

1 Pollution Control Agency

2

3 Adopted Permanent Rules Relating to Solid Waste Permit and

4 Technical Rules

5

6 Rules as Adopted

7 7001.0020 SCOPE.

8 Except as otherwise specifically provided, parts 7001.0010

9 to 7001.0210 apply to the following:

10 A. An agency permit required for the storage,
11 treatment, utilization, processing, transfer, intermediate
12 disposal, or final disposal of solid waste. Part 7001.0040
13 applies to permits for solid waste transfer facilities,
14 recycling facilities, refuse-derived fuel processing facilities,
15 and compost facilities, except that the time period referred to
16 in part 7001.0040, subparts 1 and 3, shall be 90 days instead of
17 180 days.

18 B. to K. [Unchanged.]

19 7001.0040 APPLICATION DEADLINES.

20 Subpart 1. to 3. [Unchanged.]

21 Subp. 4. Preliminary application for new mixed municipal
22 solid waste land disposal facility. Applicants shall submit a
23 preliminary permit application for a new mixed municipal solid
24 waste land disposal facility at least 90 days before the
25 anticipated start of a detailed site investigation.

26 7001.0050 WRITTEN APPLICATION.

27 A person who requests the issuance, modification,
28 revocation and reissuance, or reissuance of a permit shall
29 complete, sign, and submit to the commissioner a written
30 application. The person shall submit the written application in
31 a form prescribed by the commissioner. The application shall
32 contain the items listed in items A to I unless the commissioner
33 has issued a written exemption from one or more of the data
34 requirements. After receiving a written request for an

1 exemption from a data requirement, the commissioner shall issue
2 the exemption if the commissioner finds that the data is
3 unnecessary to determine whether the permit should be issued or
4 denied. The application must contain:

5 A. to G. [Unchanged.]

6 H. additional information determined by the
7 commissioner to be relevant to a decision as to permit issuance,
8 including but not limited to plans, specifications, or other
9 technical information that is necessary to determine whether the
10 facility will meet all applicable Minnesota and federal statutes
11 and rules; and

12 I. other information relevant to the application as
13 required by parts 7001.0550 to 7001.0640, 7001.1050, 7001.1215,
14 7001.1290, 7001.3175 to 7001.3475, or 7040.0500 and 7040.0600.

15 7001.0060 SIGNATURES.

16 A permit application must be signed as follows:

17 A. for a corporation, by a principal executive
18 officer of at least the level of vice-president or the duly
19 authorized representative or agent of the executive officer if
20 the representative or agent is responsible for the overall
21 operation of the facility that is the subject of the permit
22 application;

23 B. for a partnership or sole proprietorship, by a
24 general partner or the proprietor, respectively;

25 C. for a municipality, state, federal, or other
26 public agency, by either a principal executive officer or
27 ranking elected official;

28 D. if the operator of the facility for which the
29 application is submitted is different from the owner, by both
30 the owner and the operator according to items A to C. Except in
31 the case of a hazardous waste facility or a solid waste
32 management facility permit application, if the commissioner
33 finds that this requirement is impracticable under the
34 circumstances, the commissioner shall require the operator to
35 sign the application according to items A to C;

1 E. for solid waste management facilities, by the
 2 facility owner and landowner under items A to C if the landowner
 3 is different from the owner of the facility for which the
 4 application is submitted; and

5 F. for a firm preparing the necessary reports and
 6 plans for a solid waste management facility permit application,
 7 by an engineer registered in Minnesota.

8 7001.0140 FINAL DETERMINATION.

9 Subpart 1. **Agency action.** Except as provided in subpart
 10 2, the agency shall issue, reissue, revoke and reissue, or
 11 modify a permit if the agency determines that the proposed
 12 permittee or permittees will, with respect to the facility or
 13 activity to be permitted, comply or will undertake a schedule of
 14 compliance to achieve compliance with all applicable state and
 15 federal pollution control statutes and rules administered by the
 16 agency, and conditions of the permit and that all applicable
 17 requirements of chapter 116D and the rules adopted under chapter
 18 116D have been fulfilled. For solid waste facilities, the
 19 requirements of Minnesota Statutes, section 473.823,
 20 subdivisions 3 and 6, must also be fulfilled.

21 Subp. 2. **Agency findings.** The following findings by the
 22 agency constitute justification for the agency to refuse to
 23 issue a new or modified permit, to refuse permit reissuance, or
 24 to revoke a permit without reissuance:

25 A. to D. [Unchanged.]

26 E. that all applicable requirements of chapter 116D
 27 and the rules adopted under chapter 116D have not been
 28 fulfilled; or

29 F. that all applicable requirements of Minnesota
 30 Statutes, section 473.823, subdivisions 3 and 6, have not been
 31 fulfilled for solid waste facilities.

32 Subp. 3. [Unchanged.]

33 7001.0170 JUSTIFICATION TO COMMENCE MODIFICATION OF PERMIT OR
 34 REVOCATION AND REISSUANCE OF PERMIT.

35 The following constitute justification for the commissioner

1 to commence proceedings to modify a permit or to revoke and
2 reissue a permit:

3 A. to G. [Unchanged.]

4 H. if applicable, there exists any justification
5 listed in part 7001.0730, subpart 1 or 7001.3550, subpart 2.

6 7001.0190 PROCEDURE FOR MODIFICATION; REVOCATION AND REISSUANCE;
7 AND REVOCATION WITHOUT REISSUANCE OF PERMITS.

8 Subpart 1. and 2. [Unchanged.]

9 Subp. 3. **Minor modification.** Upon obtaining the consent
10 of the permittee, the commissioner may modify a permit to make
11 the following corrections or allowances without following the
12 procedures in parts 7001.0100 to 7001.0130:

13 A. to C. [Unchanged.]

14 D. if applicable, to make a change as provided in
15 parts 7001.0730, subpart 3; 7001.1350; and 7001.3550, subpart 3.

16 Subp. 4. [Unchanged.]

17 SOLID WASTE MANAGEMENT FACILITY PERMITS

18 7001.3000 SCOPE.

19 Parts 7001.0010 to 7001.0210 and 7001.3000 to 7001.3550
20 govern the application procedures, the issuance, and the
21 conditions of solid waste management facility permits. Parts
22 7000.0100 to 7000.1100, 7001.0010 to 7001.0210, and 7001.3000 to
23 7001.3550 are construed to complement each other.

24 7001.3025 DEFINITIONS.

25 The definitions in parts 7001.0010 and 7035.0300 apply to
26 the terms used in parts 7001.3000 to 7001.3550.

27 7001.3050 PERMIT REQUIREMENTS.

28 Subpart 1. **Permit required.** Except as provided in subpart
29 2, a solid waste management facility permit or permit
30 modification is required to:

31 A. treat, store, process, or dispose of solid waste;

32 B. establish, construct, or operate a solid waste
33 management facility; or

34 C. change, add, or expand a permitted solid waste

1 management facility.

2 Subp. 2. Exclusions. A solid waste management facility
3 permit is not required for:

4 A. a backyard compost site as defined in part
5 7035.0300; or

6 B. a sewage sludge landspreading facility operating
7 in compliance with chapter 7040.

8 Subp. 3. Permits-by-rule. The owner or operator of the
9 following facilities is deemed to have obtained a solid waste
10 management facility permit without making application for it,
11 unless the commissioner finds that the facility is not in
12 compliance with the listed part:

13 A. transfer facilities designed for less than 30
14 cubic yards capacity in compliance with parts 7035.2525 to
15 7035.2655, 7035.2855, and 7035.2865;

16 B. demolition debris land disposal facilities
17 designed for less than 15,000 cubic yards total capacity and
18 operating less than a total of 12 consecutive months, not
19 located adjacent to another demolition debris permit-by-rule
20 facility, and in compliance with parts 7035.2525 to 7035.2655,
21 7035.2825, and 7035.2855;

22 C. compost facilities receiving yard waste only and
23 in compliance with part 7035.2835, subparts 2 and 3;

24 D. recycling facilities in compliance with parts
25 7035.2845 and 7035.2855;

26 E. energy recovery facilities governed by parts
27 7001.0010 to 7001.0210, 7001.1200 to 7001.1350, and 7005.0010 to
28 7005.3060, except that facilities processing refuse-derived fuel
29 on-site prior to incineration and energy recovery at the site,
30 must be permitted in accordance with parts 7001.0010 to
31 7001.0210 and 7001.3000 to 7001.3550;

32 F. storage sites for non-sludge wood waste generated
33 from the wood preparation phase prior to processing or water
34 treatment lime sludge and in compliance with part 7035.2855; or

35 G. facilities receiving solid waste from the
36 exploration, mining, milling, smelting, and refining of ores and

1 minerals provided that:

2 (1) the owner or operator does not accept waste
3 for storage, processing, or disposal other than solid waste
4 generated from the exploration, mining, milling, smelting, and
5 refining of ores and minerals;

6 (2) the owner or operator has obtained a permit
7 in accordance with part 7001.0020, item E; and

8 (3) the owner or operator is operating the
9 facility in compliance with chapter 6130.

10 Subp. 4. Termination of eligibility for permit-by-rule.

11 The agency may terminate the eligibility of a facility for
12 permit-by-rule status as described in subpart 3, if the agency
13 makes any of the findings of fact listed in items A to C, after
14 notice and opportunity for a contested case hearing or a public
15 informational meeting. An owner or operator, whose facility's
16 eligibility to be permitted under this part has been terminated,
17 must apply for an individual facility permit under parts
18 7001.3300 to 7001.3550 within 90 days or close the facility in
19 compliance with parts 7035.2525 to 7035.2875. The agency may
20 commence proceedings to terminate eligibility for any of the
21 following reasons:

22 A. the facility does not comply with subpart 3;

23 B. the owner or operator is conducting other
24 activities at the site that are required to be conducted under a
25 solid waste management facility permit; or

26 C. circumstances require the facility to be permitted
27 and subject to the requirements of parts 7035.0300 to 7035.2875
28 and any other rule in order to protect human health or the
29 environment.

30 7001.3055 CLOSURE/POSTCLOSURE CARE.

31 The agency shall issue a closure document containing the
32 closure/postclosure care requirements at the time a solid waste
33 management facility is closed under the conditions listed in
34 part 7035.2625, subpart 1. Based on the closure plan submitted
35 under part 7035.2625, subpart 3, the postclosure care plan

1 submitted under part 7035.2645, subpart 1, and the operational
2 and monitoring reports for the facility, the closure document
3 must specify the length of the postclosure care period,
4 monitoring, testing and reporting requirements, and site
5 maintenance requirements.

6 7001.3060 DESIGNATION OF PERMITTEE.

7 The agency shall designate the landowner, facility owner,
8 and facility operator as co-permittees when issuing a solid
9 waste management facility permit.

10 7001.3075 SOLID WASTE MANAGEMENT FACILITY PERMIT APPLICATION.

11 Subpart 1. **Application submittals.** The application for a
12 solid waste management facility permit must contain a final
13 application with the appropriate supporting documents, and for
14 mixed municipal solid waste land disposal facilities, a
15 preliminary application and detailed site evaluation report.
16 The information requirements for the preliminary application are
17 established in part 7001.3175 and for the detailed site
18 evaluation in part 7001.3275. The information requirements for
19 the final application are set forth in part 7001.3300. The
20 applicant must also submit any information required in parts
21 7001.3375 to 7001.3475 with the final application.

22 Subp. 2. **Timing of application.** Applicants shall submit
23 permit applications for existing and new solid waste management
24 facilities or for reissuance of existing permits in accordance
25 with part 7001.0040, except as provided in items A and B.

26 A. The applicant for a permit to construct a new
27 mixed municipal solid waste land disposal facility must submit a
28 preliminary application at least 90 days before the work begins
29 on the detailed site evaluation required by part 7001.3275.

30 B. Part 7001.0040, subpart 3, controls the submission
31 of an application for the reissuance of existing permits except
32 as provided in this part. When the commissioner receives a
33 written request that shows good cause for an extension of time
34 to submit the application for reissuance of an existing permit,
35 the commissioner shall grant the extension if the requested date

1 for filing does not extend beyond the expiration date of the
2 permit. The application must contain the information required
3 for a final application in part 7001.3300.

4 7001.3125 DENIAL OF CONTINUED OPERATION OF AN EXISTING LAND
5 DISPOSAL FACILITY.

6 The agency may deny or revoke a permit to operate an
7 existing land disposal facility. Permit denial or revocation is
8 based on the owner's or operator's inability to comply with:
9 financial assurance requirements; location, operation, and
10 design requirements; or ground water, surface water, and air
11 quality standards established in parts 7035.2525 to 7035.2875.
12 If a permit for an existing land disposal facility is denied or
13 revoked, the agency shall issue a closure document in accordance
14 with part 7001.3055. The closure document may allow up to five
15 years to comply with the closure requirements of parts
16 7035.2635, 7035.2645, 7035.2655, and 7035.2815, subpart 16. The
17 closure document will establish a postclosure care period and
18 requirements in accordance with parts 7035.2635 to 7035.2655,
19 and 7035.2815, subpart 16.

20 7001.3150 CERTIFICATION OF PERMIT APPLICATIONS AND REPORTS.

21 A person who signs a permit application or any portion of
22 it, or any report required by a permit to be submitted to the
23 commissioner or agency must make the certification required by
24 part 7001.0070 and shall make the following additional
25 certification: "I am aware that there are significant penalties
26 for submitting false information, including the possibility of
27 fines and imprisonment." An engineer registered in Minnesota
28 must certify all technical documents, such as design drawings
29 and specifications, engineering reports, and hydrogeologic
30 studies, required to be submitted as part of a permit
31 application or by a permit condition.

32 The hydrogeologic report and all related ground water and
33 surface water monitoring reports must be signed by a person
34 knowledgeable in the field of hydrogeology. This person must
35 certify the quality of work performed and must have been

1 responsible for the gathering and interpretation of the
2 hydrogeologic data and the preparation of the reports.

3 7001.3175 CONTENTS OF PRELIMINARY APPLICATION.

4 The applicant shall submit four copies of a preliminary
5 application to the commissioner. The application must contain
6 the following:

7 A. the information required in part 7001.0050, except
8 item G;

9 B. on the topographic map submitted under part
10 7001.0050, item F, the location of all current and former wells,
11 springs, karst features, and permanent or intermittent surface
12 water bodies listed in public records or otherwise determined by
13 the applicant to exist within a one-mile radius of the property
14 boundaries of the proposed facility site or sites;

15 C. a preliminary site evaluation report as described
16 in part 7001.3200;

17 D. a list of other necessary permits and approvals
18 and whether each has been granted;

19 E. a description of the present land use of the site
20 or sites and an area within a one-mile radius of the site or
21 sites, including the identification of the landowners; zoning
22 designations; recreational, historical, or archeological areas;
23 present or proposed access roads and weight restrictions; and
24 how the proposed facility might affect these areas;

25 F. the amount of land required to provide the waste
26 disposal capacity determined under Minnesota Statutes, sections
27 115A.917 and 473.823;

28 G. a description of the work to be completed during
29 the detailed site evaluation, as outlined in part 7001.3275, for
30 the facility location recommended in the preliminary site
31 evaluation report; and

32 H. a description of efforts to secure leachate
33 treatment.

34 7001.3200 PRELIMINARY SITE EVALUATION REPORT.

35 The preliminary site evaluation report must contain a

1 statement of the land disposal capacity needed, as determined
2 under Minnesota Statutes, sections 115A.917 and 473.823. The
3 report must contain a description of the site selection process,
4 stating how candidate sites were chosen, how and by whom they
5 were evaluated, and the basis for eliminating potential sites
6 from consideration. For the site or sites recommended for
7 detailed evaluation, the report must contain preliminary
8 evaluations of the following conditions, accompanied by
9 supporting technical documentation:

10 A. the site's geology, ground water occurrence,
11 horizontal and vertical directions and rates of ground water
12 movement, and ground water quality, based on the preliminary
13 review of available hydrogeologic maps and references, air
14 photography, logs of previous borings and wells, and other
15 available information required under part 7035.2815, subpart 3,
16 item E;

17 B. the site's capability to protect ground water and
18 surface water if the leachate management system fails to contain
19 leachate;

20 C. the feasibility of the ground water monitoring
21 required under part 7035.2815, subpart 10;

22 D. the feasibility of containing and removing
23 polluted ground water or waste and waste by-products;

24 E. the site's ability to meet the location standards
25 of parts 7035.2555 and 7035.2815, subpart 2;

26 F. the availability of sufficient land for the buffer
27 area and the setback from the property line required under part
28 7035.2815, subparts 2 and 5 and for the designation of a
29 compliance boundary surrounding the facility as required under
30 part 7035.2815, subpart 4;

31 G. the availability of suitable materials for the
32 liners and cover required under part 7035.2815, subparts 6 and
33 7;

34 H. the potential for soil erosion or surface drainage
35 to lead to increased leachate generation, failure of leachate
36 containment features, run-off, or other undesirable

1 consequences; and

2 I. the initial efforts to secure treatment facilities
3 for leachate generated at the facility.

4 7001.3275 DETAILED SITE EVALUATION REPORT.

5 Subpart 1. **Scope.** The applicant shall submit four copies
6 of a detailed site evaluation report for all mixed municipal
7 solid waste land disposal facilities. The report must include
8 the information required in subparts 2 to 9 and supporting
9 documentation. The report must discuss whether the site meets
10 the requirements of part 7035.2815.

11 Subp. 2. **Hydrogeologic evaluation.** The applicant must
12 conduct a hydrogeologic investigation to define the soil,
13 bedrock, and ground water conditions at the site. The
14 investigation must meet the requirements of part 7035.2815,
15 subpart 3, items A to I. A hydrogeologic evaluation must meet
16 the requirements of part 7035.2815, subpart 3, item G, subitems
17 (1) to (8).

18 Subp. 3. **Soils for cover and liner construction.** The
19 applicant must evaluate the availability and suitability of soil
20 for cover and liner construction. This evaluation must include
21 a description of the source and quantity of the soil, soil
22 descriptions and unified classifications, particle size
23 analyses, permeability at specified moisture and densities,
24 Atterberg limits, and, for liner materials, cation exchange
25 capacity. The determination must consist of the evaluations
26 required in part 7035.2815, subpart 8. The evaluation must
27 assess whether the available soils will meet the requirements of
28 part 7035.2815, subparts 6 and 7.

29 Subp. 4. **Conceptual facility design.** The applicant must
30 include a design conceptualizing the important features of the
31 facility. The following items must be addressed in the plans
32 and accompanying narrative:

33 A. a description of the amount and types of waste to
34 be received, the amount and type of cover needed, and the
35 capacity of the site;

1 B. a site layout showing surface drainage, existing
2 natural screening and proposed screening, on-site and off-site
3 surface water sources, rock outcroppings, on-site buildings,
4 on-site wells, and property boundaries;

5 C. a site development plan depicting fill areas,
6 borrow areas, on-site roads, and surface drainage control
7 structures;

8 D. a plan sheet designating special waste handling
9 areas such as general storage areas, recycling areas, tire
10 storage areas, demolition debris or industrial solid waste fill
11 areas, or compost areas;

12 E. a proposed design of the fill area including the
13 proposed number of phases and the size of each phase, the
14 direction of filling as it relates to prevailing winds and the
15 slope of the trench bottoms, depth of fill, final contours, and
16 the locations and descriptions of the gas and leachate
17 collection, storage, and treatment systems including
18 cross-sectional plan views;

19 F. a description of the leachate collection, storage,
20 and treatment system indicating the type and size of pipe to be
21 used, the length and spacing of pipe runs, proposed pumps, the
22 storage system, and the proposed treatment system;

23 G. a description of the liner system to be used,
24 including type of liner, method of placement and protection, and
25 any special design features particular to the liner;

26 H. a description of the gas monitoring, venting, and
27 collection system, based on the proximity of off-site buildings
28 or other potentially affected areas, and on-site soils; and

29 I. an estimated construction cost.

30 Subp. 5. **Proposed compliance boundary.** The detailed site
31 evaluation report must propose the location and configuration of
32 a compliance boundary meeting the requirements of part
33 7035.2815, subpart 4. A plan sheet must show the locations of
34 the proposed monitoring points; the proposed compliance
35 boundary; the proposed limits of the waste fill and leachate
36 management system; the property lines; ground water flow

1 directions; and any nearby surface waters. The applicant may
2 use a single plan sheet for these requirements and those of
3 subpart 4, item C, if all the required information can be
4 clearly shown.

5 Subp. 6. Feasibility of corrective action. The detailed
6 site evaluation report must discuss the feasibility of the owner
7 or operator implementing corrective actions in accordance with
8 items A to D.

9 A. The applicant must determine whether it is
10 technically feasible to take the corrective actions required in
11 parts 7035.2615 and 7035.2815, subpart 15, at the proposed site.
12 The applicant also must consider the costs of corrective actions
13 at the site and the time available for corrective action based
14 on ground water flow conditions at the site.

15 B. The applicant must identify and describe the
16 potential modes of failure or evidence of failure, including:

17 (1) releases, leaks, or spills of leachate
18 through liners or through the floor or sidewalls of the fill
19 areas; from leachate collection installations; from leachate
20 tanks, holding ponds, or treatment facilities; and in the
21 loading, unloading, and transportation of leachate on- and
22 off-site;

23 (2) water quality monitoring results exceeding
24 the intervention limits given in part 7035.2815, subpart 4, at
25 the compliance boundary, or the corresponding standards at the
26 compliance boundary or lower compliance boundary, if applicable;
27 and

28 (3) gas concentrations exceeding the limits given
29 in part 7035.2815, subpart 11, in gas monitoring points, or
30 other evidence of adverse effects of gas migration, including
31 damage to ~~landfill~~ the facility's cover vegetation.

32 C. For each potential type of failure identified
33 under item B, the applicant must:

34 (1) describe the actions needed to:

35 (a) define the extent of the problem and
36 identify the source and routes of leachate or gas escape;

1 (b) alter the monitoring system or the
2 conditions of monitoring, including frequency of monitoring and
3 constituents analyzed;

4 (c) temporarily and permanently contain the
5 migration of pollutants or gas;

6 (d) identify the actions necessary to repair
7 areas of subsidence, erosion, dike breakage, and drainage
8 disruption;

9 (e) repair the problem;

10 (f) treat and discharge the recovered ground
11 water, leachate, or gas; and

12 (g) provide other remedial measures as may
13 be necessary;

14 (2) identify:

15 (a) the funding, personnel, and equipment
16 needed to carry out the actions in subitem (1), including the
17 expertise needed to coordinate response actions and to provide
18 technical support and specialized equipment and installations;

19 (b) the schedule for implementing corrective
20 actions, the time needed to accomplish them, and the anticipated
21 duration of longer-term activities;

22 (c) the costs of these actions; and

23 (d) the level of financial assurance
24 required under part 7035.2685 to fund them; and

25 (3) estimate the success expected from each of
26 the actions from subitem (1).

27 D. Based on the analysis in items A to C, the
28 applicant must state the conclusions reached regarding the
29 feasibility of corrective actions, including the capability to
30 fund the actions identified.

31 Subp. 7. Final use. The detailed site evaluation report
32 must include a proposal for the use of the site after closure
33 consistent with part 7035.2815, subpart 16.

34 Subp. 8. Additional information. The detailed site
35 evaluation report must include the information needed to
36 complete an Environmental Assessment Worksheet or an

1 Environmental Impact Statement, if applicable, in accordance
2 with chapters 4400 and 4410.

3 7001.3300 GENERAL INFORMATION REQUIREMENTS FOR FINAL APPLICATION.

4 The applicant shall submit to the commissioner four copies
5 of the final application and supporting materials for any solid
6 waste management facility. The applicant must use a horizontal
7 scale of one inch equals 200 feet in all drawings and plans,
8 unless otherwise specified. The applicant must mark all plans
9 and reports with the initial date prepared. All subsequent
10 revisions must be dated and include a notation of what revisions
11 were made. The application must contain:

12 A. a general description of the facility;

13 B. an industrial waste management plan in accordance
14 with part 7035.2535, subpart 5, to include a description of the
15 waste types to be handled at the facility and the quantities of
16 each waste type including a procedure for determining the
17 analyses necessary to treat, store, or dispose of the waste
18 properly in accordance with parts 7035.2525 to 7035.2875;

19 C. a description of the security procedures and
20 equipment required by part 7035.2535, subpart 3, or a discussion
21 of reasons the security procedures are unnecessary at the
22 facility;

23 D. the inspection schedule required by part
24 7035.2535, subpart 4;

25 E. the contingency action plan required by part
26 7035.2615, including the information, if applicable, in parts
27 7035.2815, subpart 15, and 7035.2825 to 7035.2875;

28 F. a description of procedures, structures, or
29 equipment used at the facility to:

30 (1) prevent operational hazards;

31 (2) prevent run-off and run-on at the solid waste
32 handling area, such as berms, dikes, or trenches;

33 (3) prevent contamination of ground water and
34 surface water supplies; and

35 (4) mitigate effects of equipment failure and

1 power outages;

2 G. a description of precautions used to prevent
3 ignition or explosions of waste or waste by-products and an
4 emergency response plan required by parts 7035.2595 and
5 7035.2605;

6 H. a description of the traffic patterns and traffic
7 control at the facility including a drawing showing traffic
8 lanes; parking, loading, and unloading areas; estimated traffic
9 volume at the facility; types of vehicles expected to use the
10 facility; and a description of access road surfacing and load
11 bearing capacity;

12 I. a description including plans showing how the
13 storage requirements of part 7035.2855 will be met;

14 J. a closure plan and, when applicable, the
15 postclosure plan required by parts 7035.2625 and 7035.2645;

16 K. if applicable, an up-to-date closure cost estimate
17 for the facility prepared under part 7035.2625, subpart 3 and
18 evidence of the financial assurance required in parts 7035.2665
19 to 7035.2805;

20 L. if applicable, an up-to-date postclosure cost
21 estimate for the facility prepared under part 7035.2645, subpart
22 2, and evidence of the financial assurance required in parts
23 7035.2665 to 7035.2805;

24 M. if applicable, an up-to-date corrective action
25 cost estimate for the facility prepared under part 7035.2615 and
26 evidence of the financial assurance required in parts 7035.2665
27 to 7035.2805;

28 N. a topographic and development map showing the
29 facility and the area surrounding the facility for a distance of
30 at least 1,320 feet using a scale of one inch equals 200 feet.
31 The maps must include contours of not greater than two-foot
32 intervals that show the pattern of surface water flow in and
33 adjacent to the facility. The maps must show the following:

34 (1) date the map was prepared;

35 (2) map scale;

36 (3) floodplain area;

- 1 (4) surface waters, including intermittent
- 2 streams and wetlands;
- 3 (5) zoning of surrounding lands including
- 4 residential, commercial, agricultural, and recreational;
- 5 (6) a north arrow;
- 6 (7) legal boundaries of the facility site;
- 7 (8) county, township, and municipal boundaries;
- 8 (9) township, range, and section;
- 9 (10) land ownership surrounding the site;
- 10 (11) easements and rights-of-way;
- 11 (12) permanent benchmarks including location and
- 12 elevation;
- 13 (13) a location grid system on every plan sheet;
- 14 (14) boundaries of parks and wildlife refuges;
- 15 (15) airports;
- 16 (16) location of fences, gates, and other access
- 17 control measures;
- 18 (17) on-site and off-site water supply and
- 19 monitoring wells; and
- 20 (18) all existing and proposed structures and
- 21 buildings, and roads, including those used in treatment,
- 22 storage, or disposal operations, run-off and run-on control
- 23 systems; access and internal roads; loading and unloading areas;
- 24 and fire control systems;
- 25 O. any additional geologic and other location
- 26 information required to demonstrate compliance with parts
- 27 7035.2615, 7035.2815, subpart 15, and 7035.2825 to 7035.2875;
- 28 P. an operations and maintenance manual that includes:
- 29 (1) the facility description and design
- 30 parameters;
- 31 (2) emergency shutdown procedures;
- 32 (3) operation variables and procedures;
- 33 (4) trouble-shooting procedures;
- 34 (5) preventive maintenance requirements;
- 35 (6) safety requirements and procedures;
- 36 (7) equipment maintenance records;

- 1 (8) site inspection records; and
- 2 (9) an inspection schedule for facility
- 3 maintenance, such as controlling erosion, vegetation growth, and
- 4 rodents;

5 Q. a construction inspection, quality control, and
 6 quality assurance plan showing a detailed inspection schedule
 7 for construction completed at the site; the sampling procedures
 8 including number and tests completed; the procedures for
 9 interpretation and submission of inspection and test results to
 10 the commissioner; and all other material required to comply with
 11 parts 7035.2525 to 7035.2875; and

12 R. any additional information that the commissioner
 13 determines is necessary to decide whether the facility will meet
 14 all applicable Minnesota and federal statutes and rules during
 15 permit issuance.

16 7001.3375 FINAL APPLICATION INFORMATION REQUIREMENTS FOR COMPOST
 17 FACILITIES.

18 The application for a compost facility permit must include
 19 the following information in addition to the information
 20 required by part 7001.3300:

21 A. a description of the area proposed to be used for
 22 each stage of the composting process;

23 B. a description of the design and physical features
 24 of the facility, including run-off, run-on, and leachate control
 25 systems;

26 C. a description of the material to be composted;

27 D. a description of the residue's composition;

28 E. a description of the disposal method for the
 29 residue;

30 F. the design of an odor control system;

31 G. the design and performance specifications of the
 32 composting facility;

33 H. a description of the composting method to be used
 34 including retention time, temperature to be achieved, number of
 35 turns needed, and the air flow design; and

- 1 I. an operating plan indicating how the provisions of
2 part 7035.2835 will be met, including a waste analysis plan; and
3 J. a description of the proposed uses for the compost.

4 7001.3400 FINAL APPLICATION INFORMATION REQUIREMENTS FOR
5 TRANSFER FACILITIES.

6 The application for a transfer facility permit must include
7 the following information in addition to the information
8 required by part 7001.3300:

- 9 A. detailed plans and an engineering report
10 specifying how the facility will be constructed and operated
11 including:
- 12 (1) the facility design and layout;
 - 13 (2) security measures;
 - 14 (3) the types of vehicles intended for use at the
15 site;
 - 16 (4) the types of wastes that will be received;
 - 17 (5) the hours of operation;
 - 18 (6) the storage capacity at the facility and the
19 maximum amount expected to be stored;
 - 20 (7) a description of all major equipment, such as
21 compactors, conveyors, and front-end loaders, used at the site,
22 including the function, the model, the capacity, and the number
23 of each type of equipment;
 - 24 (8) the methods to be employed to control
25 nuisances such as dust, vectors, litter, noise, and odors;
 - 26 (9) the frequency of waste removal and method of
27 removal;
 - 28 (10) the ultimate deposition of the waste
29 received at the facility;
 - 30 (11) the on-site road design and maintenance;
 - 31 (12) the site closure plan;
 - 32 (13) the operating procedures to ensure the
33 facility is maintained in compliance with part 7035.2865;
 - 34 (14) any recycling or composting to be done at
35 the site and how it will be conducted; and

1 (15) the safety and emergency procedures for the
2 site operators;

3 B. any additional information necessary to meet the
4 requirements of part 7035.2865.

5 7001.3425 FINAL APPLICATION INFORMATION REQUIREMENTS FOR
6 DEMOLITION DEBRIS LAND DISPOSAL FACILITIES.

7 The application for a demolition debris land disposal
8 facility permit must include the following information in
9 addition to the information required by part 7001.3300:

10 A. a calculation of site capacity and operating life;

11 B. the detailed plans and engineer's report
12 specifying the manner in which the facility will be constructed
13 and operated to control run-on and run-off;

14 C. a description of the procedures to be used in
15 controlling the wind dispersion of particulate matter and
16 fugitive dust;

17 D. a phase development plan showing the progressive
18 development of trench or area fills and the construction
19 associated with each phase;

20 E. a cross-section plan with a vertical scale of one
21 inch equals ten feet and a horizontal scale of one inch equals
22 100 feet, including a minimum of two cross-sections per phase,
23 perpendicular to one another, showing the existing grades, the
24 excavation grade, the final grade, the water table profile, and
25 the profile and identity of the bedrock, as applicable;

26 F. a complete soils evaluation, including individual
27 boring logs, as required in part 7035.2825;

28 G. a hydrogeologic study completed in accordance with
29 parts 7001.3275 and 7035.2825, the extent of which will be
30 determined by the commissioner based on the location, proposed
31 operational practices, and the types of waste expected;

32 H. the methods to be followed to control noise and
33 access to the facility;

34 I. a list of the equipment to be used at the site
35 including the model, capacity, number, and ability to handle

1 bulky items;

2 J. a description of the proposed ground water
3 monitoring system required by part 7035.2825, subpart 12;

4 K. a listing of any other permits required for the
5 facility;

6 L. an inspection procedure for the facility operator
7 to determine that only permitted wastes are received at the
8 facility; and

9 M. any additional information the commissioner
10 determines to be necessary to meet the requirements of parts
11 7035.2525 to 7035.2805 and 7035.2825.

12 7001.3450 FINAL APPLICATION INFORMATION REQUIREMENTS FOR
13 REFUSE-DERIVED FUEL PROCESSING FACILITIES.

14 The final application for a refuse-derived fuel processing
15 facility permit must include the following information in
16 addition to the information required by part 7001.3300:

17 A. a description of the area proposed to be used for
18 separation of the solid waste into its components, such as
19 ferrous metals, screenings, refuse-derived fuel materials, and
20 residuals;

21 B. a description of the facility design, including
22 storage areas, prior to and after processing, processing areas,
23 loading areas for removal of the waste components, and how the
24 processed waste is further used in an on-site solid waste
25 management facility;

26 C. a description of the end products;

27 D. a material flow and balance calculation used to
28 design the facility;

29 E. the design of an odor and a particulate or
30 fugitive dust control system;

31 F. the design, construction, and operating
32 specifications;

33 G. an operations plan including the specific manuals
34 for operating the processing equipment and protective measures
35 to prevent explosions;

1 H. a description of the proposed end uses for each
2 waste component; and

3 I. any additional information necessary to meet the
4 requirements of part 7035.2875.

5 7001.3475 FINAL APPLICATION INFORMATION REQUIREMENTS FOR MIXED
6 MUNICIPAL SOLID WASTE LAND DISPOSAL FACILITIES.

7 The application for a mixed municipal solid waste land
8 disposal facility permit must include the following information
9 in addition to the information required by part 7001.3300:

10 A. The needed capacity determined under Minnesota
11 Statutes, section 115A.917, for Greater Minnesota, or, for
12 facilities located in the metropolitan area, Minnesota Statutes,
13 section 473.823, subdivision 6.

14 B. A description of the waste types to be handled at
15 the facility including any special handling procedures and areas
16 designated for disposal of particular wastes.

17 C. A description of the status of the Environmental
18 Assessment Worksheet or Environmental Impact Statement.

19 D. Detailed plans and an engineering report
20 describing how the applicant will design, construct, operate,
21 and maintain the facility to comply with the requirements of
22 parts 7035.2525 to 7035.2815 and 7035.2855. The submission must
23 address the following items as specified in part 7035.2815:

24 (1) the liner system, leak detection, and the
25 leachate collection and removal system;

26 (2) control of run-off and run-on;

27 (3) management of collection, conveyance, and
28 holding facilities associated with run-off and run-on control
29 systems;

30 (4) control of wind dispersion of particulate
31 matter;

32 (5) treatment of collected run-off, run-on, and
33 leachate; and

34 (6) a phase development plan consistent with site
35 capacity including two cross-sections per phase with a vertical

1 scale of one inch equals ten feet and a horizontal scale of one
2 inch equals 100 feet, perpendicular to one another, showing the
3 existing grade, the excavation grade, final grade, the water
4 table profile, and the profile and identity of the underlying
5 geology in accordance with the requirements of part 7035.2815.

6 The submission must include the design specifications,
7 materials and test data, the rationale for the design, and
8 identification of elements critical to the performance of the
9 design.

10 E. Geologic and hydrogeologic information necessary
11 to demonstrate compliance with part 7035.2815, as submitted in
12 the hydrogeologic report required in part 7001.3275.

13 F. An operation and maintenance manual detailing the
14 procedures site personnel will follow in order to comply with
15 parts 7035.2525 to 7035.2815.

16 G. A description of how the applicant will inspect
17 the facility, including the liner and cover systems, in order to
18 meet the requirements of part 7035.2815. The applicant must
19 include this information in the inspection plan submitted under
20 part 7001.3300, item D.

21 H. Detailed plans and an engineering report
22 describing the final cover applied to each cell at closure under
23 parts 7035.2525 to 7035.2815 and a description of how the
24 applicant will maintain and monitor the facility after closure
25 under parts 7035.2525 to 7035.2815. The applicant must include
26 this information in the closure and postclosure plans submitted
27 under part 7001.3300, item J.

28 I. The proposed gas monitoring, collection, and
29 treatment system required in part 7035.2815, subpart 11.

30 7001.3500 TERMS AND CONDITIONS OF SOLID WASTE MANAGEMENT
31 FACILITY PERMITS.

32 Subpart 1. **Terms of permit.** A solid waste management
33 facility permit is effective for a fixed term not to exceed five
34 years as determined by the agency.

35 Subp. 2. **Site capacity.** A mixed municipal solid waste

1 land disposal facility permit will state the certified capacity
2 determined under Minnesota Statutes, sections 115A.917 and
3 473.823, subdivision 6, as well as the design capacity.

4 Subp. 3. Additional general conditions. Each draft and
5 final solid waste management facility permit issued by the
6 agency must contain the general conditions in part 7001.0150,
7 subpart 3. In addition, each permit must contain the following
8 general conditions:

9 A. The permittee must maintain records of all ground
10 water monitoring data and ground water surface elevations for
11 the active life of the facility and, for disposal facilities,
12 for the postclosure care period. The permittee must also
13 maintain an operating record in accordance with part 7035.2575
14 until closure of the facility.

15 B. The permittee may not start treatment, storage, or
16 disposal of solid waste in a new solid waste management facility
17 or in a modified portion of an existing solid waste management
18 facility until:

19 (1) the commissioner has received a letter and
20 as-built plans signed by the owner or operator and by an
21 engineer registered in Minnesota certifying that the facility
22 has been constructed or modified in compliance with the
23 conditions of the permit;

24 (2) the commissioner has inspected the new or
25 modified facility and has provided the owner or operator with a
26 letter stating that the certification submitted is complete and
27 approved; and

28 (3) the commissioner has approved the financial
29 assurance amount and instrument to be used for the facility in
30 accordance with parts 7035.2665 to 7035.2805.

31 7001.3550 MODIFICATION OF SOLID WASTE MANAGEMENT FACILITY
32 PERMITS; REVOCATION AND REISSUANCE OF PERMITS.

33 Subpart 1. Scope. In addition to parts 7001.0170,
34 7001.0180, and 7001.0190, subparts 2 and 3 apply to the
35 modification, revocation, and reissuance of solid waste

1 management facility permits.

2 Subp. 2. Additional justification for modification of
3 solid waste management facility permits or revocation and
4 reissuance of permits. In addition to the reasons listed in
5 part 7001.0170, the commissioner may commence proceedings to
6 modify a permit, or to revoke and reissue a permit if:

7 A. the commissioner determines that modification of a
8 closure plan or a postclosure plan is required by part 7035.2625
9 or 7035.2645;

10 B. the permittee requests an extension of the 30-day
11 or 60-day periods in parts 7035.2625 to 7035.2655;

12 C. the commissioner receives notification of closure
13 under part 7035.2625 in advance of the date in the permit;

14 D. the commissioner determines that modification of
15 the 20-year postclosure period provided in parts 7035.2645 and
16 7035.2655 is necessary;

17 E. the commissioner determines that the permittee has
18 made the demonstration required by parts 7035.2645 and
19 7035.2655, so that disturbance of the integrity of the
20 containment system is authorized;

21 F. the permittee files a request under parts
22 7035.2665 to 7035.2805 for a variance from the required level of
23 financial responsibility;

24 G. the commissioner determines under parts 7035.2665
25 to 7035.2805 that an upward adjustment of the level of financial
26 responsibility is required;

27 H. the commissioner determines that the corrective
28 action program in part 7035.2615 has not brought the facility
29 into compliance with the ground water protection standard within
30 the specified period of time;

31 I. the commissioner determines that conditions
32 applicable to facilities were not previously included in the
33 facility's permit; and

34 J. the county in which the facility is located has
35 not received a certificate of need or an amended certificate of
36 need, as required by Minnesota Statutes, section 115A.917, or a

1 facility owner in the metropolitan area has not received a
 2 certificate of need or an amended certificate of need in
 3 accordance with Minnesota Statutes, section 473.823, subdivision
 4 6.

5 Subp. 3. **Minor modifications of permits.** In addition to
 6 the corrections or allowances listed in part 7001.0190, subpart
 7 3, if the permittee consents, the commissioner may modify a
 8 permit to make the corrections or allowances in items A to G
 9 without following the procedures in parts 7001.0100 to 7001.0130:

10 A. change the expected year of closure under parts
 11 7035.2625 and 7035.2635;

12 B. change schedules for final closure under parts
 13 7035.2625 and 7035.2635;

14 C. change the list of equipment in the permittee's
 15 contingency action plan;

16 D. change the list of emergency contractors in the
 17 permittee's contingency or emergency plan;

18 E. change the construction schedule for opening and
 19 closing approved phases in the permittee's development plans;

20 F. change monitoring frequencies; and

21 G. change a provision in the permit that will not
 22 result in an increase in the emission or discharge of a
 23 pollutant into the environment, or that will not reduce the
 24 agency's ability to monitor compliance with applicable statutes
 25 and rules.

26 For facilities in the metropolitan area, items A, B, and F
 27 must be reviewed and approved by the Metropolitan Council prior
 28 to agency approval of the modification.

29 **SOLID WASTE MANAGEMENT FACILITY RULE DEFINITIONS**

30 **7035.0300 DEFINITIONS.**

31 Subpart 1. **Scope.** As used in parts 7035.0300 to
 32 7035.2875, the following terms have the meanings given them in
 33 this part.

34 Subp. 2. **Acceptable daily intake.** "Acceptable daily
 35 intake" means the highest concentration of a toxic substance in

1 water that is considered to pose no significant risk to human
2 health when consumed daily over a lifetime.

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

5 Subp. 4. **Aquifer.** "Aquifer" has the meaning given in part
6 4725.0100.

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

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

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

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

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

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

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

34 Subp. 12. **Closure.** "Closure" means actions to prevent or
35 minimize the threat to public health and the environment posed
36 by a closed facility including removing contaminated equipment,

1 removing liners, applying final cover, grading and seeding final
2 cover, installing monitoring devices, constructing ground water
3 and surface water diversion structures, and installing gas
4 control systems, as necessary.

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

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

12 Subp. 15. **Co-composting.** "Co-composting" means the
13 composting of mixed municipal solid waste with a nutrient source
14 or bulking agent.

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

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

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

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

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

34 Subp. 21. **Contingency action plan.** "Contingency action
35 plan" means a document setting out an organized, planned, and
36 coordinated course of action to be followed in case of a fire,

1 explosion, or release of solid waste, waste by-products, or
2 leachate that could threaten human health or the environment.

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

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

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

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

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

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

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

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

34 Subp. 30. **Demolition debris.** "Demolition debris" means
35 solid waste resulting from the demolition of buildings, roads,
36 and other man-made structures including concrete, brick,

1 bituminous concrete, untreated wood, masonry, glass, trees,
2 rock, and plastic building parts. Demolition debris does not
3 include asbestos wastes.

4 Subp. 31. Demolition debris land disposal facility.

5 "Demolition debris land disposal facility" means a site used to
6 dispose of demolition debris.

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

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

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

17 Subp. 35. Energy recovery facility. "Energy recovery
18 facility" means a site used to capture the heat value of solid
19 waste for conversion to steam, electricity, or immediate heat by
20 direct combustion or by first converting it into an intermediate
21 fuel product.

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

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

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

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

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

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

13 Subp. 42. **Ground water; groundwater.** "Ground water" or
14 "groundwater" has the meaning given for groundwater in Minnesota
15 Statutes, section 115.01, subdivision 21.

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

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

23 Subp. 45. **Industrial solid waste.** "Industrial solid waste"
24 means all solid waste generated from an industrial or
25 manufacturing process and solid waste generated from
26 nonmanufacturing activities such as service and commercial
27 establishments. Industrial solid waste does not include office
28 materials, restaurant and food preparation waste, discarded
29 machinery, demolition debris, or household refuse.

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

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

1 compost system.

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

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

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

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

17 D. infectious sharps and needles;

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

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

24 Subp. 49. **Intermittent cover.** "Intermittent cover" means
25 cover material that is spread and compacted on the top and side
26 slopes of compacted solid waste at least as often as the end of
27 each operating week, in order to control fire, infiltration, and
28 erosion.

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

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

1 dissolution.

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

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

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

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

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

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

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

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

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

36 Subp. 61. **Liner.** "Liner" means a continuous layer of

1 reworked natural soil or man-made materials beneath and on the
2 sides of a land disposal facility, compost facility, or storage
3 area that restricts the downward or lateral escape of solid
4 waste, leachate, or gas.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

33 Subp. 78. **Person.** "Person" means any human being, any
34 municipality or other governmental or political subdivision or
35 other public agency, any public or private corporation, any
36 partnership, firm, association, or other organization, any

1 receiver, trustee, assignee, agent, or other legal
2 representative of any of the foregoing, or any other legal
3 entity, but does not include the Pollution Control Agency.

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

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

12 Subp. 81. **Pollutant.** "Pollutant" has the meaning given it
13 in Minnesota Statutes, section 115.01, subdivision 13.

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

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

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

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

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

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

35 Subp. 88. **Recycling facility.** "Recycling facility" means
36 a site used to collect, process, and repair recyclable materials

1 and reuse them in their original form or use them in
2 manufacturing processes.

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

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

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

15 Subp. 92. **Regional flood.** "Regional flood" has the
16 meaning given it in chapter 104.

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

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

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

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

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

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

31 Subp. 99. **Sludge.** "Sludge" has the meaning given it in
32 Minnesota Statutes, section 116.06, subdivision 9i.

33 Subp. 100. **Solid waste.** "Solid waste" means garbage,
34 refuse, sludge from a water supply treatment plant or air
35 contaminant treatment facility, and other discarded waste
36 materials and sludges, in solid, semi-solid, liquid, or

1 contained gaseous form, resulting from industrial, commercial,
2 mining and agricultural operations, and from community
3 activities, but does not include hazardous waste; animal waste
4 used as fertilizer; earthen fill, boulders, rock; sewage sludge;
5 solid or dissolved material in domestic sewage or other common
6 pollutants in water resources, such as silt, dissolved or
7 suspended solids in industrial waste water effluents or
8 discharges which are point sources subject to permits under
9 section 402 of the Federal Water Pollution Control Act, as
10 amended, dissolved materials in irrigation return flows; or
11 source, special nuclear, or by-product material as defined by
12 The Atomic Energy Act of 1954, as amended.

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

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

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

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

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

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

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

36 Subp. 108. **Sum of the current cost estimates.** "Sum of the

1 current cost estimates" means the sum of the current cost
2 estimates for closure, postclosure care, and corrective actions.

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

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

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

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

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

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

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

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

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

36 Subp. 118. **Water table.** "Water table" means the surface

1 of the ground water at which the pressure is atmospheric.
2 Generally this is the top of the saturated zone.

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

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

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

17 7035.0400 GENERAL REQUIREMENTS.

18 All solid waste must be stored, collected, transferred,
19 transported, utilized, processed, and disposed of, or reclaimed
20 in a manner consistent with requirements of parts 7035.0300 to
21 7035.2875. The agency is responsible for enforcement of these
22 parts and encourages cooperation of municipalities which may
23 adopt these parts for use in local laws, ordinances, or
24 regulations.

25 7035.0600 VARIANCES.

26 Any person who applies for a variance from any requirement
27 of parts 7035.0300 to 7035.2875 shall comply with part
28 7000.0700. An application for a variance must be acted upon by
29 the agency according to Minnesota Statutes, section 116.07,
30 subdivision 5, and part 7000.0700. However, no variance may be
31 granted that would result in noncompliance with applicable
32 federal rules and regulations for solid waste.

33 7035.0605 AVAILABILITY OF REFERENCES.

34 The documents needed for analyzing and classifying soils as

1 required in parts 7035.0300 to 7035.2875 may be obtained by
2 contacting the Engineering Library of the University of
3 Minnesota, through the Minitex interlibrary loan system, and
4 requesting the standards from the American Society for Testing
5 and Material, in the Annual Book of ASTM Standards, 1916 Race
6 Street, Philadelphia, Pennsylvania 19103.

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

13 7035.0700 STORAGE OF SOLID WASTE AT INDIVIDUAL PROPERTIES.

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

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

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

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

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

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

34 Subp. 4. **Containers.** All containers for the storage of
35 solid waste must be maintained in such a manner as to prevent

1 the creation of a nuisance or menace to public health.
2 Containers that are broken or otherwise fail to meet
3 requirements of this part must be replaced with acceptable
4 containers.

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

10 7035.0800 COLLECTION AND TRANSPORTATION OF SOLID WASTE.

11 Subpart 1. **Owner's or occupant's duty.** The owner and
12 occupant of any premises, business establishment, or industry
13 and/or the refuse collection service are responsible for the
14 satisfactory collection and transportation of all solid waste
15 accumulated at a premise, business establishment, or industry to
16 a solid waste disposal facility for which a permit has been
17 issued by the agency, unless otherwise provided in these parts.

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

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

33 INDUSTRIAL SOLID WASTE LAND DISPOSAL FACILITY REQUIREMENTS

34 7035.1590 INDUSTRIAL SOLID WASTE LAND DISPOSAL FACILITY DESIGN.

35 The owner or operator of an industrial solid waste land

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

12 7035.1600 PROHIBITED AREAS FOR INDUSTRIAL SOLID WASTE LAND
13 DISPOSAL FACILITIES.

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

- 16 A. 1,000 feet from the normal high water mark of a
17 lake, pond, or flowage;
18 B. 300 feet from a stream;
19 C. a regional floodplain;
20 D. wetlands;
21 E. within 1,000 feet of the nearest edge of the
22 right-of-way of any state, federal, or interstate highway or of
23 the boundary of a public park or of an occupied dwelling.
24 Permission may be granted under this item, without these
25 distance requirements, at the discretion of the commissioner,
26 taking into consideration such factors as noise, dust, litter,
27 and other aesthetic and environmental considerations;
28 F. locations considered hazardous because of the
29 proximity of airports; and
30 G. an area which is unsuitable because of topography,
31 geology, hydrology, or soils.

32 7035.1700 REQUIRED PRACTICES FOR MAINTENANCE AND OPERATION OF
33 INDUSTRIAL SOLID WASTE LAND DISPOSAL FACILITIES.

34 Any person who maintains or operates an industrial solid
35 waste land disposal facility or permits the use of property for

1 such a facility, must maintain and operate the facility in
2 conformance with the following practices unless otherwise
3 allowed by the agency in issuing the required permit:

4 A. Open burning is prohibited.

5 B. Industrial solid waste must not be deposited in a
6 manner that allows material or leachings therefrom to cause
7 pollution of ground water or surface water.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

1 posted at the site entrance.

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

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

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

15 U. Decomposition gases must not be allowed to migrate
16 laterally from the facility. They must be vented into the
17 atmosphere directly through the cover material, or into cut-off
18 trenches, or into the atmosphere by forced ventilation, or by
19 other means approved by the commissioner so that explosive
20 concentrations are prevented.

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

24 (1) Liquids;

25 (2) Any of the following: digested sewage
26 sludges, lime sludges, grit chamber cleanings, bar screenings,
27 and other sludges, unless approved by the commissioner.

28 Approval will be based on consideration of such factors as
29 chemical composition, free moisture content, and workability;

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

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

35 W. When disposed of at an industrial solid waste land
36 disposal facility, certain demolition and construction type

1 wastes may be disposed of in a separate area, as specified by
2 the commissioner.

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

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

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

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

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

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

32 7035.1800 PERMIT APPLICATION AND REQUIRED PLANS FOR INDUSTRIAL
33 SOLID WASTE LAND DISPOSAL FACILITIES.

34 Plans, including a permit application, report, and drawings
35 must be prepared by a registered engineer of Minnesota. Four

1 complete sets of the plans shall be submitted to the agency.

2 The submitted plans must include the following:

3 A. A completed permit application form.

4 B. An engineering report including:

5 (1) General information;

6 (2) Site analysis including consideration of each
7 item in part 7035.1600 along with data and supplementary
8 reports, including soil boring data and a hydrogeologic study.

9 Attention to this requirement must include consideration of
10 surface features, underground formations, soil boring data from
11 soil borings of which at least one is to a minimum depth of 50
12 feet below proposed excavation and lowest elevation of the
13 facility, water table profile, direction of ground water flow,
14 initial quality of water resources in the potential zone of
15 influence of the facility, use of water resources in the
16 potential zone of influence of the facility, need and
17 availability of cover material, and existing refuse deposits.

18 Also considered must be climate, average rates of precipitation
19 based on average monthly rates from records of rain gauge
20 stations, evapotranspiration, runoff, and infiltration;

21 (3) Proposed operating procedures including
22 consideration of each item in part 7035.1700;

23 (4) Equipment to be used for operation of the
24 facility.

25 C. Drawings, folded to 8-1/2 inch by 11 inch size,
26 including:

27 (1) An existing conditions plan of the area
28 showing land use and zoning within one-fourth mile of the
29 proposed facility boundary. The plan must show all buildings,
30 lakes, ponds, watercourses, wetlands, sinkholes, rock
31 out-croppings, roads, public parks, and other applicable details
32 and shall indicate the general topography with contours and
33 drainage patterns. An on-site bench mark must be indicated and
34 a north arrow drawn. A location insert map and a U.S.G.S.
35 topographic map of the area must be included. The scale of the
36 existing conditions plan must not be greater than 300 feet per

1 inch;

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

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

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

22 (4) An ultimate land use plan showing the land
 23 use after the site is completed, final contours, at contour
 24 intervals of two feet or less, and surface water drainage.
 25 Consideration must be given in the design of an ultimate land
 26 use plan to gas control, erosion, and differential settlements.
 27 The scale of the ultimate land use plan must not be greater than
 28 200 feet per inch.

29 7035.1900 BASIC PERMIT, CERTIFICATION, AND COMPLIANCE
 30 REQUIREMENTS FOR INDUSTRIAL SOLID WASTE LAND DISPOSAL FACILITIES.

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

- 33 A. An agency permit has been issued.
- 34 B. A construction certification has been approved by
- 35 the commissioner. The certification, signed by the project

1 engineer, must certify, with any exceptions listed, that the
2 construction has been completed in accordance with the plans and
3 agency permit. The engineer must certify that an
4 agency-approved water monitoring system is functional and
5 include an analysis of background water monitoring samples.

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

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

12 7035.2500 INDUSTRIAL SOLID WASTE LAND DISPOSAL FACILITY
13 ABANDONMENT.

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

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

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

22 A. Close access to the facility and prohibit waste
23 disposal.

24 B. Eradicate rodents.

25 C. Provide measures to protect ground water and
26 surface water.

27 D. Divert surface water drainage around and away from
28 the disposal area.

29 E. Compact the waste and cover with a minimum of two
30 feet of compacted earth material.

31 F. Establish and maintain final grade to promote
32 surface water runoff without excessive erosion. Seed to provide
33 suitable vegetation.

34 G. Record a detailed description, including a plat,
35 with the county recorder. The description must include general

1 types and location of wastes, depth of fill, and other
2 information of interest to potential land owners.

3 H. An authorized official must properly complete the
4 disposal site closure record and submit it to the agency.

5 SOLID WASTE MANAGEMENT FACILITY

6 GENERAL TECHNICAL REQUIREMENTS

7 7035.2525 SOLID WASTE MANAGEMENT FACILITIES GOVERNED.

8 Subpart 1. General requirements. Parts 7035.2525 to
9 7035.2875 apply to owners and operators of all facilities that
10 treat, transfer, store, process, or dispose of solid waste
11 except as specifically provided otherwise in this part.

12 Subp. 2. Exceptions. Parts 7035.2525 to 7035.2875 do not
13 apply to the following solid waste management facilities, except
14 as indicated:

15 A. backyard compost sites;

16 B. recycling sites handling one waste type only or
17 recycling sites established to collect and transport recyclables
18 to a processor in volumes of less than 30 cubic yards, except
19 for parts 7035.0700, 7035.2845, subpart 3, and 7035.2855;

20 C. industrial solid waste land disposal facilities;
21 and

22 D. solid waste from the extraction, beneficiation,
23 and processing, of ores and minerals stored, collected,
24 transferred, transported, utilized, processed, and disposed of
25 or reclaimed, provided the facility is permitted for such use
26 under part 7001.0020, item E, and chapter 6130.

27 7035.2535 GENERAL SOLID WASTE MANAGEMENT FACILITY REQUIREMENTS.

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

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

35 B. sewage sludge, septic tank pumpings, sewage sludge

1 compost, or sewage unless it has been treated or will be treated
2 by a process to significantly reduce pathogens pursuant to parts
3 7040.0100 to 7040.4700 or 7035.2835;

- 4 C. infectious wastes, unless approved by the agency;
- 5 D. waste oil, except as provided in subpart 5, item
- 6 B;
- 7 E. radioactive waste;
- 8 F. wastes containing free liquids; or
- 9 G. free liquids.

10 Subp. 2. **Required notices.** The owner or operator of a
11 solid waste management facility must notify the agency before
12 transferring ownership or operation of a solid waste management
13 facility during its operating life or during the postclosure
14 care period. The owner or operator must also notify the new
15 owner or operator in writing of the requirements of parts
16 7035.2525 to 7035.2875 and existing permit conditions. No
17 ownership or operation transfer may occur without a permit
18 modification as required in part 7001.0190, subpart 2. The
19 facility must be in substantial compliance with all agency rules
20 before the agency will approve a transfer.

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

- 27 A. physical contact with the waste, structure, or
- 28 equipment at the facility will not injure unknowing or
- 29 unauthorized persons or livestock that could enter the facility;
- 30 and
- 31 B. disturbance of the waste or equipment will not
- 32 cause a violation of parts 7035.2525 to 7035.2875.

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

- 36 A. The owner or operator must inspect the facility

1 for malfunctions, deterioration, or discharges that may result
2 in either the release of pollutants to the environment or a
3 threat to human health. The owner or operator must conduct
4 these inspections according to the schedule developed under item
5 B.

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

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

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

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

35 Subp. 5. Industrial solid waste management. All
36 industrial solid waste delivered to a solid waste management

1 facility must be managed by the owner or operator to protect
2 human health and the environment. The industrial solid waste
3 management plan required under part 7001.3300 must address items
4 A to C.

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

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

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

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

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

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

31 (1) empty pesticide containers;

32 (2) asbestos;

33 (3) waste containing polychlorinated biphenyls at
34 a concentration less than 50 ppm;

35 (4) spilled nonhazardous materials;

36 (5) rendering and slaughterhouse wastes;

1 (6) wastes that could spontaneously combust or
2 that could ignite other waste because of high temperatures;

3 (7) foundry waste;

4 (8) ash from incinerators, resource recovery
5 facilities, and power plants;

6 (9) paint residues, paint filters, and paint
7 dust;

8 (10) sludges, including ink sludges, lime sludge,
9 wood sludge, and paper sludge;

10 (11) fiberglass, urethane, polyurethane, and
11 epoxy resin waste;

12 (12) spent activated carbon filters; and

13 (13) any other wastes that can be identified.

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

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

19 (1) paper and cardboard wastes from manufacturing
20 processes or packaging;

21 (2) food and beverage packaging and handling
22 materials;

23 (3) food not containing free liquids;

24 (4) aluminum, iron, steel, glass, wood, and
25 hardened, cured plastic waste;

26 (5) dewatered sewage sludge that has been treated
27 by a process to significantly reduce pathogens pursuant to parts
28 7040.0100 to 7040.4700;

29 (6) compost including sewage sludge compost
30 produced in accordance with part 7035.2835;

31 (7) grit and bar screenings from a wastewater
32 treatment plant; and

33 (8) ash from boilers and incinerators using only
34 wood as a fuel source.

35 E. The owner or operator must amend the plan whenever
36 the management practices or wastes identified in items A and B

1 have changed. The owner or operator shall submit the amended
2 plan to the commissioner for approval or disapproval.

3 7035.2545 PERSONNEL TRAINING.

4 Subpart 1. **General.** Solid waste management facility
5 personnel must successfully complete a program of classroom
6 instruction or on-the-job training. The program must prepare
7 facility personnel to maintain compliance with parts 7035.2525
8 to 7035.2875. Personnel must complete all training within six
9 months after the effective date of parts 7035.2525 to 7035.2875
10 or within six months after the date of employment. The owner or
11 operator must record all personnel training on the facility
12 operating record and submit the dates of training in the annual
13 report.

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

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

- 25 A. using, inspecting, repairing, and replacing
26 facility emergency and monitoring equipment;
- 27 B. activating communication and alarm systems;
- 28 C. activating automatic waste feed cutoff systems;
- 29 D. responding to fires;
- 30 E. responding to facility failures, including erosion
31 and failure of liners or monitoring devices;
- 32 F. responding to ground water or surface water
33 pollution incidents;
- 34 G. accepting and managing waste other than mixed
35 municipal solid waste approved for storage or disposal at the

1 facility;

2 H. rejecting waste not permitted at the facility; and

3 I. water sampling.

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

8 7035.2555 LOCATION STANDARDS.

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

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

14 A. within a shoreland governed by chapters 6105 and
15 6120;

16 B. within a wetland; or

17 C. within a location where emissions of air
18 pollutants would violate the ambient air quality standards in
19 parts 7005.0010 to 7005.3060.

20 7035.2565 GROUND WATER QUALITY, SURFACE WATER QUALITY, AND AIR
21 QUALITY AND SOIL PROTECTION.

22 Subpart 1. Duty to protect water. Solid waste management
23 facilities must be located, designed, constructed, and operated
24 to contain sediment, solid waste, and leachate and to prevent
25 pollution of ground water and surface water. The owner or
26 operator must take corrective action as necessary to end
27 continuing releases and to minimize or abate any resulting
28 ground water or surface water pollution. As required by parts
29 7050.0150 and 7060.0600, the owner or operator must monitor the
30 facility, surface water, and ground water as directed by the
31 agency.

32 Subp. 2. Designation of compliance boundaries, standards,
33 intervention limits. The commissioner shall designate
34 compliance boundaries, standards, and intervention limits for
35 mixed municipal solid waste land disposal facilities in the

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

7 Subp. 3. **Air quality protection.** A person who operates or
8 maintains a solid waste management facility or permits the use
9 of property for such, must operate and maintain the site in
10 conformance with the agency air pollution control rules. Open
11 burning is prohibited, as provided in parts 7005.0700 to
12 7005.0820.

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

17 7035.2575 OPERATING RECORD.

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

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

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

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

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

5 D. Summary reports and details of incidents that
6 require implementing the contingency plan specified in part
7 7035.2615, subpart 3.

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

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

12 7035.2585 ANNUAL REPORT.

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

20 A. the permit number, name, and address of the solid
21 waste management facility;

22 B. the year covered by the report;

23 C. the quantity of each type of waste handled at the
24 solid waste management facility;

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

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

30 F. the most recent closure cost estimate prepared
31 under part 7035.2625, the most recent contingency action cost
32 estimate under part 7035.2615, and, for land disposal
33 facilities, the most recent postclosure cost estimate under part
34 7035.2645;

35 G. an assessment of the adequacy of the closure,

1 postclosure, and contingency action plans;

2 H. the summary evaluation of the ground water
3 monitoring program required under part 7035.2815, subpart 14,
4 item Q;

5 I. the summary evaluation reports required for the
6 specific solid waste management facilities in parts 7035.2825,
7 subpart 9; 7035.2835, subparts 3, item E, and 6, items H and I;
8 7035.2845, subpart 4, item C; and 7035.2875, subpart 5;

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

11 K. a certification by the owner or operator of the
12 solid waste management facility.

13 7035.2595 EMERGENCY PREPAREDNESS AND PREVENTION.

14 Subpart 1. **Design and operation of a solid waste**
15 **management facility.** The owner or operator must design,
16 construct, maintain, and operate a solid waste management
17 facility to minimize the possibility of a fire, explosion, or
18 any release to air, land, or water of pollutants that threaten
19 human health and the environment.

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

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

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

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

35 Subp. 4. **Arrangements with local authorities for**

1 emergencies. The owner or operator of a solid waste management
2 facility must make prior arrangements with local police and fire
3 departments for services that may be needed at the facility.

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

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

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

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

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

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

27 7035.2605 EMERGENCY PROCEDURES.

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

34 Subp. 2. Report. The owner or operator shall submit to
35 the commissioner within two weeks after an emergency a written

1 report describing the emergency and the procedures followed to
2 minimize potential hazards to human health and the environment.
3 After the owner or operator completes emergency procedures to
4 control any possible hazards resulting from the release,
5 explosion, or fire, the owner or operator must refer to the
6 contingency action plan to determine the necessary follow-up
7 actions. The owner or operator must assess the adequacy of the
8 emergency procedural manual and make appropriate changes to
9 correct any inadequacies.

10 7035.2610 CONSTRUCTION CERTIFICATION.

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

23 7035.2615 CONTINGENCY ACTION PLAN.

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

32 Subp. 2. **Implementation of plan.** Within the period
33 specified in the approved contingency action plan, the owner or
34 operator must implement the provisions of the plan that would
35 minimize the adverse effects to human health or the environment

1 from vandalism, fires, explosions, failure or collapse of
2 artificial or natural dikes, or liners, water quality
3 violations, surface drainage problems, air emission violations,
4 and other releases.

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

7 A. an identification of the possible events that may
8 require corrective actions such as violations of intervention
9 limits or water quality standards, failure of design features,
10 settlement of completed areas, and surface drainage problems;

11 B. a description of the actions, the sequence and the
12 timetable in which they will be taken, and the costs associated
13 with each corrective action;

14 C. the equipment needed to repair each condition and
15 the on-site and off-site availability of the equipment;

16 D. any prior arrangements with contractors;

17 E. scheduled and unscheduled down times for
18 maintenance at the facility; and

19 F. an estimated cost for each action, for the most
20 severe action that may be needed, and all actions.

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

24 A. the solid waste management facility permit is
25 reissued;

26 B. a failure or release occurs for which the plan did
27 not provide an appropriate response; or

28 C. the design, construction, operation, or
29 maintenance of the solid waste management facility changes so
30 that the response needed to a failure or release changes.

31 Subp. 5. **Copies of contingency action plan.** A copy of the
32 contingency action plan and revisions to the plan must be
33 submitted to the commissioner with the permit application.

34 After modification or approval, compliance with the plan must be
35 a condition of any permit issued, and the plan must be retained
36 at the solid waste management facility.

1 7035.2625 CLOSURE.

2 Subpart 1. Closure. The owner or operator of a solid
3 waste management facility must cease to accept waste and must
4 immediately close the facility in compliance with this part,
5 part 7035.2635, and parts 7035.2815 to 7035.2875, when:

6 A. the owner or operator declares the solid waste
7 management facility closed;

8 B. for a land disposal facility, all fill areas reach
9 permitted final grade;

10 C. an agency permit held by the facility expires, and
11 renewal of the permit is not applied for, or is applied for and
12 denied;

13 D. an agency permit for the facility is revoked;

14 E. an agency order to cease operations is issued;

15 F. the facility is an existing unpermitted land
16 disposal site;

17 G. the capacity for the county or facility certified
18 under Minnesota Statutes, section 115A.917 or 473.823 is
19 exceeded;

20 H. the required financial assurance for closure,
21 postclosure care, or corrective actions is not maintained with
22 the proper payment or substitute instrument; or

23 I. the facility is unpermitted, is not a land
24 disposal site, or is required to be permitted under parts
25 7001.0010 to 7001.3550 and the owner or operator has not applied
26 for a permit within 180 days after the effective date of parts
27 7035.2525 to 7035.2875.

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

33 Subp. 3. Submittal and contents of closure plan. The
34 owner or operator of a solid waste management facility shall
35 submit a closure plan with the permit application, or as

1 required by a closure document, or in order to establish
2 financial assurance mechanisms in accordance with part
3 7035.2695. For unpermitted land disposal sites, the owner or
4 operator shall submit a closure plan within 90 days after the
5 effective date of parts 7035.2525 to 7035.2875. The agency
6 shall approve the closure plan as part of the permit issuance
7 procedure or as part of a submittal required by a closure
8 document or other enforcement action. Compliance with the
9 approved closure plan must be a condition of any permit, order,
10 closure document, or stipulation agreement issued for the
11 facility. Before approving the closure plan, the agency must
12 ensure that the closure plan is consistent with subparts 2, 4,
13 and 5, part 7035.2635, and the applicable closure requirements
14 of parts 7035.2665; 7035.2815, subpart 16; and 7035.2825 to
15 7035.2875.

16 A copy of the approved closure plan and all revisions to
17 the plan must be kept at the facility until closure is completed
18 and certified under part 7035.2635. At the time of closure, the
19 agency will issue a closure document in accordance with part
20 7001.3055. The plan must identify steps needed to close each
21 fill phase, if appropriate, and the entire site at the end of
22 its operating life. The closure plan must include:

23 A. A description of how and when each fill phase and
24 the entire facility will be closed. The description must
25 identify how the requirements of subparts 2 and 5, parts
26 7035.2635; and 7035.2815 to 7035.2875 will be complied with.
27 The description must include the estimated year of closure and a
28 schedule for completing each fill phase.

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

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

35 Subp. 4. Amendment of plan. The owner or operator may
36 amend the closure plan any time during the life of the

1 facility. The owner or operator must amend the plan whenever
2 changes in the operating plan or facility design affect the
3 closure procedures needed and whenever the expected year of
4 closure changes. If a permit modification as authorized in part
5 7001.3550 is needed, the owner or operator shall submit an
6 amended closure plan with the modification request. In all
7 other cases, the owner or operator must request a modification
8 of the plan within 60 days of any change or event that affects
9 the closure plan.

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

18 7035.2635 CLOSURE PROCEDURES.

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

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

32 A. Complete the appropriate activities outlined in
33 the approved closure plan, closure document, stipulation
34 agreement, and parts 7035.2815 to 7035.2875, as appropriate.

35 B. Complete final closure activities consisting of at

1 least:

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

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

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

22 Subp. 3. **Certification of closure.** When final facility or
23 fill phase closure is completed, the owner shall submit to the
24 commissioner certification by the owner and an engineer
25 registered in Minnesota that the facility or phase has been
26 closed in accordance with subpart 2. The certification must
27 contain: a completed and signed Site Closure Record and
28 as-built plans showing changes from the original design plans;
29 testing results indicating compliance with final cover, waste
30 removal, equipment decontamination, and other closure
31 requirements; and other forms of documentation such as pictures
32 showing the construction techniques used during closure. The
33 final facility closure certification must include a copy of the
34 notation filed with the county recorder and carrying the
35 recorder's seal.

1 7035.2645 POSTCLOSURE.

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

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

18 A. A description, schedule, and estimated costs of
19 planned monitoring activities to comply with part 7035.2815,
20 subparts 10 and 14, during the postclosure care period.

21 B. A description, schedule, and estimated costs of
22 the inspection and maintenance activities planned to ensure the
23 integrity of the final cover and other containment systems
24 according to part 7035.2815, subpart 13, and the function of the
25 facility monitoring equipment according to part 7035.2815,
26 subpart 14.

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

31 Subp. 3. Amendment to plan. The landowner and the
32 facility owner may amend the postclosure plan at any time during
33 the active life of the facility or during the postclosure care
34 period. The landowner and the facility owner must amend the
35 plan whenever changes in the operating plans, or facility
36 design, or other events during the active life of the facility

1 or the postclosure period affect the postclosure plan. The
2 landowner and the facility owner must amend the plan whenever
3 there is a change in the expected year of closure. The amended
4 plan must be approved by the commissioner.

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

12 7035.2655 POSTCLOSURE CARE AND USE OF PROPERTY.

13 Subpart 1. **Postclosure care requirements.** Postclosure
14 care requirements are as follows:

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

17 B. During the postclosure care period, based on the
18 results of sampling, analysis, and other pertinent information,
19 the commissioner may reevaluate and modify the closure document
20 to the extent postclosure care is needed at a facility based on
21 compliance with the requirements of item C; subpart 2; parts
22 7035.2565, and 7035.2815 to 7035.2875; and gas, leachate, or
23 ground and surface water monitoring results.

24 C. All postclosure care activities must be in
25 accordance with the approved postclosure plan.

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

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

35 B. is necessary to remedy a violation of the standards

1 in parts 7035.2565 and 7035.2815, subpart 4.

2 FINANCIAL REQUIREMENTS

3 7035.2665 SCOPE.

4 Parts ~~7035.2675~~ 7035.2685 to 7035.2805 apply to owners and
5 operators of mixed municipal solid waste land disposal
6 facilities.

7 7035.2685 COST ESTIMATES FOR CLOSURE, POSTCLOSURE CARE, AND
8 CORRECTIVE ACTION.

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

11 A. The owner or operator shall make a written
12 estimate, in current dollars, of the cost of closing the
13 facility in accordance with part 7035.2625 and applicable
14 closure requirements in part 7035.2635. The closure cost
15 estimate must equal the cost of closure at the point in the
16 facility's operating life when the extent and manner of its
17 operation would make closure the most expensive, as indicated by
18 its closure plan.

19 B. The owner or operator of a facility subject to
20 postclosure monitoring or maintenance requirements shall make a
21 written estimate, in current dollars, of the annual cost of
22 postclosure monitoring and maintenance of the facility in
23 accordance with the applicable postclosure requirements in part
24 7035.2645. The owner or operator must calculate the postclosure
25 cost estimate by multiplying the annual postclosure cost
26 estimate by the number of years of postclosure care required
27 under part 7035.2655. The postclosure cost estimate must
28 include a contingency element that accounts for inflation
29 expected to occur after site closure.

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

1 value of implementing the contingency action plan. The owner or
 2 operator of an existing facility must use method (2) to
 3 calculate the expected value of implementing the contingency
 4 action plan.

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

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

22
 23
 24
$$f(x) = \left(\frac{1}{\sqrt{2\pi}\sigma} \right) e^{-(x-\mu)^2/(2\sigma^2)}$$

 25
 26
 27

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

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

31 $= \Sigma x/n$;

32 n = the number of times x is evaluated;

33 σ = the standard deviation of x ;

34
$$= \frac{\sqrt{\frac{\Sigma (x-\mu)^2}{n-1}}}{\sqrt{2\pi}}$$

 35
 36
$$= \frac{\sqrt{\frac{\Sigma (x-\mu)^2}{(n-1)}}}{\sqrt{2\pi}}$$

37 $\pi = 3.1416$;

38 $e = 2.7183$; and

39 x = a specified dollar interval that controls the

1 number of times x will be evaluated within the range defined by
2 zero and the worst case series of events.

3 (a) The probabilities derived must sum to at least 1.0.

4 (b) The probability of the most costly series of events
5 must be at least four times greater than the probability of no
6 contingency action costs.

7 (c) The probability of the most costly series of events
8 must be at least 0.01.

9 (d) The last value of x evaluated must equal the value of
10 the most costly series of events.

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

26 In addition to any yearly update made under this subpart,
27 the owner or operator must revise the cost estimates whenever a
28 change in site conditions increases the cost of closure,
29 postclosure care, or corrective action. The revised cost
30 estimates must be adjusted for inflation as specified in this
31 subpart.

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

1 7035.2695 FINANCIAL ASSURANCES REQUIRED.

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

6 7035.2705 TRUST FUND.

7 Items A to M apply to trust funds:

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

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

19 (2) An owner or operator of an existing facility
20 with a remaining capacity of more than five years or 500,000
21 cubic yards shall submit the originally-signed duplicate of the
22 trust agreement to the commissioner within 180 days of the
23 effective date of parts 7035.2665 to 7035.2805.

24 (3) An owner or operator of an existing facility
25 that does not meet the criterion in subitem (2) shall submit the
26 originally-signed duplicate of the trust agreement to the
27 commissioner within a year of the effective date of parts
28 7035.2665 to 7035.2805.

29 (4) If the owner or operator cannot meet the
30 requirements of subitem (1), (2), or (3) because the needed cost
31 estimates have not been completed, the commissioner will provide
32 the owner or operator with cost estimates. The owner or
33 operator must then submit to the commissioner an
34 originally-signed duplicate of the trust agreement and make
35 first payment into the trust account within 60 days after the

1 owner or operator receives the cost estimates. The commissioner
2 will also make appropriate revisions, until the owner or
3 operator submits the required plans and cost estimates.

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

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

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

20 payment = CE
21
$$\frac{\quad}{Y \times 12}$$

22

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

28 payment = CE-CV
29
$$\frac{\quad}{Y \times 12}$$

30

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

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

36 Y= DC
37
$$\frac{\quad}{A \times W \times (1+B)}$$

38
39

1 where: DC = the design capacity of the site,
 2 A = the ratio of loose to compacted waste
 3 volume achieved at the site,
 4 B = the ratio of the volume of cover material
 5 (both intermittent and final) to waste
 6 receipts at the site, and
 7 W = the weighted five-year moving average
 8 of reported annual waste receipts.
 9 The weights applied to the annual
 10 waste receipts are:
 11 previous year = .50
 12 two years ago = .25
 13 three years ago = .15
 14 four years ago = .07
 15 five years ago = .03

16 (2) For an existing facility, the first payment
 17 must be made no later than one year after the effective date of
 18 parts 7035.2665 to 7035.2805. The owner or operator must submit
 19 to the commissioner a receipt from the trustee for this payment
 20 within ten days after the payment is made. Payments into the
 21 trust fund must be determined by the formula in subitem (1).

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

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

36 (5) The pay-in amount per cubic yard need not

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

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

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

14 (a) balance sheets for the past three years;

15 (b) income statements for the past three
16 years;

17 (c) funds statements for the past three
18 years; and

19 (d) a certified public accountant's written
20 opinion that the statements are accurate.

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

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

1 consist of:

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

5 (b) ten-year pro forma statements of
6 operating income and expense;

7 (c) estimates, for at least ten years, of
8 demographic and economic trends in the facility's service area;

9 (d) compilations and analyses supporting the
10 information provided under units (a), (b), and (c); and

11 (e) any further information the owner or
12 operator believes relevant to the matter.

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

16 (a) make payments into the trust fund larger
17 than the payment calculated under item C, so that these payments
18 will be large enough to develop a trust fund equal to the
19 current cost estimates; or

20 (b) schedule the closure procedures
21 described in parts 7035.2625 and 7035.2635.

22 E. The owner or operator may accelerate payments into
23 the trust fund or may deposit the full amount of the sum of the
24 current cost estimates at the time the fund is established.

25 However, the owner or operator shall maintain the value of the
26 fund at no less than the value that the fund would have if
27 annual payments were made as specified in item C.

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

35 G. If the sum of the current cost estimates changes,
36 the owner or operator shall compare the new estimates with the

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

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

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

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

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

34 L. After beginning actions at the facility that are
35 specified in closure, postclosure care or contingency action
36 plans, an owner, operator, or other person authorized to perform

1 those actions may request reimbursement for expenditures on
2 completed work by submitting itemized bills to the commissioner.
3 Within 90 days after receiving bills for closure activities,
4 postclosure care or contingency actions, the commissioner shall
5 determine whether the expenditures are in accordance with the
6 appropriate plan or are needed to ensure proper closure,
7 postclosure care or corrective action. The commissioner shall
8 then instruct the trustee to make reimbursement in the amounts
9 the commissioner specifies in writing. If the commissioner
10 determines that the total cost incurred will be significantly
11 greater than the value of the trust fund, the commissioner may
12 withhold reimbursement of the amounts as deemed prudent until it
13 is determined, in accordance with part 7035.2775, that the owner
14 or operator is no longer required to maintain financial
15 assurance.

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

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

25 (1) an owner or operator substitutes alternate
26 financial assurance as specified in parts 7035.2705 to
27 7035.2750; or

28 (2) the agency releases the owner or operator
29 from the requirements of this part in accordance with part
30 7035.2775.

31 7035.2715 TRUST FUND FOR UNRELATED SITES.

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

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

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

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

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

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

16 7035.2720 DEDICATED LONG-TERM CARE TRUST FUNDS.

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

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

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

30 B. An owner or operator of an existing facility with
31 a remaining capacity of more than five years or 500,000 cubic
32 yards shall submit the originally-signed duplicate of the
33 resolution which orders establishment of the fund to the
34 commissioner within 180 days after the effective date of parts
35 7035.2665 to 7035.2805.

1 C. An owner or operator of an existing facility that
2 does not meet the criterion in item B shall submit the
3 originally-signed duplicate of the resolution which orders
4 establishment of the fund to the commissioner within a year
5 after the effective date of parts 7035.2665 to 7035.2805.

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

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

20 (1) at any time after the effective date of this
21 part the owner or operator does not respond on time to agency
22 orders to perform activities which are described in the facility
23 permit or other compliance documents and which relate to
24 facility closure, postclosure care and maintenance, and/or
25 corrective action;

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

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

33 The commissioner shall notify the owner or operator when
34 any of the conditions described in this item occurs. Within 60
35 days after receiving the notice, the owner or operator shall
36 provide the commissioner with evidence that a substitute

1 financial assurance mechanism has become effective. If the
2 required substitution is not made within 60 days after the owner
3 or operator receives notice, the owner or operator shall close
4 the facility as provided in part 7035.2635.

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

9 A. A copy of the owner's or operator's financial
10 statements for the latest completed fiscal year. The owner or
11 operator shall send the financial statements prepared in
12 accordance with Minnesota Statutes, section 375.17, 471.697, or
13 471.698. The statements must clearly report the status of the
14 dedicated long-term care trust fund.

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

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

25 Subp. 4. **Resolution language.** The wording of the
26 resolution that establishes the dedicated long-term care trust
27 fund must be identical to the wording in part 7035.2805, subpart
28 9.

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

33 A. The owner or operator of a new facility must make
34 the first payment before the initial receipt of waste for
35 disposal. The owner or operator must submit to the commissioner
36 a certification from the trustee for the first payment before

1 the initial receipt of waste. The first payment must be
2 determined by this formula:

3 payment = CE
4
$$\frac{\quad}{Y \times 12}$$

5

6 where CE is the sum of the current cost estimates and Y is the
7 number of years remaining in the operating life of the site.

8 Subsequent payments must be made no later than the last day of
9 the month following the previous payment. The amount of each
10 subsequent payment must be determined by this formula:

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

13

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

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

19 Y = DC
20
$$\frac{\quad}{A \times W \times (1+B)}$$

21
22

23 where: DC = the design capacity of the site,
24 A = the ratio of loose to compacted waste
25 volume achieved at the site,
26 B = the ratio of the volume of cover material
27 (both intermittent and final) to waste
28 receipts at the site, and
29 W = the weighted five-year moving average of
30 reported annual waste receipts.

31 The weights applied to the annual waste receipts are:

- 32 previous year = .50
- 33 two years ago = .25
- 34 three years ago = .15
- 35 four years ago = .07
- 36 five years ago = .03

37 B. For an existing facility, the first payment must
38 be made no later than one year after the effective date of parts
39 7035.2665 to 7035.2805. The owner or operator must submit to

1 the commissioner a certification from the trustee for this
2 payment within ten days after the payment is made. Payments
3 into the fund must be determined by the methods in item A.

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

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

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

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

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

34 B. If the owner or operator has shown that the trust
35 fund payment exceeds the criterion in item A, the commissioner
36 shall determine, in consultation with the owner or operator,

1 whether it is possible for the facility to generate enough
2 revenue to develop a trust fund that will cover the current cost
3 estimates. The information that will inform the decision must
4 be provided by the owner or operator and must consist of:

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

7 (2) ten-year pro forma statements of income and
8 expense;

9 (3) estimates, for at least ten years, of
10 demographic and economic trends in the facility's service area;

11 (4) compilations and analyses supporting the
12 information provided under subitems (1), (2), and (3); and

13 (5) any further information the owner or operator
14 believes relevant to the matter.

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

18 (1) make payments into the trust fund larger than
19 the payment calculated under subpart 5, so that these payments
20 will be large enough to develop a trust fund equal to the
21 current cost estimates; or

22 (2) schedule the closure procedures described in
23 parts 7035.2625 and 7035.2635.

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

31 Subp. 8. Minimum alternate payment. If the owner or
32 operator establishes a dedicated long-term care trust fund after
33 having used one or more alternate financial assurance mechanisms
34 specified in parts 7035.2705 to 7035.2750, the first payment
35 into the fund must be at least the amount that the fund would
36 contain if the fund were established initially and monthly

1 payments made according to specifications of this part.

2 Subp. 9. Increase in cost estimate. If the sum of the
3 current cost estimates changes, the owner or operator shall
4 compare the new estimates with the trustee's most recent annual
5 valuation of the fund. If the value of the fund is less than
6 the amount of the new estimates, the owner or operator, within
7 60 days after the change in the cost estimates, shall either
8 change the fund pay-in schedule so that it incorporates the
9 changes in the sum of the current cost estimates and submit
10 evidence of this change to the commissioner, or establish other
11 financial assurance mechanisms as specified in parts 7035.2705
12 to 7035.2750 to cover the difference.

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

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

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

32 Subp. 13. Late payment; effect. The trustee shall notify
33 the owner or operator and the commissioner by certified mail
34 within ten days if a payment is not made on the required date.
35 The owner or operator must then stop accepting waste until the
36 required payment is made. If the required payment is not made

1 within 60 days of the commissioner's receipt of the nonpayment
2 notice, the owner or operator shall close the facility as
3 provided in part 7035.2635.

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

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

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

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

34 A. the owner or operator substitutes alternate
35 financial assurance as specified in parts 7035.2705 to
36 7035.2750; or

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

3 7035.2725 SURETY BOND GUARANTEEING PAYMENT INTO A TRUST FUND.

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

6 A. An owner or operator may satisfy the requirements
7 of part 7035.2695 by obtaining a surety bond that conforms to
8 the requirements of this part and by submitting the bond to the
9 commissioner. The surety company issuing the bond must be among
10 those listed as acceptable sureties on federal bonds in Circular
11 570, issued by the United States Department of the Treasury, as
12 published annually in the Federal Register on July 1.

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

17 (2) An owner or operator of an existing facility
18 with a remaining capacity of more than five years or 500,000
19 cubic yards shall submit the bond to the commissioner within 180
20 days of the effective date of parts 7035.2665 to 7035.2805.

21 (3) An owner or operator of an existing facility
22 that does not meet the criterion in subitem (2) shall submit the
23 bond to the commissioner within a year of the effective date of
24 parts 7035.2665 to 7035.2805.

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

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

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

3 (1) payments into the trust fund as specified in
4 part 7035.2705;

5 (2) updating of Schedule A of the trust agreement
6 to show the sum of the current cost estimates;

7 (3) annual valuations as required by the trust
8 agreement; and

9 (4) notices of nonpayment as required by the
10 trust agreement.

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

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

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

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

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

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

31 G. Whenever the sum of the current cost estimates
32 becomes greater than the penal sum, the owner or operator,
33 within 60 days after the increase, shall either increase the
34 penal sum to an amount at least equal to the sum of the current
35 cost estimates and submit evidence of the increase to the
36 commissioner, or obtain other financial assurance as specified

1 in parts 7035.2705 to 7035.2750 to cover the increase. Whenever
2 the sum of the current cost estimates decreases, the penal sum
3 shall be reduced to the amount of the sum of the current cost
4 estimates following written approval by the commissioner.

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

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

15 7035.2735 SURETY BOND GUARANTEEING PERFORMANCE.

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

18 A. An owner or operator may satisfy the requirements
19 of part 7035.2695 by obtaining a surety bond that conforms to
20 the requirements of items A to J and by submitting the bond to
21 the commissioner. The surety company issuing the bond must be
22 among those listed as acceptable sureties on federal bonds in
23 Circular 570, issued by the United States Department of the
24 Treasury, as published annually in the Federal Register on July
25 1.

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

30 (2) An owner or operator of an existing facility
31 with a remaining capacity of more than five years or 500,000
32 cubic yards shall submit the bond to the commissioner within 180
33 days after the effective date of parts 7035.2665 to 7035.2805.

34 (3) An owner or operator of an existing facility
35 that does not meet the criterion in subitem (2) shall submit the

1 bond to the commissioner within a year after the effective date
2 of parts 7035.2665 to 7035.2805.

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

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

16 (1) payments into the trust fund as specified in
17 part 7035.2705;

18 (2) updating of Schedule A of the trust agreement
19 to show current cost estimates;

20 (3) annual valuations as required by the trust
21 agreement; and

22 (4) notices of nonpayment as required by the
23 trust agreement.

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

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

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

35 E. Under the terms of the bond, the surety will
36 become liable on the bond obligation when the owner or operator

1 fails to perform as guaranteed by the bond. Following a
2 determination by the commissioner that the owner or operator has
3 failed to perform final closure, postclosure care, or corrective
4 action in accordance with the appropriate plan and other permit
5 requirements when required to do so, under the terms of the bond
6 the surety shall deposit the amount of the penal sum into the
7 standby trust fund.

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

10 G. Whenever the sum of the current cost estimates
11 becomes greater than the penal sum, the owner or operator,
12 within 60 days after the increase, shall either increase the
13 penal sum to the sum of the current cost estimates and submit
14 evidence of the increase to the commissioner, or obtain other
15 financial assurance as specified in parts 7035.2705 to
16 7035.2750. Whenever the sum of the current cost estimates
17 decreases, the penal sum shall be reduced to the sum of the
18 current cost estimates following written approval by the
19 commissioner.

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

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

29 (1) an owner or operator substitutes alternate
30 financial assurance as specified in parts 7035.2705 to
31 7035.2750; or

32 (2) the agency releases the owner or operator
33 from the requirements of part 7035.2695 in accordance with part
34 7035.2775.

35 J. The surety will not be liable for deficiencies in
36 the performance of closure, postclosure care, or corrective

1 actions by the owner or operator after the agency releases the
2 owner or operator from the requirements of part 7035.2695 in
3 accordance with part 7035.2775.

4 7035.2745 LETTER OF CREDIT.

5 Items A to J apply to letters of credit:

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

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

18 (2) An owner or operator of an existing facility
19 with a remaining capacity of more than five years or 500,000
20 cubic yards shall submit the letter of credit to the
21 commissioner within 180 days after the effective date of parts
22 7035.2695 to 7035.2805.

23 (3) An owner or operator of an existing facility
24 that does not meet the criterion in subitem (2) shall submit the
25 letter of credit to the commissioner within a year after the
26 effective date of parts 7035.2695 to 7035.2805.

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

29 C. An owner or operator who uses a letter of credit
30 to satisfy the requirements of part 7035.2695 shall also
31 establish a standby trust fund. Under the terms of the letter
32 of credit, the issuing institution will deposit all amounts paid
33 directly into the standby trust fund in accordance with
34 instructions from the commissioner. This standby trust fund
35 must meet the requirements in part 7035.2705 or 7035.2715 except

1 that an originally-signed duplicate of the trust agreement must
2 be submitted to the commissioner with the letter of credit. The
3 requirements in subitems (1) to (4) must be met if the standby
4 trust fund is funded under this part:

5 (1) payments into the trust fund as specified in
6 part 7035.2705;

7 (2) updating of Schedule A of the trust agreement
8 to show current cost estimates;

9 (3) annual valuations as required by the trust
10 agreement; and

11 (4) notices of nonpayment as required by the
12 trust agreement.

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

20 E. The letter of credit must be irrevocable and
21 issued for a period of at least one year. The letter of credit
22 must provide that the expiration date will be extended
23 automatically for a period of at least one year unless, at least
24 120 days before the current expiration date, the issuing
25 institution notifies both the owner or operator and the
26 commissioner by certified mail of a decision not to extend the
27 expiration date. Under the terms of the letter of credit, the
28 120 days will begin on the date when the commissioner has
29 received the notice, as evidenced by the return receipt.

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

32 G. Whenever the sum of the current cost estimates
33 becomes greater than the amount of the credit, the owner or
34 operator, within 60 days after the increase, shall either cause
35 the amount of the credit to be increased so that it at least
36 equals the sum of the current cost estimates and shall submit

1 evidence of the increase to the commissioner or obtain other
2 financial assurance as specified in parts 7035.2705 to 7035.2750
3 to cover the increase. Whenever the sum of the current cost
4 estimates decreases, the amount of the credit shall be reduced
5 to the amount of the current cost estimate following written
6 approval by the commissioner.

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

12 I. The commissioner shall draw on the letter of
13 credit if the owner or operator does not establish alternate
14 financial assurance as specified in parts 7035.2705 to 7035.2750
15 and obtain written approval of alternate assurance from the
16 commissioner within 90 days after the commissioner receives
17 notice from the issuing institution that it has decided not to
18 extend the letter of credit beyond the current expiration date.
19 The commissioner may delay the drawing if the issuing
20 institution grants an extension of the term of the credit.
21 During the last 30 days of any extension the commissioner shall
22 draw on the letter of credit if the owner or operator has failed
23 to provide alternate financial assurance as specified in parts
24 7035.2705 to 7035.2750 and obtain written approval of the
25 assurance from the commissioner.

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

28 (1) an owner or operator substitutes alternate
29 financial assurance as specified in parts 7035.2705 to
30 7035.2750; or

31 (2) the agency releases the owner or operator
32 from the requirements of part 7035.2705 in accordance with part
33 7035.2775.

34 7035.2750 SELF-INSURANCE.

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

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

11 (1) ~~unsubordinated-debentures-whose-market-value~~
 12 ~~equals-or-exceeds-the-sum-of-the-current-cost-estimates;~~ An
 13 owner or operator of a new facility shall submit the
 14 self-insurance demonstrations and the securities to the
 15 commissioner along with the final permit application before the
 16 date on which waste is first received for disposal.

17 (2) ~~municipal-bonds-whose-market-value-equals-or~~
 18 ~~exceeds-the-sum-of-the-current-cost-estimates;~~ or An owner or
 19 operator of an existing facility with a remaining capacity of
 20 more than five years or 500,000 cubic yards shall submit the
 21 self-insurance demonstrations and the securities to the
 22 commissioner within 180 days after the effective date of parts
 23 7035.2665 to 7035.2805.

24 (3) ~~warrants-drawn-on-the-owner's-or-operator's~~
 25 ~~municipal-treasury-in-an-amount-that-equals-or-exceeds-the-sum~~
 26 ~~of-the-current-cost-estimates~~ An owner or operator of an
 27 existing facility that does not meet the criterion in subitem
 28 (2) shall submit the self-insurance demonstrations and the
 29 securities to the commissioner within one year after the
 30 effective date of parts 7035.2665 to 7035.2805.

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

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

35 (a) two of the following three ratios: a
 36 ratio of total liabilities to net worth less than 2.0; a ratio

1 of the sum of net income plus depreciation, depletion, and
2 amortization to total liabilities greater than 0.1; or a ratio
3 of current assets to current liabilities greater than 1.5;

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

7 (c) tangible net worth of at least
8 \$10,000,000; and

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

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

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

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

21 (c) tangible net worth of at least
22 \$10,000,000; and

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

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

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

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

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

1 and

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

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

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

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

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

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

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

35 (c) the total value of the bonds or warrant
36 sent to the commissioner under item A equals or exceeds the sum

1 of the current cost estimates.

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

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

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

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

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

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

32 The guarantor must be the parent corporation of the owner
33 or operator. The guarantor must meet the requirements for
34 facility owners or operators in this part and must comply with
35 the terms of the corporate guarantee. The wording of the
36 corporate guarantee must be identical to the wording in part

1 7035.2805, subpart 7. The corporate guarantee must accompany
2 the items sent to the commissioner as specified in item C. The
3 terms of the corporate guarantee must provide that:

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

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

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

24 D. The bonds sent to the commissioner under item A
25 must be readily saleable in secondary bond markets. The market
26 value of the bonds must equal or exceed the sum of the current
27 cost estimates. The commissioner shall give the owner or
28 operator a receipt for the bonds. The commissioner shall have
29 the bonds kept by the state treasurer until the bonds must
30 either be sold or returned to the owner or operator. The owner
31 or operator of a privately-owned facility shall send bonds that
32 are registered, unsubordinated debentures. The owner or
33 operator of a publicly-owned facility shall send bonds that are
34 registered municipal bonds and that meet the requirements of
35 Minnesota Statutes, chapters 400 and 475. The bonds must mature
36 at the following times:

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

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

9 (3) If either of the maturity dates required
10 under subitem (1) or (2) exceeds 30 years, the owner or operator
11 of a publicly-owned facility may submit bonds with 30-year
12 maturities and, thereafter, annually submit new 30-year bonds
13 for the bonds held by the state treasurer. The substitutions
14 must continue until the maturities required under subitems (1)
15 and (2) equal the maturities of the bonds that the state
16 treasurer holds.

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

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

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

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

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

14 H. The owner or operator may request to exchange new
15 issues of bonds or warrants for bonds or warrants held by the
16 state treasurer on the commissioner's behalf. The new issues
17 must have a market value equal to the bonds for which they are
18 exchanged. New warrants must be equal in value to the warrants
19 for which they are exchanged. The owner's or operator's request
20 for a bond exchange must be accompanied by an independent
21 certified public accountant's report that the new issues have a
22 market value equal to the bonds for which they are exchanged.
23 The commissioner shall make the exchange after receiving the
24 request, the warrants or bonds and the accountant's report that
25 must accompany the bonds. The commissioner and the owner or
26 operator shall provide each other with receipts appropriate to
27 document the exchange.

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

1 estimates, provided that supporting documents justify the
2 substitution.

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

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

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

17 (a) return all warrants in exchange for
18 warrants of the correct value; or

19 (b) return bonds whose total market value
20 does not exceed the difference between the sum of the previous
21 cost estimates and the sum of the revised cost estimates.

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

26 (a) return all warrants in exchange for
27 warrants of the correct value; or

28 (b) return bonds whose total market value
29 does not exceed the difference between the sum of the current
30 cost estimates and the amount of financial assurance offered by
31 the substitute mechanisms.

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

36 L. If the owner or operator or guarantor, after

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

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

16 7035.2755 USE OF MULTIPLE FINANCIAL ASSURANCE MECHANISMS.

17 An owner or operator may satisfy the requirements of part
18 7035.2695 by establishing more than one mechanism for financial
19 assurance per facility. These mechanisms are limited to trust
20 funds, surety bonds guaranteeing payment into a trust fund,
21 self-insurance, and letters of credit. The mechanisms must be
22 established as specified in parts 7035.2705, 7035.2715,
23 7035.2720, 7035.2725, 7035.2745, and 7035.2750, except that it
24 is the combination of mechanisms, rather than a single
25 mechanism, which must provide financial assurance for an amount
26 at least equal to the sum of the current cost estimates. If an
27 owner or operator uses a trust fund in combination with a surety
28 bond or a letter of credit, the owner or operator may use the
29 trust fund as the standby trust fund for the other mechanisms.
30 A single standby trust fund may be established for two or more
31 mechanisms. The commissioner may use any or all of the
32 mechanisms to provide for closure, postclosure care, or
33 corrective action at the facility.

34 7035.2765 USE OF FINANCIAL ASSURANCE MECHANISM FOR MULTIPLE
35 FACILITIES.

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

18 7035.2775 RELEASE OF OWNER OR OPERATOR FROM FINANCIAL
19 REQUIREMENTS.

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

29 Subp. 2. Release from postclosure requirements. When an
30 owner or operator has completed, to the satisfaction of the
31 agency, all postclosure care requirements in accordance with the
32 postclosure plan, the agency will, at the request of the owner
33 or operator, notify the owner or operator in writing that he or
34 she is no longer required by part 7035.2695 to maintain
35 financial assurance for postclosure care of the particular

1 facility, unless the agency has reason to believe that
2 postclosure care has not been accomplished in accordance with
3 the postclosure care plan.

4 Subp. 3. Release from corrective action requirements.

5 Within 90 days after the end of the postclosure care period or
6 after termination of corrective action in accordance with part
7 7035.2695, whichever is later, the agency shall notify the owner
8 or operator in writing that he or she is no longer required to
9 maintain financial assurance for corrective action for the
10 particular facility, unless the agency has reason to believe
11 that corrective action has not been accomplished in accordance
12 with the contingency action plan.

13 7035.2785 USE OF A SINGLE MECHANISM FOR FINANCIAL ASSURANCE OF
14 CORRECTIVE ACTION, CLOSURE, AND POSTCLOSURE CARE.

15 An owner or operator may satisfy the requirements for
16 financial assurance for corrective action, closure, and
17 postclosure care, or any combination thereof, for one or more
18 facilities by using a trust fund, surety bond or letter of
19 credit that meets the specifications for the mechanism in parts
20 7035.2705 to 7035.2750. The amount of funds available through
21 the mechanism must be no less than the sum of funds that would
22 be available if a separate mechanism had been established and
23 maintained for financial assurance of corrective action,
24 closure, and postclosure care.

25 7035.2795 INCAPACITY OF OWNERS OR OPERATORS, GUARANTORS, OR
26 FINANCIAL INSTITUTIONS.

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

32 Subp. 2. Incapacity of financial institutions. An owner
33 or operator who fulfills the requirements of part 7035.2695 by
34 obtaining a trust fund, surety bond, or letter of credit will be
35 considered to be without the required financial assurance in the

1 event of bankruptcy of the trustee or issuing institution, or a
 2 suspension or revocation of the authority of the trustee to act
 3 as trustee or the institution issuing the surety bond or letter
 4 of credit to issue these instruments. The owner or operator
 5 shall establish other financial assurance within 60 days after
 6 such an event.

7 7035.2805 LANGUAGE REQUIRED FOR FINANCIAL INSTRUMENTS.

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

12 TRUST AGREEMENT

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

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

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

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

30 The Grantor and the Trustee agree as follows:

31 Section 1. Definitions. As used in this Agreement:

32 a. The term "Grantor" means the owner or operator who
 33 enters into this Agreement and any successors or assigns of the
 34 Grantor.

35 b. The term "Trustee" means the Trustee who enters into

1 this Agreement and any successor Trustee.

2 c. The term "Beneficiary" means the Minnesota Pollution
3 Control Agency and any successor agency.

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

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

27 Section 4. Payment for Contingency Action, Closure, and
28 Postclosure Care. The Trustee shall make payments from the Fund
29 as the Agency Commissioner shall specify, in writing, to provide
30 for the payment of the costs of contingency action, closure,
31 and/or postclosure care of the facilities covered by this
32 Agreement. The Trustee shall reimburse the Grantor or other
33 persons as specified by the Agency Commissioner from the Fund
34 for contingency action, closure, and postclosure expenditures in
35 amounts the Agency Commissioner shall specify in writing. In
36 addition, the Trustee shall refund to the Grantor the amounts

1 the Agency Commissioner specifies in writing. Upon refund,
2 these funds shall no longer constitute part of the Fund as
3 defined herein.

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

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

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

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

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

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

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

34 b. to purchase shares in any investment company registered
35 under the Investment Company Act of 1940, United States Code,
36 title 15, sections 80a-1 et seq. including one which may be

1 created, managed, underwritten, or to which investment advice is
2 rendered or the shares of which are sold by the Trustee. The
3 Trustee may vote such shares in its discretion.

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

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

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

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

32 d. To deposit any cash in the Fund in interest-bearing
33 accounts maintained or savings certificates issued by the
34 Trustee, in its separate corporate capacity, or in any other
35 banking institution affiliated with the Trustee, ~~in-its-separate~~
36 ~~corporate-capacity, or in any other banking institution~~

1 ~~affiliated with the Trustee~~, to the extent insured by an agency
2 of the federal or state government.

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

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

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

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

33 Section 13. Successor Trustee. The Trustee may resign or
34 the Grantor may replace the Trustee, but the resignation or
35 replacement shall not be effective until the Grantor has
36 appointed a successor trustee and this successor accepts the

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

16 Section 14. Instructions to the Trustee. All orders,
17 requests, and instructions by the Agency to the Trustee shall be
18 in writing, signed by the Agency Commissioner; and the Trustee
19 shall act and shall be fully protected in acting in accordance
20 with the orders, requests, and instructions. The Trustee shall
21 have the right to assume, in the absence of written notice to
22 the contrary, that no event constituting a change or a
23 termination of the authority of any person to act on behalf of
24 the Grantor or the Agency hereunder has occurred. The Trustee
25 shall have no duty to act in the absence of orders, requests,
26 and instructions from the Agency Commissioner, except as
27 provided herein.

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

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

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

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

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

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

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

1 [SIGNATURE OF GRANTOR]

2 [TITLE]

3

4 Attest:

5 [TITLE]

6 [SEAL]

7 [SIGNATURE OF TRUSTEE]

8

9 Attest:

10 [TITLE]

11 [SEAL]

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

16 CERTIFICATION OF ACKNOWLEDGMENT

17 State of _____

18 County of _____

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

31 (signature of Notary Public)

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

FINANCIAL GUARANTEE BOND

1
 2 Date bond executed: _____
 3 Effective date: _____
 4 Principal: [Legal name and business address of owner or
 5 operator]
 6 Type of organization: [insert "individual," "joint venture,"
 7 "partnership," or "corporation"]
 8 State of incorporation: _____
 9 Surety(ies): [name(s) and business address(es)].
 10 Identification number, name, address and contingency action,
 11 closure, and/or postclosure amount(s) for each facility
 12 guaranteed by this bond (indicate contingency action, closure,
 13 and postclosure amounts separately): \$ _____
 14 Total penal sum of bond: \$ _____
 15 Surety's bond number: _____

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

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

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

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

1 assurance:

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

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

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

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

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

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

34 The liability of the Surety(ies) shall not be discharged by
35 any payment or succession of payments hereunder, unless and
36 until payment or payments shall amount in the aggregate to the

1 penal sum of the bond, but in no event shall the obligation of
2 the Surety(ies) hereunder exceed the amount of said penal sum.

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

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

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

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

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

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

30 Principal

31 [SIGNATURE(S)]

32 [NAMES(S)]

33 [TITLE(S)]

34 [CORPORATE SEAL]

35

36 Corporate Surety(ies)

1 [NAME AND ADDRESS]

2 State of incorporation: _____

3 Liability limit: \$ _____

4 [SIGNATURE(S)]

5 [NAME(S) AND TITLE(S)]

6 [CORPORATE SEAL]

7

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

10

11 Bond premium: \$ _____

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

18

PERFORMANCE BOND

19 Date bond executed: _____

20 Effective date: _____

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

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

25 State of incorporation: _____

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

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

31 Total penal sum of bond: \$ _____

32 Surety's bond number: _____

33 The Principal and Surety(ies) hereto are firmly bound to
34 the Minnesota Pollution Control Agency (hereinafter called
35 Agency), in the above penal sum for the payment of which we bind
36 ourselves, our heirs, executors, administrators, successors, and

1 assigns jointly and severally; provided that, where the
2 Surety(ies) are corporations acting as co-sureties, we, the
3 Sureties, bind ourselves in the sum "jointly and severally" only
4 for the purpose of allowing a joint action or actions against
5 any or all of us, and for all other purposes each Surety binds
6 itself, jointly and severally with the Principal, for the
7 payment of the sum only as is set forth opposite the name of the
8 Surety, but if no limit of liability is indicated, the limit of
9 liability shall be the full amount of the penal sum.

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

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

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

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

31 And, if the Principal faithfully performs contingency
32 action for each facility for which this bond guarantees
33 contingency action, when required by and in accordance with the
34 contingency action plan and other requirements of the permit, as
35 the plan and permit may be amended, pursuant to all applicable
36 laws, statutes, rules, and regulations, as such laws, statutes,

1 rules, and regulations may be amended,

2 Or, if the Principal provides alternate financial assurance
3 as specified in Minnesota Rules, parts 7035.2705 to 7035.2750,
4 and obtains the Agency Commissioner's written approval of the
5 assurance, within 90 days after the date notice of cancellation
6 is received by both the Principal and the Agency Commissioner
7 from the Surety(ies), then this obligation shall be null and
8 void, otherwise it is to remain in full force and effect.

9 The Surety(ies) shall become liable on this bond obligation
10 only when the Principal has failed to fulfill the conditions
11 described above.

12 Upon notification by the Agency Commissioner that the
13 Principal has been found in violation of the closure
14 requirements of Minnesota Rules, part 7035.2635 for a facility
15 for which this bond guarantees performance of closure, the
16 Surety(ies) shall place the closure amounts guaranteed for the
17 facility into the standby trust fund as directed by the Agency
18 Commissioner.

19 Upon notification by the Agency Commissioner that the
20 Principal has been found in violation of the postclosure
21 requirements of Minnesota Rules, part 7035.2655 for a facility
22 for which this bond guarantees performance of postclosure care
23 the Surety(ies) shall place the postclosure amount guaranteed
24 for the facility into the standby trust fund as directed by the
25 Agency Commissioner.

26 Upon notification by the Agency Commissioner that the
27 Principal has been found in violation of contingency action
28 requirements of Minnesota Rules, part 7035.2615 for a facility
29 for which this bond guarantees performance of contingency
30 action, the Surety(ies) shall place the contingency action
31 amount guaranteed for the facility into the standby trust fund
32 as directed by the Agency Commissioner.

33 Upon notification by the Agency Commissioner that the
34 Principal has failed to provide alternate financial assurance as
35 specified in Minnesota Rules, part 7035.2735 and obtain written
36 approval of the assurance from the Agency Commissioner during

1 the 90 days following receipt by both the Principal and Agency
2 of a notice of cancellation of the bond, the Surety(ies) shall
3 place funds in the amount guaranteed for the facility(ies) into
4 the standby trust fund as directed by the Agency Commissioner.

5 The Surety(ies) hereby waive(s) notification of amendments
6 to closure, postclosure, and contingency action plans, permits,
7 applicable laws, statutes, rules, and regulations and agrees
8 that no amendment shall in any way alleviate its (their)
9 obligation on this bond.

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

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

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

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

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

34 The Principal and Surety(ies) have signed this Performance
35 Bond on the date set forth above.

36 The persons whose signatures appear below hereby certify

1 that they are authorized to execute this surety bond on behalf
2 of the Principal and Surety(ies) and that the wording of this
3 surety bond is identical to the wording in Minnesota Rules, part
4 7035.2805, subpart 4, as the rule was constituted on the date
5 this bond was executed.

6 Principal

7 [SIGNATURE(S)]

8 [NAMES(S)]

9 [TITLE(S)]

10 [CORPORATE SEAL]

11

12 Corporate Surety(ies)

13 [NAME AND ADDRESS]

14 State of incorporation: _____

15 Liability limit: \$ _____

16 [SIGNATURE(S)]

17 [NAME(S) AND TITLE(S)]

18 [CORPORATE SEAL]

19

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

22

23 Bond premium: \$ _____

24 Subp. 5. Letter of credit. A letter of credit, as
25 specified in part 7035.2745, must be worded as specified in this
26 part, except that the instructions in brackets must be replaced
27 with the relevant information and the brackets deleted.

28 IRREVOCABLE STANDBY LETTER OF CREDIT

29 [Agency Commissioner]

30 Minnesota Pollution Control Agency

31 Dear Sir or Madam:

32 We hereby establish our Irrevocable Standby Letter of
33 Credit No. _____ in your favor, at the request and for the
34 account of [owner's or operator's name and address] up to the
35 aggregate amount of [in words] U.S. dollars \$ _____,
36 available upon presentation of:

1 1. your sight draft, bearing reference to this letter of
2 Credit No. _____, and

3 2. your signed statement reading as follows: "I certify
4 that the amount of the draft is payable pursuant to the solid
5 waste rules, Minnesota Rules, parts 7035.0300 to 7035.2875."

6 This letter of credit is effective as of [date] and shall
7 expire on [date at least one year later], but the expiration
8 date shall be automatically extended for a period of [at least
9 one year] on [date] and on each successive expiration date,
10 unless, at least 120 days before the current expiration date, we
11 notify both you and [owner's or operator's name] by certified
12 mail that we have decided not to extend this letter of credit
13 beyond the current expiration date. In the event you are so
14 notified, any unused portion of the credit shall be available
15 upon presentation of your sight draft for 120 days after the
16 date of receipt by you, as shown on the signed return receipt.

17 Whenever this letter of credit is drawn on under and in
18 compliance with the terms of this credit, we shall duly honor
19 the draft upon presentation to us and we shall deposit the
20 amount of the draft directly into the standby trust fund of
21 [owner's or operator's name] in accordance with your
22 instructions.

23 We certify that the wording of this letter of credit is
24 identical to the wording specified in Minnesota Rules, part
25 7035.2805, subpart 5, as the rules were constituted on the date
26 shown immediately below.

27 [SIGNATURE(S) AND TITLE(S) OF OFFICIAL(S) OF ISSUING
28 INSTITUTION]

29 [DATE]

30 This credit is subject to (insert "the most recent edition
31 of the Uniform Customs and Practice for Documentary Credits,
32 published by the International Chamber of Commerce," or "the
33 Uniform Commercial Code published in chapter 336").

34 Subp. 6. Letter from the chief financial officer of a
35 private firm. A letter from the chief financial officer of a
36 private firm as specified in part 7035.2750 must be worded as

1 specified in this subpart, except that the instructions in
2 brackets must be replaced with the relevant information and the
3 brackets deleted.

4 LETTER FROM CHIEF FINANCIAL OFFICER

5 [Agency Commissioner]

6 Minnesota Pollution Control Agency

7 Dear Sir or Madam:

8 I am the chief financial officer of This letter
9 is in support of this firm's use of the financial test to
10 demonstrate financial assurance, as specified in Minnesota
11 Rules, parts 7035.0300 to 7035.2875.

12 [Fill out the following four paragraphs regarding
13 facilities and associated cost estimates. If your firm has no
14 facilities that belong in a particular paragraph, write "None"
15 in the space indicated. For each facility, include its
16 identification number, name, address, and current corrective
17 action, closure, or postclosure cost estimates. Identify each
18 cost estimate as to whether it is for corrective action,
19 closure, or postclosure care.]

20 1. This firm is the owner or operator of the following
21 facilities for which financial assurance for corrective action,
22 closure, or postclosure care is demonstrated through the
23 financial test specified in Minnesota Rules, parts 7035.0300 to
24 7035.2875, and other rules applicable to other types of waste
25 facilities. The current corrective action, closure, or
26 postclosure cost estimates for the facilities covered by the
27 text of this letter are shown for each facility:

28

29 2. This firm guarantees, through the corporate guarantee
30 specified in Minnesota Rules, parts 7035.0300 to 7035.2875, and
31 other rules applicable to other types of waste facilities, the
32 corrective action, closure, or postclosure care of the following
33 facilities owned or operated by subsidiaries of this firm. The
34 current cost estimates for the corrective action, closure, or
35 postclosure care guaranteed are shown for each facility:

36

1 3. In states other than Minnesota, this firm, as owner or
 2 operator or guarantor, is demonstrating financial assurance for
 3 the corrective action, closure, or postclosure care of the
 4 following facilities either to the Unites States Environmental
 5 Protection Agency through the use of the financial tests
 6 specified in Code of Federal Regulations, title 40, part 264 or
 7 265, subpart H, or to an authorized state through the use of a
 8 test equivalent or substantially equivalent to the specified
 9 financial test. The current corrective action, closure, or
 10 postclosure cost estimates covered are shown for each facility:
 11

12 4. This firm owns or operates, or owns subsidiaries that
 13 own or operate, the following waste management facilities for
 14 which financial assurance for corrective action, if required,
 15 closure, or, if a disposal facility, postclosure care, is not
 16 demonstrated either to the United States Environmental
 17 Protection Agency or a state through a financial test or any
 18 other financial assurance mechanism specified in relevant
 19 federal or state regulations. The current corrective action,
 20 closure, or postclosure cost estimates not covered by such
 21 financial assurance are shown for each facility:
 22

23 This firm [insert "is required" or "is not required"] to
 24 file a form 10K with the Securities and Exchange Commission
 25 (SEC) for the latest fiscal year.

26 The fiscal year of this firm ends on [month, day]. The
 27 figures for the following items marked with a single asterisk
 28 are derived from this firm's independently audited, year-end
 29 financial statements for the latest completed fiscal year, ended
 30 [date].

31 I have enclosed with this letter the bonds that provide
 32 collateral for the [closure, postclosure care, corrective
 33 action] expenses that will be incurred at the sites listed in
 34 paragraphs numbered 1 and 2 above.

35 [Fill in Alternative I if the criteria of Minnesota Rules,
 36 part 7035.2750, item B, subitem (1), are used. Fill in

1 Alternative II if the criteria of Minnesota Rules, part
2 7035.2750, item B, subitem (2), are used.]

3 Alternative I

4
5 1. Sum of the current cost estimates (total
6 of all cost estimates shown in the four
7 numbered paragraphs above) \$.....
8

9 Current values of the bonds used to
10 demonstrate financial assurance:

	Maturity date	Estimated market values	Face values
11			
12			
13			
14			
15	2. Closure	\$.....	\$.....
16			
17	3. Postclosure care	\$.....	\$.....
18			
19	4. Corrective action	\$.....	\$.....
20			
21	5. TOTALS	\$.....	\$.....
22			

23 [Indicate the source of the market value estimates and provide
24 details of estimating methods]:
25
26

- 27 *6. Total liabilities (if any portion of the
28 cost estimates is included in total
29 liabilities, you may deduct the amount of
30 that portion from this line and add that
31 amount to lines 7 and 8) \$.....
- 32
- 33 *7. Tangible net worth \$.....
- 34
- 35 *8. Net worth \$.....
- 36
- 37 *9. Current assets \$.....
- 38
- 39 *10. Current liabilities \$.....
- 40
- 41 11. Net working capital (line 9 minus
42 line 10) \$.....
- 43
- 44 *12. The sum of net income plus depreciation
45 depletion and amortization \$.....
- 46
- 47 *13. Total assets in U.S. (required only
48 if less than 90 percent of firm's
49 assets are located in U.S.) \$.....

- | | | | |
|----|---|-------|-------|
| 50 | | YES | NO |
| 51 | | | |
| 52 | 14. Is the market value total on line 5 at
53 least equal to the total costs listed
54 in line 1 above? | | |
| 55 | | | |
| 56 | 15. Is line 8 at least \$10,000,000? | ..... | ..... |
| 57 | | | |
| 58 | 16. Is line 8 at least six times line 1? | ..... | ..... |
| 59 | | | |
| 60 | 17. Is line 11 at least six times line 1? | ..... | ..... |
| 61 | | | |
| 62 | *18. Are at least 90 percent of the firm's
63 assets located in the U.S.? If not,
64 complete line 19. | | |
| 65 | | | |
| 66 | 19. Is line 13 at least six times line 1? | ..... | ..... |
| 67 | | | |
| 68 | 20. Is line 6 divided by line 8 less than 2.0? | ..... | ..... |

- 1
- 2 21. Is line 12 divided by line 6 greater
- 3 than 0.1?
- 4
- 5 22. Is line 9 divided by line 10 greater
- 6 than 1.5?
- 7

Alternative II

9 1. Sum of the current cost estimates (total
 10 of all cost estimates shown in the four
 11 numbered paragraphs above) \$.....

12 Current values of the bonds used to
 13 demonstrate financial assurance:

	Maturity dates	Estimated market values	Face values
19 2. Closure	\$.....	\$.....
21 3. Postclosure 22 care	\$.....	\$.....
24 4. Corrective 25 action	\$.....	\$.....
27 5. TOTALS		\$.....	\$.....

29 [Indicate the source of the market value estimates and provide
 30 details of estimating methods]:

33 6. Current bond rating of the most recent issuance of this
 34 firm and the name of the rating service:

37 7. Date of issuance of bonds [if the bonds are different
 38 than those listed in lines 2 to 4]:

41 8. Date of maturity of bonds [if different than lines 2
 42 to 4]:

44 *9. Tangible net worth [if any portion of the
 45 corrective action, closure, or
 46 postclosure cost estimates is included
 47 in "total liabilities" on your firm's
 48 financial statements, you may add the
 49 amount of that portion to this line] \$.....

51 *10. Total assets in U.S. (required only if
 52 less than 90 percent of the firm's
 53 assets are located in the U.S.) \$.....

55 YES NO
 56 11. Is the market value total on line 5 at
 57 least equal to the total costs listed
 58 in line 1 above?

60 12. Is line 9 at least \$10,000,000?

62 13. Is line 9 at least six times line 1?

64 *14. Are at least 90 percent of the firm's
 65 assets located in the U.S.? If not,
 66 complete line 5.

68 15. Is line 10 at least six times line 1?

1 I hereby certify that the wording of this letter is identical
2 to the wording specified in Minnesota Rules, part 7035.2805,
3 subpart 6, as such rules were constituted on the date shown
4 immediately below.

5
6

7 Signature
8
9

10 Typed name
11
12

13 Chief financial officer
14
15

16 Date

17 Subp. 7. Corporate guarantee for corrective action,
18 closure, or postclosure care. A corporate guarantee, as
19 specified in part 7035.2750, item C, must be worded as specified
20 in this subpart, except that instructions in brackets must be
21 replaced with relevant information and the brackets deleted.

22 CORPORATE GUARANTEE FOR CORRECTIVE ACTION,
23 CLOSURE, OR POSTCLOSURE CARE

24 Guarantee made this [date] by [name of guaranteeing
25 entity], a business corporation organized under the laws of the
26 state of [insert name of state], herein referred to as
27 guarantor, to the Minnesota Pollution Control Agency (Agency),
28 obligee, on behalf of our subsidiary [facility owner or
29 operator] of [business address].

30 Recitals:

31 1. Guarantor meets or exceeds the financial test criteria
32 and agrees to comply with the reporting requirements for
33 guarantors specified in Minnesota Rules, part 7035.2750, item C.

34 2. [Facility owner or operator] owns or operates the
35 following solid waste disposal facilities covered by this
36 guarantee: [List for each facility: identification number,
37 name, and address. Indicate for each whether the guarantee is

1 for corrective action, closure, postclosure care, or any
2 combination of the three.]

3 3. "Closure plans," "postclosure plans," and "contingency
4 action plans" as used below refer to the plans maintained as
5 required by Minnesota Rules, parts 7035.2615, 7035.2625, and
6 7035.2645 for the closure, postclosure care, and corrective
7 action needs of facilities identified above.

8 4. For value received from [facility owner or operator],
9 guarantor guarantees to the Agency that in the event the
10 [facility owner or operator] fails to perform [insert
11 "corrective action," "closure," "postclosure care," or any
12 combination of the three] of the above facilities in accordance
13 with the corrective action, closure, or postclosure plans and
14 other permit requirements whenever required to do so, the
15 guarantor shall do so or establish a trust fund as specified in
16 Minnesota Rules, part 7035.2705, in the name of [facility owner
17 or operator] in the amount of the current corrective action,
18 closure, or postclosure cost estimates as specified in Minnesota
19 Rules, part 7035.2705.

20 5. Guarantor guarantees that if, at the end of any fiscal
21 year before termination of this guarantee, the guarantor fails
22 to meet the financial test criteria, guarantor shall send within
23 90 days, by certified mail, notice to the agency and [facility
24 owner or operator] that he or she intends to provide financial
25 assurance as specified in Minnesota Rules, parts 7035.2665 to
26 7035.2805, as applicable, in the name of [facility owner or
27 operator]. Within 120 days after the end of the fiscal year,
28 the guarantor shall establish financial assurance unless
29 [facility owner or operator] has done so.

30 6. The guarantor agrees to notify the Agency Commissioner
31 by certified mail of a voluntary or involuntary proceeding under
32 title 11 or title 7 of the United States Bankruptcy Code, naming
33 guarantor as debtor, within ten days after commencement of the
34 proceeding.

35 7. Guarantor agrees that within 30 days after being
36 notified by the Agency Commissioner of a determination that

1 guarantor no longer meets the financial test criteria or that he
2 or she is disallowed from continuing as a guarantor of
3 corrective action, closure, or postclosure care, guarantor shall
4 establish alternate financial assurance as specified in
5 Minnesota Rules, parts 7035.2665 to 7035.2805, as applicable, in
6 the name of [facility owner or operator] unless [facility owner
7 or operator] has done so.

8 8. Guarantor agrees to remain bound under this guarantee
9 notwithstanding any or all of the following: amendment or
10 modification of the corrective action, closure, or postclosure
11 plan; amendment or modification of the permit; extension or
12 reduction of the time of performance of corrective action,
13 closure, or postclosure care; or any other modification or
14 alteration of an obligation of the facility owner or operator
15 pursuant to Minnesota Rules, parts 7001.0200 to 7001.3550, or
16 7035.0300 to 7035.2875.

17 9. Guarantor agrees to remain bound under this guarantee
18 for so long as [facility owner or operator] must comply with the
19 applicable financial assurance requirements of Minnesota Rules,
20 parts 7035.2665 to 7035.2805, for the above-listed facilities,
21 except that guarantor may cancel this guarantee by sending
22 notice by certified mail to the Agency Commissioner and
23 [facility owner or operator], the cancellation to become
24 effective no earlier than 120 days after receipt of notice by
25 the Agency Commissioner, as evidenced by return receipt.

26 10. Guarantor agrees that if [facility owner or operator]
27 fails to provide alternate financial assurance as specified in
28 Minnesota Rules, parts 7035.2665 to 7035.2805, as applicable,
29 and obtain written approval of such assurance from the Agency
30 Commissioner within 90 days after a notice of cancellation by
31 the guarantor is received by the Agency Commissioner, guarantor
32 shall provide alternate financial assurance in the name of
33 [facility owner or operator].

34 11. Guarantor expressly waives notice of acceptance of
35 this guarantee by the Agency or by [facility owner or
36 operator]. Guarantor also expressly waives notice of amendments

1 or modifications of the contingency action, closure, or
2 postclosure care plan and of amendments or modifications of the
3 facility permits.

4 I hereby certify that the wording of this guarantee is
5 identical to the wording specified in Minnesota Rules, part
6 7035.2805, subpart 7, as such rules were constituted on the date
7 first above written.

8 Effective date:

9 [NAME OF GUARANTOR]

10 [AUTHORIZED SIGNATURE FOR GUARANTOR]

11 [NAME OF PERSON SIGNING]

12 [TITLE OF PERSON SIGNING]

13 [SIGNATURE OF WITNESS OR NOTARY]

14 Subp. 8. Letter from the head of an elected or
15 publicly-appointed body. A letter from the head of an elected
16 or publicly-appointed body as specified in part 7035.2750 must
17 be worded as specified in this subpart, except that the
18 instructions in brackets must be replaced with the relevant
19 information and the brackets deleted.

20 LETTER FROM THE HEAD OF AN ELECTED
21 OR PUBLICLY-APPOINTED BODY

22
23 [Agency commissioner]

24 Minnesota Pollution Control Agency

25 Dear Sir or Madam:

26 I am the [chair, mayor] of [the County
27 Board of commissioners, city of, the
28 landfill authority, the
29 sanitary district]. This letter is in support of this
30 [county's, city's, authority's, district's] use of the financial
31 test to demonstrate financial assurance as specified in
32 Minnesota Rules, parts 7035.0300 to 7035.2875. This letter is
33 to demonstrate financial assurance for the following sites:

34
35 Operator
36 Name

1 Address

2 City

3 Current cost estimates:

4 Closure

5 Postclosure care

6 Corrective action

7 TOTAL

8

9 Operator

10 Name

11 Address

12 City

13 Current cost estimates:

14 Closure

15 Postclosure care

16 Corrective action

17 TOTAL

18

19 Operator

20 Name

21 Address

22 City

23 Current cost estimates:

24 Closure

25 Postclosure care

26 Corrective action

27 TOTAL

28

29 I have enclosed with this letter the [bonds, warrant] that

30 provide(s) collateral for the [closure, postclosure care,

31 corrective action] expenses that will be incurred at the site(s)

32 listed above.

33 Financial Test

34

35 1. Sum of the current cost estimates (total

36 of all cost estimates shown in the

37 paragraphs above) \$.....

38

1 Current value(s) of the [bonds, warrant]
2 used to demonstrate financial assurance:
3
4 Issuance and
5 Maturity Estimated Face
6 dates market value(s) value(s)
7
8 2. Closure \$..... \$.....
9
10 3. Postclosure care \$..... \$.....
11
12 4. Corrective action \$..... \$.....
13
14 5. TOTALS \$..... \$.....
15

16 [Indicate the source of the market value estimates and provide
17 details of estimating methods]
18
19

20 6. Current bond rating of the most recent
21 issuance of the county and the name of the
22 rating service
23

24 7. Date of issuance of the bond
25

26 8. Date of maturity of the bond (if different
27 than lines 2 to 4 above)
28

29 9. Total assessed value of the [county, city]
30

31 10. Limit on total debt, as calculated under
32 Minnesota Statutes, section 475.53 \$.....
33

34 11. Current total long-term debt \$.....
35

36 12. Total ad valorem taxes levied for the
37 current fiscal year \$.....
38

39 13. Limit on current total ad valorem taxes,
40 as calculated under Minnesota Statutes,
41 section 275.51 \$.....
42

43 YES NO
44 14. Is line 10 minus line 11 greater than the
45 total face value on line 5?
46

47 15. For bonds:
48 Is the market value total on line 5 at
49 least equal to line 1?
50

51 For warrants:
52 Is the face value total on line 5 at
53 least equal to line 1?
54

55 16. Is line 13 minus line 12 greater than
56 zero?
57

58 17. Will any circumstances expected in the
59 coming year change the answers on lines
60 14 to 16? (provide evidence in support
61 of this answer)
62

63 I hereby certify that the wording of this letter is identical to
64 the wording specified in Minnesota Rules, part 7035.2805,
65 subpart 8, as such rules were constituted on the date shown
66 below.

1
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3 Signature
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6 Typed name
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9 (Chair, Mayor)

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12 Date
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15 Signature
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18 Typed name
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21 (Auditor, City Manager) (County, City) seal
22
23

24 Date

25 Subp. 9. Resolution establishing a dedicated long-term
26 care trust fund. A resolution establishing a dedicated
27 long-term care trust fund, as specified in part 7035.2720, must
28 be worded as specified in this part, except that the
29 instructions in brackets must be replaced with the relevant
30 information and the brackets deleted.

31 RESOLUTION ESTABLISHING A DEDICATED
32 LONG-TERM CARE TRUST FUND

33 WHEREAS the [county, city, authority] of [name], as [owner,
34 operator] of the [facility name] mixed municipal solid waste
35 land disposal facility, is required under Minnesota Statutes,
36 section 116.07, subdivision 4h, and Minnesota Rules, part

1 7035.2695, to provide evidence of financial assurance for the
2 [name(s)] mixed municipal solid waste land disposal facility,
3 and the [county, city, authority] of [name] acknowledges the
4 jurisdiction of the Minnesota Pollution Control Agency in this
5 matter;

6 NOW THEREFORE BE IT RESOLVED that there is created in the
7 [name] [county, city, authority] treasury a dedicated long-term
8 care trust fund, and that money in this fund shall be held in
9 trust and may only be used to pay for closure, postclosure care,
10 or contingency actions as specified in Minnesota Rules, parts
11 7035.2605 to 7035.2655, and in the permit(s) that apply to the
12 facility(ies) referenced above, and that deposits into the fund
13 shall conform with the requirements of Minnesota Rules, part
14 7035.2720, and that no disbursements from the fund shall be made
15 without the written permission of the commissioner of the
16 Minnesota Pollution Control Agency, and that the [county, city,
17 authority] of [name] is bound to reimburse the Minnesota
18 Pollution Control Agency for any legal and administrative costs
19 incurred in actions taken to force the [county, city, authority]
20 to act on this resolution, and that the money needed to make
21 such reimbursements shall not be taken from the dedicated
22 long-term care trust fund, and that [name and title] and [his,
23 her] successors in office shall be the fund's trustee and shall
24 be responsible for making all reports required under Minnesota
25 Rules, part 7035.2720.

26

27 [title]

28 STATE OF MINNESOTA

29 [County, city, authority] of [name]

30 I, [name], [title] of [name] [county, city, authority]
31 certify that the above resolution was adopted at the regular
32 meeting of the [name] [county, city, authority] [name of
33 appropriate body, e.g., Board of Commissioners] on the day
34 of, 19...

35 Attest:

36 [name]

1 [title]

2 SOLID WASTE MANAGEMENT FACILITY

3 SPECIFIC TECHNICAL REQUIREMENTS

4 7035.2815 MIXED MUNICIPAL SOLID WASTE LAND DISPOSAL FACILITIES.

5 Subpart 1. **Scope.** The requirements of subparts 2 to 16
6 apply to landowners and owners and operators of facilities that
7 dispose of mixed municipal solid waste in or on the land, except
8 as provided in part 7035.2525, subpart 2.

9 Subp. 2. **Location.** Land disposal facilities must be
10 located in accordance with items A to C and part 7035.2555:

11 A. A facility must be located only in an area where:

12 (1) the topography, geology, and ground water
13 conditions allow the facility to be designed, operated,
14 constructed, and maintained in a manner that minimizes
15 environmental impacts;

16 (2) ground water flow paths and variations in
17 soil or bedrock conditions are known in sufficient detail to
18 enable reliable tracking of pollutant movement in the event of a
19 release from the facility;

20 (3) it is feasible to construct a monitoring
21 system with sufficient monitoring points to assure that
22 pollutants can be detected and tracked in the event of a release
23 from the facility; and

24 (4) in the event of a release from a facility,
25 pollutants can be contained and corrective actions taken to
26 prevent adverse impacts on water supplies and to return the
27 facility to compliance with ground water and surface water
28 quality standards.

29 B. Unless the owner or operator provides an
30 engineered secondary containment system, a facility cannot be
31 located in an area where the hydrologic or topographic
32 conditions would allow rapid or unpredictable pollutant
33 migration, impair the long-term integrity of the facility, or
34 preclude reliable monitoring. The additional engineering must
35 be approved by the commissioner and must consist of at least:

1 (1) a second liner with a collection system
2 between the two liners;

3 (2) an in-place, operational ground water
4 containment and treatment or disposal system that can be
5 activated immediately if ground water pollution is detected; or

6 (3) another method of secondary containment
7 backing up the liner providing additional protection equivalent
8 to subitem (1) or (2) and backing up the cover system.

9 C. A land disposal facility must not be located on a
10 site where:

11 (1) there are karst features, such as sinkholes,
12 solution channels, disappearing streams, and caves, which may
13 cause failures of the leachate management system or prevent
14 effective monitoring or containment of a release of leachate;

15 (2) there are other unstable soil or bedrock
16 conditions that may cause failures of the leachate management
17 system; or

18 (3) an airport runway used or scheduled for use
19 by turbojet aircraft is located within 10,000 feet of the waste
20 boundary, or an airport runway used or scheduled for use by
21 piston-type aircraft only is located within 5,000 feet of the
22 waste boundary, unless approval is obtained from the Federal
23 Aviation Administration.

24 Subp. 3. Hydrogeologic evaluation. The owner or operator
25 must complete a hydrogeologic evaluation in accordance with
26 items A to I.

27 A. The owner or operator of a mixed municipal solid
28 waste land disposal facility must investigate and define the
29 hydrogeologic conditions at the facility. The hydrogeologic
30 evaluation is required to obtain or retain a facility permit,
31 and must be included in the application for a permit under parts
32 7001.3275, 7001.3300, and 7001.3475. The owner or operator must
33 provide updates and revisions to the hydrogeologic evaluation as
34 needed to clarify and define changes in the hydrogeologic
35 conditions.

36 The owner or operator may use previous data and field

1 installations to help fulfill the hydrogeologic evaluation
2 requirements. If the commissioner determines that portions of
3 this previous work are reliable, well-documented, and comparable
4 in information content, they may be substituted for the
5 corresponding type and number of work items required in this
6 subpart.

7 B. The hydrogeologic evaluation must be conducted in
8 phases, in which the work done under each of the items E to I
9 makes use of the results of the work required under the
10 preceding items.

11 (1) Before conducting each phase, the owner or
12 operator shall submit for the commissioner's approval a detailed
13 description of the work proposed for that phase and a report of
14 the findings from the previous phase, accompanied by
15 documentation of information sources and methods and procedures
16 used, boring and monitoring point logs, test data, and sample
17 calculations. The commissioner may require additional work
18 plans, if necessary, to enable review between successive stages
19 of field and laboratory investigations.

20 (2) Soil and rock samples must be retained for at
21 least 90 days after submittal of the report containing the
22 boring logs.

23 C. The owner or operator must define the
24 hydrogeologic conditions within at least the following areas:

25 (1) beneath the waste fill area and leachate
26 management system;

27 (2) sufficient distances beyond the waste fill
28 area and leachate management system, based on the directions and
29 rates of ground water flow, to define the soil and ground water
30 conditions that would control pollutant migration from the
31 facility;

32 (3) within areas in which corrective actions
33 would be implemented to contain, recover, or treat leachate or
34 polluted ground water; and

35 (4) within the following vertical zones:

36 (a) the unsaturated zone;

1 (b) any perched saturated zone;

2 (c) the zone of continuous saturation, from
3 the water table, through the uppermost aquifer, the next aquifer
4 below it, and any intervening units; and

5 (d) for facilities that have affected ground
6 water quality to a depth greater than that given in unit (c),
7 the zone of continuous saturation, from the water table to and
8 including both the lowest affected aquifer and the next aquifer
9 below it. As used in this item, the lowest affected aquifer
10 means the lowest aquifer in which one or more pollutants
11 originating from the facility exceed the intervention limits or
12 alternative intervention limits under subpart 4; and

13 (e) any additional aquifers used locally as
14 major sources of water supply.

15 The commissioner may approve a minimum depth shallower than
16 required in subitem (4) if there is little likelihood that
17 ground water pollutants originating from the facility will
18 migrate below this designated level.

19 D. Where drilling methods, testing methods, minimum
20 quantities or depths, and reporting requirements are specified
21 in items E to I, the owner or operator may propose alternative
22 procedures if subsurface conditions indicate a need for these
23 procedures. The commissioner may approve or require changes
24 from the requirements in items E to I for good cause, including
25 cases where:

26 (1) subsurface conditions are shown to be
27 uniform, or the requirements are otherwise unnecessary or
28 excessive for site conditions;

29 (2) a requirement is infeasible for a particular
30 site or hydrogeologic condition;

31 (3) an alternative procedure would produce more
32 or better information or would reduce the chance of pollutant
33 migration between connecting aquifers; or

34 (4) the required procedures are insufficient to
35 produce the information required in item G.

36 In all cases, alternative procedures are acceptable only if

1 the subsurface conditions are thoroughly defined and the
2 uncertainty of monitoring and corrective action is not increased.

3 E. In the first phase of the hydrogeologic
4 evaluation, the available published and unpublished information
5 about the facility site and surrounding area must be evaluated.
6 The report for this phase must include at least the following
7 information wherever it is available or can be developed from
8 available sources:

9 (1) A description of previous investigations of
10 the site and surrounding area, and a discussion of the
11 reliability and completeness of this information.

12 (2) Descriptions, maps, and aerial photographs
13 depicting the site and surrounding area's geologic history,
14 stratigraphic sequence, soils, topography, vegetation, climate,
15 surface water hydrology, area water usage, regional
16 hydrogeologic setting, ground water occurrence at the site,
17 aquifers and aquitards, hydrogeologic parameters such as
18 transmissivity and storage coefficient, recharge and discharge
19 areas, rates and directions of ground water movement, and water
20 quality.

21 (3) One or more geologic columns or sections.

22 (4) Cross-sections, oriented along and
23 perpendicular to the directions of ground water flow.

24 (5) An inventory and a plan map of all active,
25 unused, and abandoned wells within one mile of the facility, and
26 of high-capacity wells and community water supply wells within
27 three miles of the facility. The inventory must include well
28 logs and all other available information on well construction,
29 water levels, and well usage, and it must be based on thorough
30 reviews of state and local collections of water well logs and,
31 if required by the commissioner, interviews or surveys of well
32 owners. The commissioner may require interviews and surveys of
33 well owners if needed well logs are not available through other
34 sources.

35 (6) For existing facilities, preliminary
36 evaluations of the adequacy of the water monitoring system; the

1 monitoring points' compliance with chapter 4725, Department of
 2 Health Water Well Construction Code; and the water quality
 3 monitoring data.

4 F. In the second phase of the hydrogeologic
 5 evaluation, the owner or operator must evaluate in detail the
 6 distribution and properties of the earth materials underlying
 7 the site and the ground water conditions beneath the site.

8 (1) The investigation must be sufficient to
 9 identify the soil and bedrock units beneath the site, delineate
 10 their areal and vertical extent, determine their water
 11 transmitting properties, identify perched saturated zones,
 12 define vertical and horizontal components of ground water flow,
 13 predict pollutant movement in the event of releases from the
 14 facility, and provide the information needed for the report
 15 under item G.

16 (2) The work plan required for this phase must
 17 describe the methods and quality control measures to be used in
 18 drilling, logging, piezometer installation, boring and
 19 piezometer abandonment, and soils, bedrock, and ground water
 20 testing; and the hydrogeologic basis for the investigation,
 21 including specific subsurface conditions the investigations are
 22 likely to encounter and will seek to define. The work plan must
 23 describe the planned numbers, locations, depths and sequence of
 24 borings, test pits, geophysical or other measurements, sampling
 25 sites, and testing sites.

26 (3) Sufficient soil borings must be done to
 27 define the soil and bedrock conditions within the areas required
 28 in item C. The initial drilling must include borings positioned
 29 throughout the site; within each geomorphic feature including
 30 ridges, knolls, depressions, and drainage swales; and within any
 31 geophysical anomalies already identified. The minimum required
 32 number of borings for this initial drilling is as follows:

33	Size of Site	Number of Borings
34	0-10 acres	15
35	10-20	Add one boring per additional acre
36	20	25

1 20-40 Add one boring per additional two acres
 2 40 35
 3 more than 40 Add one boring per additional four acres
 4 Additional borings, geophysical investigations, or both
 5 must be done, where needed, to delineate the thickness, extent,
 6 and properties of the soil and bedrock units identified in the
 7 initial drilling. The commissioner may require test pits for
 8 examination of the near-surface soils. In bedrock, the
 9 commissioner shall require core samples if necessary to identify
 10 the stratigraphic position of the uppermost bedrock or to
 11 determine the water-bearing and water-transmitting properties of
 12 the bedrock.

13 (4) Soil borings must comply with chapter 4725
 14 and must not create pathways for pollutant migration. They must
 15 be permanently sealed using the procedures given in parts
 16 4725.2700 to 4725.3100. Except where the soil boring is
 17 converted to an active piezometer or monitoring point or where
 18 the Minnesota Department of Health approves alternative methods,
 19 soil and bedrock borings must be sealed with grout, bentonite,
 20 or other impermeable material in a manner that minimizes the
 21 potential for future pollutant movement along the borehole.

22 (5) Soil samples must be collected using
 23 procedures conforming to American Society for Testing and
 24 Materials (ASTM) standards D1586 (split-barrel), D1587
 25 (thin-walled tube), D3550 (ring-lined barrel), or equivalent
 26 methods approved by the commissioner. Within each boring, soil
 27 samples must be collected at maximum five-foot intervals and at
 28 changes in soil type distinguishable through changes in drilling
 29 characteristics, examination of cuttings, or other means. At
 30 least one boring per ten acres of proposed waste fill must be
 31 continuously sampled below the elevation of the base of the
 32 fill. Wherever necessary to determine detailed stratigraphy,
 33 the commissioner shall require smaller intervals between
 34 samples, additional continuously-sampled borings, borehole
 35 geophysical logging, or other procedures. Samples must be
 36 preserved and transported in accordance with ASTM standard D4220.

1 (6) The soils and bedrock must be described and
2 classified using information from field drilling observations,
3 any geophysical logs, and laboratory examination and testing.
4 Soil descriptions must include textural classification, primary
5 and secondary structures, voids, and other properties that may
6 affect soils correlations and influence pollutant movement.
7 Rock cores or samples must be described and classified using
8 accepted geologic classification systems and nomenclature.

9 (7) Based on the descriptions and testing
10 required in subitems (6), (8), and (9), the soils and bedrock
11 must be classified and, to the extent feasible, correlated over
12 the site.

13 (8) For each soil unit identified on the site, a
14 series of soil samples from different borings and elevations
15 within the unit must be laboratory-tested. The owner or
16 operator must develop a procedure and supporting rationale to
17 select samples for this testing that are representative of the
18 unit or are critically located within the unit. Together with
19 the in-field testing required in subitem (9), the laboratory
20 testing must determine the water-bearing and water-transmitting
21 properties including, as appropriate, particle size
22 distribution, porosity, vertical permeability, and clay mineral
23 content or cation exchange capacity. Samples must not be
24 combined into composites for classification or testing. Samples
25 used to test permeability must not be compacted, and disturbance
26 of samples must be minimized. Testing and quality assurance
27 must conform with methods approved by the American Society for
28 Testing and Materials or other standard methods.

29 (9) A program to determine in-place
30 permeabilities must be developed including criteria for the
31 placement of test wells or piezometers. Test locations must be
32 at or adjacent to logged borings and must be suitably
33 distributed to characterize the variation in the permeabilities
34 of soil or bedrock units.

35 (10) Ground water flow conditions must be defined
36 in detail within the zone specified in item C. A series of

1 piezometers complying with subpart 10, item R, must be installed
2 to map hydraulic head within this zone. The range of
3 fluctuation in hydraulic head must be determined through
4 historical records and a series of on-site measurements over
5 time, unless the commissioner approves alternative methods to
6 estimate the importance of fluctuations. The effects of pumping
7 from high-capacity wells must be evaluated.

8 (11) Logs of all soil and bedrock borings must be
9 submitted to the commissioner. The soil and bedrock logs must
10 contain the information generated under subitems (3) to (8) and
11 a scale drawing of the soil types encountered. At a minimum,
12 the logs must contain the following: date of the boring; name
13 and address of the driller and testing firm; drilling and
14 sampling methods; surveyed elevation of the ground surface above
15 mean sea level; surveyed location referenced to permanent
16 benchmarks; soil and rock classifications and narrative
17 descriptions, contacts between strata or units, sample depths,
18 blow counts, and test data; observations during drilling; water
19 level measurements; any geophysical logs; and sealing procedures.

20 (12) The well inventory, plan map, and supporting
21 information required under item E, subitem (5), must be
22 field-checked and updated to include all wells within the
23 prescribed distances. Owners of structures or facilities that
24 may have wells must be contacted directly to supplement the
25 information previously obtained.

26 G. The report for the second phase of the
27 hydrogeologic evaluation must contain at least the following
28 information generated under item F:

29 (1) logs developed under item F, subitem (11),
30 for borings and under subpart 10, items O to R, for piezometers
31 and monitoring wells;

32 (2) descriptions of the soil and bedrock units
33 and of the properties that may influence water movement
34 including:

- 35 (a) texture and classification;
36 (b) particle size distributions;

1 (c) mineral composition, cementation, and
2 soil structure;

3 (d) geologic structure, including strike,
4 dip, folding, faulting, and jointing;

5 (e) permeabilities, including vertical
6 permeabilities, and porosity; and

7 (f) lenses and other discontinuous units,
8 voids, solution openings, layering, fractures, other
9 heterogeneity, and the scale or frequency of this heterogeneity;

10 (3) one or more detailed geologic columns;

11 (4) descriptions of the hydrologic units within
12 the saturated zone, including their thicknesses; hydraulic
13 properties; the role and effect of each as an aquifer, aquitard,
14 or perched saturated zone; and the actual or potential use of
15 the aquifers as water supplies;

16 (5) plan-view maps and a series of
17 cross-sections, spaced no more than 500 feet apart, oriented at
18 a minimum in directions parallel to and perpendicular to the
19 predominant directions of ground water flow, and showing the
20 areal and vertical extent of the soil and bedrock units, the
21 position of the water table, measured values of hydraulic head,
22 equipotential lines and inferred ground water streamlines, soil
23 or bedrock borings, locations and construction of piezometers
24 and monitoring points, and locations of any geophysical
25 measurements used to prepare the cross-sections;

26 (6) description and evaluation of the ground
27 water flow system, specifically addressing the following
28 components and discussing their significance with respect to
29 ground water and pollutant movement:

30 (a) local, intermediate, and regional flow
31 systems;

32 (b) ground water recharge and discharge
33 areas, interactions of ground water with perennial or
34 intermittent surface waters, and how the facility affects
35 recharge rates;

36 (c) existing or proposed ground water and

1 surface water withdrawals;

2 (d) the effect of heterogeneity, fractures,
3 or directional differences in permeability on ground water
4 movement;

5 (e) directions of ground water movement
6 including vertical components of flow, specific discharge rates,
7 and average linear velocities within the hydrologic units
8 described in subitem (4); and

9 (f) seasonal or other temporal fluctuations
10 in hydraulic head;

11 (7) an analysis of potential impacts on ground
12 water quality, surface water quality, and water users in the
13 event of a release from the facility including projected paths
14 and rates of movement of both water-soluble and low-solubility
15 components of leachate; and

16 (8) if mathematical or analog models are used to
17 simulate ground water flow or contaminant migration, the report
18 must thoroughly describe the model and its capabilities and
19 limitations, state all assumptions or approximations made in
20 using the model, identify quantities or values derived from the
21 model that are not confirmed by direct measurement, and evaluate
22 the reliability and accuracy of the results.

23 H. In the third phase of the hydrogeologic
24 evaluation, the water monitoring system must be designed and
25 installed based on the information obtained under items E to G.
26 The monitoring system must comply with the requirements of
27 subpart 10.

28 (1) The work plan for this phase must include:

29 (a) a description of the proposed monitoring
30 system; monitoring point locations, design, and installation
31 procedures; and a thorough evaluation of the suitability of any
32 existing monitoring points proposed for inclusion in the
33 monitoring system, including any deficiencies with respect to
34 the requirements of subpart 10;

35 (b) an explanation of how the proposed
36 monitoring system addresses the hydrogeologic conditions

1 identified under items E to G; and

2 (c) a preliminary version of the monitoring
3 protocol required under subpart 14.

4 (2) The report for this phase must include:

5 (a) the monitoring point construction and
6 installation records required under subpart 10, items O to S;

7 (b) a description of any changes from the
8 locations, design, and installation procedures identified in the
9 work plan; and

10 (c) an evaluation of any differences from
11 previously reported soils and bedrock conditions, water levels,
12 or ground water flow conditions.

13 I. In the fourth phase of the hydrogeologic
14 evaluation, water quality information must be collected from the
15 monitoring system and interpreted. Water quality monitoring
16 must comply with the requirements of subpart 14.

17 (1) The work plan for this phase must include the
18 proposed monitoring protocol required in subpart 14; schedule of
19 background or initial sampling dates; proposed analytical
20 constituents and measurements; and methods of data analysis and
21 interpretation.

22 (2) The report for this phase must contain the
23 monitoring and quality assurance data, analysis of water quality
24 trends, and identification of constituents that exceed ground
25 water performance standards of subpart 4 or surface water
26 quality standards of chapter 7050.

27 Subp. 4. **Ground water performance standards.** The owner or
28 operator must design, construct, operate, and maintain the
29 facility to achieve compliance with items A to J.

30 A. A compliance boundary must be established at each
31 facility in accordance with items B and C. If the conditions in
32 item D or E apply, a lower compliance boundary and surface water
33 compliance boundary may also be established. Ground water
34 quality must comply with items E, F, and H at the locations
35 given in item F. If an intervention limit established under
36 items E, F, and H is exceeded in ground water at any location,

1 the owner or operator must take the actions specified in item G.

2 B. The owner or operator must propose the locations
3 of the compliance boundary. The owner or operator shall submit
4 the proposed locations to the commissioner for review and
5 approval, together with the rationale for the selected
6 locations, supporting information, and any additional
7 information the commissioner may require to describe the
8 locations of the boundaries in the facility permit.

9 C. The compliance boundary must be established in
10 accordance with subitems (1) and (2).

11 (1) The compliance boundary must surround the
12 waste fill area and leachate management system. It must be
13 located on the facility property, with a sufficient setback from
14 the property boundary to enable the installation of monitoring
15 points and, if necessary, ground water control features. The
16 following factors shall also be considered in establishing the
17 location of the compliance boundary:

18 (a) hydrogeologic factors, including
19 attenuation and dilution characteristics; ground water quantity,
20 quality, flow rates, and flow directions; and anticipated rates
21 and directions of pollutant movement;

22 (b) the feasibility of ground water
23 monitoring at the compliance boundary;

24 (c) the feasibility of corrective actions to
25 maintain compliance with ground water quality standards at the
26 compliance boundary;

27 (d) the volume, composition, and physical
28 and chemical characteristics of the leachate;

29 (e) the proximity and withdrawal rates of
30 ground water users, and the availability of alternative water
31 supplies; and

32 (f) any other public health, safety, and
33 welfare effects.

34 (2) The distance between the compliance boundary
35 and the permitted waste boundary must be no greater than 200
36 feet. The commissioner may require a smaller separation

1 distance if ground water flow rates are very slow or where
2 necessary to provide additional protection to ground water,
3 including sites with downward ground water flow. At existing
4 facilities, including expansion areas, the commissioner may
5 allow a separation distance greater than 200 feet if the
6 following conditions are met:

7 (a) the commissioner determines that the
8 owner or operator has provided sufficient monitoring to assure
9 reliable detection and tracking of pollutant migration within
10 the area enclosed by the compliance boundary, and that the
11 larger separation presents no greater risk to water quality and
12 water use than a separation distance of 200 feet or less;

13 (b) the hydrogeologic evaluation under
14 subpart 3 is complete or will be completed according to a
15 compliance schedule; and

16 (c) the owner or operator revises the cost
17 estimate for contingency action under part 7035.2615 to reflect
18 any greater costs for additional monitoring; ground water
19 containment, removal, and treatment; and other contingency
20 actions, and provides evidence of financial assurance to pay for
21 the increased costs.

22 D. In addition to the compliance boundary required of
23 all facilities under item C, the commissioner shall designate a
24 lower compliance boundary at any facility where there is a
25 potential for substantial pollutant migration downward to a
26 deeper aquifer used locally as a source of water supply. The
27 lower compliance boundary shall be designated at a contact
28 between soil or hydrogeologic units, or other definable surface
29 within the saturated zone, and shall be located to prevent
30 adverse effects on water supplies.

31 E. The commissioner may designate a surface water
32 compliance boundary if it is determined, by the analysis under
33 subpart 3, item G, subitem (7) or otherwise, that pollutants
34 entering the ground water from the facility may migrate to
35 surface water at concentrations that could adversely affect the
36 quality of surface water.

1 (1) The surface water compliance boundary must be
2 designated as a vertical plane extending downward from the land
3 surface or as some other readily definable plane located between
4 the land disposal facility and the surface water.

5 (2) The surface water compliance boundary may
6 either replace a portion of the compliance boundary or be
7 designated in addition to the compliance boundary. The surface
8 water compliance boundary may be substituted entirely for a
9 portion of the compliance boundary only if the facility is
10 within 500 feet of the surface water and the commissioner
11 determines that all pollutants entering the ground water from
12 the facility will discharge into that surface water.

13 (3) The commissioner shall establish standards
14 and intervention limits for the surface water compliance
15 boundary in the facility permit based on the applicable
16 provisions of chapter 7050. If the surface water in turn
17 recharges an aquifer used as a water supply, the commissioner
18 shall establish standards and intervention limits protective of
19 both surface water and drinking water.

20 (4) The commissioner shall require submission of
21 any facility and site information needed to establish standards
22 and intervention limits for the surface water compliance
23 boundary, including low-flow stream discharge rates, mixing
24 characteristics and rates, biological communities, and chemical
25 composition of the surface water and leachate.

26 F. Except as provided in items E and H and this item,
27 pollutant concentrations in ground water must not exceed the
28 standards listed in this item at or beyond the compliance
29 boundary and at or below the lower compliance boundary. The
30 standards and intervention limits for these two boundaries are
31 as follows:

		Standard or intervention limit
		(in micrograms per liter
		unless otherwise noted)
Substance		
35 (1)	Acrylamide	0.025
36 (2)	Acrylonitrile	0.17
37 (3)	Alachlor	2.5

1	(4)	Aldicarb	2.3
2	(5)	Aldrin	0.0075
3	(6)	Allyl chloride	7.35
4	(7)	Arsenic	12.5
5	(8)	Asbestos	1800000
6		medium and long (greater	
7		than 10 microns)	
8		fibers per liter	
9	(9)	Barium	375
10	(10)	Benzene	3
11	(11)	Bis(2-chloroethyl)ether	0.078
12	(12)	Cadmium	1.25
13	(13)	Carbofuran	9
14	(14)	Carbon tetrachloride	0.67
15	(15)	Chlordane	0.055
16	(16)	Chlorobenzene (monochlorobenzene)	15
17	(17)	Chloroform	1.3
18	(18)	Chromium	30
19	(19)	Copper	325
20	(20)	DDT	0.25
21	(21)	Dibromochloropropane (DBCP)	0.063
22	(22)	1,2-Dibromoethane	0.002
23		(Ethylene dibromide, EDB)	
24	(23)	1,2-Dichlorobenzene (orth-)	155
25	(24)	1,3-Dichlorobenzene (meta-)	155
26	(25)	1,4-Dichlorobenzene (para-)	18.8
27	(26)	3,3'-Dichlorobenzidine	0.052
28	(27)	1,2-Dichloroethane	0.95
29	(28)	1,1-Dichloroethylene	1.8
30	(29)	1,2-Dichloroethylene (cis-)	17
31	(30)	1,2-Dichloroethylene (trans-)	17
32	(31)	Dichloromethane (methylene chloride)	12
33	(32)	2,4-Dichlorophenoxyacetic acid (2,4-D)	17
34	(33)	1,2-Dichloropropane	1.5
35	(34)	Dieldrin	0.0025
36	(35)	2,4-Dinitrotoluene	0.27
37	(36)	1,2-Diphenylhydrazine	0.11
38	(37)	Epichlorohydrin	8.9
39	(38)	Ethylbenzene	170
40	(39)	Heptachlor	0.025
41	(40)	Heptachlor epoxide	0.0015
42	(41)	Hexachlorobenzene	0.053
43	(42)	Hexachlorobutadiene	1.1
44	(43)	Hexachlorocyclohexane (alpha-)	0.0075
45	(44)	Hexachlorocyclohexane (beta-)	0.047
46	(45)	Hexachlorocyclohexane (gamma-)(Lindane)	0.05
47	(46)	Hexachlorodibenzodioxin	0.000015
48	(47)	Hexachloroethane	6.2
49	(48)	Lead	5.0
50	(49)	Mercury	0.75
51	(50)	Methyl ethyl ketone	43
52	(51)	Methoxychlor	85
53	(52)	Nickel	38
54	(53)	Nitrate (as Nitrogen)	2500
55	(54)	Nitrite (as Nitrogen)	250
56	(55)	N-Nitrosodimethylamine	0.0035
57	(56)	N-Nitrosodiphenylamine	17.8
58	(57)	Total carcinogenic polynuclear aromatic	
59		hydrocarbons (PAH)	0.007
60	(58)	Polychlorinated biphenyls (PCB's)	0.02
61	(59)	Pentachlorophenol	55
62	(60)	Selenium	11
63	(61)	Styrene	35
64	(62)	2,3,7,8-Tetrachlorodibenzo-p-dioxin (-TCDD)	0.000005
65	(63)	1,1,2,2-Tetrachloroethane	0.44
66	(64)	Tetrachloroethylene	1.7
67	(65)	Toluene	500
68	(66)	Toxaphene	0.075
69	(67)	1,1,1-Trichloroethane	50
70	(68)	1,1,2-Trichloroethane	1.5
71	(69)	Trichloroethylene	7.8

1	(70)	2,4,6-Trichlorophenol	4.4
2	(71)	2,4,5-TP (Silvex)	13
3	(72)	Vinyl chloride	0.037
4	(73)	Xylene	110
5			

6 G. If an intervention limit established under items
7 E, F, and H is exceeded in ground water at any location where
8 the facility's impacts are monitored, the owner or operator must
9 take the following actions:

10 (1) immediately notify the commissioner in
11 writing;

12 (2) immediately resample if previous samples at
13 the facility did not exceed the intervention limits;

14 (3) evaluate the need to resample if previous
15 samples exceeded the intervention limits;

16 (4) evaluate the significance of the exceedance
17 and the source or cause of the constituents exceeding the
18 intervention limits;

19 (5) evaluate the need for immediate corrective
20 action to prevent pollutant concentrations from approaching or
21 exceeding standards at the compliance boundary, surface water
22 compliance boundary, or lower compliance boundary;

23 (6) evaluate the need for changes in water
24 monitoring, including sampling frequencies, constituents
25 analyzed, and installation of additional monitoring points;

26 (7) within 30 days after obtaining the sample
27 results in which an intervention limit was exceeded, submit a
28 written report to the commissioner describing the evaluations
29 and conclusions under subitems (2) to (6) and the actions taken
30 or planned under subitem (8); and

31 (8) take other actions described in the
32 facility's contingency action plan and as required in subpart 15
33 and part 7035.2615.

34 H. In lieu of the intervention limits and standards
35 under items E and F, the commissioner may establish alternative
36 standards and intervention limits in the facility permit as
37 follows:

38 (1) If the concentration of any constituent in

1 the background ground water at a facility is greater than a
2 standard or intervention limit established in this subpart, the
3 background concentration of the constituent must be used as the
4 standard or intervention limit. For purposes of this subitem,
5 background refers to the condition of ground water that has
6 experienced no change in quality due to migration of
7 constituents from the facility. If the background water quality
8 is inadequately defined, the commissioner may require additional
9 evaluation including sampling, statistical analysis of sampling
10 data, and installation of additional monitoring points. The
11 commissioner may alter the alternative standards or intervention
12 limits if background water quality is changing due to actions or
13 events occurring outside the facility property and beyond the
14 owner's or operator's control.

15 (2) Upon request by the owner or operator, the
16 commissioner may establish alternative limits for some or all
17 substances for portions of a facility filled before the
18 effective date of parts 7035.2525 to 7035.2815. Unless approved
19 by the agency, or by the commissioner as provided in subitem
20 (1), the alternative limits must not exceed four times the
21 concentrations given in item F. The owner or operator must have
22 completed a remedial investigation study evaluating the extent
23 and severity of ground water pollution at the facility and a
24 feasibility study evaluating the feasibility and the
25 environmental and economic costs, risks, and benefits of the
26 possible alternative corrective actions. The alternative
27 approaches must include corrective actions intended to achieve
28 compliance with the standards under items E and F and at least
29 one additional approach intended to maintain ground water
30 concentrations lower than four times the concentrations under
31 item F. The feasibility study also must evaluate the pollutant
32 concentrations that would remain in ground water after
33 corrective action and the extent to which the use of these
34 alternative limits may adversely affect the immediate and future
35 use of ground water downgradient from the facility.

36 (3) If the quality of a public water supply is

1 potentially affected by migration of leachate from a facility,
2 and if the maximum contaminant level for a substance as defined
3 and established under either chapter 4720 or under the National
4 Primary Drinking Water Regulations, Code of Federal Regulations,
5 title 40, part 141, is a lower concentration than the standard
6 under items E and F, the commissioner may use the maximum
7 contaminant level as the alternative standard and alternative
8 intervention limit for that substance.

9 (4) If a substance is present in ground water at
10 a facility, and if that substance is known to impart undesirable
11 taste or odor to drinking water, the commissioner may upon the
12 recommendation of the Minnesota commissioner of health establish
13 alternative limits to avoid these taste and odor effects.

14 (5) If a substance not listed in item F is
15 present in ground water at a facility and is determined by the
16 Minnesota commissioner of health to be potentially harmful to
17 health, the commissioner may establish alternative limits for
18 that substance. Except as provided elsewhere in this subpart,
19 the alternative limits shall be 25 percent of the concentration
20 given in unit (a) or (b):

21 (a) For a substance not classified by the
22 United States Environmental Protection Agency as Group A (human
23 carcinogen) or Group B (probable human carcinogen), the
24 recommended allowable limit, as determined by the Minnesota
25 commissioner of health; or

26 (b) For a substance classified by the United
27 States Environmental Protection Agency as a Group A or Group B
28 carcinogen, either the concentration corresponding to a risk of
29 one additional case of cancer per 100,000 adults consuming the
30 water over a lifetime, as estimated by the United States
31 Environmental Protection Agency and the Minnesota commissioner
32 of health, or the recommended allowable limit under unit (a),
33 whichever is lower.

34 (6) If a substance which has a standard or an
35 alternative standard under subitems (2) to (5) is present in
36 ground water at a facility, and if the recommended allowable

1 limit or the concentration corresponding to the one-in-100,000
2 cancer risk under subitem (5) is changed, the commissioner may
3 establish alternative limits for that substance. The
4 alternative limits shall be 25 percent of the concentration
5 given in subitem (5), unit (a) or (b), whichever is applicable.

6 I. If a substance is not detected in a sample and the
7 limit of detection is higher than the intervention limit or
8 standard for that substance, the intervention limit or standard
9 will not be assumed to have been attained or exceeded.

10 J. The commissioner, after investigation and
11 evaluation, may require the owner or operator to implement the
12 facility contingency action plan and to take corrective action
13 under the following circumstances, even if a standard or
14 intervention limit established under this subpart is not being
15 exceeded:

16 (1) in the event of a substantial release of
17 leachate that the commissioner may reasonably expect to result
18 in a violation of water quality standards; or

19 (2) based on the additive carcinogenicity or
20 toxicity of a combination of pollutants in the ground water, in
21 lieu of the limits for individual substances under items E, F,
22 and H. The additive carcinogenicity or toxicity must be
23 computed using the approach given in "Guidelines for the Health
24 Risk Assessment of Chemical Mixtures," Federal Register, Volume
25 51, pages 34014-34025, September 24, 1986. Where quantification
26 using this approach is feasible, the commissioner may require
27 response actions if the sum total risk of consuming the water
28 over a lifetime would exceed either 2.5 additional cases of
29 cancer in a population of 1,000,000 persons or for
30 noncarcinogens, 25 percent of the acceptable concentration for
31 long-term consumption.

32 Subp. 5. Design requirements. The design requirements for
33 a mixed municipal solid waste land disposal facility are as
34 follows:

35 A. The owner or operator must develop an engineering
36 report for the site. The report must include specifications for

1 site preparation. The report shall be submitted with the final
2 permit application required under part 7001.3300. These
3 specifications as they relate to phase development of the
4 facility must be established in the engineering report. Site
5 preparations include clearing and grubbing for disposal areas
6 and building locations, topsoil stripping and storage, cover
7 material excavation, other excavations, berm construction,
8 drainage control structures, leachate collection and treatment
9 system, ground water monitoring system, gas monitoring and
10 collection system, entrance and access roads, screening,
11 fencing, and other special design features.

12 B. The owner or operator must develop the site in
13 phases. Each phase must contain individual cells that will
14 provide for filling in a manner to achieve final waste
15 elevations as rapidly as possible. The phases must be designed
16 and constructed to minimize moisture infiltration into the fill
17 areas while maintaining stable slopes and appropriate operating
18 conditions. The owner or operator must consider seasonal phases
19 in order to accommodate the differences between wet and dry and
20 warm and cold weather operations. The owner or operator must
21 bring each phase to the final waste contours, as shown on the
22 ultimate site development plan, and close the phase according to
23 the approved facility closure plan.

24 C. Any new fill area at a land disposal facility must
25 be located at least 200 feet from the nearest property line,
26 unless otherwise approved by the commissioner based on existing
27 filling procedures, existing site structures, the facility
28 design, compliance boundaries, and existing land restrictions.

29 D. The owner or operator must divert surface water
30 drainage around and away from the site operating area. A
31 drainage control system, including changes in the site
32 topography, ditches, berms, sedimentation ponds, culverts,
33 energy breaks, and erosion control measures, must take into
34 consideration at least the following features:

35 (1) the expected final contours for the site and
36 the planned drainage pattern;

1 (2) the drainage pattern of the surrounding area
2 and the possible effects on and by the regional watershed;

3 (3) the need for temporary structures as filling
4 progresses at the site;

5 (4) the base of each fill area and the top of
6 each lift graded at a minimum two percent slope; and

7 (5) the area's ten-year, 24-hour rainfall.

8 E. The owner or operator must design and maintain
9 slopes and drainageways to prevent erosion, particularly of
10 liner and final cover materials. Slopes greater than 200 feet
11 long must include diversion drainageways unless the commissioner
12 approves a greater distance based on sedimentation run-off
13 calculations, proposed design features and sedimentation control
14 devices. Where water runs off top slopes onto steeper side
15 slopes, the owner or operator must evaluate the need for
16 drainageways around the perimeter of the top slope and flumes or
17 drop structures to prevent erosion of the cover. Drainageways
18 must include energy breaks and concrete or rip rap reinforcement
19 necessary to prevent erosion.

20 F. The owner or operator must provide a sediment
21 settling pond if run-off would otherwise carry excessive
22 sediment off the facility property. The commissioner may
23 require monitoring of water quality within or beneath a
24 sedimentation pond and corrective actions if adverse water
25 quality effects are detected.

26 G. The final contours for the fill area must be a
27 minimum three percent and a maximum 20 percent slope unless the
28 commissioner approves other contours based on existing site
29 topography, design plans, and operating conditions.

30 H. The facility design must include:

31 (1) a cover system in accordance with subpart 6;

32 (2) a liner system in accordance with subpart 7;

33 (3) a leachate collection and treatment system in
34 accordance with subpart 9;

35 (4) a water monitoring system in accordance with
36 subpart 10; and

1 (5) a gas monitoring and collection system in
2 accordance with subpart 11 unless determined to be unnecessary
3 by the commissioner based on the location, waste
4 characteristics, and site characteristics.

5 Subp. 6. Intermittent, intermediate, and final cover
6 system. The owner or operator of a mixed municipal solid waste
7 land disposal facility must design and maintain a cover system
8 capable of minimizing infiltration of precipitation into the
9 fill areas, preventing surface water ponding on fill areas,
10 controlling gas movement, preventing erosion of surface and side
11 slopes, reducing wind erosion and wind blown litter, minimizing
12 the creation and movement of dust, retaining slope stability,
13 reducing effects of freeze-thaw and other weather conditions,
14 maintaining vegetative growth while minimizing root penetration
15 of the low-permeability cover layer, and discouraging vector and
16 burrowing animal intrusion into the site. A complete cover
17 system must consist of intermittent, intermediate, and final
18 covers as outlined in items A to E.

19 A. The owner or operator must place an intermittent
20 cover upon all exposed solid waste in accordance with the
21 approved operation and maintenance manual for the site. The
22 owner or operator shall submit to the commissioner for approval
23 a proposed cover system that addresses the frequency and depth
24 of placement and the material to be used as cover. The
25 frequency of placement may be no less than once per week. The
26 cover depth must be sufficient to cover the waste completely and
27 must be at least six inches if soil or similar material is
28 used. The commissioner, in approving the proposed cover system,
29 must consider the characteristics of the proposed cover
30 material, the characteristics of the solid waste, the leaching
31 potential of the solid waste, the design and operation of the
32 facility, and the potential for nuisance conditions if other
33 than daily cover is proposed.

34 B. The owner or operator must place intermediate
35 cover on all filled surfaces of the facility where no additional
36 solid waste will be deposited within 30 days. The intermediate

1 cover must consist of compacted material of sufficient depth, at
2 least 12 inches-if soil or similar material is used, to cover
3 the waste completely, and graded to prevent surface water
4 ponding.

5 C. The owner or operator of an existing mixed
6 municipal solid waste land disposal facility must comply with
7 the final cover requirements of subitems (1) to (4) if, within
8 18 months after the effective date of parts 7035.2525 to
9 7035.2815, waste will no longer be received and the facility
10 will be closed.

11 (1) The final cover system must be compatible
12 with the end use for the site.

13 (2) The final cover system must be graded to
14 prevent surface water ponding and must have a minimum slope of
15 two percent and a maximum slope no greater than 25 percent.

16 (3) The final cover system must consist of a
17 barrier layer at least 24 inches thick of materials having a
18 permeability not greater than 2×10^{-6} centimeters per second
19 overlain by 12 inches of material of which at least six inches
20 is topsoil capable of sustaining a vegetative cover. A barrier
21 consisting of synthetic materials at least 30/1000 of an inch
22 thick may be used in place of the barrier layer described above.

23 (4) The vegetative cover must consist of
24 shallow-rooted perennial grasses or other suitable vegetation
25 that will not penetrate the barrier layer.

26 D. The owner or operator of a new mixed municipal
27 solid waste land disposal facility or an existing facility or
28 portions thereof that will close or reach final permitted waste
29 elevations more than 18 months after the effective date of parts
30 7035.2525 to 7035.2815 must comply with the requirements of
31 subitems (1) to (9).

32 (1) The final cover system must be compatible
33 with the end use for the site.

34 (2) The final cover system must be designed and
35 constructed to contain or reject at least 90 percent of the
36 precipitation falling on the system.

1 (3) A final cover system comprised of soils or
2 amended soils must consist of at least three layers; a barrier
3 layer, a drainage layer, and a top layer. The barrier layer
4 must be at least 24 inches thick if it consists of soils or
5 amended soils. The drainage layer must be at least six inches
6 thick. The top layer must be at least 18 inches thick, of which
7 at least six inches is topsoil, and of sufficient depth to
8 contain the vegetative roots and have an available water-holding
9 capacity to promote vegetative growth.

10 (4) The barrier layer must have a maximum
11 permeability no greater than 2×10^{-6} centimeters per second.

12 (5) A synthetic membrane may be used as the
13 barrier layer. The membrane must be at least 30/1000 of an inch
14 thick and meet the physical property standards for the material
15 type developed by the National Sanitation Foundation and
16 reproduced in the United States Environmental Protection Agency
17 Manual, "Lining of Waste Impoundment and Disposal Facilities",
18 SW-870, March 1983, Office of Research and Development,
19 Cincinnati, Ohio.

20 (6) The layer of topsoil must be capable of
21 sustaining vegetative cover consisting of shallow-rooted
22 perennial grasses or other suitable vegetation that will not
23 penetrate the barrier layer.

24 (7) In designing the drainage for the final cover
25 system, the owner or operator must consider the need for
26 drainage ditches, pipes, and collection areas to prevent erosion
27 and excessive sediment movement off site. The owner or operator
28 must also consider design and construction techniques needed to
29 maintain the drainage layer in place on the barrier layer.

30 (8) The barrier layer must be placed upon a
31 buffer material covering the waste to protect the barrier layer
32 from damage.

33 (9) The owner or operator must grade the final
34 cover system to achieve a minimum three percent and a maximum 20
35 percent slope, unless the commissioner approves otherwise. The
36 commissioner's approval must consider the ability of the

1 proposal to minimize infiltration and prevent erosion, the
2 design and operational specifications, and the ultimate use for
3 the site. The final cover system must maximize surface water
4 run-off and prevent ponding of surface water.

5 E. The owner or operator must place all cover
6 material for the barrier, buffer, and drainage layers in lifts
7 of no more than six inches and compact the lifts within zero to
8 five percent of optimum moisture content to achieve 95 percent
9 Standard Proctor of maximum density according to the compaction
10 test of subpart 8. The owner or operator must not compact the
11 uppermost six inches to this specification.

12 Subp. 7. **Liner requirements.** Any previously unfilled
13 portion of an existing mixed municipal solid waste land disposal
14 facility or any portion of a new mixed municipal solid waste
15 land disposal facility must be lined. An extension of 18 months
16 from the effective date of parts 7035.0300 to 7035.2875 may be
17 granted by the commissioner to the owner or operator of an
18 existing mixed municipal solid waste land disposal facility
19 provided the owner or operator shows that the liner is
20 unnecessary for that time based on: subsurface geologic
21 conditions; ground water and surface water flow patterns; ground
22 water and surface water quality; depth to ground water; distance
23 to surface water; remaining site capacity; design and
24 construction techniques to be used to mitigate leachate
25 generation; and other site conditions that exist and will
26 minimize impacts on the environment.

27 A liner is not required for existing disposal areas at
28 existing mixed municipal solid waste land disposal facilities
29 that will be expanded vertically. However, a permit for a
30 vertical expansion may be granted by the commissioner only if
31 the owner or operator shows that the expansion will not increase
32 the potential for harm to human health or the environment. The
33 owner or operator shall submit to the commissioner an
34 engineering and hydrogeologic report containing a detailed
35 analysis of the impact the expansion would have on the
36 environment and human health. The report must also contain the

1 design and construction modifications to be used at the facility
2 to minimize impacts on the environment. The report must include
3 a hydrogeologic evaluation as outlined in subpart 3; a
4 feasibility study on minimizing leachate generation, controlling
5 leachate movement, and on treating ground water and surface
6 water pollution; an evaluation of long-term monitoring; and an
7 appropriate adjustment to the financial instruments in place for
8 the facility.

9 The liner installed at a mixed municipal solid waste land
10 disposal facility must comply with the requirements of items A
11 to N. The lined portion of the disposal area must be separated
12 from any existing fill area by low-permeability material to the
13 extent practicable, be designed to collect the additional water
14 movement from the old fill area to the new fill area, and
15 prevent movement of water from the new fill area to the old fill
16 area.

17 A. The liner system in combination with the cover
18 system must achieve an overall site efficiency of 98.5 percent
19 collection or rejection of the precipitation that falls on the
20 disposal area and minimize the amount of leachate leaving the
21 fill site to the soil and ground water system below the site.

22 B. The liner system must be compatible with the waste
23 and leachate.

24 C. The liner must maintain its integrity for the
25 operating life of the facility and the postclosure care period.

26 D. The liner system must consist of at least the
27 following:

28 (1) a smooth, stable subgrade for placement of
29 the barrier liner by means of the placement of protective
30 material over the existing subgrade, the removal of abrasive
31 objects, organic matter, and vegetation in the subgrade, and
32 regrading;

33 (2) a barrier liner capable of containing
34 leachate generated at the facility and surface water that has
35 come in contact with waste; and

36 (3) a drainage layer above the barrier liner to

1 rapidly convey surface water and leachate from the fill area,
2 and to protect the barrier layer from puncture or other
3 disturbances that might disrupt the integrity of the barrier
4 liner.

5 E. A natural soil barrier liner must be at least four
6 feet thick. A synthetic membrane must be at least 60/1000 of an
7 inch thick for an unreinforced membrane or 30/1000 of an inch
8 thick for a reinforced membrane. A synthetic membrane must meet
9 the specifications of the National Sanitation Foundation,
10 Standard Number 4, Flexible Membrane Liners, November 1983, Ann
11 Arbor, Michigan. The synthetic membrane must be placed over a
12 natural soil barrier liner at least two feet thick. The
13 drainage layer must consist of at least 12 inches of suitable
14 soil material or an equivalent synthetic material.

15 F. The barrier liner must have a permeability no
16 greater than 1×10^{-7} centimeters per second. The drainage
17 layer must have a permeability of 1×10^{-3} centimeters per
18 second or greater throughout.

19 G. The base of the liner must be graded to a minimum
20 two percent and a maximum ten percent slope and the side slopes
21 must be no steeper than 25 50 percent.

22 H. The barrier layer must be compacted in lifts no
23 greater than eight inches.

24 I. The drainage layer must cover the base liner and
25 the side slopes.

26 J. The liner must be designed to have a leachate
27 collection efficiency of at least 95 percent of the
28 precipitation falling on the fill area. The efficiency
29 calculation must consider the liner thickness, the liner slope,
30 the saturated hydraulic conductivity of the liner and drainage
31 layer, the drainage layer thickness, the permeability of the
32 drainage layer and liner, the porosity of the drainage layer,
33 the flow distance to collection pipes, and the amount of
34 leachate to be generated and collected based on annual
35 infiltration and ground water inflow.

36 K. An alternative liner system design may be used

1 when approved by the commissioner. The commissioner's approval
2 shall be based on the ability of the proposed liner system to
3 control leachate migration, meet performance standards, and
4 protect human health and the environment.

5 L. The owner or operator of a mixed municipal solid
6 waste land disposal facility must discuss the design of the
7 liner system in the engineering report required in part
8 7001.3475, item D and must address at least the following:

9 (1) the source and quantity of natural soils
10 capable of meeting the requirements of this subpart;

11 (2) the likelihood and consequences of failures
12 caused by puncture, tear, creep, freeze-thaw, thermal stress,
13 abrasion, swelling, extraction, oxidative degradation, exposure
14 to ultraviolet radiation, acidic conditions, concentration of
15 ions, organic constituents, pressure, and the presence of gases,
16 rodents, microbes, and root penetration;

17 (3) the composition of the drainage layer and
18 liner including the soil gradations, percent fines, mineral
19 composition, and solubility under acidic conditions and when in
20 contact with solvents; and

21 (4) the calculations and assumptions used in
22 choosing the particular design proposed for the facility.

23 M. The liner system must be protected from damage
24 during operation of the facility by a method approved by the
25 commissioner.

26 N. The installation of the liner must comply with the
27 construction specifications developed under subpart 12.

28 Subp. 8. Cover and liner evaluation. Soils intended for
29 use as cover or liner material must be evaluated for the
30 following properties as appropriate:

31 A. particle size distribution according to ASTM D421,
32 ASTM D422, and ASTM D2217;

33 B. percent fines according to ASTM D1140;

34 C. Atterberg limits according to ASTM D423, ASTM
35 D424, and ASTM D427;

36 D. specific gravity according to ASTM D854;

- 1 E. soil description according to ASTM D2488;
2 F. soil classification according to ASTM D2487;
3 G. water content according to ASTM D2216 and ASTM
4 D3017;
5 H. compaction according to ASTM D698 or ASTM DM1557;
6 I. consolidation according to ASTM D2435;
7 J. permeability according to ASTM D2434;
8 K. mineralogy according to the American Society of
9 Agronomy and American Society for Testing and Materials;
10 L. unconfined compression according to ASTM D2166;
11 M. triaxial compression according to ASTM D2850;
12 N. cation exchange capacity according to Methods of
13 Soil Analysis, Agronomy Monograph No. 9, C.A. Black, editor,
14 American Society of Agronomy, Madison, Wisconsin, 1965; and
15 O. the nutrient content, pH, and percent organic
16 matter for topsoils used to grow vegetation.

17 Alternative test methods may be used upon written approval
18 by the commissioner.

19 Subp. 9. **Leachate detection, collection, and treatment**
20 **system.** The facility design must include a leachate detection,
21 collection, and on-site or off-site treatment system. The
22 detection system must monitor the level of leachate build-up in
23 the fill area and the effectiveness of the liner system. The
24 collection and treatment system must collect the leachate for
25 proper treatment. If leachate treatment will take place
26 off-site, the owner or operator must provide pretreatment of the
27 leachate, if necessary. The system must comply with items A to
28 K.

29 A. The owner or operator must install the detection
30 system at the lowest elevation of the fill area and throughout
31 the fill area, as necessary, to monitor leachate build-up and
32 for use as a part of the collection system. The detection
33 system must be capable of monitoring leachate build-up in the
34 fill area and consist of collection lysimeters and standpipes
35 capable of monitoring, detecting, and collecting leachate
36 movement through the liner. The detection system must consist

1 of materials compatible with the leachate. The commissioner may
2 approve a detection system without collection lysimeters or
3 standpipes provided the owner or operator shows either to be
4 unnecessary based on the liner system, subsurface soil
5 conditions, ground and surface water flow patterns, depth to
6 ground water, and the amount of leachate generated. The
7 detection system must be designed and constructed to monitor the
8 effectiveness of the leachate storage area.

9 B. The owner or operator must construct a clean-out
10 system capable of cleaning the entire collection system.
11 Clean-out structures must be spaced no more than 500 feet apart.

12 C. The owner or operator must design the size of the
13 collection system in accordance with subitems (1) to (4).

14 (1) The owner or operator must complete a water
15 balance calculation based upon the amount of precipitation,
16 evapotranspiration, surface run-off, soil and waste moisture
17 storage capacity, root zone depth, surface slope, subsurface
18 lateral drainage, and average monthly temperature. The owner or
19 operator must derive the leachate generation rate by calculating
20 the amount of water that percolates through the cover each month
21 using actual data from an average weather year and a year when
22 the precipitation exceeds the average precipitation by at least
23 20 percent. The engineering design report must contain all
24 calculations and assumptions made during the water balance
25 calculation.

26 (2) The size of the fill area the collection
27 system will serve must be considered in determining pipe and
28 storage area sizing.

29 (3) The amount of leachate to be collected must
30 relate to the water balance calculated in subitem (1) and the
31 site efficiency as calculated in subpart 7.

32 (4) In sizing sump pumps to remove leachate from
33 the fill area, the owner or operator must use the storage
34 capacity anticipated in the waste and leachate collection
35 system, the anticipated amount of leachate to be generated, and
36 the amount of leachate moving to the holding area by gravity

1 drains. The pumps must be compatible with the leachate.

2 (5) The storage area must be designed and
3 constructed to drain the system back into the overall leachate
4 collection system to minimize the potential for overflowing of
5 the storage area. The storage design must be capable of
6 detecting leaks, containing the leaks, and minimizing the need
7 for corrective actions.

8 D. The height of free standing liquid over the liner
9 in the fill area must not exceed one foot.

10 E. The unintercepted leachate flow distance along the
11 drainage layer must not exceed 100 feet.

12 F. The design of the collection system must include
13 collection pipes of sufficient diameter to handle the flow and
14 allow cleaning. The pipes must be capable of handling loads
15 experienced during construction and disposal of solid waste.
16 The engineering design report must contain the buckling capacity
17 and compressive strength of the pipe. The pipes must be placed
18 in lined trenches and covered with a suitable filter material or
19 geotextile membrane designed and constructed to encourage flow
20 to the pipe and prevent infiltration of fine-grained soils. The
21 geotextile membrane must not be placed in contact with the
22 collection pipe.

23 G. The collection pipes must be trenched into the
24 barrier liner with the same thickness of liner beneath the pipes
25 as exists elsewhere or be constructed under a positive
26 projection condition.

27 H. The collection system must consist of pipes
28 resistant to chemical and biological breakdown as a result of
29 contact with the leachate.

30 I. The design and construction of the collection
31 system must be coordinated with the planned phase development
32 for the site and the amount and timing of leachate generation.

33 J. The collection system must be designed to allow
34 the collection of leachate samples for chemical analysis.

35 K. The owner or operator must design and construct
36 the collection system to transport leachate into a holding area

1 for testing and treatment prior to disposal, if the holding area
2 is necessary. The owner or operator must design any holding
3 area or treatment system compatible with the leachate and
4 capable of preventing releases of leachate to the environment.
5 The treatment and disposal of leachate must comply with parts
6 7001.0010 to 7001.0210, and 7001.1000 to 7001.1100. The design
7 and construction of a leachate treatment and disposal system
8 must be completed in accordance with a feasibility study
9 conducted by the owner or operator and approved by the
10 commissioner.

11 Subp. 10. **Water monitoring systems.** The owner or operator
12 must design, install, and maintain a water monitoring system in
13 compliance with items A to T.

14 A. A water monitoring system must be installed at a
15 mixed municipal solid waste land disposal facility and must be
16 designed, constructed, and operated:

17 (1) to yield samples that are representative of
18 the water quality in the portions of the ground water, surface
19 water, or unsaturated zone the individual monitoring points are
20 intended to sample;

21 (2) to allow ground water or surface water
22 quality potentially affected by the facility to be distinguished
23 from background water quality;

24 (3) to allow early detection of the release of
25 pollutants from a facility;

26 (4) to allow determination of the composition,
27 areal and vertical extent, concentration distribution, and
28 highest concentrations of pollutants in the ground water or
29 surface water; and

30 (5) to allow determination of whether the
31 facility complies with the ground water performance standards of
32 subpart 4.

33 B. The owner or operator must demonstrate the
34 adequacy of the water monitoring system to reliably detect
35 pollution and to comply with the requirements of this subpart.
36 The numbers, types, locations, and depths of monitoring points,

1 and the separation distances between them, must be designed
2 based on:

3 (1) an evaluation of potential sources of
4 leachate releases, including the leachate collection system,
5 critical or higher-risk areas of the liner, areas of greatest
6 potential buildup of leachate on the liner, leachate tanks, and
7 leachate treatment and holding areas;

8 (2) an evaluation of the hydrogeologic conditions
9 at the facility, including the variability of water quality and
10 the projected paths and rates of migration of leachate from the
11 potential sources identified under subitem (1). This analysis
12 must include both water-soluble and low-solubility components of
13 leachate; and

14 (3) a consideration of the location of any
15 potentially impacted water supply wells, other points of water
16 use, and surface waters.

17 C. Water monitoring systems must include monitoring
18 points situated as follows:

19 (1) Monitoring points must be installed
20 upgradient and downgradient from the facility, with upgradient
21 monitoring points in each aquifer that has a downgradient
22 monitoring point.

23 (2) All monitoring systems must be sufficient at
24 a minimum to allow early detection of the release of leachate
25 from each of the potential sources identified under item B,
26 subitem (1).

27 (3) If pollutants originating from the facility
28 are detected in ground water, the owner or operator shall
29 provide additional monitoring points as necessary to delineate
30 the polluted zone and to measure the facility's compliance with
31 the ground water performance standards of subpart 4.

32 (4) Monitoring points must be installed within
33 aquitards, confining units, and aquifers, as needed, to meet the
34 requirements of this subpart.

35 (5) The commissioner shall require water quality
36 monitoring beneath an aquifer or aquitard that is already

1 affected by leachate unless there is little or no risk to the
2 deeper ground water.

3 (6) Where changes in land use, water use, or
4 other factors have altered ground water flow, the commissioner
5 shall require necessary changes in the monitoring system.

6 D. The owner or operator shall provide monitoring
7 points or instrumentation other than conventional monitoring
8 wells if these installations are needed to fulfill the
9 requirements of this subpart. The commissioner shall require
10 separate monitoring points whenever necessary to monitor
11 conditions other than ground water quality, including hydraulic
12 head, ground water or surface water flow, and leachate quality
13 and movement in the unsaturated zone.

14 E. Before any monitoring point is constructed,
15 sealed, rebuilt, or redeveloped, the owner or operator must
16 submit the design and description of the proposed actions to the
17 commissioner for review and approval. Approval must first be
18 obtained from the Minnesota Department of Health, as required in
19 part 4725.1860, before constructing a monitoring well that
20 extends into any aquifer below the aquifer nearest the ground
21 surface.

22 F. Monitoring wells and piezometers must be designed,
23 constructed, maintained, and sealed in compliance with this
24 subpart and with chapter 4725, Department of Health Water Well
25 Construction Code.

26 G. Monitoring wells must be designed and constructed
27 to function properly over the intended operating life of the
28 well, to prevent vertical movement of ground water and
29 pollutants within and along the well and drill hole, and to be
30 pressure tight without leakage at casing joints.

31 (1) Materials used in well casings, screens, and
32 annular seals must comply with chapter 4725 and must be
33 resistant to corrosion, chemical attack, and other deterioration
34 and must not be subject to penetration by pollutants.

35 (2) The casing and screen must be centered in the
36 drill hole to ensure a continuous seal around the casing.

1 (3) When granular filter packs are used around
2 well screens, they must be of insoluble, nonreactive mineral
3 composition and they must be sized, graded, and washed
4 specifically for use in filter packs. Silica sand must be used
5 for filter packs except where this is infeasible and the
6 commissioner approves other materials.

7 H. The owner or operator must ensure that in all
8 phases of monitoring well construction, drilling, installation,
9 and completion, the methods and materials used do not introduce
10 substances that may interfere with water quality analysis.

11 (1) Drilling fluids, muds, foams, dispersants,
12 disinfectants, other additives, and water from outside the well
13 may be used only if approved by the commissioner. The
14 commissioner may approve their use if they do not interfere with
15 water quality analyses, or if there are no reasonable
16 alternative methods and all feasible methods are used to remove
17 them from the drill hole.

18 (2) Drilling tools and cables and well
19 construction materials must be clean and free of oils, greases,
20 and other contaminants.

21 (3) Equipment contaminated by contact with
22 pollutants in the soil or ground water must be thoroughly
23 cleaned before drilling to greater depths or in other locations.

24 I. Where well construction materials are unsuitable
25 for sampling some substances, the commissioner may allow the
26 owner or operator to install two or more adjacent monitoring
27 points constructed of different materials to allow testing of
28 all required substances.

29 J. Monitoring wells and filter packs must be designed
30 based on the site hydrogeologic characteristics including the
31 permeability and particle size distribution of the formation
32 material at the screen or intake interval.

33 (1) An owner or operator proposing a screen or
34 intake area longer than five feet, or ten feet if the water
35 table intersects the screen or intake, must provide a written
36 justification for the additional length.

1 (2) Monitoring wells must be designed,
2 constructed, and developed to minimize the time needed for water
3 levels to recover after the well is evacuated, to allow water to
4 flow readily into the screen or intake area with low flow
5 velocities through the screen, and to minimize the entry of soil
6 particles into the well.

7 K. Monitoring wells must be clearly and permanently
8 marked with a Minnesota Unique Well Number and, if different
9 from the unique number, the identifying well name or number used
10 in the facility plans, permit, and water quality data records.

11 L. Monitoring wells must be protected from damage and
12 unauthorized access as required under part 4725.1860, subpart 5,
13 except that a locked metal cap must be used. Caps must be kept
14 locked when the well is not being monitored.

15 M. A monitoring well must be developed immediately
16 after installation and, if necessary to minimize the entry of
17 soil particles into the well or to restore well yield, during
18 its operating life. After development, the owner or operator
19 must analyze unfiltered water samples from the monitoring well
20 for suspended solids, and must measure the depth of the well to
21 verify that the well is free of accumulated sediment. The
22 commissioner may require additional measures including
23 additional development or installation of a new monitoring well,
24 where necessary to reduce the entry of sediment into the
25 monitoring well.

26 N. After development, the owner or operator must
27 conduct a stabilization test, recovery rate test, or other
28 appropriate procedure to estimate the rate and length of time
29 the well must be pumped and the volume of water that must be
30 removed before each sampling to ensure that water samples are
31 representative of actual ground water quality.

32 O. Accurate records must be kept of the soil or rock
33 types encountered while installing a monitoring point. The
34 soils logging procedures must meet the requirements for soil
35 borings contained in subpart 3, item F, except that the
36 commissioner may approve alternative procedures upon written

1 request by the owner or operator if these soil logging
2 requirements are unnecessary or infeasible for a particular
3 monitoring point. Where conditions during drilling result in an
4 unanticipated change to a drilling method that does not provide
5 the required soils information, the owner or operator must
6 notify the commissioner and request approval of a change as soon
7 as possible and must submit an explanation of the reason for the
8 change with the construction and installation record required
9 under item P.

10 P. Within 30 days after installing or sealing a
11 monitoring point, the owner or operator shall submit to the
12 commissioner a record of the monitoring point construction or
13 sealing. The record must state the dates when the work was done.

14 (1) For monitoring wells, the construction record
15 must include the soils and well construction log required under
16 item Q; the Minnesota Unique Well Number; a copy of any water
17 well record submitted to the commissioner of health as required
18 by part 4725.6700; logs from any geophysical testing done on the
19 well; well development data; stabilization or recovery rate
20 testing data; suspended solids analyses; any other measurements
21 or testing done on the well including pumping, drawdown, yield,
22 or flow direction tests; and a dated, signed, revised landfill
23 plan sheet showing the surveyed location coordinates of the
24 monitoring well to the nearest foot.

25 (2) The well sealing record must contain the well
26 name, surveyed location, casing diameter and material type, and
27 a Minnesota Unique Well Number; the depth of the well measured
28 immediately before sealing the well; the type and quantity of
29 well seal material used; and how the well seal was installed.
30 If all this information is contained in the report required in
31 part 4725.2700, a copy of this report will suffice.

32 (3) The accuracy and completeness of the records
33 submitted must be verified by a water well contractor licensed
34 under parts 4725.0500 to 4725.1800, or an engineer registered
35 under part 4725.1850. This statement must be accompanied by the
36 individual's name, signature, company, and license or

1 registration number.

2 Q. Unless the commissioner has approved alternative
3 methods under item O, the soils and well construction log must
4 contain the soils information required in subpart 3, item F.
5 The soils and well construction logs may be combined onto one
6 log if the required information can be clearly shown. The well
7 construction log must include a drawing of the well in vertical
8 cross-section, the identification and location of the well, and
9 the following information regarding the well's construction:

10 (1) well casing material type, inside diameter,
11 and casing schedule number, standard dimension ratio, or wall
12 thickness;

13 (2) well screen material type, product name, and
14 description; type and direction of alignment of openings
15 (horizontal or vertical); opening or slot width; and type of
16 screen bottom;

17 (3) the methods and materials used to join
18 sections of casing and screen, casing to screen, and well bottom
19 to screen;

20 (4) granular filter pack manufacturer and, if
21 applicable, product name or number; mineral composition
22 including carbonates or other soluble or reactive minerals;
23 gradations; and quantity of filter pack material used;

24 (5) type of grout or other approved annular seal
25 material, manufacturer and product name, proportions of water
26 and solids in the grout mix, and quantity used;

27 (6) elevation of the top of each casing, surveyed
28 to the nearest 0.01 foot;

29 (7) elevations of the ground surface, protective
30 concrete slab, bottom of the drill hole, top and bottom of any
31 dedicated pump or sampling or measuring device, top and bottom
32 of the screen or intake interval and of each different size or
33 type of casing, each change in the diameter of the drilled hole,
34 and each change in filter pack, annular seal, or other backfill
35 material, as verified by depth measurement of the top of each
36 backfill material;

1 (8) methods of drilling and installation,
2 including type of drilling rig; how the well, filter packs, and
3 grout were installed; description of drilling fluids used; and
4 procedures for cleaning materials or equipment;

5 (9) observations during drilling and
6 installation, including any problems encountered and conditions
7 that may affect the performance of the monitoring well; and

8 (10) type of dedicated pump, sampling device or
9 measuring device including manufacturer and model number,
10 pumping capacity, dimensions, location of intake area, how
11 secured at the desired elevation, type of material used for
12 connecting lines or hoses, and type and location of power source.

13 R. Piezometers that will not be used to measure water
14 quality must comply with items E to G, J to M, O to R, and T.
15 They must be designed and constructed to accurately measure
16 hydraulic head in the portion of the aquifer or formation
17 immediately surrounding the screen or intake area and to
18 minimize the time lag between fluctuations in head outside the
19 piezometer and the inside water level. If the time lag is too
20 large, the commissioner may require pressure transducers or
21 other alternative designs to be used.

22 S. Surface water monitoring points must comply with
23 the following requirements:

24 (1) A permanent marker must be installed on land
25 adjacent to the sampling location. The marker must clearly
26 identify the monitoring station. The commissioner may approve
27 an alternate procedure if a sampling location is outside the
28 permitted property and permission cannot be obtained to install
29 a marker.

30 (2) Monitoring stations in a river or stream must
31 be located upstream of the area of ground water discharge,
32 downstream where the discharge has mixed with the stream flow,
33 and within the area of maximum projected pollutant
34 concentrations in the discharging ground water.

35 (3) Within 30 days after establishing a surface
36 water monitoring station, the owner or operator shall submit to

1 the commissioner a revised landfill plan sheet showing the
2 location and identification of the sampling station and marker.

3 T. Sampling personnel must inspect monitoring points
4 and markers each time the monitoring point is measured or
5 sampled. The owner or operator must inspect monitoring points
6 and markers at least annually. The owner or operator must
7 correct damaged or obstructed monitoring points, or other
8 conditions that interfere with the proper functioning of the
9 monitoring point within the time periods required for monitoring
10 wells in part 4725.1860, subpart 5, item E. The owner or
11 operator must resurvey the elevation of the top of the casing
12 immediately after any change or repair that may have altered its
13 elevation. The owner or operator must revise the well
14 construction log, the monitoring protocol under subpart 14, item
15 H, and the facility plans to show the new elevations, previous
16 elevations, and the date of each change in elevation and submit
17 the revised log and plans to the commissioner within 30 days
18 after the change or repair.

19 Subp. 11. **Gas monitoring, collection, and treatment**
20 **system.** The concentration of any explosive gas must not exceed
21 its lower explosion limit at the property boundary or 25 percent
22 of its lower explosion limit in and around facility structures
23 or any other on-site monitoring point. A gas monitoring,
24 collection, and treatment system must be designed to meet the
25 requirements of items A to G.

26 A. The gas monitoring system, at a minimum, must be
27 capable of monitoring gas build-up in a facility structure and
28 at the property boundary. The commissioner shall establish
29 monitoring requirements (including water quality parameters that
30 indicate gas migration) in the permit, closure document, order,
31 or stipulation agreement. Field inspection to detect odors and
32 signs of vegetative stress, and portable or in-place probes to
33 monitor explosive gases must be included in the monitoring
34 system.

35 B. Gas monitoring probes must be placed between the
36 disposal site and on-site structures or property lines. The

1 probes must be placed no closer to the property line than the
2 compliance boundary defined in subpart 4, item C, to allow for
3 installation of control measures. If the owner or operator
4 believes that monitoring probes are unnecessary or infeasible,
5 the owner or operator shall submit reasons to the commissioner
6 to support this belief. The commissioner will decide on the
7 need for monitoring probes based on the waste characteristics,
8 fill size, surrounding soils, the water table, and the proximity
9 to occupied buildings.

10 C. Probe depths and locations must be based on the
11 soils, site geology, depth of fill, water table, and depth of
12 frost.

13 D. At a minimum, each mixed municipal solid waste
14 land disposal facility must be designed and constructed with gas
15 vents. The number and placement of the gas vents must release
16 gas pressure in the fill area to prevent ruptures of the cover
17 system and to encourage vertical gas migration.

18 E. The gas control systems must extend below the
19 facility to the water table or to a subsurface soil capable of
20 impeding the movement of gas. The gas control system must be
21 located adjacent to the fill area.

22 F. The size of the gas collection system must be
23 based on the volume and type of waste to be received at the
24 site. The owner or operator must determine the need for a gas
25 collection system and discuss in the engineering report how the
26 need was determined. The commissioner shall review the
27 determination during the permit review process and again at
28 closure. Approval of a gas monitoring system without collection
29 at the time of permitting shall not limit future requirements
30 determined necessary by the commissioner based on the volume of
31 gas generated at the facility, the proximity to residential or
32 business property, or problems experienced at the facility in
33 maintaining vegetative growth or accumulation of gas in site
34 structures.

35 G. A gas monitoring program must include sampling and
36 analysis for the amount and type of gas generated. The

1 monitoring program must be included in the operations manual for
2 the facility. The program must account for variation in gas
3 generation and migration due to climatic conditions, variation
4 in the amount of waste in place at the facility, and the length
5 of time the waste has been in place. The operations manual must
6 include the techniques to be used to monitor gas at the site.

7 Subp. 12. Construction requirements. The construction
8 requirements in items A to M must be incorporated into the
9 project specifications for all major design features, at a
10 minimum.

11 A. The owner or operator must notify the commissioner
12 at least seven days before the day construction is expected to
13 begin on the major design features, including phase excavation,
14 phase construction, liner installation, monitoring well
15 installation, and the placement of final cover.

16 B. The construction firm's inspector must record all
17 procedures completed during construction at a mixed municipal
18 solid waste land disposal facility. The record must document
19 that design features were constructed in accordance with parts
20 7035.2525 to 7035.2815 and 7035.2855. This record must include
21 pictures, field notes, and all test results.

22 C. The owner or operator must install a permanent
23 benchmark on-site and show its location on the facility as-built
24 plan.

25 D. The owner or operator must complete tests for
26 compaction, Atterberg limits, grain size distribution, lab and
27 field permeability, and field moisture density, at a minimum, on
28 liners and final covers constructed at the facility to ensure
29 the requirements of subparts 5 to 9 are met. The owner or
30 operator must retain a portion of the field-molded and
31 field-compacted samples of liners and the final cover layers
32 until the construction certification is complete.

33 E. Unless otherwise noted in subparts 5 to 9, the
34 minimum permissible cover slope is three percent and the maximum
35 permissible cover slope is 20 percent.

36 F. As horizontal phases are installed, the liner must

1 be joined to existing liners.

2 G. Flexible membranes must be installed during dry
3 conditions. The seams joining membrane panels must be inspected
4 as construction proceeds. Seams must be air tested and field
5 seams must be tested for tensile strength. All flexible
6 membranes must be protected after placement. The natural layer
7 above and below the barrier layer must be free of roots, sharp
8 objects, rocks, or other items that might puncture the liner.

9 H. Barrier liners constructed of in situ soils must
10 be formed by scarifying and recompacting these soils.

11 I. All pipe used in constructing the leachate
12 collection system must be tested for deformations. The
13 allowable pipe deflection is five percent.

14 J. All pipes exiting the lined area must be fitted
15 with antiseep collars.

16 K. Vegetative growth on liners must be prevented.

17 L. The liner and cover slopes must be surveyed and
18 staked during placement.

19 M. A quality control/quality assurance program must
20 be established for all construction projects. The program must
21 include the tests to be completed during construction. The
22 program also must establish the frequency of inspection and
23 testing, the accuracy and precision standards for the tests,
24 procedures to be followed during inspections and sample
25 collection, and the method of documentation for all field notes
26 including testing, pictures, and observations.

27 Subp. 13. Operation and maintenance requirements. A mixed
28 municipal solid waste land disposal facility must be operated by
29 a certified operator, as defined in parts 7048.0100 to
30 7048.1300. A certified operator must be present during the time
31 that the facility is open to accept waste. The facility
32 operations must meet the requirements of items A to W, at a
33 minimum.

34 A. Solid waste must be spread and compacted in layers
35 two feet or less in depth.

36 B. All mixed municipal solid waste must be sloped to

1 promote drainage off the fill area.

2 C. The waste must be covered in accordance with the
3 approved intermittent cover system required in subpart 6.

4 D. When no solid waste will be placed on a fill area
5 for 30 days or more, intermediate cover, as defined in subpart
6 6, item B, must be spread and compacted over the waste.

7 E. Each fill phase, upon reaching final permitted
8 waste elevations, must be covered in accordance with subpart 6,
9 item C or D, as appropriate.

10 F. Each fill phase must be outlined with grade stakes
11 and approved by the commissioner in accordance with subpart 12
12 before the deposition of any waste.

13 G. Resource recovery operations must be confined to
14 the designated areas approved in the facility permit. Storage
15 areas must be kept as small as practical, must be marked with
16 signs, and must not interfere with normal mixed municipal solid
17 waste disposal operations.

18 H. A mixed municipal solid waste land disposal
19 facility must not be used to store more than 10,000 waste tires
20 above ground or to process more than 500 waste tires unless a
21 waste tire facility permit is obtained by the owner or operator
22 as required under Minnesota Statutes, sections 115A.90 to
23 115A.914.

24 I. The facility must be inspected in accordance with
25 the schedule approved by the commissioner for at least the
26 following items: uncontrolled vegetative growth, soil erosion
27 on slopes and completed areas, vandalism on the monitoring
28 systems, rodents and burrowing animals, malfunctions in the
29 leachate and gas detection and collection systems, and
30 settlement in completed areas.

31 J. All leachate must be sampled and analyzed in
32 accordance with subparts 9 and 14.

33 K. The leachate collection system must be cleaned
34 annually.

35 L. The amount of leachate collected must be monitored
36 and recorded.

1 M. Corrective actions must be implemented to repair
2 any conditions not in compliance with parts 7035.2525 to
3 7035.2815.

4 N. Dead animals must be disposed of under chapter 35.

5 O. Demolition debris and construction waste may be
6 deposited in an area separate from the mixed municipal solid
7 waste.

8 P. Sampling and analysis of ground water must be
9 completed in accordance with subparts 10 and 14.

10 Q. Gas monitoring must be completed in accordance
11 with subpart 11.

12 R. Procedures for operating the facility during wet
13 weather conditions must provide protection for liners, covers,
14 and other design features that might be disrupted by additional
15 loads in a saturated condition.

16 S. The fill area must be surveyed annually before
17 November 1 by a land surveyor registered in Minnesota. An
18 updated existing conditions plan must be submitted with the
19 annual report required in part 7035.2585. The plan must show
20 the elevations of completed fill areas, areas partially filled,
21 and all design features that changed in elevation due to
22 facility operations or settlement. The remaining fill capacity
23 must be calculated and shown on the plan.

24 T. All trenches or area fills must be staked with
25 permanent markers.

26 U. All lined areas must have at least six feet of
27 solid waste in-place on the liner by December 31 of each year.
28 No disposal may take place on uncovered areas after December 31
29 without testing the liner integrity and approval granted by the
30 commissioner.

31 V. All closure costs expended under part 7035.2625,
32 all postclosure care cost expenditures made under part
33 7035.2645, and all corrective action expenditures made under
34 part 7035.2615 must be recorded and maintained in the operating
35 record.

36 W. The sequence and direction of below-grade

1 operations must be conducted to prevent surface water from
2 entering the fill area.

3 Subp. 14. **Sampling and analysis.** The owner or operator
4 must ensure that sampling and analyses for pollutants are
5 conducted in compliance with items A to Q.

6 A. The owner or operator must monitor ground water
7 quality and, where required in permits, orders, and stipulation
8 agreements, surface water quality and leachate quality. This
9 monitoring must comply with parts 7035.2525 to 7035.2875,
10 7050.0150, and 7060.0800, and the agency-issued facility permit.

11 B. The commissioner shall establish the requirements
12 for monitoring water quality and leachate quality for each
13 facility, including sampling locations, sampling schedule,
14 constituents to be analyzed, and other necessary sampling
15 procedures. The owner or operator must provide information
16 needed to establish the requirements and to support any
17 conditions proposed by the owner or operator. In establishing
18 the monitoring requirements, the commissioner must consider at
19 least the following factors:

20 (1) the presence of pollutants in previous
21 samples, the extent and severity of ground water and surface
22 water effects from the facility, the facility's compliance with
23 water quality standards, including the ground water performance
24 standards of subpart 4, and the evaluation under subpart 4, item
25 F, subitem (5), if applicable; and

26 (2) facility location, design, operation,
27 composition of the waste stream and leachate, ground water flow
28 directions and rates, aquifer thickness, depth, and degree of
29 natural protection, seasonal variations in water quality,
30 surface water flow conditions, and downgradient or downstream
31 water resources and water users.

32 C. Until the commissioner has established
33 facility-specific monitoring requirements under item B, the
34 owner or operator must comply with the monitoring requirements
35 of this item. Water quality monitoring points at the facility
36 must be sampled at least three times per year at the times

1 specified in the facility permit. For one of the three sampling
 2 events, the owner or operator must provide the field
 3 measurements, laboratory analyses, and field and laboratory
 4 observations listed in subitems (1) and (2) for all ground water
 5 monitoring points. For the other two sampling events, the owner
 6 or operator must provide only the measurements and observations
 7 listed in subitem (2) for all ground water monitoring points.
 8 Where existing monitoring points may be unsuitable for sampling
 9 some or all of the listed substances, the commissioner may make
 10 appropriate changes in the monitoring requirements.

11 (1) Table 1:

12 (a) Alkalinity, total as calcium carbonate;
 13 (b) Ammonia Nitrogen;
 14 (c) Arsenic, dissolved;
 15 (d) Cadmium, dissolved;
 16 (e) Calcium, dissolved;
 17 (f) Chloride;
 18 (g) Chromium, total dissolved;
 19 (h) Copper, dissolved;
 20 (i) Dissolved Solids, total;
 21 (j) Eh (oxidation potential) (a);
 22 (k) Iron, dissolved;
 23 (l) Lead, dissolved;
 24 (m) Magnesium, dissolved;
 25 (n) Manganese, dissolved;
 26 (o) Mercury, dissolved;
 27 (p) Nitrate + Nitrite, as N;
 28 (q) Potassium, dissolved;
 29 (r) Sodium, dissolved;
 30 (s) Sulfate;
 31 (t) Suspended Solids, total;
 32 (u) Zinc, dissolved; and
 33 (v) Cation-anion balance.

34 (2) Table 2:

35 (a) Appearance (b);
 36 (b) pH (a);
 37 (c) specific conductance (a);
 38 (d) Temperature (a);
 39 (e) Water elevation (c); and
 40 (f) Volatile organic chemicals,
 41 halogenated and nonhalogenated (d):

42 Halogenated:

43 Allyl chloride
 44 Bromodichloromethane
 45 Bromoform
 46 Bromomethane
 47 Carbon tetrachloride
 48 Chlorobenzene (monochlorobenzene)
 49 Chloroethane
 50 Chloroform
 51 Chloromethane
 52 1,2-Dichlorobenzene
 53 1,3-Dichlorobenzene
 54 1,4-Dichlorobenzene
 55 Dichlorodifluoromethane
 56 1,1-Dichloroethane

1 1,2-Dichloroethane
 2 1,1-Dichloroethylene
 3 cis-1,2-Dichloroethylene
 4 trans-1,2-Dichloroethylene
 5 Dichlorofluoromethane
 6 Dichloromethane (methylene chloride)
 7 1,2-Dichloropropane
 8 1,1,2,2-Tetrachloroethane
 9 Tetrachloroethylene
 10 1,1,1-Trichloroethane
 11 1,1,2-Trichloroethane
 12 Trichloroethylene
 13 Trichlorofluoromethane
 14 1,1,2-Trichlorotrifluoroethane
 15 Vinyl Chloride

16
 17 **Nonhalogenated:**

18
 19 Acetone
 20 Benzene
 21 Cumene
 22 Ethylbenzene
 23 Ethyl ether
 24 Methyl ethyl ketone
 25 Methyl isobutyl ketone
 26 Tetrahydrofuran
 27 Toluene
 28 m-Xylene
 29 o-Xylene
 30 p-Xylene

31 **Footnotes:**

32 (a) Two measurements: in field, immediately after obtaining
 33 sample, and in laboratory.
 34 (b) Visual observation, in field and laboratory, noting con-
 35 ditions such as the following, if present: color, cloudiness,
 36 floating films, other liquid or gas phases, odor.
 37 (c) As measured in field before pumping or bailing.
 38 (d) Purge and trap method.

39

40 D. In addition to the constituents listed in item C,
 41 the commissioner may require monitoring of:

42 (1) substances with standards or alternative
 43 standards under subpart 4 or other constituents that can, if
 44 consumed or contacted, adversely affect public health, public
 45 safety, or the environment;

46 (2) constituents that can adversely affect the
 47 taste, odor, or appearance of water or otherwise adversely
 48 affect the public welfare;

49 (3) major dissolved ions;

50 (4) constituents or properties of water that may
 51 be indicators of water pollution;

52 (5) substances that may cause analytical
 53 interference or otherwise affect water quality determinations;

54 (6) properties related to the movement of

1 pollutants, including hydraulic head in the saturated or
2 unsaturated zones;

3 (7) in surface waters, bed sediments, aquatic
4 organisms, and other media, and stream discharge rates; and
5 (8) leachate composition and leachate release
6 rates in the unsaturated zone beneath a land disposal facility.

7 E. The owner or operator must determine the initial
8 water quality in new monitoring points and monitoring systems,
9 including the range of seasonal variation in water quality. The
10 commissioner shall establish sampling frequencies, analytical
11 constituents, and other conditions for the initial water quality
12 monitoring based on the site's ground water flow conditions and
13 known water quality. For new facilities and expansions,
14 background monitoring must be continued at least quarterly until
15 waste disposal activity begins.

16 F. The owner or operator shall submit only samples
17 collected by persons who have received training in ground water
18 sampling and, if applicable, surface water sampling. This
19 training must cover the procedures established under items G to
20 L for the required classes of analytical constituents, such as
21 volatile organics or dissolved metals.

22 G. The owner or operator of a mixed municipal solid
23 waste land disposal facility must develop and keep current a
24 written monitoring protocol for the facility and must ensure the
25 protocol is followed during sampling and sample analysis.

26 (1) The monitoring protocol must describe in
27 detail the sampling and sample transportation procedures under
28 items H to L and the analytical procedures under items M to O.

29 (2) The monitoring protocol must be submitted for
30 the commissioner's approval and must be included in a section of
31 the operations manual required under part 7001.3475.

32 (3) The protocol must be revised immediately to
33 reflect any changes in the monitoring system, field or
34 analytical procedures, sampling personnel, or analytical
35 laboratory. The monitoring protocol must be reviewed at least
36 annually by the owner or operator, sampling personnel, and

1 analytical laboratory and revised as needed. Revisions of the
2 monitoring protocol must be submitted to the commissioner upon
3 written request or as specified in the facility permit, order,
4 or stipulation agreement. Dated records of past protocol
5 language must be retained throughout the operating life of the
6 facility and the postclosure period.

7 (4) If necessary to assure confidence in the
8 monitoring results, the commissioner shall establish specific
9 procedures and quality control requirements to be used at the
10 facility and incorporated into the monitoring protocol,
11 including as appropriate:

12 (a) acceptable limits for precision,
13 accuracy, and other measures of the reliability of the field
14 procedures and analytical results;

15 (b) conditions for and frequencies of use of
16 quality control samples, measurements, or procedures in the
17 field or analytical laboratory; and

18 (c) the use of gas chromatograph/mass
19 spectrometer or other analytical procedures to achieve positive
20 identification and quantification of analytical constituents.

21 H. At a minimum, the field portions of the monitoring
22 protocol must include the following:

23 (1) monitoring point locations and elevations,
24 and the order in which monitoring points are to be sampled;

25 (2) all tests, measurements, and procedures
26 needed at each monitoring point, and the order in which these
27 procedures will be carried out;

28 (3) equipment and containers to be used,
29 procedures and precautions for their use; precautions to avoid
30 introducing contaminants from outside sources into monitoring
31 wells or samples; and when and how equipment must be cleaned
32 between uses;

33 (4) procedures for evacuating each monitoring
34 well before each sampling;

35 (5) if required, procedures for sampling surface
36 water monitoring points, including exact sampling locations and

1 depths, and for sampling leachate;

2 (6) quality control procedures to identify
3 outside sources of contamination and sampling error, including
4 types and numbers of quality control samples to be used in the
5 field and during transport and handling procedures for these
6 samples;

7 (7) procedures and criteria for field filtration
8 of samples;

9 (8) sample preservation, including preservatives
10 and temperature control requirements;

11 (9) procedures for sample labeling, sample
12 handling and storage at the facility, and transport to the
13 laboratory;

14 (10) chain-of-custody procedures; and

15 (11) procedures, measurements, and observations
16 to be recorded as required under item L.

17 I. The equipment, materials, and procedures used in
18 well evacuation, sampling, and subsequent sample handling must
19 minimize contamination, turbulence, water contact with air, gas
20 exchange, depressurization, adsorption, desorption, chemical
21 reaction, or other alteration of the composition of the water
22 sample.

23 J. Before evacuating and sampling a monitoring well,
24 the elevation of the water surface or potentiometric surface
25 must be measured to the nearest 0.01 foot. Before sampling, the
26 well must be evacuated using a stabilization or recovery rate
27 test or other procedure developed based on the initial testing
28 done under subpart 10, item N.

29 K. The commissioner shall require filtration of
30 samples wherever necessary to obtain sediment-free samples
31 representative of actual ground water conditions. Filtration
32 must be done at the monitoring point location using in-line
33 methods or other procedures that minimize the loss of dissolved
34 constituents from solution.

35 L. At the time of sampling, the persons conducting
36 the sampling must record their procedures, measurements, and the

1 condition of the monitoring point. The field records must be
2 sufficient to document whether the procedures under items G to K
3 have been followed. The records must contain the names of the
4 persons conducting the sampling, the time and date each
5 monitoring point was sampled, water elevations and other
6 required field measurements, and the evacuation procedures and
7 test results before sampling. The owner or operator must retain
8 the field records throughout the operating life of the facility
9 and the postclosure period.

10 M. Water quality analyses must be performed using
11 methods acceptable to the commissioner based on their
12 performance record, reliability, sensitivity, precision, and
13 accuracy. Analytical methods and quality control procedures
14 must be chosen to yield accurate results within the range of
15 concentration and composition of the samples analyzed. All
16 appropriate actions must be taken to minimize error and to
17 assure the reliability, precision, and accuracy of the
18 analytical results. Where the limit of detection or the limit
19 of quantitation for a substance is higher than the concentration
20 of concern, including the standard or alternative standard
21 established under subpart 4, the commissioner may investigate
22 the feasibility of attaining lower analytical limits and must
23 require lower limits if necessary and feasible.

24 N. The monitoring protocol must contain the
25 analytical and quality assurance procedures that will be
26 followed for all samples originating from the facility. The
27 protocol must include written procedures covering the following
28 areas:

- 29 (1) responsibilities of laboratory personnel;
30 (2) sample containers and preservatives, cleaning
31 of sample containers and sampling equipment, shipment and
32 storage of samples, and sample holding times;
33 (3) analytical methods and laboratory equipment
34 used;
35 (4) for each analytical constituent, the
36 laboratory's measurements of precision and accuracy over a range

1 of concentrations, limit of detection, limit of quantitation,
2 and an explanation of how these quantities were measured;

3 (5) methods used to identify and prevent
4 contamination of samples in the laboratory and during transport;

5 (6) analytical quality control procedures, as
6 required in item O;

7 (7) methods of reviewing and assessing all data
8 for completeness and accuracy;

9 (8) sample retention times after analyses are
10 completed;

11 (9) inspection, testing, and preventive
12 maintenance programs for all laboratory equipment;

13 (10) chain-of-custody procedures;

14 (11) procedures for documentation and retention
15 of quality control results; and

16 (12) continuing education requirements for
17 analytical personnel.

18 O. The quality assurance program under item N must
19 include quality control procedures to assess the reliability,
20 precision and accuracy of the analytical results. The
21 monitoring protocol must describe and state the conditions for
22 and frequencies of use of field and trip blanks, laboratory
23 blanks, calibration standards, internal and external laboratory
24 control samples, laboratory spikes, laboratory duplicates,
25 laboratory replicates, and other quality control procedures.

26 P. The owner or operator shall submit monitoring
27 results to the commissioner by the dates specified by permit,
28 order, or stipulation agreement. The monitoring results must be
29 accompanied by information sufficient to establish the
30 reliability, precision, and accuracy of the reported values,
31 including the following:

32 (1) a certification signed by the sampling
33 personnel, analytical laboratory, and owner or operator stating
34 whether all procedures, from obtaining the samples through
35 completion of the analyses, were performed as described in the
36 approved monitoring protocol; describing any departures from

1 these procedures; and explaining why these departures were
2 necessary;

3 (2) water elevations and other required field
4 measurements and observations, dates and times when each sample
5 was collected and received by the analytical laboratory, and the
6 date each sample was analyzed;

7 (3) analytical results from all blanks;

8 (4) retention times and peak sizes for
9 unidentified substances; and

10 (5) if required by the commissioner, additional
11 information needed to establish the validity of the analytical
12 results, including precision and accuracy data from the batch of
13 samples in which each sample was analyzed, limits of
14 quantitation, limits of detection, and results from other
15 quality control procedures; chain-of-custody records; and field
16 records under item L.

17 Q. Once a year, in accordance with part 7035.2585,
18 the owner or operator shall submit to the commissioner a summary
19 and discussion of the monitoring results. This annual summary
20 must identify recent and long-term trends in the concentrations
21 of monitored constituents and in water elevations, tabulate the
22 analytical results to date and highlight those that exceeded the
23 ground water performance standards of subpart 4 or surface water
24 quality standards, evaluate the effect the facility is having on
25 ground water and surface water quality, and suggest any
26 additions, changes, or maintenance needed in the monitoring
27 system.

28 Subp. 15. **Contingency action.** The owner or operator must
29 implement the actions necessary to repair site features or to
30 control, recover, or treat polluted ground or surface waters and
31 explosive or toxic gases. The actions must include the measures
32 dictated by the situation and outlined in the contingency action
33 plan developed under part 7035.2615. The contingency action
34 plan developed under part 7035.2615 must include the repair of
35 clogged collection systems, repair of monitoring wells or
36 probes, repair of cover systems, and the repair of liners or

1 holding areas. If the contingency action plan did not
2 anticipate the level of effort required to protect human health
3 and the environment, actions to bring the facility into
4 compliance with parts 7035.2525 to 7035.2805 must include any
5 necessary work beyond that identified in the contingency action
6 plan.

7 Subp. 16. Closure and postclosure care. Closure and
8 postclosure care requirements are as follows:

9 A. Closure of each fill phase must be started within
10 30 days after reaching final permitted waste elevations. After
11 closure of each fill phase, the owner or operator shall submit a
12 closure certification that complies with part 7035.2635, subpart
13 3, indicating that closure has been completed in accordance with
14 parts 7035.2625 and 7035.2635.

15 B. After final closure, the owner or operator must
16 comply with all postclosure requirements contained in parts
17 7035.2645 and 7035.2655, including maintenance and monitoring
18 throughout the postclosure care period specified in part
19 7035.2655 and the closure document. The owner or operator must:

20 (1) restrict access to the facility by use of
21 gates, fencing, or other means to prevent further disposal at
22 the site, unless the site's final use allows access;

23 (2) maintain the integrity and effectiveness of
24 the final cover, including making repairs to the final cover
25 system as necessary to correct the effects of settling,
26 subsidence, gas and leachate migration, erosion, root
27 penetration, burrowing animals, or other events;

28 (3) maintain and monitor the gas and ground water
29 monitoring systems and comply with all other applicable
30 requirements of subparts 11 and 14;

31 (4) continue to operate the leachate collection
32 and removal system;

33 (5) prevent run-on and run-off from eroding or
34 otherwise damaging the final cover;

35 (6) protect and maintain surveyed benchmarks used
36 in complying with subpart 12;

1 (7) survey the facility at least annually to
2 determine the extent of settling, subsidence, erosion, or other
3 events; and

4 (8) submit an annual report to the commissioner
5 as required in part 7035.2585 describing the present conditions
6 and corrective actions taken or needed for subitems (1) to (7);
7 and

8 (9) complete repair work within 30 days of
9 discovery.

10 7035.2825 DEMOLITION DEBRIS LAND DISPOSAL FACILITIES.

11 Subpart 1. **Scope.** The requirements of subparts 2 to 6
12 apply to owners and operators of demolition debris land disposal
13 facilities granted permit-by-rule status under part 7001.3050,
14 subpart 3. The requirements of subparts 7 to 14 apply to owners
15 and operators of demolition debris land disposal facilities
16 required to obtain a permit under part 7001.3050.

17 Subp. 2. **Location standards for permit-by-rule facilities.**
18 Demolition debris land disposal facilities permitted-by-rule
19 must not be located:

- 20 A. on a site with karst features including sinkholes,
- 21 disappearing streams, and caves;
- 22 B. within wetland areas;
- 23 C. within a floodplain area;
- 24 D. within a shoreland area; and
- 25 E. with a water table within five feet of the lowest
- 26 fill elevation.

27 Subp. 3. **Design requirements for permit-by-rule facilities.**
28 Demolition debris land disposal facilities permitted-by-rule
29 must be designed in the following manner:

- 30 A. Site preparation must allow for orderly
- 31 development of the site. Initial site preparations must include
- 32 clearing and grubbing, topsoil stripping and stockpiling, fill
- 33 excavation, if appropriate, drainage control structures, and
- 34 other design features necessary to construct and operate the
- 35 facility.

1 B. The site must be developed in phases to achieve
2 final fill elevations as rapidly as possible. The design of
3 each phase must take into account weather conditions, site
4 drainage, and the waste flow pattern into the site.

5 C. Surface water drainage must be diverted around and
6 away from the fill areas.

7 D. Slopes and drainageways must be designed to
8 prevent erosion. Slopes longer than 200 feet must be
9 interrupted with drainageways.

10 E. Final slopes for the fill area must be a minimum
11 two percent and a maximum 20 percent.

12 F. Final cover must consist of at least two feet of
13 soil with the top 12 inches capable of sustaining vegetative
14 growth.

15 G. Final contours must be consistent with the planned
16 ultimate use for the site.

17 Subp. 4. Operation and maintenance requirements for
18 permit-by-rule facilities. A demolition debris land disposal
19 facility must be operated by a certified operator in accordance
20 with parts 7048.0100 to 7048.1300. The certified operator must
21 be present during the time the facility is open to accept
22 waste. The facility operations must meet the following
23 requirements:

24 A. The waste must be spread and compacted to the
25 extent possible.

26 B. The waste must be covered at least monthly.

27 C. Suitable cover material must be maintained at the
28 site.

29 D. Each phase must be staked for proper grading and
30 filling.

31 E. A minimum separation distance of 50 feet must be
32 maintained between the fill boundaries and the site property
33 line.

34 F. Only demolition debris may be placed in the fill
35 area.

36 G. Waste at the site must be stored in accordance

1 with part 7035.2855.

2 Subp. 5. **Closure and postclosure care for permit-by-rule**
3 **facilities.** The owner or operator must close each phase as it
4 reaches final waste elevations. The cover must consist of at
5 least two feet of soil capable of sustaining vegetative growth
6 and minimizing erosion. After closure, the site must be
7 inspected at least once each year between June and September for
8 settlement and erosion problems. All problems at the site must
9 be corrected within 30 days of the inspection. A site closure
10 record must be completed after closure and submitted to the
11 commissioner. A notation must also be placed on the property
12 deed indicating the site use and location of the waste.

13 Subp. 6. **Notification of permit-by-rule facilities.** The
14 owner or operator of an existing demolition debris land disposal
15 facility shall submit a letter notifying the commissioner of the
16 facility's existence within 30 days after the effective date of
17 this part. The owner or operator of a new facility shall submit
18 such a letter before operations begin. The notification must
19 include the initial date of operation, the type of waste
20 accepted, the capacity of the site, the location of the site,
21 the users of the facility, and the expected date of closure.

22 Subp. 7. **Location standards for permitted facilities.** The
23 owner or operator of a permitted demolition debris land disposal
24 facility must not locate the facility on a site:

25 A. with active karst features including sinkholes,
26 disappearing streams, and caves; or

27 B. where the topography, geology, or soil is
28 inadequate for protection of ground or surface water.

29 Subp. 8. **Design requirements for permitted facilities.**
30 The owner or operator of a permitted demolition debris land
31 disposal facility must include the following items in the
32 facility design.

33 A. Specifications for the site preparation must be
34 included in the permit application completed in accordance with
35 part 7001.3300. Site preparation must allow for the orderly
36 development of the facility. Site preparation specifications

1 must address clearing and grubbing, topsoil stripping and
2 storage, cover material excavation, drainage control structures,
3 and all other design features needed to prepare the site for
4 operation.

5 B. The site must be developed in phases. Each phase
6 must contain individual cells that will provide for filling to
7 final waste elevations. The owner or operator must consider
8 seasonal differences in weather and amount of waste received in
9 determining the length and size of each phase. The owner or
10 operator must bring each phase to the final waste elevations
11 shown on the ultimate development plans and the approved
12 facility closure plan.

13 C. Surface water drainage must be diverted around and
14 away from the site operating area. The drainage control system
15 must take into consideration the expected final contours, site
16 drainage pattern, the need for temporary structures, and other
17 site conditions that might affect site operations.

18 D. Slopes and drainageways must be designed to
19 prevent erosion. Slopes greater than 200 feet must be
20 interrupted with diversion drainageways.

21 E. The final contours of the fill area must be a
22 minimum two percent and a maximum 20 percent slope.

23 F. A cover system must be included in the facility
24 design and must meet the requirements of subpart 11.

25 G. The design must address the need and the
26 specifications developed for a water monitoring system.

27 Subp. 9. Operation and maintenance requirements for
28 permitted facilities. An operator certified under parts
29 7048.0100 to 7048.1300 must be present at the facility during
30 operating hours. The facility operations must meet the
31 requirements of items A to K, at a minimum.

32 A. All wastes must be completely covered on a monthly
33 basis, at a minimum, unless the commissioner requires a
34 different frequency of cover based on the wastes accepted, site
35 operations, and site conditions.

36 B. All wastes must be spread and compacted.

1 C. Suitable cover material must be maintained at the
2 site. If suitable cover is not available on-site, cover
3 material must be delivered to and stockpiled at the site.

4 D. Each fill phase, upon reaching final waste
5 contours, must be covered in accordance with subpart 11.

6 E. Each fill phase must be staked for proper grading
7 and filling.

8 F. The facility must be constructed, operated, and
9 maintained to promote surface water run-off without erosion.

10 G. Surface water drainage must be diverted around and
11 away from the active portion of the facility.

12 H. A minimum separation distance of 50 feet must be
13 maintained between the fill boundaries and the property line.

14 I. Corrective actions must be implemented to repair
15 any conditions not in compliance with parts 7035.2525 to
16 7035.2605.

17 J. Sampling and analysis of ground or surface water
18 must be completed in accordance with subpart 12.

19 K. The disposal area must be surveyed annually prior
20 to November by a land surveyor registered in Minnesota. An
21 updated plan shall be submitted with the annual report required
22 in part 7035.2585. The plan must show the elevations of
23 completed fill areas, partially filled areas, and all pertinent
24 structures.

25 Subp. 10. **Hydrogeologic evaluation.** If a hydrogeologic
26 evaluation is required, the hydrogeologic evaluation must
27 determine the types of soils found on-site, the depth to water,
28 and the general geologic setting. Soil borings must be
29 completed in accordance with part 7035.2815, subpart 3. The
30 commissioner shall base the decision to require a hydrogeologic
31 evaluation on the waste to be disposed of in the facility, the
32 amount of waste disposed of, the size of the facility, known
33 soil conditions, and the known hydrogeologic conditions at the
34 site.

35 Subp. 11. **Cover design.** The cover system must be designed
36 and maintained to prevent erosion of surface and side slopes due

1 to surface water, reduce wind erosion, minimize particulate
2 matter, retain slope stability, and maintain vegetative growth,
3 as appropriate. The cover system must consist of a final cover
4 as outlined in items A to C.

5 A. The final cover must be compatible with the
6 intended end use of the site.

7 B. The final cover must be capable of sustaining
8 vegetative growth, as appropriate.

9 C. The final cover must contain materials consistent
10 with the overall site design.

11 Subp. 12. **Water quality monitoring.** The commissioner may
12 require water quality monitoring for a permitted demolition
13 debris land disposal facility based on the types of waste
14 accepted, site location, site hydrogeology, length of operating
15 life, size of facility, past and existing operational practices,
16 and potential for human health or environmental harm.

17 Subp. 13. **Financial assurance.** The commissioner may
18 require the owner or operator of a permitted demolition debris
19 land disposal facility to obtain financial assurance for the
20 proper operation, closure, postclosure care, and corrective
21 actions at the facility. The commissioner's determination shall
22 be based on the size, site hydrogeology, operating life, past
23 and existing operational practices, and types of waste accepted
24 at the facility.

25 Subp. 14. **Closure and postclosure care of permitted**
26 **facilities.** The owner or operator must close each phase and the
27 entire facility in compliance with the closure and postclosure
28 care plans developed under parts 7035.2625 to 7035.2655.

29 7035.2835 COMPOST FACILITIES.

30 Subpart 1. **Scope.** The requirements of subparts 4 to 9
31 apply to the owners and operators of facilities used to compost
32 solid waste, except as provided in part 7035.2525, subpart 2.
33 The owner or operator of a yard waste compost facility must
34 comply with subparts 2 and 3 only. Backyard compost facilities
35 are exempt from this part.

1 Subp. 2. Notification. The owner or operator of a yard
2 waste compost facility must notify the commissioner by letter
3 before beginning operation of the facility. The notification
4 must include the facility location, the name of the contact
5 person, the phone number of the contact person, the address of
6 the contact person, the facility design capacity, the type of
7 waste received, and the intended distribution of the finished
8 product.

9 Subp. 3. Operation requirements for a yard waste compost
10 facility.

11 A. Odors emitted from the facility must not exceed
12 the limits specified in parts 7005.0900 to 7005.1400.

13 B. Composted yard waste offered for use must be
14 produced by a process that encompasses turning of the yard waste
15 on a periodic basis to aerate the yard waste, maintain
16 temperatures, and reduce pathogens. The composted yard waste
17 must contain no sharp objects greater than one inch in diameter.

18 C. By-products, including residuals and recyclables,
19 must be stored in a manner that prevents vector problems and
20 aesthetic degradation. Materials that are not composted must be
21 stored and removed at least weekly.

22 D. Surface water drainage must be controlled to
23 prevent leachate run-off. Surface water drainage must be
24 diverted from the compost and storage areas.

25 E. The annual report required under part 7035.2585
26 must be submitted to the commissioner and must include the type
27 and quantity, by weight or volume, of yard waste received at the
28 compost facility; the quantity, by weight or volume, of compost
29 produced; the quantity, by weight or volume, of compost removed
30 from the facility; and a description of the end-product
31 distribution and disposal system.

32 Subp. 4. Personnel training program. The owner or
33 operator of a solid waste compost facility shall submit a
34 personnel training program plan for approval with the facility
35 permit application. The plan must address the items in part
36 7035.2545 and the specific training needed to operate a compost

1 facility in compliance with subparts 5 to 9.

2 Subp. 5. Design requirements. The owner or operator of a
3 solid waste compost facility must include the following items in
4 the facility design.

5 A. Specifications for site preparation must be
6 included in the engineering design report developed for the
7 site. Site preparation must include clearing and grubbing for
8 the compost and storage areas, berm construction, drainage
9 control structures, leachate collection system, access roads,
10 screening, fencing, and other special design features.

11 B. Surface water drainage must be diverted around and
12 away from the operating area.

13 C. The composting, curing, and storage areas for
14 uncured compost must be located on surfaces capable of
15 minimizing leachate release into the ground water under the site
16 or onto the surrounding land surface. If natural soils are
17 used, the liner must be at least two feet thick. The liner
18 permeability must not be greater than 1×10^{-7} centimeters per
19 second.

20 D. The leachate collection and treatment system must
21 be designed in accordance with part 7035.2815, subparts 7 to 9,
22 as applicable.

23 E. The facility must be designed and operated to
24 control odors.

25 F. The facility must be designed for collection of
26 residuals from the facility and must provide for the final
27 transportation and proper disposal of the residuals.

28 G. The specific design and performance specifications
29 for the compost facility must be included in the engineering
30 report for the facility and considered in designing the facility
31 layout.

32 Subp. 6. Operation requirements for a solid waste compost
33 facility.

34 A. The owner or operator of a solid waste compost
35 facility must maintain a record of the characteristics of the
36 waste, sewage sludge, and other materials, such as nutrient or

1 bulking agents, being composted including the source and volume
2 or weight of the material. The record must be submitted as part
3 of the annual report required under part 7035.2585.

4 B. Odors emitted by the facility must not exceed the
5 limits specified in parts 7005.0900 to 7005.1040.

6 C. All wastes delivered to the facility must be
7 confined to a designated delivery area and stored and removed at
8 a frequency that prevents nuisances.

9 D. Access to the facility must be controlled by a
10 perimeter fence and gate or enclosed building structures. The
11 ~~gate-must-be-locked~~ All access points must be secured when the
12 facility is not open for business or when no authorized
13 personnel are on site.

14 E. By-products, including residuals and recyclables,
15 must be stored to prevent vector intrusion and aesthetic
16 degradation. Materials that are not composted must be removed
17 at least once per week.

18 F. Run-off water that has come in contact with
19 composted waste, materials stored for composting, or residual
20 waste must be diverted to the leachate collection and treatment
21 system. If the run-off water is held in a holding pond, it must
22 be monitored on a quarterly basis for the parameters listed in
23 item H and for fecal coliforms.

24 G. The temperature and retention time for the
25 material being composted must be monitored and recorded each
26 working day.

27 H. Periodic analyses of the compost must be completed
28 for the following parameters: percentage of total solids;
29 volatile solids as a percentage of total solids; pH; Kjeldahl,
30 ammonia, and nitrate nitrogen; total phosphorus; cadmium;
31 chromium; copper; lead; nickel; zinc; mercury; and
32 polychlorinated biphenyls (PCB). All analyses must be reported
33 on a dry weight basis. The sampling and analysis program must
34 be established in the facility permit based on the facility
35 design, intended end use distribution for the compost, waste
36 composted, and facility operation.

1 I. Quarterly reports must be submitted to the
2 commissioner within 30 days after the end of each calendar
3 quarter and must include: the results of the analyses required
4 in item H; the quantity of solid waste delivered to the
5 facility; sources and quantities of other materials used in the
6 compost process; a description of the process to reduce
7 pathogens; temperature readings; retention time; the quantity of
8 compost produced; quantity and type of by-products removed; and
9 a description of the end-product distribution and disposal
10 system.

11 J. If, for any reason, the facility becomes
12 inoperable, the owner or operator of the facility must notify
13 the commissioner within 48 hours and implement the contingency
14 action plan developed under part 7035.2615.

15 K. Compost must be produced by a process to further
16 reduce pathogens. Three acceptable methods are described in
17 subitems (1) to (3).

18 (1) The windrow method for reducing pathogens
19 consists of an unconfined composting process involving periodic
20 aeration and mixing. Aerobic conditions must be maintained
21 during the compost process. A temperature of 55 degrees celsius
22 must be maintained in the windrow for at least three weeks. The
23 windrow must be turned at least twice every six to ten days.

24 (2) The static aerated pile method for reducing
25 pathogens consists of an unconfined composting process involving
26 mechanical aeration of insulated compost piles. Aerobic
27 conditions must be maintained during the compost process. The
28 temperature of the compost pile must be maintained at 55 degrees
29 Celsius for at least seven days.

30 (3) The enclosed vessel method for reducing
31 pathogens consists of a confined compost process involving
32 mechanical mixing of compost under controlled environmental
33 conditions. The retention time in the vessel must be at least
34 24 hours with the temperature maintained at 55 degrees Celsius.
35 A stabilization period of at least seven days must follow the
36 decomposition period. Temperature in the compost pile must be

1 maintained at least at 55 degrees Celsius for three days during
2 the stabilization period.

3 Subp. 7. **Operation and maintenance manual.** The owner or
4 operator of a solid waste compost facility must prepare an
5 operation and maintenance manual. The manual must contain the
6 design information of subpart 5 and the operation requirements
7 of subpart 6. The manual must list the allowable end uses for
8 the compost and the procedures to be used in sampling and
9 analyzing the compost before distribution.

10 Subp. 8. **Compost classification.** Compost produced at a
11 solid waste compost facility must be classified as Class I or
12 Class II compost based on the criteria outlined in items A and B.

13 A. Class I compost may contain contaminant levels no
14 greater than the levels indicated in subitem (1). The compost
15 must be stabilized in accordance with subitem (2) and contain no
16 greater amounts of inert material than indicated in subitem
17 (3). Class I compost may not be processed with sewage sludge.

18 (1) The allowable average contaminant
19 concentrations in milligram per kilogram on a dry weight basis
20 for a Class I compost are:

21	Contaminant	Concentration
22	PCB	1
23	Cadmium	10
24	Chromium	1000
25	Copper	500
26	Lead	500
27	Mercury	5
28	Nickel	100
29	Zinc	1000

30 (2) Class I compost must be stored for six
31 months, or until the compost is ~~stabilized-and-will-not-reheat~~
32 upon-standing mature. A Class I compost may be stored for a
33 shorter time with the commissioner's approval. The
34 commissioner's approval will be based on the waste composted,
35 the method used to reduce pathogens, and the intended end use
36 for the compost. For the purpose of this subitem, "mature"
37 means more than 60 percent decomposition has been achieved as
38 determined by an ignition-loss analysis.

39 (3) Class I compost may contain inert materials
40 in quantities no greater than the following table based on

1 particle size determined through round hole screens.

2	Particle size	Dry weight percent
3	up to 10 millimeters	1.0
4	up to 16 millimeters	2.0
5	up to 25 millimeters	4.0

6 B. Class II compost consists of any compost generated
7 from a process including sewage sludge or fails to meet the
8 Class I standards.

9 Subp. 9. Compost distribution and end use.

10 A. Compost distributed or marketed as a commercial
11 fertilizer, specialty fertilizer, soil amendment, or plant
12 amendment, as defined in Minnesota Statutes, section 17.713,
13 must be registered with the Minnesota Department of Agriculture.

14 B. Class I compost may be distributed for
15 unrestricted use.

16 C. Class II compost may be distributed on a
17 restricted basis. The commissioner shall determine the
18 appropriate distribution for a Class II compost based on the
19 following characteristics:

- 20 (1) the waste composted;
- 21 (2) the heavy metal contaminant levels found in
22 the finished compost;
- 23 (3) the degree of maturity;
- 24 (4) the extent of decomposition;
- 25 (5) the particle size;
- 26 (6) the moisture content;
- 27 (7) the amount of inert material;
- 28 (8) the proposed end use; and
- 29 (9) the characteristics of the soil at the point
30 of final end use.

31 7035.2845 RECYCLING FACILITIES.

32 Subpart 1. Scope. The owner or operator of a mixed
33 municipal solid waste recycling facility must comply with
34 subparts 2 to 5 6. A recycling facility accepting or processing
35 source-separated wastes in quantities less than ten cubic yards
36 per day must comply with subparts 2 and 3.

37 Subp. 2. Notification. A letter of notification shall be

1 submitted by the owner or operator of a recycling facility to
2 the commissioner within 30 days after the effective date of this
3 part indicating the existence of the recycling facility and
4 describing the materials intended to be handled at the
5 facility. The owner or operator of a new recycling facility
6 shall submit a letter of notification to the commissioner prior
7 to beginning facility operations.

8 Subp. 3. Design requirements. The owner or operator of a
9 mixed municipal solid waste recycling facility must design and
10 construct the facility in a manner that prevents surface water
11 drainage through recyclable or unusable material, contains any
12 spills or releases that could harm human health or cause
13 environmental risks, and provides storage of recyclable
14 materials and residuals. Storage of waste on-site must comply
15 with part 7035.2855.

16 Subp. 4. Operation. The owner or operator of a recycling
17 facility must comply with the operation requirements of items A
18 to C.

19 A. The facility must be operated in a manner that
20 minimizes dust and other windblown material, vermin populations
21 due to improper storage, and other nuisance conditions.

22 B. All residual waste must be removed at least once a
23 week.

24 C. By February 1 of each year, an annual report shall
25 be submitted to the commissioner indicating the type and volume
26 of materials handled at the facility; and the final markets and
27 locations for the materials, including the prices for the
28 materials.

29 Subp. 5. Contingency action plan. The owner or operator
30 must prepare and maintain a contingency action plan for the
31 mixed municipal solid waste recycling facility. The plan must
32 discuss what actions will be taken if a fire, spill, or release
33 occurs at the facility and what back-up system exists if the
34 facility is closed for any period of time.

35 Subp. 6. Closure. The owner or operator of a mixed
36 municipal solid waste recycling facility must properly remove

1 and treat or dispose of all waste and contaminated soil or
2 structures at the time of closure.

3 7035.2855 SOLID WASTE STORAGE STANDARDS.

4 Subpart 1. **Scope.** The requirements of subparts 2 to 6
5 apply to owners and operators of facilities that store solid
6 waste, except as part 7035.2525, subpart 2, provides or as
7 otherwise provided in this subpart.

8 Facilities that store only waste tires are exempt from this
9 part. Solid waste stored prior to beneficial use or reuse
10 according to existing technology for the waste is exempt from
11 this part.

12 The owner or operator of a facility where solid waste is
13 stored inside or within a structure so that neither run-off nor
14 leachate is generated and no liquid wastes or wastes with free
15 liquids are added to the storage area, is not subject to
16 subparts 3 and 4, or part 7035.2565 if:

17 A. the storage area is protected from surface water
18 run-on by the structure or in some other manner;

19 B. the storage area is designed and operated to
20 control dispersion of the waste by wind by means other than
21 wetting; and

22 C. the solid waste will not generate leachate or
23 gases through decomposition or other reactions.

24 Subp. 2. **Locational requirements.** Locational requirements
25 are as follows:

26 A. The storage area must not be located in an area
27 characterized by karst features, including sinkholes, caves, and
28 disappearing streams.

29 B. The storage area, including its underlying liner,
30 must be located entirely above the high water table.

31 Subp. 3. **Design and operation requirements.** The design
32 and operation requirements of a solid waste storage area are as
33 follows:

34 A. A storage area must have a liner that is designed,
35 constructed, and operated to prevent any migration of waste or

1 leachate into the adjacent subsurface soil, ground water, or
2 surface water at any time during the active life, or the closure
3 period, of the facility. The liner must:

4 (1) be constructed of materials that have
5 appropriate chemical properties and sufficient strength and
6 thickness to prevent failure due to pressure gradients,
7 including static head and external hydrogeologic forces,
8 physical contact with the waste or leachate to which it is
9 exposed, climatic conditions, the stress of installation, and
10 the stress of daily operation;

11 (2) have a permeability no greater than 1×10^{-7}
12 centimeters per second and if constructed of natural soils be at
13 least two feet thick;

14 (3) be placed upon a foundation or base capable
15 of providing support to the liner and resistance to pressure
16 gradients above and below the liner; and

17 (4) be installed to cover all earth that may
18 contact the waste or leachate.

19 B. The storage area must have a leachate collection
20 and removal system that is designed, constructed, maintained,
21 and operated to collect and remove leachate from the area. The
22 leachate depth over the liner must not exceed one foot. The
23 leachate collection and removal system must be:

24 (1) constructed of materials that are chemically
25 resistant to the waste managed in the storage area and the
26 leachate expected to be generated, and are of sufficient
27 strength and thickness to prevent collapse under the pressures
28 exerted by overlying wastes, waste cover materials, and any
29 equipment used at the site; and

30 (2) designed and operated to function without
31 clogging through the scheduled closure period.

32 C. The owner or operator must design, construct,
33 operate, and maintain a run-on control system capable of
34 preventing flow onto the storage area during peak discharge from
35 at least a 24-hour, ten-year storm.

36 D. The owner or operator must design, construct,

1 operate, and maintain a run-off management system to collect and
2 control at least the water volume resulting from a 24-hour,
3 ten-year storm.

4 E. Collection and holding facilities, such as tanks
5 or basins, associated with the run-on and run-off control
6 systems must be emptied or otherwise managed after storms to
7 maintain the design capacity of the system.

8 F. If the storage area contains any particulate
9 matter that may be subject to wind dispersion, the owner or
10 operator must cover or otherwise manage the waste to control
11 wind dispersion.

12 Subp. 4. Inspection of liners. Requirements for the
13 inspection of liners are as follows:

14 A. While the storage area is in operation, it must be
15 inspected weekly and after storms to detect evidence of any of
16 the following:

17 (1) deterioration, malfunctions, or improper
18 operation of run-on and run-off control systems;

19 (2) the presence of leachate in and proper
20 functioning of leachate collection and removal systems; and

21 (3) improper functioning of wind dispersal
22 control systems.

23 B. The waste in the storage area must be removed at
24 least annually. When the waste is removed, the liner must be
25 inspected for deterioration, cracks, or other conditions that
26 may result in leaks. The frequency of inspection must be
27 specified in the inspection plan required in part 7035.2535,
28 subpart 3, and must be based on the potential for the liner and
29 base to crack or otherwise deteriorate under conditions of
30 operation, such as waste type, rainfall, loading rates, and
31 subsurface stability. The inspection must include a view of the
32 liner for failures due to puncture, cracking, tearing, or other
33 physical damage from equipment used to place waste in or on the
34 pile or to clean and expose the liner surface for inspection.

35 C. If deterioration, cracks, or other conditions are
36 identified as causing or capable of causing a leak, the owner or

1 operator must notify the commissioner of the condition in
2 writing within seven days after detecting the condition and:

3 (1) repair or replace the liner and obtain a
4 certification from an engineer registered in Minnesota that the
5 liner has been repaired and leakage will not occur; or

6 (2) comply with the requirements of part
7 7035.2615 within the time period specified in the permit.

8 Subp. 5. **Construction inspection.** Construction inspection
9 requirements are as follows:

10 A. Liner and cover systems must be inspected during
11 construction or installation for uniformity, damage, and
12 imperfections. Immediately after construction or installation:

13 (1) synthetic liners and covers must be inspected
14 to ensure tight seams and joints and the absence of tears,
15 punctures, or blisters; and

16 (2) soil-based and admixed liners and covers must
17 be inspected for imperfections including lenses, cracks,
18 channels, root holes, material variability, or other structural
19 nonuniformities.

20 B. The construction of the liner must be certified by
21 an engineer registered in Minnesota in compliance with the
22 approved plans and specifications.

23 Subp. 6. **Closure.** At closure, all solid waste and
24 contaminated portions of the storage area must be removed and
25 properly disposed of or recycled.

26 7035.2865 SOLID WASTE TRANSFER FACILITIES.

27 Subpart 1. **Scope.** The requirements of subparts 2 to 5
28 apply to the owners or operators of solid waste transfer
29 facilities, unless the exception in part 7035.2525, subpart 2,
30 applies.

31 Subp. 2. **Delivery of solid waste.** All solid waste
32 transported from a solid waste transfer facility must be
33 delivered to a facility that has been permitted by the agency.
34 This subpart does not apply to recycled or composted materials
35 delivered to their points of use, unless required under part

1 7035.2835 or 7035.2845.

2 Subp. 3. Notification. The owner or operator of a solid
3 waste transfer facility shall notify the commissioner by letter
4 of the facility location, responsible party and phone number,
5 facility size, and type of waste received.

6 Subp. 4. Operating requirements. The owner or operator of
7 a solid waste transfer facility must comply with the following
8 requirements:

9 A. An operator must be on duty at all times the
10 facility is open.

11 B. Access to the facility must be closed whenever the
12 operator is not on duty.

13 C. All putrescible waste remaining at the facility at
14 the end of the operating day must be stored in an enclosed
15 structure or in leak-, fly-, and rodent-proof containers. The
16 putrescible waste must be removed at least once a week.

17 D. All salvageable and recyclable materials must be
18 containerized unless handled under item H.

19 E. The facility must be cleaned monthly with all
20 residuals properly removed and disposed of.

21 F. No more than 500 tires may be stockpiled at the
22 facility without a separate permit for this purpose in
23 accordance with Minnesota Statutes, sections 115A.90 to 115A.906.

24 G. Adjacent demolition debris land disposal
25 facilities may be established only in accordance with part
26 7035.2825.

27 H. All solid waste shall be confined to the unloading
28 area or other designated processing and storage areas.

29 I. Special provisions shall be made for the storage
30 of bulky items, if accepted at the transfer facility, before
31 transfer.

32 J. Storage of wastes must be in compliance with part
33 7035.2855.

34 Subp. 5. Design requirements.

35 A. An all-weather road negotiable by loaded
36 collection vehicles or other transportation units shall be

1 provided from the entrance gate of the facility to loading and
2 unloading areas.

3 B. Truck wheel curbs and tie downs must be provided
4 if the facility design includes elevated unloading areas.

5 C. The tipping areas, loading and unloading areas,
6 storage areas, and processing areas must be constructed of
7 impervious material that is readily cleanable and suitable to
8 collect free moisture.

9 7035.2875 REFUSE-DERIVED FUEL PROCESSING FACILITIES.

10 Subpart 1. **Scope.** The requirements of subparts 2 to 5
11 apply to the owners and operators of facilities used to produce
12 refuse-derived fuel, unless the exception in part 7035.2525,
13 subpart 2, applies.

14 Subp. 2. **Design requirements.** The design requirements for
15 a refuse-derived fuel processing facility are as follows:

16 A. Specifications for site preparation must be
17 included in the design plans developed for the facility. Site
18 preparations must include drainage control structures, entrance
19 and access roads, screening, fencing, and other special design
20 features.

21 B. Surface water drainage must be diverted around and
22 away from outdoor storage areas.

23 C. Uncovered waste material, processed or
24 unprocessed, must be stored on a surface liner capable of
25 minimizing or eliminating leachate flow out of the area into the
26 ground water under the site or to the surrounding land surface.
27 The liner permeability must not be greater than 1×10^{-7}
28 centimeters per second and natural soil liners must be at least
29 two feet thick.

30 D. An odor control system must be included in the
31 facility design.

32 E. A dust control system must be included in the
33 facility design.

34 F. The facility must be capable of processing
35 incoming solid waste within 24 hours based on the materials flow

1 and balance calculations for the facility.

2 G. The facility must be designed to minimize the risk
3 of explosions, spills, leakages, or releases that might harm
4 human health or the environment.

5 H. The design and performance specifications for all
6 equipment used at the facility must be included in the
7 engineering report.

8 I. The design must provide for handling waste while
9 the facility is down for maintenance or mechanical failures.

10 Subp. 3. **Operation and maintenance manual.** The owner or
11 operator of a refuse-derived fuel processing facility must
12 prepare an operation and maintenance manual and keep the manual
13 at the facility. The manual must contain the information needed
14 to operate the facility properly and meet the following
15 requirements:

16 A. Odors emitted by the facility must not exceed the
17 limits as specified in parts 7005.0900 to 7005.1040.

18 B. Access to the site must be controlled by a
19 complete perimeter fence and gate. The gate must be locked when
20 the facility is not open for business.

21 C. By-products, including residuals and metal
22 fractions, must be stored to prevent vector problems and
23 aesthetic degradation. The by-products must be removed or used
24 at least once a week.

25 Subp. 4. **Contingency plan.** The owner or operator of a
26 refuse-derived fuel processing facility must prepare and
27 maintain a contingency plan. The plan must discuss what actions
28 will be taken if a spill or release occurs at the facility or an
29 explosion or other accident disrupts operations, and what
30 back-up system, including contracts, exists if the facility is
31 closed for any period of time.

32 Subp. 5. **Annual report.** The annual report required under
33 part 7035.2585 must include the types and quantities, by weight,
34 of solid waste accepted at the facility for processing; the
35 quantities, by weight, of refuse-derived fuel processed at the
36 facility and the associated fractions; and a description of the

1 end-product distribution and disposal system.

2

3 REPEALER. Minnesota Rules, parts 7035.0100, 7035.0200,
4 7035.0500, 7035.0900, 7035.1000, 7035.1500, 7035.2000,
5 7035.2100, 7035.2200, 7035.2300, 7035.2400 are repealed.