

1 Pollution Control Agency

2

3 Adopted Permanent Rules Relating to Management of Hazardous
4 Waste

5

6 Rules as Adopted

7 7001.0520 PERMIT REQUIREMENTS.

8 Subpart 1. **Permit required.** Except as provided in subpart
9 2, no person may do any of the following without obtaining a
10 hazardous waste facility permit from the agency:

11 A. to D. [Unchanged.]

12 Owners or operators of surface impoundments, landfills,
13 land treatment units, and waste piles that received wastes after
14 July 26, 1982, or that certified closure according to part
15 7045.0596, subpart 4, after January 26, 1983, must have
16 post-closure permits, unless they demonstrate closure by removal
17 as provided in subparts 5 and 6. If a post-closure permit is
18 required, the permit must address the applicable groundwater
19 monitoring, unsaturated zone monitoring, corrective action, and
20 post-closure care requirements in chapter 7045.

21 Subp. 2. to 4. [Unchanged.]

22 Subp. 5. **Closure by removal.** Owners or operators of
23 surface impoundments, land treatment units, and waste piles
24 closing by removal or decontamination under parts 7045.0552 to
25 7045.0642 must obtain a post-closure permit unless they can
26 demonstrate to the agency that the closure met the requirements
27 for closure by removal or decontamination in part 7045.0532,
28 subpart 7; ~~7045.0536, subpart 8~~; or 7045.0534, subpart 7; or
29 7045.0536, subpart 8. The demonstration may be made in the
30 following ways:

31 A. If the owner or operator has submitted a Part B
32 application for a post-closure permit, the owner or operator may
33 request a determination, based on information contained in the
34 application, that the applicable closure by removal requirements
35 in part 7045.0532, subpart 7; ~~7045.0536, subpart 8~~; or

1 7045.0534, subpart 7; or 7045.0536, subpart 8, were met. If the
2 agency determines that the applicable closure by removal
3 requirements were met, the agency will notify the public of this
4 proposed determination, allow for public comment, and reach a
5 final determination as described in subpart 6.

6 B. If the owner or operator has not submitted a Part
7 B application for a post-closure permit, the owner or operator
8 may petition the agency for a determination that a post-closure
9 permit is not required because closure met the closure by
10 removal requirements in part 7045.0532, subpart 7; 7045.0534,
11 subpart 7; or 7045.0536, subpart 8. The petition must include
12 data demonstrating that the closure by removal or
13 decontamination requirements in part 7045.0532, subpart 7;
14 ~~7045.0536, subpart 8; or~~ 7045.0534, subpart 7; or 7045.0536,
15 subpart 8, were met. The agency shall approve or deny the
16 petition as described in subpart 6.

17 Subp. 6. **Procedures for closure equivalency**
18 **determination.** If a facility owner or operator seeks an
19 equivalency demonstration under subpart 5, the agency will
20 proceed as follows:

21 A. The agency will provide the public, through a
22 notice published in a newspaper of general circulation, the
23 opportunity to submit written comments on the information
24 submitted by the owner or operator. The public comment period
25 will be for 30 days from the date of the notice.

26 B. The agency will hold a public informational
27 meeting if the agency believes that a meeting will clarify the
28 equivalence of the closure to the applicable closure by removal
29 requirements in part 7045.0532, subpart 7; 7045.0536, subpart 8;
30 or 7045.0534, subpart 7. The agency will give public notice of
31 the meeting at least 30 days before the meeting. Public notice
32 of the meeting may be given at the same time as the notice for
33 public comment described in item A, and the two notices may be
34 combined.

35 C. The agency shall determine whether the closure met
36 the applicable closure by removal or decontamination

1 requirements in part 7045.0532, subpart 7; ~~7045.0536, subpart 8,~~
2 ~~or~~ 7045.0534, subpart 7; or 7045.0536, subpart 8, within 90 days
3 of receipt of the equivalency determination request. If the
4 agency determines that the closure did not meet the applicable
5 closure standards, the agency will provide the owner or operator
6 with a written statement of the reasons why the closure failed
7 to meet the applicable requirements. The owner or operator may
8 submit additional information in support of an equivalency
9 ~~determination~~ demonstration within 30 days after receiving the
10 agency's written statement. The agency will review any
11 additional information submitted and make a final determination
12 within 60 days.

13 If the agency determines that the facility did not close in
14 accordance with the applicable closure by removal standards in
15 part 7045.0532, subpart 7; ~~7045.0536, subpart 8,~~ ~~or~~ 7045.0534,
16 subpart 7; or 7045.0536, subpart 8, the facility is subject to
17 post-closure permitting requirements.

18 7001.0560 GENERAL INFORMATION REQUIREMENTS FOR PART B OF
19 APPLICATION.

20 Part B of the application must contain the following
21 information:

22 A. to D. [Unchanged.]

23 E. A copy of the general inspection schedule required
24 by part 7045.0452, subpart 5, item B, including, if applicable,
25 the information set forth in parts 7045.0526, subpart 5;
26 7045.0528, subparts 5 and 7; 7045.0532, subpart 5; 7045.0534,
27 subparts 5 and 6; 7045.0536, subpart 4; 7045.0538, subpart 5;
28 7045.0539, subpart 3; and 7045.0542, subpart 7.

29 F. to K. [Unchanged.]

30 L. A copy of the closure plan and, where applicable,
31 the post-closure plan required by parts 7045.0486, 7045.0490,
32 and 7045.0528, subpart 9, including, if applicable, the specific
33 information in parts 7045.0526, subpart 9; 7045.0528, subpart 9;
34 7045.0532, subpart 7; 7045.0534, subpart 7; 7045.0536, subpart
35 8; 7045.0538, subpart 7; 7045.0539, subparts 2 and 4; and

1 7045.0542, subpart 8.

2 M. to U. [Unchanged.]

3 7001.0625 PART B INFORMATION REQUIREMENTS FOR MISCELLANEOUS
4 UNITS.

5 Except as otherwise provided in part 7045.0539, if the
6 applicant proposes to treat, store, or dispose of hazardous
7 waste in miscellaneous units, the applicant shall furnish the
8 information in items A to E in addition to the information
9 required by part 7001.0560:

10 A. A detailed description of the unit being used or
11 proposed for use, including the following:

12 (1) physical characteristics, materials of
13 construction, and dimensions of the unit;

14 (2) detailed plans and engineering reports
15 describing how the unit will be located, designed, constructed,
16 operated, maintained, monitored, inspected, and closed to comply
17 with the requirements of part 7045.0539, subparts 2 and 3; and

18 (3) for disposal units, a detailed description of
19 the plans to comply with the post-closure requirements of part
20 7045.0539, subpart 4.

21 B. Detailed hydrologic, geologic, and meteorologic
22 assessments and land-use maps for the region surrounding the
23 site that address and ensure compliance of the unit with each
24 factor in the environmental performance standards of part
25 7045.0539, subpart 2. If the applicant can demonstrate that the
26 applicant does not violate the environmental performance
27 standards of part 7045.0539, subpart 2, and the commissioner
28 agrees with the demonstration, then preliminary hydrologic,
29 geologic, and meteorologic assessments will suffice.

30 C. Information on the potential pathways of exposure
31 of humans or environmental receptors to hazardous waste or
32 hazardous constituents and on the potential magnitude and nature
33 of the exposures.

34 D. For any treatment unit, a report on a
35 demonstration of the effectiveness of the treatment based on

1 laboratory or field data.

2 E. Any additional information determined by the
3 commissioner to be necessary for evaluation of compliance of the
4 unit with the environmental performance standards of part
5 7045.0539, subpart 2.

6 7001.0640 ADDITIONAL PART B INFORMATION REQUIREMENTS FOR SURFACE
7 IMPOUNDMENTS, WASTE PILES, LAND TREATMENT UNITS, AND LANDFILLS.

8 Subpart 1. Groundwater protection. The additional
9 information designated in items A to H regarding protection of
10 groundwater is required from owners or operators of hazardous
11 waste facilities containing surface impoundments, waste piles,
12 land treatment units, and landfills, except as otherwise
13 provided in part 7045.0484, subpart 1, item B, and must be
14 submitted with Part B of the permit application. The following
15 information is in addition to the information requirements of
16 parts 7001.0560, 7001.0590, 7001.0600, 7001.0610, and 7001.0620:

17 A. to G. [Unchanged.]

18 H. For each solid waste management unit at a facility
19 seeking a permit:

20 (1) designate the location of the unit on the
21 topographic map required under part 7001.0560, item R;

22 (2) designate the type of unit;

23 (3) provide the general dimensions and a
24 structural description and supply any available drawings;

25 (4) specify when the unit was operated;

26 (5) specify all of the wastes that have been
27 managed at the unit, to the extent available;

28 (6) submit all available information pertaining
29 to any release of hazardous wastes or hazardous constituents
30 from each solid waste management unit at the facility; and

31 (7) conduct and provide the results of sampling
32 and analysis of groundwater, land surface and subsurface strata,
33 surface water, or air, which may include the installation of
34 wells, where the commissioner determines it is necessary to
35 complete a facility assessment that will determine if a more

1 complete investigation is necessary.

2 Subp. 2. [Unchanged.]

3 7045.0020 DEFINITIONS.

4 Subpart 1. to 48. [Unchanged.]

5 Subp. 49. **Landfill.** "Landfill" means a disposal facility
6 or part of a facility where hazardous waste is placed in or on
7 land and which is not a pile, a land treatment facility, a
8 surface impoundment, an underground injection well, a salt dome
9 formation, a salt bed formation, an underground mine, or a cave.

10 Subp. 50. to 58. [Unchanged.]

11 Subp. 58a. **Miscellaneous unit.** "Miscellaneous unit" means
12 a hazardous waste management unit where hazardous waste is
13 treated, stored, or disposed of and that is not a container,
14 tank, surface impoundment, pile, land treatment unit, landfill,
15 incinerator, boiler, industrial furnace, underground injection
16 well, or unit eligible for a research, development, and
17 demonstration permit under part 7001.0712.

18 Subp. 59. to 109. [Unchanged.]

19 7045.0135 LISTS OF HAZARDOUS WASTES.

20 Subpart 1. and 2. [Unchanged.]

21 Subp. 3. **Hazardous waste from specific sources.** Hazardous
22 wastes from specific sources are listed with the industry and
23 hazardous waste number and hazard code in items A to L.

24 A. to G. [Unchanged.]

25 H. Iron and steel:

26 (1) [Unchanged.]

27 (2) K062, spent pickle liquor generated by steel
28 finishing operations of facilities within the iron and steel
29 industry that are classified as number 331 or 332 facilities
30 under the Standard Industrial Classification Manual: (C,T)
31 (1972), which is incorporated by reference. This document is
32 prepared and issued by the Executive Office of the President,
33 Office of Management and Budget, Statistical Policy Division.
34 It is not subject to frequent change. It is available through
35 the Minitex interlibrary loan system.

1 I. to L. [Unchanged.]

2 Subp. 4. Discarded commercial chemical products, off
3 specification species, containers, and spill residues. The
4 following materials or items are hazardous wastes when they are
5 discarded or intended to be discarded as described in part
6 7045.0020, subpart 18; when they are mixed with waste oil or
7 used oil or other material and applied to the land for dust
8 suppression or road treatment; when they are otherwise applied
9 to the land in lieu of their original intended use; when they
10 are contained in products that are applied to the land in lieu
11 of their original intended use; or when, in lieu of their
12 original intended use, they are produced for use as, or as a
13 component of a fuel, distributed for use as a fuel, or burned as
14 a fuel.

15 A. to F. [Unchanged.]

16 Subp. 5. [Unchanged.]

17 7045.0452 GENERAL FACILITY STANDARDS.

18 Subpart 1. to 4. [Unchanged.]

19 Subp. 5. General inspection requirements. General
20 inspection requirements include the following:

21 A. and B. [Unchanged.]

22 C. The frequency of inspection may vary for the items
23 on the schedule. However, it must be based on the rate of
24 possible deterioration of the equipment and the probability of
25 an environmental or human health incident if the deterioration
26 or malfunctions or any operator error goes undetected between
27 inspections. Areas subject to spills, such as loading and
28 unloading areas, must be inspected daily when in use. The
29 inspection schedule must include the terms and frequencies
30 called for in parts 7045.0526, subpart 5; 7045.0528, subparts 4,
31 5, and 7; 7045.0532, subpart 5; 7045.0534, subparts 5 and 6;
32 7045.0538, subpart 5; 7045.0539, subpart 3; and 7045.0542,
33 subpart 7, where applicable. The inspection schedule must be
34 submitted with the permit application. The commissioner shall
35 evaluate the schedule along with the rest of the application to

1 ensure that it adequately protects human health and the
2 environment. As part of this review, the commissioner may
3 modify or amend the schedule as necessary.

4 D. and E. [Unchanged.]

5 7045.0460 LOCATION STANDARDS.

6 Subpart 1. **Floodplains.** A facility located in a 100-year
7 floodplain must be designed, constructed, operated, and
8 maintained to prevent washout of any hazardous waste by a
9 100-year flood unless the owner or operator can demonstrate to
10 the commissioner that the conditions in item A or B are met:

11 A. [Unchanged.]

12 B. For existing surface impoundments, waste piles,
13 land treatment units, landfills, and miscellaneous units, no
14 adverse effects on human health or the environment will result
15 if washout occurs, considering:

16 (1) to (4) [Unchanged.]

17 Subp. 2. and 3. [Unchanged.]

18 7045.0478 OPERATING RECORD.

19 Subpart 1. and 2. [Unchanged.]

20 Subp. 3. **Record information.** All of the following
21 information must be recorded, as it becomes available, and
22 maintained in the operating record until closure of the facility:

23 A. to G. [Unchanged.]

24 H. Monitoring, testing, or analytical data and
25 corrective action where required by parts 7045.0484; 7045.0528,
26 subparts 2, 4, 5, and 7; 7045.0532, subpart 5; 7045.0534,
27 subparts 5 and 6; 7045.0536, subparts 5, 6, and 8; 7045.0538,
28 subparts 5 and 6; 7045.0539, subpart 3; and 7045.0542, subpart 7.

29 I. to L. [Unchanged.]

30 7045.0484 GROUNDWATER PROTECTION.

31 Subpart 1. to 13. [Unchanged.]

32 Subp. 14. **Corrective action program.** An owner or operator
33 required to establish a corrective action program shall perform
34 the following:

1 A. to D. [Unchanged.]

2 E. In addition to the other requirements the owner or
3 operator shall conduct a corrective action program to remove or
4 treat in place hazardous constituents established under subpart
5 4 that exceed concentration limits in groundwater established
6 under subparts 6, 7, and 8:

7 (1) between the compliance point established
8 under subpart 9 and the downgradient property boundary; and

9 (2) beyond the facility boundary, where necessary
10 to protect human health and the environment, unless the owner or
11 operator demonstrates to the satisfaction of the commissioner
12 that, despite the owner's or operator's best efforts, the owner
13 or operator was unable to obtain the necessary permission to
14 undertake the action. The owner or operator is not relieved of
15 all responsibility to clean up a release that has migrated
16 beyond the facility boundary where off-site access is denied.
17 On-site measures to address the releases will be determined on a
18 case-by-case basis.

19 Corrective action measures must be initiated and completed
20 within a reasonable period of time considering the extent and
21 magnitude of contamination. If the owner, operator, or
22 commissioner determines that corrective action measures are not
23 initiated or completed within a reasonable period of time
24 considering the extent and magnitude of contamination, the owner
25 or operator shall cease accepting wastes at the facility.

26 Corrective action measures may be terminated once the
27 concentration of hazardous constituents is reduced to levels
28 below their respective concentration limits at the compliance
29 point and areas downgradient of the compliance point including
30 areas beyond the facility property line.

31 F. to H. [Unchanged.]

32 7045.0485 CORRECTIVE ACTION FOR SOLID AND HAZARDOUS WASTE
33 MANAGEMENT UNITS.

34 Subpart 1. and 2. [Unchanged.]

35 Subp. 3. Corrective actions beyond the facility boundary.

1 The owner or operator must implement corrective actions beyond
2 the facility property boundary, where necessary to protect human
3 health and the environment, unless the owner or operator
4 demonstrates to the satisfaction of the commissioner that,
5 despite the owner's or operator's best efforts, the owner or
6 operator was unable to obtain the necessary permission to
7 undertake the actions. The owner or operator is not relieved of
8 all responsibility to clean up a release that has migrated
9 beyond the facility boundary where off-site access is denied.
10 On-site measures to address the releases will be determined on a
11 case-by-case basis. Assurances of financial responsibility for
12 the corrective action must be provided.

13 7045.0486 CLOSURE.

14 Subpart 1. [Unchanged.]

15 Subp. 2. **Closure performance standard.** The owner or
16 operator shall close the facility in a manner minimizing the
17 need for further maintenance. Closure procedures must result in
18 controlling, minimizing, or eliminating, to the extent necessary
19 to protect human health and the environment, post-closure escape
20 of hazardous waste, hazardous constituents, leachate,
21 contaminated run off, or hazardous waste decomposition products
22 to the ground or surface waters or to the atmosphere, in
23 accordance with the closure requirements, including the
24 requirements of parts 7045.0526, subpart 9; 7045.0532, subpart
25 7; 7045.0534, subpart 7; 7045.0536, subpart 8; 7045.0538,
26 subpart 7; 7045.0539, subparts 2 to 4; and 7045.0542, subpart 8.

27 Subp. 3. **Submittal and contents of closure plan.** The
28 owner or operator of a hazardous waste facility shall submit a
29 closure plan with the permit application, and the closure plan
30 must be approved by the agency as part of the permit issuance
31 procedure. The approved closure plan shall become a condition
32 of any permit. The agency's approval must ensure that the
33 approved closure plan is consistent with subparts 2, 4, and 5,
34 and part 7045.0488, and the applicable closure requirements of
35 parts 7045.0526, subpart 9; 7045.0532, subpart 7; 7045.0534,

1 subpart 7; 7045.0536, subpart 8; 7045.0538, subpart 7;
2 7045.0539, subpart 2; and 7045.0542, subpart 8.

3 A copy of the approved closure plan and all revisions to
4 the plan must be furnished to the commissioner upon request,
5 including request by mail, until final closure is completed and
6 certified. The plan must identify steps necessary to completely
7 or partially close the facility at any point during its intended
8 operating life and to completely close the facility at the end
9 of its intended operating life. The closure plan must at least
10 include all of the following:

11 A. A description of how each hazardous waste
12 management unit will be closed, and how the facility will be
13 finally closed. The description must identify the maximum
14 extent of the operation which will be unclosed during the active
15 life of the facility and how the requirements of subparts 2, 4,
16 and 5, and part 7045.0488, and the applicable closure
17 requirements of parts 7045.0526, subpart 9; 7045.0532, subpart
18 7; 7045.0534, subpart 7; 7045.0536, subpart 8; 7045.0538,
19 subpart 7; 7045.0539, subpart 2; and 7045.0542, subpart 8, will
20 be met.

21 B. to F. [Unchanged.]

22 Subp. 4. to 6. [Unchanged.]

23 7045.0488 CLOSURE ACTIVITIES.

24 Subpart 1. and 2. [Unchanged.]

25 Subp. 3. Disposal or decontamination of equipment,
26 structures, and soils. During the partial and final closure
27 periods, all contaminated facility equipment, structures, and
28 soils must be properly disposed of or decontaminated unless
29 otherwise specified in part 7045.0532, subpart 7; 7045.0534,
30 subpart 7; 7045.0536, subpart 8; or 7045.0538, subpart 7, or
31 under the authority of part 7045.0539, subparts 2 and 4. By
32 removing any hazardous wastes or hazardous constituents during
33 partial and final closure, the owner or operator may become a
34 generator of hazardous waste and must handle that waste in
35 accordance with all applicable requirements of parts 7045.0205

1 to 7045.0304.

2 Subp. 4. [Unchanged.]

3 7045.0490 POST-CLOSURE.

4 Subpart 1. and 2. [Unchanged.]

5 Subp. 3. Post-closure plan; amendment of plan. A copy of
6 the approved plan and all revisions to the plan must be
7 furnished to the commissioner upon request, including request by
8 mail until final closure of the facility. After final closure
9 has been certified, the person or office in item C must keep the
10 approved post-closure plan during the remainder of the
11 post-closure period. For each hazardous waste management unit
12 subject to post-closure care requirements the plan must identify
13 the activities which will be carried on after closure and the
14 frequency of these activities, and it must include at least:

15 A. a description of the planned monitoring activities
16 and frequencies at which they will be performed to comply with
17 parts 7045.0484 and 7045.0532 to 7045.0539 during the
18 post-closure care period;

19 B. a description of the planned maintenance
20 activities and frequencies at which they will be performed to
21 ensure the integrity of the cap and final cover or other
22 containment systems according to parts 7045.0532 to 7045.0539,
23 and the function of the facility monitoring equipment according
24 to parts 7045.0484 and 7045.0532 to 7045.0539; and

25 C. [Unchanged.]

26 7045.0492 POST-CLOSURE CARE AND USE OF PROPERTY.

27 Subpart 1. Post-closure care requirements. post-closure
28 care requirements are as follows:

29 A. Post-closure care of each hazardous waste
30 management unit subject to parts 7045.0490 to 7045.0496 must
31 continue for 30 years after the date of completing closure of
32 the unit and must consist of at least monitoring and reporting
33 according to parts 7045.0484 and 7045.0532 to 7045.0539, and the
34 maintenance of monitoring and waste containment systems,
35 according to parts 7045.0484 and 7045.0532 to 7045.0539.

1 B. to D. [Unchanged.]

2 Subp. 2. to 4. [Unchanged.]

3 7045.0502 COST ESTIMATE FOR FACILITY CLOSURE.

4 Subpart 1. Cost estimate requirements. The owner or
5 operator shall have a detailed written estimate, in current
6 dollars, of the cost of closing the facility in accordance with
7 parts 7045.0486 and 7045.0488 and applicable closure
8 requirements in parts 7045.0526, subpart 9; 7045.0532, subpart
9 7; 7045.0534, subpart 7; 7045.0536, subpart 8; 7045.0538,
10 subpart 7; 7045.0539, subparts 2 to 4; and 7045.0542, subpart
11 8. The closure cost estimate must equal the cost of final
12 closure at the point in the facility's active life when the
13 extent and manner of its operation would make closure the most
14 expensive, as indicated by its closure plan. The closure cost
15 shall be estimated as follows:

16 A. to C. [Unchanged.]

17 Subp. 2. to 4. [Unchanged.]

18 7045.0506 COST ESTIMATE FOR POST-CLOSURE CARE.

19 Subpart 1. Cost estimate requirements. The owner or
20 operator of a facility subject to post-closure monitoring or
21 maintenance requirements shall have a written estimate, in
22 current dollars, of the annual cost of post-closure monitoring
23 and maintenance of the facility in accordance with the
24 applicable post-closure requirements in parts 7045.0490 to
25 7045.0496; 7045.0532, subpart 7; 7045.0534, subpart 7;
26 7045.0536, subpart 8; 7045.0538, subpart 7; and 7045.0539,
27 subpart 4. The post-closure cost estimate is calculated by
28 multiplying the annual post-closure cost estimate by the number
29 of years of post-closure care required under part 7045.0492.
30 The post-closure cost estimate must be based on the costs to the
31 owner or operator of hiring a third party to conduct
32 post-closure care activities. A third party is neither a parent
33 nor a subsidiary of the owner or operator.

34 Subp. 2. to 4. [Unchanged.]

1 7045.0518 LIABILITY REQUIREMENTS.

2 Subpart 1. [Unchanged.]

3 Subp. 2. Coverage for nonsudden accidental occurrences.

4 An owner or operator of a surface impoundment, landfill, land
5 treatment facility, or miscellaneous disposal unit which is used
6 to manage hazardous waste, or a group of such facilities, shall
7 demonstrate financial responsibility for bodily injury and
8 property damage to third parties caused by nonsudden accidental
9 occurrences arising from operations of the facility or group of
10 facilities. The owner or operator shall have and maintain
11 liability coverage for nonsudden accidental occurrences in the
12 amount of at least \$3,000,000 per occurrence with an annual
13 aggregate of at least \$6,000,000, exclusive of legal defense
14 costs. This liability coverage may be demonstrated in one of
15 the following ways:

16 A. to D. [Unchanged.]

17 Subp. 3. to 7. [Unchanged.]

18 7045.0539 MISCELLANEOUS UNITS.

19 Subpart 1. Scope. The requirements in this part apply to
20 owners and operators of facilities that treat, store, or dispose
21 of hazardous waste in miscellaneous units.

22 Subp. 2. Environmental performance standards. A
23 miscellaneous unit must be located, designed, constructed,
24 operated, maintained, and closed in a manner that will ensure
25 protection of human health and the environment. Permits for
26 miscellaneous units are to contain the terms and provisions
27 necessary to protect human health and the environment,
28 including, but not limited to, as appropriate, design and
29 operating requirements, detection and monitoring requirements,
30 and requirements for responses to releases of hazardous waste or
31 hazardous constituents from the unit. Permit terms and
32 provisions shall include those requirements of parts 7045.0526
33 to 7045.0542 and chapter 7001 that are appropriate for the
34 miscellaneous unit being permitted. Protection of human health
35 and the environment includes, but is not limited to:

1 A. prevention of any releases that may have adverse
2 effects on human health or the environment due to migration of
3 waste constituents in the groundwater or subsurface environment,
4 considering:

5 (1) the volume and physical and chemical
6 characteristics of the waste in the unit, including its
7 potential for migration through soil, liners, or other
8 containing structures;

9 (2) the hydrologic and geologic characteristics
10 of the unit and the surrounding area;

11 (3) the existing quality of groundwater,
12 including other sources of contamination and their cumulative
13 impact on the groundwater;

14 (4) the quantity and direction of groundwater
15 flow;

16 (5) the proximity to and withdrawal rates of
17 current and potential groundwater users;

18 (6) the patterns of land use in the region;

19 (7) the potential for ~~deposition~~ deposition or
20 migration of waste constituents into subsurface physical
21 structures, and into the root zone of food chain crops and other
22 vegetation;

23 (8) the potential for health risks caused by
24 human exposure to waste constituents; and

25 (9) the potential for damage to domestic
26 animals, wildlife, crops, vegetation, and physical structures
27 caused by exposure to waste constituents;

28 B. prevention of any releases that may have adverse
29 effects on human health or the environment due to migration of
30 waste constituents in surface water, or wetlands or on the soil
31 surface considering:

32 (1) the volume and physical and chemical
33 characteristics of the waste in the unit;

34 (2) the effectiveness and reliability of
35 containing, confining, and collecting systems and structures in
36 preventing migration;

1 (3) the hydrologic characteristics of the unit
2 and the surrounding area, including the topography of the land
3 around the unit;

4 (4) the patterns of precipitation in the region;

5 (5) the quantity, quality, and direction of
6 groundwater flow;

7 (6) the proximity of the unit to surface waters;

8 (7) the current and potential uses of nearby
9 surface waters and any water quality standards established for
10 those surface waters;

11 (8) the existing quality of surface waters and
12 surface soils, including other sources of contamination and
13 their cumulative impact on surface waters and surface soils;

14 (9) the patterns of land use in the region;

15 (10) the potential for health risks caused by
16 human exposure to waste constituents; and

17 (11) the potential for damage to domestic
18 animals, wildlife, crops, vegetation, and physical structures
19 caused by exposure to waste constituents; and

20 C. prevention of any release that may have adverse
21 effects on human health or the environment due to migration of
22 waste constituents in the air, considering:

23 (1) the volume and physical and chemical
24 characteristics of the waste in the unit, including its
25 potential for the emission and dispersal of gases, aerosols, and
26 particulates;

27 (2) the effectiveness and reliability of systems
28 and structures to reduce or prevent emissions of hazardous
29 constituents to the air;

30 (3) the operating characteristics of the unit;

31 (4) the atmospheric, meteorologic, and
32 topographic characteristics of the unit and the surrounding
33 area;

34 (5) the existing quality of the air, including
35 other sources of contamination and their cumulative impact on
36 the air;

1 (6) the potential for health risks caused by
2 human exposure to hazardous waste constituents; and

3 (7) the potential for damage to domestic animals,
4 wildlife, crops, vegetation, and physical structures caused by
5 exposure to waste constituents.

6 Subp. 3. **Monitoring, analysis, inspection, response,**
7 **reporting, and corrective action.** Monitoring, testing,
8 analytical data, inspections, response, and reporting procedures
9 and frequencies shall ensure compliance with subpart 2; parts
10 7045.0452, subpart 5; 7045.0462, subpart 4; 7045.0482, subparts
11 2 to 4; and 7045.0485, as well as meet any additional
12 requirements needed to protect human health and the environment
13 as specified in the permit.

14 Subp. 4. **Post-closure care.** A miscellaneous unit that is
15 a disposal unit shall be maintained in a manner that complies
16 with subpart 2 during the post-closure care period. In
17 addition, if a treatment or storage unit has contaminated soils
18 or groundwater that cannot be completely removed or
19 decontaminated during closure, then that unit shall also meet
20 the requirements of subpart 2 during post-closure care. The
21 post-closure plan under part 7045.0490 must specify the
22 procedures that will be used to satisfy this requirement.

23 7045.0665 USE CONSTITUTING DISPOSAL.

24 Subpart 1. **Scope.** This part applies to hazardous wastes
25 that are used in a manner constituting disposal. For the
26 purposes of this part, use constituting disposal means the
27 application or placement of recyclable wastes in or on the land:

- 28 A. without mixing with other substances; or
29 B. after mixing or combination with any other
30 substances.

31 Products produced for the general public's use that are
32 used in a manner constituting disposal and that contain
33 recyclable wastes that have undergone a chemical reaction in the
34 course of producing a product so as to become inseparable by
35 physical means are exempt from regulation under this part.

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1 Commercial fertilizers that are produced for the general
2 public's use that contain recyclable materials also are not
3 subject to regulation under this chapter.

4 Subp. 2. to 4. [Unchanged.]