invalidity shall not affect other provisions or application of any other part of such rules which can be given effect without application of the invalid provision. To this end the provisions of all rules and the various applications thereof are declared to be severable.

Statutory Authority: *MS s 116.07; 168B.10*

7035.3300 REGIONAL COLLECTION SITES.

Subpart 1. **In general.** All units of government may maintain or contract for the maintenance of one or more regional collection sites. Such regional collection sites shall satisfy the requirements specified herein.

Subp. 2. **Location.** Regional collection sites shall be those sites designated as such by one or more counties, separately or in cooperation with another county or counties, and approved by the agency. Where feasible, they should be located at or near locations where accumulations or motor vehicle hulks are already present and where haul distances needed to accumulate an adequate number of hulks are minimized.

Subp. 3. **Size.** Regional collection sites must be of size and location which will permit access by large heavy transport vehicles by means of all weather roads.

Subp. 4. **Site users.** Regional collection sites shall be open to any person desiring to dispose of an abandoned motor vehicle or vehicles or other scrap metal therein, and such person may voluntarily surrender the vehicle, vehicles, or other scrap metal by depositing the same at a regional collection site and either transferring any applicable certificate of title to the site operator, or executing a release of any interest in the vehicle or scrap metal to the site operator upon a form approved by the agency. Each site operator shall publicize, within the area served by the site, the existence and location of the site, its hours of operation, and its availability for disposition of abandoned motor vehicles and other scrap metal.

Subp. 5. **Site operator.** There shall be a site operator for every regional collection site. The site operator shall have responsibility for the operation, maintenance, and administration of the site.

Statutory Authority: *MS s 116.07; 168B.10*

7035.3400 COLLECTION AND SALE.

All abandoned motor vehicles taken into custody shall be deposited at the nearest regional collection site. If the vehicle is not reclaimed by the owner or lienholder, it shall be sold to the highest bidder at public auction or sale, following at least 15 days notice by the site operator. Such notice shall be published, shall be given in writing to any person whom the operator knows or has reason to believe may be the owner or lienholder, and shall be given in writing to those persons holding valid licenses from the agency as reducers or transporters.

All abandoned motor vehicles and other scrap metal to be sold at an auction shall be sold subject to a package bid.

The site operator shall require as a condition of the sale that the purchaser shall:

A. remove all abandoned motor vehicles and other scrap metal from the regional collection site;

B. dispose of the abandoned motor vehicles and other scrap metal in a manner approved by the agency;

C. police the grounds; and

D. dispose of all solid waste, such as tires, seats, and similar materials, in a solid waste disposal facility approved by the agency.

Statutory Authority: *MS s 116.07; 168B.10*

7035.3500 REIMBURSABLE CONTRACTS.

Subpart 1. **Reimbursement to units of government.** The agency will reimburse any unit of government for a percentage of costs incurred under a disposal contract approved by the agency. The percentage of reimbursement shall be established annually by the agency. Agency approval, subject to annual review, will be granted to disposal contracts entered into with site operators, licensed disposers, and other qualified persons, and which:

A. appear likely to result in substantially greater amounts of abandoned motor vehicles and other scrap metal being processed in the region covered by the disposal contract in question than have been processed without such a contract;

B. are made after public solicitation of bids, pursuant to the laws applicable to such unit of government, as modified by Minnesota Statutes, chapter 168B;

C. are made on a form provided by the agency; and

D. are reasonable in price.

Subp. 2. **Proceeds from a sale.** Where the agency has made reimbursement and the abandoned motor vehicles and other scrap metal thus collected are ultimately sold by the site operator to a disposer or other person, the proceeds thus obtained shall be deposited in the state treasury.

Subp. 3. **Records.** Every site operator shall keep books of account and records available for review by authorized representatives of the agency, including therein such information as the agency may reasonably request.

Statutory Authority: *MS s 116.07; 168B.10*

7035.3600 LICENSING AND REVOCATION.

Subpart 1. **Collectors.** Any person may apply to be licensed as a collector by submitting an application to the agency upon a form provided by the agency. In the application, an applicant must demonstrate that the applicant owns or has access to at least one tow truck and equipment having the capacity to haul two or more abandoned motor vehicles at one time. Upon issuance of a license, every collector shall conduct the operation in such a manner as to satisfy the foregoing conditions. The licensee shall also keep a record in a form prescribed by the agency of all abandoned motor vehicles and other scrap metal collected, which record shall be subject to review by the site operator and the agency.

Subp. 2. **Transporters and reducers.** Any person may apply to be licensed as a transporter or reducer by submitting an application to the agency upon a form provided by the agency. In the application, the applicant must demonstrate:

A. that the person has ready access to a market for any and all abandoned motor vehicles and other scrap metal which the person may reduce;

B. that the person owns or has adequate transportation or reduction equipment; and

C. that the person will provide adequate fire fighting equipment at each regional collection site.

Upon being issued a license, every transporter or reducer shall conduct the operations in such manner as to satisfy the foregoing conditions. The licensee shall also keep a record in a form prescribed by the agency, identifying all abandoned motor vehicles and other scrap metal transported or reduced, which record shall be subject to review by the site operator and the agency. Unless specifically authorized in writing by the agency, reduction of abandoned motor vehicles and other scrap metal is prohibited by open burning or incineration by means of equipment which is not subject to an agency permit. Unless specifically

authorized in writing by the agency, no person shall possess, transport, employ, or use abandoned motor vehicles which have been reduced by means of open burning or incineration, unless the incinerator used in the reduction is subject to an agency permit. In the event of reduction by means of incineration pursuant to an agency permit said person shall have in possession an affidavit from the permittee holding a permit from the agency for such incinerator, verifying that the abandoned motor vehicles or other scrap metal in possession were reduced in an incinerator subject to an agency permit.

Subp. 3. **Scrap processors.** Any person may apply to be licensed as a scrap processor by submitting an application to the agency upon a form provided by the agency. In the application, the applicant must demonstrate that he or she owns or has access to a hydraulic baler, shears, shredder, or other equipment capable of converting a large volume of scrap metal to a form usable in the manufacture of new metal products. Upon issuance of a license, every scrap processor shall conduct the operation in such a manner as to satisfy the foregoing conditions. The licensee shall also keep records in a form prescribed by the agency. Such records shall be subject to review by the site operator and the agency. No person shall possess, process, employ, or use abandoned motor vehicles which have been reduced by open burning or incineration unless the incinerator used in the reduction is subject to an agency permit. In the event of reduction by means of incineration pursuant to an agency permit, said person shall have in possession an affidavit from the permittee holding a permit from the agency for such incinerator, verifying that the abandoned motor vehicles or other scrap metal in possession were reduced in an incinerator subject to an agency permit.

Subp. 4. **Revocation.** Any license is subject to revocation upon five days notice by the agency for violation of its rules, breach of contract by the licensee, conviction of a felony or gross misdemeanor, misrepresentation, or other just cause.

Statutory Authority: *MS s 116.07; 168B.10*

History: *17 SR 1279*

SOLID WASTE PROGRAMS AND PROJECTS

7035.4000 SCOPE AND GENERAL CONDITIONS.

Parts 7035.4000 to 7035.4600 pertain to the application procedure for grants-in-aid, state requirements, approval of applications, and payments for programs or projects which will encourage both the reduction of the amount of material entering the solid waste stream and the reuse and recycling of solid waste, pursuant to Minnesota Statutes, chapter 116F. All programs and projects shall be reviewed, approved, maintained, and operated in a manner consistent with these parts and all other applicable state and federal laws and rules not inconsistent with these parts.

Statutory Authority: *MS s 116.07*

7035.4100 DEFINITIONS.

Subpart 1. **Agency.** "Agency" means the Minnesota Pollution Control Agency.

Subp. 2. **Institution.** "Institution" means an incorporated private organization.

Subp. 3. **Metropolitan area.** "Metropolitan area" means the counties of Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, and Washington.

Subp. 4. **Metropolitan Council.** "Metropolitan Council" means that body as constituted by Minnesota Statutes, chapter 473B.

Subp. 5. **Municipality.** "Municipality" means any city, village, borough, or any designated agency thereof.

Subp. 6. **Region.** "Region" means any county, group of counties, group of municipalities, any special district, or any designated agency thereof.

Subp. 7. **Resource conservation programs.** "Resource conservation programs" means programs which encourage solid materials conservation and the education of

environmental impact from solid waste, including, but not limited to, public education and encouragement of market demand for reusable or recyclable materials. Generally such programs are not directly linked to the ultimate construction of a particular resource recovery facility but may include the initial feasibility study.

Subp. 8. **Resource recovery facility.** "Resource recovery facility" means structures, machinery, or devices which, singly or in combination, are designed, constructed, and operated so as to separate, process, connect, treat, or prepare collected solid waste in such a manner that component materials, substances, or recoverable resources may be used as a raw material or for other productive purposes.

Subp. 9. **Resource recovery system.** "Resource recovery system" means any system used for the recovery of material or energy from solid waste, or for the collection, transportation, separation, sorting, processing, or storage of solid materials which aids in the recovery of materials or energy from solid waste.

Subp. 10. **Resource recovery projects.** "Resource recovery projects" means projects which result in the design, installation, implementation, or operation of resource recovery systems or resource recovery facilities.

Statutory Authority: *MS s 116.07*

7035.4200 SEVERABILITY.

If any provision of any rule or the application thereof to any person or circumstances is held to be invalid, such invalidity shall not affect other provisions or application of any other part of such rule or any other rule which can be given effect without the invalid provision of application, and to this end the provisions of all rules and the various applications thereof are declared to be severable.

Statutory Authority: *MS s 116.07*

7035.4300 VARIANCES.

Where, upon written application of the responsible person or persons, the agency finds that by reason of exceptional circumstances strict conformity with any provisions of the parts contained herein would cause undue hardship, would be unreasonable, impractical, or not feasible under the circumstances, the agency may permit a variance from these parts upon such conditions and within such time limitations as it may prescribe.

Statutory Authority: *MS s 116.07*

7035.4400 APPLICATION PROCEDURE FOR GRANTS-IN-AID.

Subpart 1. **Requirement.** A region, municipality, or institution shall make application for a state grant-in-aid on forms provided by the agency.

Subp. 2. **Application information.** Each application shall include the following information, where applicable:

A. Each application for a grant-in-aid by a region or municipality shall be accompanied by a resolution adopted by the region or municipality authorizing the filing of the grant-in-aid application.

B. All applications shall be signed by the person who has been authorized to submit the application.

C. In the event that more than one region, municipality, or institution desires to make application for a joint resource recovery project or resource conservation program, a single application for state aid shall be executed by all participating parties. Such application shall be accompanied by a joint resolution setting forth responsibilities of each of the parties.

D. A description of the operation and maintenance of the resource recovery project after construction is completed or the system is implemented.

7035.4400 SOLID WASTE

720

E. A market analysis defining markets for salable products, particularly those for which no purchase commitments are included in the proposal, shall be submitted with any proposal for a detailed engineering study or construction of a resource recovery facility or system.

F. If a proposal for a detailed engineering study for a resource recovery facility or system is submitted, the application shall include proof of intentions to purchase the salable materials.

G. If a proposal for construction of a resource recovery system or facility is submitted, the application shall include proof of commitments to purchase the salable materials.

H. A description of the resource conservation program or the resource recovery project, including the following: benefits, major objectives, method of obtaining major objectives, ultimate goal, operational and management personnel's background, education, and experience.

I. If the private sector is involved in the project or program, an explanation of the commitments in terms of capital, operation and maintenance, and staffing of each private person or other entity which will have a major role in the operation of the project or program is needed.

J. An explanation of the existence and extent of local public support for the project or program. Local support includes, but is not limited to, that from universities, citizen groups, and environmental groups.

K. If the proposed project or program is to serve more than one institution, municipality, or region, the following information shall be included in the application:

(1) A written commitment by each participating party to dispose of a stated amount of its solid waste through the proposed system or facility.

(2) A specific definition of the contribution to capital and operating and maintenance costs of each.

(3) A specific definition of the operating and management roles of each.

L. Total cost of the project or program, which includes an itemization of the following costs: investment costs, annual operating costs, fixed costs, other costs.

M. Revenue to be generated by the project or program.

N. Such other additional information, documents, transcripts, or other data which the agency deems necessary to determine eligibility of the region, municipality, or institution.

Statutory Authority: *MS s 116.07*

History: *17 SR 1279*

7035.4500 CRITERIA FOR ELIGIBILITY.

Subpart 1. **Consistency with other plans.** To be eligible for state assistance, a program or project shall be consistent with all agency approved solid waste management plans of all affected counties. All projects or programs in the metropolitan area shall be consistent with the metropolitan council's plan for solid waste management.

Subp. 2. **High priority.** A high priority shall be given to applications for projects or programs designed to service more than one county or designed to service areas of the state where natural geologic conditions make sanitary landfill undesirable.

Subp. 3. **Environmental impact.** The agency shall seek those alternatives which maximize the conservation of energy and materials while minimizing the environmental impact and the cost to the people of the state.

Subp. 4. **Compliance with other law.** In addition to such other requirements as may be provided for by law, any project for which an application is submitted, shall comply in all respects with any local, state, and federal regulations, guidelines, instructions, criteria,

standards, or other documents promulgated or issued by the local, state, and federal governments relative to such program or project.

Subp. 5. **Contracts.** All contract documents prepared by any region, municipality, or institution relative to a program or project pursuant to these parts shall conform to all state and local laws, ordinances, and rules, and in the event of more than one party seeking state aid for such project or program, all contracts shall be executed by each of the parties involved.

Subp. 6. **Prohibited funding.** Funding shall not be made available to any resource recovery system or facility which accepts solid waste material which is transported to the facility primarily in motor vehicles with a load capacity of less than ten cubic yards.

Subp. 7. **Review of grant applications.** In addition to other considerations provided for in these parts and other applicable laws for resource recovery projects and resource conservation programs, in reviewing grant applications the agency shall consider the following:

- A. the size of the service area if it is a resource recovery project;
- B. the degree of county, multicounty, or regional participation in the program or project;
- C. the priority of the program or project in relationship to the agency's immediate and long range goals for resource recovery in the state;
- D. the availability of other sources of financing;
- E. the state's share of the cost of the program or project;
- F. the time schedule for completion;
- G. conformance with county and regional solid waste management plans and other applicable laws;
- H. the statewide applicability of the program or project;
- I. the demand placed on other public service or commercial facilities;
- J. benefits, objectives, methods of obtaining the objectives, and the ultimate goal;
- K. the total cost of the project or program, and the proportion of the cost attributable to each phase of the project or program;
- L. the revenue to be generated upon completion of the project or program;
- M. the amount of materials or energy or both recovered from the solid waste entering the system;
- N. the degree to which the program or project promotes solid materials conservation and reduces the environmental impact of solid waste generation;
- O. the steps taken to assure proper, efficient, and economical operation and maintenance of the resource recovery project after construction is completed or the resource recovery system is implemented;
- P. the percentage of salable materials for which the applicant has obtained purchase commitments if the application is for a resource recovery project. If the application is for an engineering study for a resource recovery project, the commitments shall be an intention to purchase recoverable materials of a specified quality. If the application is for construction of a resource recovery project, the commitments shall be legally binding agreements specifying product quality and price acceptable to the purchaser. The agency shall not approve an application unless the application has commitments to purchase at least 50 percent by weight or of energy, by appropriate output measure, of the salable materials, unless the applicant can justify the failure to have such commitments.

Statutory Authority: *MS s 116.07*

7035.4600 ADMINISTRATION OF GRANTS-IN-AID.

Subpart 1. **Final approval by agency.** The agency shall give final approval of any resource recovery project or resource conservation program funded under provisions of these parts.

Subp. 2. **Metropolitan Council review.** All applications for projects or programs in the metropolitan area shall be submitted to the Metropolitan Council for its review.

Subp. 3. **Payment upon partial completion of project.** The region, municipality, or institution which obtains a state grant under these parts shall be paid in installments when 25 percent, 50 percent, and 75 percent of the cost of the program or project has been completed. Additional installment payments may be authorized upon a showing of good cause by the grantee. Final payment shall be released only after final inspection by the agency of construction, performance, or operation of the program or project or upon review of the final report as required by the grant contract.

Subp. 4. **Grant limitation.** Grants-in-aid payments made by the agency shall not exceed 50 percent of the total cost of the program or project funded.

Subp. 5. **Agency planning assistance.** The agency may assist in the planning and development of resource recovery projects and resource conservation programs funded under these parts.

Subp. 6. **Status, evaluation, and final reports.** The grant contract shall provide for the periodic submission of status and evaluation reports on technical, product, market, and economic aspects of the project or program. A final report shall be submitted to the agency upon completion of the project or program.

Statutory Authority: *MS s 116.07*

SOLID WASTE MANAGEMENT PLANNING ASSISTANCE PROGRAM**7035.5000 PURPOSE.**

Parts 7035.5000 to 7035.6000 implement the solid waste management planning assistance program, created and described in the Waste Management Act of 1980, Minnesota Statutes, sections 115A.42 to 115A.46, by establishing the substantive criteria and procedural conditions according to which the agency shall award solid waste management planning assistance grants.

Statutory Authority: *MS s 115A.42*

7035.5100 OVERVIEW OF PROCEDURES FOR APPLYING FOR AND RECEIVING A GRANT.

Subpart 1. **Application for a grant.** To be eligible for a grant under parts 7035.5000 to 7035.6000, an applicant shall apply for a grant. The procedures the applicant shall follow in applying for a grant are set out in part 7035.5600. The information and documentation the applicant shall provide in the grant application are set out in part 7035.5700.

Subp. 2. **Award of a grant.** The agency shall award the applicant a grant in accordance with the procedures and limitations set out in part 7035.5800, if the agency determines:

- A. that the applicant, cost, and project specified in the grant application are grant eligible;
- B. that the application deadlines are met; and
- C. that sufficient funds are available.

The criteria the agency shall use in determining the grant eligibility of the applicant are set out in part 7035.5300; the criteria the agency shall use in determining the grant eligibility of the costs are set out in part 7035.5400; the criteria the agency shall use in determining the grant eligibility of the project are set out in part 7035.5500; and the criteria the agency shall use in determining compliance with deadlines are set out in parts 7035.5600 and 7035.5800.

Statutory Authority: *MS s 115A.42*

7035.5200 DEFINITIONS.

Subpart 1. **Acceptable plan.** "Acceptable plan" means a written report prepared by a grantee to provide the planning information set out in Minnesota Statutes, section 115A.46. To be considered an acceptable plan under parts 7035.5000 to 7035.6000, the written report shall:

A. contain descriptions, estimates, or assessments of existing and proposed waste practices, including the following:

(1) a description of the existing collection, storage, transportation, processing, and disposal systems used within the political subdivision being studied by the named grantee, including schedules of rates and charges, financing methods, environmental acceptability, and opportunities for improvements in the systems;

(2) an estimate, calculated on the basis of current and projected waste generation practices, of the land disposal capacity in acre-feet which will be needed to serve the political subdivisions being studied by the named grantee through the year 2000;

(3) an assessment of specific opportunities to reduce the need for land disposal through the use of waste reduction and resource recovery, as defined in Minnesota Statutes, section 115A.03, subdivision 27, including an assessment of the alternative degrees of reduction achievable, the comparative costs of the alternatives, including capital and operating costs, and the effects of the alternatives on the cost to generators of the waste; and

(4) a description of existing and proposed county and municipal ordinances and license and permit requirements relating to solid waste management, including a description of the existing and proposed regulations and enforcement procedures relevant to those requirements;

B. establish a detailed siting procedure and development program to assure the orderly location, development, and financing of new or expanded solid waste facilities and services sufficient for a prospective ten-year period, which procedure and program shall be consistent with all applicable rules of the agency and shall include:

(1) estimated costs and implementation schedules;

(2) proposed procedures for operation and maintenance;

(3) estimated annual costs and gross revenues; and

(4) feasible proposals for the use of facilities after they are no longer needed or usable;

C. include an evaluation and recommendation of specific options, consistent with all applicable rules of the agency, for the resolution of conflicting, duplicative, or overlapping local management efforts, including the possible establishment of joint powers management programs or waste management districts; and

D. establish a schedule of actions which need to be undertaken to put the procedures, programs, and resolutions described in the plan into effect, including a statement of the appropriate entity to take each action.

Subp. 2. **Agency.** "Agency" means the Minnesota Pollution Control Agency, as constituted pursuant to Minnesota Statutes, section 116.02, subdivision 1.

Subp. 3. **Commissioner.** "Commissioner" means the chief executive officer of the Minnesota Pollution Control Agency or a person expressly designated by the commissioner to discharge a duty or responsibility of the commissioner.

Subp. 4. **Grant eligible; grant eligibility.** "Grant eligible" or "grant eligibility" means meeting the criteria to receive funding assistance under parts 7035.5000 to 7035.6000. The fact that an item or person is "grant eligible" under parts 7035.5000 to 7035.6000 does not automatically assure that a grant will be awarded. A grant shall only be awarded if the grant eligibility criteria are met.

7035.5200 SOLID WASTE

724

Subp. 5. **Landfill.** "Landfill" means a sanitary landfill or a modified landfill which has a valid permit issued by the agency.

Subp. 6. **Metropolitan area.** "Metropolitan area" has the meaning given it in Minnesota Statutes, section 115A.03, subdivision 18.

Subp. 7. **Population growth rate.** "Population growth rate" means the rate at which population in a proposed study area either increased or decreased during the decade between 1970 and 1980. The commissioner shall determine the population growth rate of a proposed study area by determining the difference in population in the proposed study area, as reported in the 1970 and 1980 United States Census Bureau data, dividing this difference by the 1970 population of the proposed study area and multiplying this result by 100. The growth rate will thus be expressed as a percentage.

Subp. 8. **Project manager.** "Project manager" means an employee of the grantee who is given the responsibility and the authority to direct and coordinate all aspects of the project as defined in the contractual agreement between the grantee and the agency. The project manager shall assume the responsibility for performing all contract and project management functions.

Subp. 9. **Political subdivision.** "Political subdivision" has the meaning given it in Minnesota Statutes, section 115A.03, subdivision 24.

Subp. 10. **Regional Development Commission.** "Regional Development Commission" has the meaning given it in Minnesota Statutes, section 115A.03, subdivision 26.

Statutory Authority: *MS s 115A.42*

History: *L 1987 c 186 s 15*

7035.5300 ELIGIBLE APPLICANTS.

Except for political subdivisions located within the seven-county metropolitan area, any political subdivision within the state of Minnesota is grant eligible.

Statutory Authority: *MS s 115A.42*

7035.5400 ELIGIBLE COSTS.

Subpart 1. **Grant eligible costs.** The following costs are grant eligible:

A. salaries of staff persons, consultants, and other persons employed to develop and publish an acceptable plan;

B. costs associated with the drafting and execution of necessary contracts between the grantee and other units of government or qualified consultants employed to develop or publish an acceptable plan, including reasonable attorney's fees;

C. costs associated with holding meetings to inform the public of the development of the plan and to provide an opportunity for the public to participate in and comment on the development of the plan, including costs associated with providing notices of and recording the meeting;

D. costs associated with the printing and distribution of plans and draft plan materials;

E. costs of any travel in the state, the primary purpose of which is to attend meetings or gather information needed for the development and publication of an acceptable plan, including reimbursement for mileage consistent with state allowances;

F. overhead costs; and

G. costs of any necessary supplies required for the development and publication of an acceptable plan. The costs of any commodities, materials, capital expenditures, and equipment which could be used after the plan is completed shall not be considered supplies and are, therefore, not grant eligible under parts 7035.5000 to 7035.6000.

Subp. 2. **Limitation to grant amount.** The amount of the grants available under parts 7035.5000 to 7035.6000 is limited as follows:

A. For planning by a regional development commission, joint planning by two or more contiguous counties, or joint planning by political subdivisions located in two or more contiguous counties:

(1) Except as provided in item E, the agency shall award grants to cover 90 percent of the eligible costs specified in the grant application or the percentage of eligible costs requested in the grant application, whichever is less; and

(2) The grantee shall assume the responsibility for the remaining costs of completing the planning efforts.

B. For all planning efforts other than that described in item A:

(1) Except as provided in item E, the agency shall award grants to cover 50 percent of the eligible costs specified in the grant application or the percentage of eligible costs requested in the grant application, whichever is less; and

(2) The grantee shall assume the responsibility for the remaining costs of completing the planning efforts.

C. For item A grants and item B grants, the maximum amount that a grantee shall be awarded to complete the plan is 90 percent and 50 percent, respectively, of the total project cost detailed by the grantee in its application. Within these maximums, adjustments between funds awarded to cover the costs specified in this part shall be made if the agency and the grantee determine that the adjustments will result in the development of an acceptable plan in a more efficient manner.

D. If, while working to complete the grant, a grantee finds that more funds are needed, the grantee shall not be awarded additional funds unless the grantee makes application for an additional grant in accordance with the grant application procedures set out in part 7035.5600. The agency shall treat an application for an additional grant in the same manner as it treats applications for original grants, as provided in part 7035.5800.

E. If available funds are not adequate to meet the funding requests of all applicants assigned to group number one under part 7035.5800, subpart 3, item B, the agency shall reduce the state share of the eligible costs sufficiently to enable all applicants assigned to group number one to receive funding, but the size of the grant awards in item A, subitem (1) and item B, subitem (1) shall not be less than 60 percent and 33 percent, respectively. If available funds are not adequate under this reduced funding level to meet the funding requests of all applicants assigned to group number one under part 7035.5800, subpart 3, item B, grants shall be awarded at the reduced amount in the order established under part 7035.5800, subpart 3, item C.

Subp. 3. **Performance of tasks.** Grants shall be awarded to cover the eligible costs of only those tasks which are undertaken and completed during the grant period established in the grant agreement. Grants shall not be awarded to cover any cost associated with tasks performed prior to the award of a grant or after the expiration of the grant agreement.

Subp. 4. **Availability of funds.** The availability of funds is a precondition to the award of any grant by the agency.

Statutory Authority: *MS s 115A.42*

7035.5500 ELIGIBLE PROJECTS.

Subpart 1. **In general.** The agency shall consider grant eligible all projects which are reasonably designed to result in the development and publication of an acceptable plan, as defined in part 7035.5200, subpart 1. A project shall not be considered eligible if it is proposed to include a study area for which an acceptable plan has previously been approved by the agency under this grant program.

Subp. 2. **Determinations by the commissioner.** The commissioner shall determine that a project is reasonably designed to result in an acceptable plan if the commissioner

finds that the grant application required to be submitted under part 7035.5600 is complete. The commissioner shall determine that a grant application is complete if the application contains all the information and meets all the requirements set out in part 7035.5700.

Statutory Authority: *MS s 115A.42*

History: *L 1987 c 186 s 15*

7035.5600 GRANT APPLICATION PROCEDURES.

Subpart 1. **Deadline for submission.** A grant applicant shall submit a grant application to the agency no later than 4:30 p.m. on the first Monday of August of each year. The application must be received by the agency by this deadline or must have a postmark dated no later than the Friday immediately preceding the deadline in order to qualify as meeting that deadline.

Subp. 2. **Contents of application.** The grant application submitted to the agency shall include all the information and documentation set out in part 7035.5700.

Subp. 3. **Review of application.** Upon receiving a grant application, the commissioner shall promptly review the application and make a determination as to the eligibility of the applicant, costs, and project specified in the application.

Subp. 4. **Notice of commissioner's determination.** Within two weeks after receiving the application, the commissioner shall notify each applicant of the following:

A. If the commissioner determines that the applicant, the costs, and the project specified in the application are grant eligible, the application shall be considered final as of the date it was received and the applicant shall be so notified. The application shall then be treated in accordance with the agency review provisions established in part 7035.5800.

B. If the commissioner determines that the applicant is not grant eligible, the application shall not be further considered and the applicant shall be so notified.

C. If the commissioner determines that any of the costs described in the application are not grant eligible or that the application is otherwise incomplete, the commissioner shall note the inadequacies in the application and shall so notify the applicant. The applicant shall have an opportunity to cure the inadequacies noted by the commissioner. However, no information received by the agency after the 42nd day beyond the appropriate deadline in subpart 1, except as provided in subpart 5, shall be considered by the agency in determining the grant eligibility of the applicant, costs, or project.

An application which is considered inadequate under parts 7035.5000 to 7035.6000 shall not be considered final until the agency receives the information or documentation which cures the inadequacies described by the commissioner.

An application which is considered inadequate under parts 7035.5000 to 7035.6000 shall be considered final on the date all necessary supplemental information is received by the agency.

Once the application is considered final, it shall be treated in accordance with the agency review provisions established in part 7035.5800.

Subp. 5. **Extension of review period.** If the agency exceeds the two-week review period in subpart 4 for an application, the 42-day periods specified in subpart 4, item C, and part 7035.5800, subpart 2 shall be extended for only that application by the number of days equal to the number of review days in excess of two weeks.

Statutory Authority: *MS s 115A.42*

History: *L 1987 c 186 s 15*

7035.5700 GRANT APPLICATION CONTENT.

Applications for grants shall include the following information:

A. the name of each political subdivision making the grant application;

- B. resolutions from each political subdivision named on the application which:
- (1) demonstrate the political subdivision's desire to make the grant application and interest in the planning efforts described in the grant application; and
 - (2) demonstrate the political subdivision's commitment to provide the required financial input to complete the planning efforts described in the grant application;
- C. in the case of a regional development commission, resolutions from each of the counties represented by the regional development commission, which demonstrate the counties' interest in and support for the planning efforts described in the grant application;
- D. the name, address, and qualifications of the project manager;
- E. the total project cost;
- F. the amount of grant funding requested;
- G. the amount and sources of all other funding contributions, including the amount of funds to be contributed by the applicant;
- H. the regional boundaries of, and the population in, the area to be considered in the planning study;
- I. a list of all the landfills which receive solid waste from each of the counties in the proposed study area and the percent of each county's refuse which is currently being disposed at each of the landfills; and
- J. a work plan which provides the following information and details:
- (1) a brief description of the problem which the grantee hopes to address through the planning efforts, including a statement of any known waste management problems to be addressed by the grantee and any present support or opposition to current or proposed solid waste disposal alternatives;
 - (2) a breakdown of the specific work tasks to be completed under the terms of the grant, including each of the tasks required to be completed by Minnesota Statutes, section 115A.46;
 - (3) a breakdown of the number of work hours needed to complete each of the tasks specified in subitem (2);
 - (4) a breakdown of all the costs associated with completing each of the tasks specified in subitem (2), including an explanation of how each cost was calculated;
 - (5) a breakdown of the staff, consultants, and units of government associated with completing each of the tasks specified in subitem (2);
 - (6) a breakdown of the amount of time needed to complete each of the tasks specified in subitem (2);
 - (7) an overall time schedule for the project showing estimated dates of completion of the tasks specified in subitem (2); and
 - (8) a description of the program to be completed by the applicant to ensure public participation in the planning efforts.

Statutory Authority: *MS s 115A.42*

7035.5800 AGENCY REVIEW OF GRANT APPLICATIONS AND AWARD OF GRANTS.

Subpart 1. **Agency duty.** The agency shall review all applications received prior to the appropriate deadline specified in part 7035.5600, subpart 1, and shall exclude from consideration all applications received after that deadline.

Subp. 2. **Final grant applications.** Only grant applications considered final pursuant to part 7035.5600, subpart 4, items A and C, as of 4:30 p.m. on the 42nd day following the application deadlines specified in part 7035.5600, subpart 1, except as provided in part 7035.5600, subpart 5, shall be eligible for a grant award.

Subp. 3. **Establishing priorities.** The agency shall assign a priority ranking to each of the applications which are eligible for a grant award under subpart 2. This priority ranking shall be made pursuant to items A to C.

A. The agency shall make the lists and determinations specified in subitems (1) to (5).

(1) The agency shall make a list of the counties proposed to be studied under the grant eligible applications identified under subpart 2.

(2) The agency shall make a list of the landfills available to and being used by each county identified in subitem (1).

(3) The agency shall determine whether the remaining permitted landfill capacity available to and being used for a majority of the refuse from each of the counties identified in subitem (1) is greater than or equal to five years or is less than five years. An applicant may provide recent, reliable data to the agency to assist it in making these determinations.

(4) The agency shall determine whether the location of each of the landfills identified in subitem (2) is environmentally undesirable. The agency shall determine that a landfill's location is environmentally undesirable if the landfill meets one or more of the following criteria:

(a) the landfill is located less than 1,000 feet from the normal high water level of a lake, pond, or flowage;

(b) the landfill is located less than 300 feet from a stream;

(c) the landfill is located within a 100 year flood plain;

(d) the landfill is located within a wetland; and

(e) the landfill is located on Karst bedrock.

An applicant may provide recent, reliable data to the agency to assist it in making these determinations.

(5) After making the determinations specified in subitem (4), the agency shall determine which counties contribute a majority of their solid wastes to landfills that are considered to be in environmentally undesirable locations. An applicant may provide recent, reliable data to the agency to assist it in making these determinations.

B. The agency shall divide the grant applications into two groups. All applications whose study areas contain one or more counties that contribute a majority of their solid wastes to landfills having less than five years of permitted landfill capacity remaining, as determined under item A, subitem (3), or that contribute a majority of their solid wastes to landfills that are determined to be in environmentally undesirable locations, as determined under item A, subitem (5), shall be placed in group number one. All other applications shall be placed in group number two.

C. The agency shall determine the population growth rate within each application's proposed study area using 1970 and 1980 United States Census Bureau data. The agency shall assign a priority ranking to applications in groups one and two as provided in subitems (1) and (2).

(1) First, the agency shall divide the applications in group one and in group two into subgroups. Subgroup 1 shall contain the applications for planning by a regional development commission, for joint planning by two or more contiguous counties, and for joint planning by political subdivisions located in two or more contiguous counties. Subgroup 2 shall contain all other applications.

(2) Funds shall be awarded, on a priority basis, in the following order. Priority shall be determined by growth rate, with the highest priority within each subgroup being given to the applicant with the highest growth rate:

(a) group 1, subgroup 1;

- (b) group 1, subgroup 2;
- (c) group 2, subgroup 1; and
- (d) group 2, subgroup 2.

Subp. 4. **Granting of awards.** The agency shall award grants to applicants in the order of the priority ranking in subpart 3, item C. No awards shall be made to any applicant in group two until all applicants in group one have been awarded grants.

Subp. 5. **Agency action after determination of grantees.** Once the agency has determined which applicants will receive grants, the agency shall proceed as follows:

A. the agency shall provide a complete listing of grant awards and of applicant rankings to each applicant; and

B. within three weeks of the notification required by item A, the agency shall draft a grant agreement for each applicant which is to receive a grant in accordance with the requirements and conditions set out in part 7035.5900.

Statutory Authority: *MS s 115A.42*

7035.5900 GRANT AGREEMENT.

Subpart 1. **Incorporation of grant application.** The grant agreement shall incorporate by reference the final grant application submitted to the agency in accordance with part 7035.5700.

Subp. 2. **Terms of grant.** The grant agreement shall establish the term of the grant. All grants awarded under parts 7035.5000 to 7035.6000 shall have a maximum term of one year, unless the agency determines for a specific grantee that a longer term is necessary due to circumstances beyond the control of the grantee in order to produce an acceptable plan. The agency shall then set the term of the grant.

Subp. 3. **Forfeit of funds.** Funds for projects not performed or completed in accordance with the terms and conditions of the grant agreement, including time schedules, shall be forfeited unless the agency determines that the variances from the grant requirements are due to factors outside the control of the grantee.

Subp. 4. **Payment schedule.** The grant agreement shall include a payment schedule. This payment schedule shall provide for reimbursement of stated travel costs in a manner described in the grant agreement and shall require that the last 25 percent of the total grant award, except reimbursable travel costs, be retained by the agency until the commissioner determines that the report submitted under the grant is an acceptable plan. If the commissioner determines that a report is deficient, the commissioner shall notify the grantee of the deficiency. The agency shall pay the withheld 25 percent of the grant as soon as the deficiency is corrected and the commissioner determines that the report is an acceptable plan.

Subp. 5. **Special conditions of grant agreement.** The grant agreement shall provide that the grantee is authorized to enter into contracts to complete the work specified in the grant. The grant agreement shall also require that all such contracts name the agency as a third-party beneficiary to that contract.

Statutory Authority: *MS s 115A.42*

History: *L 1987 c 186 s 15*

7035.6000 SEVERABILITY.

If any provision of parts 7035.5000 to 7035.5900 or the application of it to any person or circumstance is held to be invalid, the invalidity shall not affect any other provision or the application of any other part of these parts or any other part which can be given effect without the invalid provision or application. To this end, the provisions of these parts and the various applications of it are severable.

Statutory Authority: *MS s 115A.42*

7035.6500 [Repealed, 12 SR 846]

7035.6600 SOLID WASTE

730

7035.6600 [Repealed, 12 SR 846]

7035.6700 [Repealed, 12 SR 846]

7035.6800 [Repealed, 12 SR 846]

7035.6900 [Repealed, 12 SR 846]

7035.7000 [Repealed, 12 SR 846]

7035.7100 [Repealed, 12 SR 846]

7035.7200 [Repealed, 12 SR 846]

7035.7300 [Repealed, 12 SR 846]

7035.7400 [Repealed, 12 SR 846]

7035.7500 [Repealed, 12 SR 846]

7035.7600 [Repealed, 12 SR 846]

MINNESOTA SOLID WASTE MANAGEMENT DEMONSTRATION PROGRAM**7035.7700 APPORTIONMENT OF FUNDS.**

Subpart 1. **Articles V and VI grants.** The agency shall apportion funds allocated to it by the legislature for the grant programs set out in articles V and VI of the Waste Management Act, Minnesota Statutes, sections 115A.42 to 115A.54 as follows:

A. Article V grants (grants awarded under other rules): 40 percent of the amount appropriated to the agency.

B. Article VI grants (grants awarded under this rule): 60 percent of the amount appropriated to the agency.

C. If the agency receives more eligible requests for grant assistance under article VI than the agency has funds available and the agency receives less eligible requests for grant assistance under article V than it has funds available, the agency shall adjust the apportionment described in this part. Similarly, if the agency receives less eligible requests for grant assistance under article VI than the agency has funds available to it and more eligible request for grant assistance under article V than it has funds available, the agency shall adjust the apportionment described in this part. No such adjustment shall be made until the last date that grant applications are permitted to be submitted to the agency under this rule and the rule developed to implement article V of the Waste Management Act.

Subp. 2. **Preimplementation and implementation grants.** For preimplementation and implementation grants, the agency shall apportion funds allocated to it by the legislature as follows:

A. Preimplementation grants: 20 percent of the amount appropriated to the agency; and

B. Implementation grants: 80 percent of the amount appropriated to the agency.

Severability. If any provision of this rule or the application thereof to any person or circumstance is held to be invalid, such invalidity shall not affect any other provision or application of any other part of this rule or any other rule which can be given effect without the invalid provision or application, and to this end the provisions of this rule and the various applications thereof are declared to be severable.

Statutory Authority: *MS s 115A.49*

7035.8000 [Renumbered 9220.0100]

7035.8010 [Renumbered 9220.0110]

7035.8020 [Renumbered 9220.0120]

MINNESOTA RULES 2011

731

SOLID WASTE 7035.8570

7035.8030 [Renumbered 9220.0130]

7035.8040 [Renumbered 9220.0140]

7035.8050 [Renumbered 9220.0150]

7035.8060 [Renumbered 9220.0160]

7035.8070 [Renumbered 9220.0170]

7035.8080 [Renumbered 9220.0180]

7035.8200 [Repealed, 12 SR 2513]

7035.8205 [Repealed, 12 SR 2513]

7035.8210 [Repealed, 12 SR 2513]

7035.8220 [Repealed, 12 SR 2513]

7035.8230 [Repealed, 12 SR 2513]

7035.8240 [Repealed, 12 SR 2513]

7035.8250 [Repealed, 12 SR 2513]

7035.8260 [Repealed, 12 SR 2513]

7035.8270 [Repealed, 12 SR 2513]

7035.8280 [Repealed, 12 SR 2513]

7035.8290 [Repealed, 12 SR 2513]

7035.8300 [Repealed, 12 SR 2513]

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7035.8440 [Repealed, 12 SR 2513]

7035.8450 [Repealed, 12 SR 2513]

7035.8460 [Repealed, 12 SR 2513]

7035.8470 [Repealed, 12 SR 2513]

7035.8480 [Repealed, 12 SR 2513]

7035.8490 [Repealed, 12 SR 2513]

7035.8500 [Repealed, 12 SR 2513]

7035.8510 [Repealed, 12 SR 2513]

7035.8520 [Repealed, 12 SR 2513]

7035.8530 [Repealed, 12 SR 2513]

7035.8540 [Repealed, 12 SR 2513]

7035.8550 [Repealed, 12 SR 2513]

7035.8560 [Repealed, 12 SR 2513]

7035.8570 [Repealed, 12 SR 2513]

7035.8580 SOLID WASTE

732

7035.8580 [Repealed, 12 SR 2513]

7035.8590 [Repealed, 12 SR 2513]

7035.8700 [Repealed, 12 SR 2513]

7035.8710 [Repealed, 12 SR 2513]

INFECTIOUS WASTE

7035.9100 SCOPE.

Parts 7035.9100 to 7035.9150 apply to owners and operators of facilities, to commercial transporters, and to all infectious waste without regard to quantity. They do not apply to waste generated by households, farms, agricultural businesses, or, except where specified, generators.

Statutory Authority: *MS s 116.75*

History: *15 SR 836*

7035.9110 DEFINITIONS.

Subpart 1. **Scope.** As used in parts 7035.9100 to 7035.9150, the following terms have the meanings given them.

Subp. 2. **Agency.** "Agency" means the Minnesota Pollution Control Agency, its agent, or representative.

Subp. 3. **Blood.** "Blood" means waste human blood and blood products in containers, or solid waste saturated and dripping human blood or blood products. Human blood products include serum, plasma, and other blood components.

Subp. 4. **Commercial transporter.** "Commercial transporter" means a person who transports infectious or pathological waste for compensation.

Subp. 5. **Commissioner.** "Commissioner" means the commissioner of the Minnesota Pollution Control Agency.

Subp. 6. **Decontamination.** "Decontamination" means rendering infectious waste safe for routine handling as a solid waste.

Subp. 7. **Disinfection.** "Disinfection" means the use of chemical solutions to substantially reduce the number of microorganisms present on surfaces of inanimate objects.

Subp. 8. **Facility.** "Facility" means a site where infectious waste is stored, disposed, or decontaminated, including incineration.

Subp. 9. **Generator.** "Generator" means a person whose activities produce infectious waste. Generator does not include a person who produces sharps as a result of administering medication to oneself, an ambulance service licensed under Minnesota Statutes, section 144E.10, an eligible board of health, community health board, or public health nursing agency as defined in Minnesota Statutes, section 116.78, subdivision 10, or a program providing school health service under Minnesota Statutes, section 123.35, subdivision 17.

Subp. 10. **Infectious waste.** "Infectious waste" means laboratory waste, blood, regulated body fluids, sharps, and research animal waste that have not been decontaminated.

Subp. 11. **Laboratory waste.** "Laboratory waste" means waste cultures and stocks of agents that are generated from a laboratory and are infectious to humans; discarded contaminated items used to inoculate, transfer, or otherwise manipulate cultures or stocks of agents that are infectious to humans; wastes from the production of biological agents that are infectious to humans; and discarded live or attenuated vaccines that are infectious to humans.

Subp. 12. **Management plan.** "Management plan" means a written and implemented system, as described in part 7035.9130, for the safe handling of infectious or pathological waste through collection, disinfection, transport, storage, and disposal.

Subp. 13. **Offsite.** "Offsite" means a land area and appurtenances for the decontamination, storage, or disposal of infectious waste that is not on the generator's site.

Subp. 14. **Operator.** "Operator" means the person or persons responsible for the operation of a facility.

Subp. 15. **Owner or facility owner.** "Owner or facility owner" means the person or persons who own a facility or part of a facility.

Subp. 16. **Pathological waste.** "Pathological waste" means human tissues and body parts removed accidentally or during surgery or autopsy intended for disposal. Pathological waste does not include teeth.

Subp. 17. **Person.** "Person" means an individual, partnership, association, public or private corporation, or other legal entity, the United States government, an interstate body, the state, and an agency, department, or political subdivision of the state.

Subp. 18. **Putrefaction.** "Putrefaction" means the decomposition of organic matter by microorganisms, producing foul-smelling matter.

Subp. 19. **Regulated human body fluids.** "Regulated human body fluids" means cerebrospinal fluid, synovial fluid, pleural fluid, peritoneal fluid, pericardial fluid, and amniotic fluid that are in containers or that drip freely from body fluid soaked solid waste items.

Subp. 20. **Research animal waste.** "Research animal waste" means carcasses, body parts, and blood derived from animals knowingly and intentionally exposed to agents that are infectious to humans for the purpose of research, production of biologicals, or testing of pharmaceuticals.

Subp. 21. **Sharps.** "Sharps" means:

A. discarded items that can induce subdermal inoculation of infectious agents, including needles, scalpel blades, pipettes, and other items derived from human or animal patient care, blood banks, laboratories, mortuaries, research facilities, and industrial operations; and

B. discarded glass or rigid plastic vials containing infectious agents.

Subp. 22. **Spill.** "Spill" means the release of infectious waste to the environment.

Subp. 23. **Storage.** "Storage" means the offsite holding of infectious waste for more than 48 hours, except when such waste is accepted on a Friday, provided that any waste so accepted must be disposed of not later than the following Monday.

Statutory Authority: *MS s 116.75*

History: *15 SR 836; L 1997 c 199 s 14*

7035.9120 REQUIRED PRACTICES FOR FACILITY OWNERS AND OPERATORS AND COMMERCIAL TRANSPORTERS.

Subpart 1. **Packaging and labeling requirements.** No commercial transporter shall receive any infectious waste that is not packaged according to items A to G. No facility owner or operator shall receive for offsite decontamination, storage, or disposal, any infectious waste that is not packaged according to items A to G.

A. Sharps must be in rigid, puncture-resistant containers that have lids or caps that are designed to preclude loss or leakage of the contents.

B. Sharps must remain packaged throughout collection, storage, decontamination, and any handling processes that precede disposal, unless the sharps have been treated by a process that renders them incapable of inducing subdermal inoculation. This item does not prevent the use of sharps containers that are designed to be reusable if parts 7035.9100 to 7035.9150 are complied with.

C. Sharps containers, or infectious waste containers that include sharps containers, that will be transported to an offsite facility must be labeled, on the outer container, with "Sharps" in letters at least one inch high with a stroke width of one-eighth inch and with either the international biohazard symbol, at least three inches by three inches, or the words

"Infectious Waste" in letters at least one inch in height with a stroke width of one-eighth inch.

D. Infectious waste, except for sharps, must be contained in plastic bags that are impervious to moisture, and of sufficient strength to preclude ripping, tearing, or bursting under normal conditions of use and handling. Each plastic bag must be constructed of material of sufficient single thickness and strength to pass the 165-gram dropped dart impact resistance test as prescribed by ASTM Standard D 1709-75, which is incorporated by reference, and is not subject to frequent change. The standard appears in the Annual Book of ASTM Standards, issued by the American Society of Testing and Materials (Philadelphia, 1975), and is available at the Minnesota State Law Library or through the statewide interlibrary loan system. The bags must be secured to prevent leakage of waste during handling, decontamination, storage, transport, or disposal.

E. Plastic bags of infectious waste that will be shipped offsite must be packaged for storage or handling by placement in corrugated fiberboard boxes or equivalent rigid containers such as reusable pails, cartons, or portable bins. Containers must have tight-fitting covers and be securely sealed.

F. Boxes and rigid containers of infectious waste must be conspicuously labeled with the words "Infectious Waste" in letters at least one inch high, with a stroke width of one-eighth inch, or the international biohazard symbol, at least three inches by three inches.

G. Containers that have been in direct contact with infectious waste must be disinfected before further use. The disinfection methods in subpart 6, item C, must be used.

Subp. 2. **Storage requirements.** Offsite facility owners and operators must store waste according to items A to E.

A. Infectious or pathological waste must be segregated from other wastes in a storage area designed to prevent the entry of vermin. Storage areas for infectious or pathological waste must be secured to deny access by unauthorized persons and must be prominently marked with the international biohazard symbol and with the words "Infectious Waste" on or adjacent to the exterior of entry doors and access gates.

B. Interior surfaces of storage areas must be constructed of materials that are easily cleaned.

C. Offsite storage areas must be designed to contain spills.

D. Infectious or pathological waste must not be allowed to become putrescent during storage or at any time.

E. Storage facility owners and operators must comply with the spill response requirements in subpart 6.

Subp. 3. **Decontamination requirements.** Facility owners and operators may use incineration, autoclaving, or other decontamination methods that have been approved by the commissioner for the decontamination of infectious waste. Facility owners and operators shall use handling and storage practices that comply with subparts 1 and 2, and decontamination methods that comply with items A to C and subpart 6.

A. Incinerators must be operated in compliance with chapters 7001, 7005, 7007, 7009, 7011, 7017, 7019, 7021, 7023, 7025, and 7028.

B. Offsite decontamination of infectious waste by autoclaving must be achieved in the following manner:

(1) Infectious waste must be autoclaved at 250 degrees Fahrenheit at 15 pounds per square inch of gauge pressure for one hour or at least equivalent settings.

(2) Loading of infectious waste must not exceed the design capacity of the autoclave.

(3) An operating log for each load of infectious waste decontaminated must be kept onsite for three years and must contain the date, time, temperature, pressure, and operator name.

C. Other methods for decontaminating infectious waste offsite, such as grinding, microwaving, or disinfecting technologies must receive commissioner approval. To obtain approval, the facility owner or operator proposing the decontamination method must submit to the commissioner information demonstrating that the proposed method decontaminates the waste. The commissioner may request additional information to determine whether the method is effective. In making this decision, the commissioner shall consult with the Centers for Disease Control and the Minnesota Department of Health.

Subp. 4. Commercial transporter requirements.

A. A commercial transporter must possess a valid transporter registration as described in part 7035.9140, subpart 3.

B. The commercial transporter's management plan required in part 7035.9130 must be kept at the address identified as the commercial transporter's principal place of business.

C. A commercial transporter who transports infectious waste offsite and facilities that receive the waste must be in compliance with subitems (1) to (9).

(1) A commercial transporter must not accept infectious waste from a generator who does not have a management plan acknowledgment card issued by the Minnesota Department of Health or a storage facility or treatment facility that does not have a management plan as described in part 7035.9130.

(2) Infectious waste must be transported in a fully enclosed vehicle compartment.

(3) Infectious waste must be delivered for decontamination, storage, or disposal only to a facility owner or operator that has an approved management plan onsite or to a facility owner or operator that is exempt from the requirements for a management plan.

(4) A commercial transporter must not deliver infectious waste to a facility owner or operator prohibited from accepting the waste.

(5) Surface areas of equipment used to transport infectious waste must be smooth and easily cleaned.

(6) Infectious waste must not be compacted during transport. Sharps containers, or infectious waste containers that include sharps containers, must never be compacted, whether or not the sharps have been decontaminated. Containers must be secured to prevent movement during transport.

(7) Infectious waste must not be allowed to become putrescent during transportation.

(8) A person must not transport or receive for transport infectious waste that is not packaged and labeled according to subpart 1.

(9) Commercial transporters must comply with subpart 6.

D. Commercial transporter vehicles must bear labels or placards that comply with subitems (1) and (2).

(1) Vehicles transporting infectious waste must be identified on each side of the vehicle, and on the access doors to any area holding infectious waste, with the name of the transporter and the words "Infectious Waste" in letters six inches high with a stroke width of three-fourths inch or with the international biohazard symbol, eight inches by eight inches.

(2) The vehicle identification number that is issued by the commissioner under part 7035.9140, subpart 3, must be displayed on the single unit vehicle or trailer to which it is assigned in letters and numbers at least four inches in height with a stroke width of one-half inch.

Subp. 5. **Generator transport requirements.**

A. Generators who transport their own infectious waste to an offsite decontamination, storage, or disposal facility must comply with the packaging, labeling, and storage requirements of subparts 1 and 2.

B. Generators who provide not-for-compensation or at cost infectious waste collection and transport services for other generators or groups of generators that provide not-for-compensation infectious waste collection and transport service for the group must comply with the packaging, labeling, and storage requirements of subparts 1 and 2 and the commercial transporter requirements of subpart 4, item C.

C. Generator transport vehicles that exceed 7,000 pounds gross vehicle weight must be identified on each side of the vehicle, and on the access doors to any area holding infectious waste, with the name of the transporter and the words "Infectious Waste" in letters six inches high with a stroke width of three-fourths inch or with the international biohazard symbol, eight inches by eight inches. Magnetic placards that meet these specifications are acceptable.

D. Generators who transport infectious waste in vehicles that exceed 7,000 pounds gross vehicle weight must comply with subpart 8, items B and C, in addition to providing the name and title of the individual responsible for the implementation of infectious waste activities that are consistent with parts 7035.9100 to 7035.9150.

Subp. 6. **Spill response plan.** Spill response plans must comply with items A to C.

A. A spill cleanup kit must be available for use in areas used for the storage, decontamination, or disposal of infectious waste and also on each transport vehicle. The cleanup kit must include at least:

- (1) absorbent material for spilled liquids;
- (2) one gallon of hospital grade disinfectant or disinfectant made of a formula listed in item C;
- (3) packaging and labeling, as required in subpart 1;
- (4) scoop shovel, push brooms, and plastic buckets; and
- (5) disposable coveralls, latex and neoprene gloves, surgical type face mask, and goggles.

B. Response to a spill must include the following minimum procedures:

- (1) access to the spill area by unauthorized personnel must be prevented;
- (2) broken containers and spillage must be packaged and labeled as required in subpart 1;
- (3) absorbent material must be applied to surface areas that have been contaminated with infectious waste; and
- (4) reusable items must be cleaned and disinfected using the procedures in item C.

C. Procedures for disinfecting contaminated surfaces include, but are not limited to, agitation to remove visible soil and application of one of the following chemical sanitizers for the contact time required by the manufacturer's label:

- (1) hypochlorite solution (500 ppm available chlorine);
- (2) phenolic solution (500 ppm active ingredient);
- (3) iodoform solution (100 ppm active ingredient); or
- (4) other chemical sanitizer solutions of equivalent disinfectant strength.

Subp. 7. **Financial assurance.** As a condition of management plan approval, an off-site storage facility owner or operator shall provide to the agency evidence of financial assurance according to items A, B, or C.

A. An offsite storage facility owner or operator may satisfy the requirements of this subpart by depositing acceptable securities with the commissioner of management and budget in accordance with subitems (1) to (9). The value of the securities to be deposited shall at least equal the estimated costs of final waste disposal that is approved in the management plan.

(1) Acceptable securities, for the purposes of this item, are:

(a) United States government bonds;

(b) bonds or securities that are issued by the state of Minnesota and that are secured by the full faith and credit of this state; and

(c) certificates of deposit issued by a bank that has deposits insured by the Federal Deposit Insurance Corporation.

(2) An offsite storage facility owner or operator must send a copy of the commissioner of management and budget's receipt to the commissioner within ten days after the deposit is made.

(3) Securities must be assigned to the state of Minnesota. The assignment of securities must be signed by an officer, partner, or owner of the offsite storage facility. The assignment must state: "Assigned to the state of Minnesota for the purpose of providing financial assurance required by Minnesota Rules, part 7035.9120, under the Infectious Waste Control Act."

(4) All securities shall be deposited with the commissioner of management and budget. The commissioner and the commissioner of management and budget shall be authorized to sell and collect, if stored wastes are allowed to putresce, as much of the deposited securities as is needed to pay for final waste disposal. The commissioner's order to sell securities must be approved by the agency.

(5) Interest accruing on any securities deposited under this item shall be collected and transmitted to the depositor, provided that the depositor has not allowed stored wastes to putresce.

(6) All deposits shall remain in the custody of the commissioner of management and budget until three months after the facility operator stops accepting infectious waste.

(7) Any securities deposited with the commissioner of management and budget may be exchanged or replaced by the depositor with other acceptable securities so long as the market value of the securities equals the amount of deposit required.

(8) No securities on deposit with the commissioner of management and budget may be released without a written order from the commissioner. The commissioner shall refuse to release securities on deposit if the offsite storage facility owner or operator fails to dispose properly of any infectious wastes remaining after the facility permanently stops accepting waste.

(9) The offsite storage facility owner or operator may request that deposited securities be returned. Such requests must be submitted in writing by certified mail. The commissioner shall direct the commissioner of management and budget to return the securities to the depositor if:

(a) the offsite storage facility owner or operator has stopped taking waste and no wastes remain on the site;

(b) the offsite storage facility owner or operator has substituted other securities of equal or greater value for the securities that are requested; or

(c) another person has received approval to operate the offsite storage facility.

The commissioner shall refuse to order return of the securities if the conditions for return have not been met. The commissioner shall have 60 days in which to determine whether to order return of the securities. If the commissioner does not order return of the securities, the commissioner shall, within 30 days of the decision, provide the offsite storage facility owner or operator with written reasons for not ordering return of the securities.

B. An offsite storage facility owner or operator may satisfy the requirements of this subpart by sending to the commissioner a surety bond that conforms to the requirements of subitems (1) to (8). The surety company issuing the bond must be among those listed as acceptable sureties on federal bonds in Circular 570, issued by the United States Department of the Treasury, as published annually in the Federal Register on July 1.

(1) The penal sum of the bond shall at least equal the estimated costs of final waste disposal that is approved in the management plan.

(2) The wording of the surety bond must be identical to the wording specified in part 7035.9150, subpart 1.

(3) The bond must guarantee that the offsite storage facility owner or operator will:

(a) properly dispose of all stored wastes after the offsite storage facility has stopped accepting wastes;

(b) provide alternate financial assurance as specified in this subpart; and

(c) obtain the commissioner's written approval of the assurance provided within 90 days after receipt by the commissioner of a notice of cancellation of the bond from the surety.

(4) Under the terms of the bond, the surety must become liable on the bond obligation when the offsite storage facility owner or operator fails to perform as guaranteed by the bond. Following a determination by the commissioner that the offsite storage facility owner or operator has failed to properly dispose of all stored wastes after the offsite storage facility has stopped accepting wastes or has not provided alternate financial assurance as specified in this subpart and obtained the commissioner's written approval of the assurance provided, within 90 days after receipt by the commissioner of a notice of cancellation of the bond from the surety, under the terms of the bond the surety shall pay the amount of the penal sum to the agency.

(5) Whenever the estimated costs of final waste disposal become greater than the penal sum, the offsite storage facility owner or operator, within 60 days after the increase, shall either increase the penal sum to equal the new cost estimate, or obtain other financial assurance as specified in this subpart. Whenever the estimated costs of final waste disposal decrease, the penal sum shall be reduced to equal the new cost estimate following written approval by the commissioner.

(6) Under the terms of the bond, the surety may cancel the bond by sending notice of cancellation by certified mail to the offsite storage facility owner or operator and to the commissioner. However, cancellation is not effective until 120 days after the commissioner has received the notice of cancellation, as evidenced by the return receipt.

(7) The offsite storage facility owner or operator may cancel the bond if the commissioner has given prior written approval. The commissioner shall approve cancellation if:

(a) the offsite storage facility owner or operator properly disposes of all stored wastes after the offsite storage facility has stopped accepting wastes; or

(b) the offsite storage facility owner or operator provides alternate financial assurance as specified in this subpart.

(8) The surety shall not be liable for deficiencies in the performance of final waste disposal after the commissioner releases the offsite storage facility owner or operator from the requirements of this subpart.

C. An offsite storage facility owner or operator may satisfy the requirements of this subpart by sending to the commissioner a letter of credit that conforms to the requirements of subitems (1) to (8). The issuing institution must be an entity which has the authority to issue letters of credit. Its letter-of-credit operations must be regulated and examined by a federal or Minnesota state agency.

(1) The letter of credit must be issued in an amount that is at least equal to the estimated costs of final waste disposal that is approved in the management plan.

(2) The wording of the letter of credit must be identical to the wording specified in part 7035.9150, subpart 2.

(3) The letter of credit must be accompanied by a letter from the offsite storage facility owner or operator referring to the letter of credit by number, issuing institution, and date, and providing the following information:

(a) the identification number;

(b) the name and address of the facility; and

(c) the amount of funds assured by the letter of credit for final disposal of wastes at the facility.

(4) The letter of credit must be irrevocable and issued for a period of at least one year. The letter of credit must provide that the expiration date will be extended automatically for a period of at least one year unless, at least 120 days before the current expiration date, the issuing institution notifies both the offsite storage facility owner or operator and the commissioner by certified mail of a decision not to extend the expiration date. Under the terms of the letter of credit, the 120 days must begin on the date when the commissioner has received the notice, as evidenced by the return receipt.

(5) Whenever the estimated costs of final waste disposal become greater than the amount of the letter of credit, the offsite storage facility owner or operator, within 60 days after the increase, shall either increase the amount of the letter of credit to equal the new cost estimate, or obtain other financial assurance as specified in this subpart. Whenever the estimated costs of final waste disposal decrease, the amount of the letter of credit shall be reduced to equal the new cost estimate following written approval by the commissioner.

(6) Following a determination by the commissioner that the offsite storage facility owner or operator has failed to properly dispose of all stored wastes after the offsite storage facility has stopped accepting wastes, the commissioner shall draw on the letter of credit.

(7) The commissioner shall draw on the letter of credit if the offsite storage facility owner or operator does not establish alternate financial assurance as specified in this subpart and obtain written approval of the alternate financial assurance from the commissioner within 90 days after the commissioner receives notice from the issuing institution that it has decided not to extend the letter of credit beyond the current expiration date. The commissioner may delay the drawing if the issuing institution grants an extension of the term of the credit. During the last 30 days of any extension the commissioner shall draw on the letter of credit if the offsite storage facility owner or operator has failed to provide alternate financial assurance as specified in this subpart and obtain written approval of the alternate financial assurance from the commissioner.

(8) The commissioner shall return the letter of credit to the issuing institution for termination if:

(a) the offsite storage facility owner or operator properly disposes of all stored wastes after the offsite storage facility has stopped accepting wastes; or

(b) the offsite storage facility owner or operator provides alternate financial assurance as specified in this subpart.

Subp. 8. Reporting and record keeping. Facility owners and operators and commercial transporters must maintain records for a minimum of three years. If the three-year

7035.9120 SOLID WASTE

740

period expires during an unresolved enforcement action, the period is automatically extended until resolution of the pending enforcement action. Facility owners and operators and commercial transporters shall report the following information annually to the commissioner on the anniversary date of management plan approval:

A. the title and name of the individual responsible for implementation of the management plan as specified in part 7035.9130, item A;

B. the incidences in which infectious waste is released to the environment; and

C. the amounts of infectious waste managed; storage and decontamination facility owners and operators must submit the following information for the management of infectious waste that is generated both in and outside of Minnesota; commercial transporters must submit the following information only for the transport of infectious waste that is generated in Minnesota:

(1) the weight or number and size of containers of infectious waste transported, decontaminated, stored, and disposed of, giving the decontamination and disposal methods used; and

(2) the weight or number and size of containers of sharps transported, decontaminated, stored, and disposed of, giving the decontamination and disposal method used.

Statutory Authority: *MS s 116.75*

History: *15 SR 836; 18 SR 614; L 2003 c 112 art 2 s 50; L 2009 c 101 art 2 s 109*

7035.9130 MANAGEMENT PLAN.

Each facility owner or operator and commercial transporter must develop and submit to the commissioner for approval a management plan that meets the requirements of this part. A copy of the management plan must also be submitted to the county solid waste officer. The management plan must be updated and resubmitted at least once every two years to the commissioner and to the county solid waste officer. A current copy of the management plan must be maintained onsite. For the management plan to be approved, all information in the management plan must be consistent with the requirements established in part 7035.9120 and must include the information required in Minnesota Statutes, section 116.79, and in items A to L. Storage facility owners and operators must submit the additional information required in item M.

A. The name and title of the individual responsible for the implementation of the management plan.

B. A description of packaging and identification labels used for the packaging and offsite transport of infectious or pathological waste as specified in part 7035.9120, subpart 1.

C. Spill response plan, including personal protection, cleanup, and repackaging, as specified in part 7035.9120, subpart 6.

D. Staff training and continuing education plan for employees who handle infectious or pathological wastes.

E. For facilities that decontaminate infectious waste, a contingency plan that identifies alternative management methods that will be used during shutdown.

F. The length of time that waste will be stored at a storage facility.

G. The method of receiving waste to ensure that infectious or pathological waste is handled separately from other waste until decontamination is completed and to prevent unauthorized persons from having access to or contact with the waste.

H. The method of unloading and processing infectious or pathological waste that limits the number of employees handling the waste and minimizes the possibility of exposure of employees.

I. The method of disinfecting emptied reusable containers, surface areas of transport vehicles, and facility equipment that has been in contact with infectious waste.

J. The methods used to store and transport infectious or pathological waste in a manner that prevents putrefaction.

K. The weight or number and size of containers of infectious waste and sharps to be stored, transported, decontaminated, or disposed of at an approved facility; storage and decontamination facility owners and operators must list the quantities of infectious waste and sharps managed that were generated both in and outside of Minnesota; commercial transporters must list quantities only for the transport of infectious waste and sharps that were generated in Minnesota.

L. A list containing the name, location, and contact persons of the decontamination, storage, or disposal facilities that will be used.

M. An estimate of all costs that will be incurred after the storage facility ceases to accept infectious wastes. The estimate must include a unit cost for final disposal that is based on material weight, the name of the waste treatment or disposal facility to be used and a schedule of its rates, and unit-based transport costs from the storage facility to the waste treatment or disposal facility.

Statutory Authority: *MS s 116.75*

History: *15 SR 836*

7035.9140 MANAGEMENT PLAN CERTIFICATION PROCEDURES.

Subpart 1. **Management plan application.** Persons required by part 7035.9130 to have an approved management plan shall comply with items A to E.

A. A management plan submitted to the commissioner for approval must provide the information listed in part 7035.9130 and be signed.

B. An existing facility owner or operator or a commercial transporter shall submit a management plan within 45 days of the adoption of parts 7035.9100 to 7035.9150.

C. A facility owner or operator or commercial transporter that begins the transport, storage, decontamination, or disposal of infectious waste after adoption of parts 7035.9120 to 7035.9150 shall submit to the commissioner a copy of the management plan before initiating the handling of the infectious waste.

D. A generator that also incinerates infectious waste shall submit a management plan for incineration activities in addition to any plan required by the Minnesota Department of Health.

E. A facility owner or operator that has an approved management plan shall update and resubmit a plan every two years. The updated plan must be submitted at least 30 days before the expiration date of the plan.

Subp. 2. **Certification fees.** Management plans prepared by facility owners or operators that store, decontaminate, or dispose of infectious waste, other than at the facility that generates the infectious waste, or a management plan prepared by a facility owner or operator that incinerates onsite at a hospital must be submitted to the commissioner with the certification fee required under Minnesota Statutes, section 116.79, subdivision 4.

Subp. 3. **Commercial transporter registration.** Commercial transporters must register with the commissioner. To obtain registration, the commercial transporter must comply with the requirements of subpart 1. Registered transporters shall receive registration cards to be kept in each single unit vehicle or trailer and at the address identified as the principal place of business. The vehicle identification number must be displayed as required in part 7035.9120, subpart 4, item D, subitem (1).

Subp. 4. **Exemption from commercial transporter registration.** Exemption from registration does not include exemption from the packaging and labeling requirements of part 7035.9120, subpart 1. The following are exempt from commercial transporter registration requirements:

A. generators that transport their own infectious waste to an approved facility;

B. a generator that provides not-for-compensation or at cost infectious waste collection and transport services for other generators;

C. groups of generators that provide not-for-compensation infectious waste collection and transport services for the group; and

D. persons who provide collection and transportation of sharps for households as part of the feasibility study required by Laws 1989, chapter 337, section 10.

Subp. 5. **Transporter registration fees.** Management plans prepared by commercial transporters of infectious waste must be submitted to the commissioner with the registration fee required under Minnesota Statutes, section 116.80, subdivision 3.

Subp. 6. **Signatories to management plans.** All management plans must be signed by the following persons:

A. for corporations, by an executive officer, or an agent or representative of the executive officer if the agent or representative is responsible for the implementation and evaluation of the management plan; and

B. for a municipality, or state, federal, or other public agency, either an executive officer or a ranking elected official and the individual responsible for the implementation and evaluation of the management plan.

Subp. 7. **Duration of management plan.** A management plan is effective for two years after the date of plan approval unless enforcement actions result in the revocation of the plan.

Subp. 8. **Review and approval or denial of management plans.**

A. All management plans shall be reviewed for completeness by the commissioner. If the management plan is incomplete, the commissioner shall promptly advise the signatory of the incompleteness. Further processing of the management plan may be suspended until the necessary information is supplied.

B. A management plan shall be approved if the plan is determined to be complete and consistent with these parts. A letter of approval signed by the commissioner shall be sent to the applicant upon approval of the plan. Part 7001.0100, subparts 4 and 5; and 7001.0110 do not apply to these approvals. Approval under this part is not a permit under chapter 7001. Nothing in this part exempts facilities or generators from applicable agency permit requirements and compliance with agency rules.

C. Approval shall be denied if the plan does not comply with these parts and other applicable state or federal laws or rules.

Statutory Authority: *MS s 116.07; 116.75*

History: *15 SR 836; 18 SR 614; 30 SR 529*

7035.9150 FORMS.

Subpart 1. **Surety bond.** A surety bond as specified in part 7035.9120, subpart 7, must be worded as specified in this part, except that the instructions in brackets must be replaced with the relevant information and the brackets deleted.

PERFORMANCE BOND

Date bond executed:

Effective date:

Principal: [legal name and business address of owner or operator]

Type of organization: [insert "individual," "joint venture," "partnership," or "corporation"]

State of incorporation:

Surety(ies): [name(s) and business address(es)]

Identification number, name, address, and estimated costs of final waste disposal for each facility guaranteed by this bond: \$.....

MINNESOTA RULES 2011

743

SOLID WASTE 7035.9150

Total penal sum of bond: \$.....

Surety's bond number:

The Principal and Surety(ies) hereto are firmly bound to the Minnesota Pollution Control Agency (hereinafter called Agency), in the above penal sum for the payment of which we bind ourselves, our heirs, executors, administrators, successors, and assigns jointly and severally; provided that, where the Surety(ies) are corporations acting as co-sureties, we, the Sureties, bind ourselves in the sum "jointly and severally" only for the purpose of allowing a joint action or actions against any or all of us and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of the sum only as is set forth opposite the name of the Surety, but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sum.

The Principal is required to provide financial assurance for the final disposal of wastes accepted at the facility(ies) named above.

The conditions of this obligation are such that if the Principal properly disposes of all wastes accepted at the facility(ies), in accordance with the Principal's approved infectious waste management plan and all applicable laws, statutes, rules, and regulations, as these laws, statutes, rules, and regulations may be amended,

Or, if the Principal provides alternate financial assurance as specified in Minnesota Rules, part 7035.9120, subpart 7, and obtains the Agency Commissioner's written approval of the financial assurance, within 90 days after the date notice of cancellation is received by both the Principal and the Agency Commissioner from the Surety(ies), then this obligation shall be null and void, otherwise it is to remain in full force and effect.

The Surety(ies) shall become liable on this bond obligation only when the Principal has failed to fulfill the conditions described above.

Upon notification by the Agency Commissioner that the Principal has been found in violation of the requirements of Minnesota Rules, part 7035.9120, for a facility for which this bond guarantees proper waste disposal, the Surety(ies) shall pay the penal sum of the bond to the Agency as directed by the Agency Commissioner.

Upon notification by the Agency Commissioner that the Principal has failed to provide alternate financial assurance as specified in Minnesota Rules, part 7035.9120, subpart 7, and obtain written approval of the financial assurance from the Agency Commissioner during the 90 days following receipt by both the Principal and Agency of a notice of cancellation of the bond, the Surety(ies) shall pay the penal sum of the bond to the Agency as directed by the Agency Commissioner.

The Surety(ies) hereby waive(s) notification of amendments to infectious waste management plans and applicable laws, statutes, rules, and regulations and agree(s) that no amendment shall in any way alleviate its (their) obligation on this bond.

The liability of the Surety(ies) shall not be discharged by any payment or succession of payments hereunder, unless and until the payment or payments shall amount in the aggregate to the penal sum of the bond, but in no event shall the obligation of the Surety(ies) hereunder exceed the amount of said penal sum.

The Surety(ies) may cancel the bond by sending notice of cancellation by certified mail to the owner or operator and to the Agency Commissioner, provided however, that cancellation shall not occur during the 120 days beginning on the date of receipt of the notice of cancellation by both the Principal and the Agency Commissioner, as evidenced by the return receipts.

The Principal may terminate this bond by sending written notice to the Surety(ies), provided, however, that no notice shall become effective until the Surety(ies) receive(s) written authorization for termination of the bond by the Agency Commissioner.

(The following paragraph is an optional rider that may be included but is not required.)

MINNESOTA RULES 2011

7035.9150 SOLID WASTE

744

Principal and Surety(ies) agree to adjust the penal sum of the bond yearly so that it guarantees a new final waste disposal cost estimate, provided that the penal sum does not increase by more than 20 percent in any one year, and no decrease in the penal sum takes place without the written permission of the Agency Commissioner.

The Principal and Surety(ies) have signed this Performance Bond on the date set forth above.

The persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the Principal and Surety(ies) and that the wording of this surety bond is identical to the wording in Minnesota Rules, part 7035.9150, subpart 1, as the rule was constituted on the date this bond was executed.

Principal

[SIGNATURE(S)]
[NAME(S)]
[TITLE(S)]
[CORPORATE SEAL]

Corporate Surety(ies)

[NAME AND ADDRESS]
State of incorporation:
Liability limit: \$.....

[SIGNATURE(S)]
[NAME(S)]
[TITLE(S)]
[CORPORATE SEAL]

[For every co-surety, provide signature(s), corporate seal, and other information in the same manner as for Surety above.]

Bond premium: \$.....

Subp. 2. Letter of credit. A letter of credit, as specified in part 7035.9120, subpart 7, must be worded as specified in this part, except that the instructions in brackets must be replaced with the relevant information and the brackets deleted.

IRREVOCABLE STANDBY LETTER OF CREDIT

[Agency Commissioner]
Minnesota Pollution Control Agency

Dear Sir or Madam:

We hereby establish our Irrevocable Standby Letter of Credit No. in your favor, at the request and for the account of [owner's or operator's name and address] up to the aggregate amount of [in words] United States dollars \$....., available upon presentation of:

- 1. your sight draft, bearing reference to this letter of Credit No.; and
2. your signed statement reading as follows: "I certify that the amount of the draft is payable pursuant to the infectious waste rules, Minnesota Rules, parts 7035.9100 to 7035.9150."

MINNESOTA RULES 2011

745

SOLID WASTE 7035.9150

This letter of credit is effective as of [date] and shall expire on [date at least one year later], but the expiration date shall be automatically extended for a period of [at least one year] on [date] and on each successive expiration date, unless, at least 120 days before the current expiration date, we notify both you and [owner's or operator's name] by certified mail that we have decided not to extend this letter of credit beyond the current expiration date. In the event you are so notified, any unused portion of the credit shall be available upon presentation of your sight draft for 120 days after the date of receipt by you, as shown on the signed return receipt.

Whenever this letter of credit is drawn on, under, and in compliance with the terms of this credit, we shall duly honor the draft upon presentation to us and we shall deposit the amount of the draft directly to the Minnesota Pollution Control Agency in accordance with your instructions.

We certify that the wording of this letter of credit is identical to the wording specified in Minnesota Rules, part 7035.9150, subpart 2, as the rules were constituted on the date shown immediately below.

[SIGNATURE(S) AND TITLE(S) OF OFFICIAL(S) OF ISSUING INSTITUTION]

[DATE]

This credit is subject to [insert "the most recent edition of the Uniform Customs and Practice for Documentary Credits, published by the International Chamber of Commerce," or "the Uniform Commercial Code published in Minnesota Statutes, chapter 336"].

Statutory Authority: *MS s 116.75*

History: *15 SR 836*