

Post Closure

Federal

§ 258.61 Post-closure care requirements.

(a) Following closure of each MSWLF unit, the owner or operator must conduct post-closure care. Post-closure care must be conducted for 30 years, except as provided under paragraph (b) of this section, and consist of at least the following:

(1) Maintaining the integrity and effectiveness of any final cover, including making repairs to the cover as necessary to correct the effects of settlement, subsidence, erosion, or other events, and preventing run-on and run-off from eroding or otherwise damaging the final cover;

(2) Maintaining and operating the leachate collection system in accordance with the requirements in §258.40, if applicable. The Director of an approved State may allow the owner or operator to stop managing leachate if the owner or operator demonstrates that leachate no longer poses a threat to human health and the environment;

(3) Monitoring the ground water in accordance with the requirements of subpart E of this part and maintaining the ground-water monitoring system, if applicable; and

(4) Maintaining and operating the gas monitoring system in accordance with the requirements of §258.23.

(b) The length of the post-closure care period may be:

(1) Decreased by the Director of an approved State if the owner or operator demonstrates that the reduced period is sufficient to protect human health and the environment and this demonstration is approved by the Director of an approved State; or

(2) Increased by the Director of an approved State if the Director of an approved State determines that the lengthened period is necessary to protect human health and the environment.

(c) The owner or operator of all MSWLF units must prepare a written post-closure plan that includes, at a minimum, the following information:

(1) A description of the monitoring and maintenance activities required in §258.61(a) for each MSWLF unit, and the frequency at which these activities will be performed;

(2) Name, address, and telephone number of the person or office to contact about the facility during the post-closure period; and

(3) A description of the planned uses of the property during the post-closure period. Post-closure use of the property shall not disturb the integrity of the final cover, liner(s), or any other components of the containment system, or the function of the monitoring systems unless necessary to comply with the requirements in this part 258. The Director of an approved State may approve any other disturbance if the owner or operator demonstrates

that disturbance of the final cover, liner or other component of the containment system, including any removal of waste, will not increase the potential threat to human health or the environment.

(d) The owner or operator must notify the State Director that a post-closure plan has been prepared and placed in the operating record no later than the effective date of this part, October 9, 1993, or by the initial receipt of waste, whichever is later.

(e) Following completion of the post-closure care period for each MSWLF unit, the owner or operator must notify the State Director that a certification, signed by an independent registered professional engineer or approved by the Director of an approved State, verifying that post-closure care has been completed in accordance with the post-closure plan, has been placed in the operating record.

[56 FR 51016, Oct. 9, 1991; 57 FR 28628, June 26, 1992]

§§ 258.62-258.69 [Reserved]

Illinois

Section 807.523 Post-Closure Care Plan

- a) An operator of an disposal site shall have a written post-closure care plan which shall be a condition of the site permit.
- b) The post-closure care plan shall include as a minimum a description of methods for compliance with all post-closure care requirements of this Part.
- c) An operator of an indefinite storage unit shall have a written contingent post-closure care plan which shall include as a minimum a description of methods of compliance with all post-closure care requirements of this Part assuming the unit will be closed as a disposal unit without removal of all wastes and waste residues. The contingent post-closure care plan shall be the same as a post-closure care plan, except as otherwise specifically provided.

(Source: Amended at 9 Ill. Reg. 18942, effective November 25, 1985)

Section 807.524 Implementation and Completion of Post-Closure Care Plan

- a) The operator of a waste disposal site shall implement the post-closure care plan commencing with receipt of a certification of closure pursuant to Section 807.508.
- b) The operator of an indefinite storage unit shall implement the contingent post-closure care plan commencing with receipt of certification of closure pursuant to the contingent closure plan. The operator is not required to implement the contingent post-closure care plan if the Agency determines that the operator has removed all wastes and waste residues from the indefinite storage unit.
- c) The Agency shall certify that the post-closure care period has ended when it determines:
 - 1) That the post-closure care plan has been completed; and,
 - 2) That the site will not cause future violations of the Act or this Part.

(Source: Amended at 9 Ill. Reg. 18942, effective November 25, 1985)

Section 811.111 Postclosure Maintenance

- a) The operator shall treat, remove from the site, or dispose of all wastes and waste residues within 30 days after receipt of the final volume of waste.
- b) The operator shall remove all equipment or structures not necessary for the postclosure land use, unless otherwise authorized by permit.
- c) Maintenance and Inspection of the Final Cover and Vegetation:
 - 1) Frequency of Inspections
 - A) The operator shall conduct a quarterly inspection of all vegetated surfaces for
a minimum of five years after closure, and after five years, the operator may
reduce the frequency of annual inspections until settling has stopped
and
there are no eroded or scoured areas.
 - B) For landfills, other than those used exclusively for disposing waste generated
at the site, inspections shall be continued for a minimum period of 15
years after closure.
 - C) For MSWLF units, inspections performed in accordance with
subsection
(c)(1)(A) shall be continued for a minimum period of 30 years after
closure, except as otherwise provided by subsections (c)(1)(D) and
(c)(1)(E), below.
 - D) The Agency may reduce the inspection and maintenance period at a
MSWLF
unit upon a demonstration by the owner or operator that the reduced
period is sufficient to protect human health and environment.
 - E) The owner or operator of a MSWLF unit shall petition the Board for an

adjusted standard in accordance with Section 811.303, if the owner or operator seeks a reduction of the postclosure care monitoring period for all of the following requirements:

- i) Inspection and maintenance (Section 811.111);
 - ii) Leachate collection (Section 811.309);
 - iii) Gas monitoring (Section 811.310); and
 - iv) Groundwater monitoring (Section 811.319).
- 2) All rills, gullies and crevices six inches or deeper identified in the inspection shall be filled. Areas identified by the operator or the Agency inspections as particularly susceptible to erosion shall be recontoured.
 - 3) All eroded and scoured drainage channels shall be repaired and lining material shall be replaced if necessary.
 - 4) All holes and depressions created by settling shall be filled and recontoured so as to prevent standing water.
 - 5) All reworked surfaces, and areas with failed or eroded vegetation in excess of 100 square feet cumulatively, shall be revegetated in accordance with the approved closure plan for the facility.
- d) Planned uses of property at MSWLF units
- 1) The owner or operator of a MSWLF unit shall include a description of the planned uses of the property during the postclosure care period in the written postclosure care plan prepared pursuant to 35 Ill. Adm. Code 812.115.
 - 2) Postclosure use of the property must not disturb the integrity of the final cover, liner, any other components of the containment system, or the function of the monitoring systems, unless necessary to comply with the requirements of this Part.
 - 3) The Agency shall approve any other disturbance if the owner or operator demonstrates that the disturbance of the final cover, liner or other component of the containment system, including any removal of waste, will not increase the potential threat to human health or the environment.

BOARD NOTE: Subsection (d) is derived from 40 CFR 258.61(c)(3) (1992).

(Source: Amended in R93-10 at 18 Ill. Reg. 1308, effective January 13, 1994)

Kansas

(p) Post-closure care requirements.

(1) Following closure of each MSWLF unit, the owner or operator shall conduct post-closure care. Post-closure care shall be conducted for 30 years, except as provided under paragraph (2) of this subsection, and shall consist of at least the following activities:

- (A) maintaining the integrity and effectiveness of any final cover, including making repairs to the cover as necessary to correct the effects of settlement, subsidence, erosion, or other events, and preventing run-on and run-off from eroding or otherwise damaging the final cover;
 - (B) maintaining and operating the leachate collection system, pursuant to K.A.R. 28-29-104(h);
 - (C) monitoring the groundwater in accordance with the requirements of K.A.R. 28-29-113 and maintaining the groundwater monitoring system, if applicable; and
 - (D) maintaining and operating the gas monitoring system in accordance with the requirements of K.A.R. 28-29-108(e).
- (2) The length of the post-closure care period may be increased by the director if the director determines that the lengthened period is necessary to protect human health and the environment.
- (3) The owner or operator of each MSWLF unit must prepare a written post-closure plan that includes, at a minimum, the following information:
- (A) plans for the post-closure operation and maintenance of liners, leachate and gas collection and treatment systems, cover material, run-off, retention basins, landscaping, and access control;
 - (B) plans for monitoring and surveillance activities during post-closure;
 - (C) name, address, and telephone number of the person or office to contact about the facility during the post-closure period; and
 - (D) a description of the planned uses of the property during the post-closure period.
 - (i) Post-closure use of the property shall not disturb the integrity of the final cover, liner or liners, or any other components of the containment system, or the function of the monitoring systems unless necessary to comply with the requirements in this regulation.
 - (ii) If the owner or operator demonstrates that disturbance of the final cover, liner or other component of the containment system, including any removal of waste, will not increase the potential threat to human health or the environment, the disturbance may be approved by the director.
- (4) The owner or operator shall prepare a post-closure plan not later than the effective date of this regulation, or by the initial receipt of waste, whichever is later, and submit it to the director.
- (5) Following completion of the post-closure care period for each MSWLF unit, the owner or operator shall submit a certification to the director. The certification shall be signed by an independent registered professional engineer, or approved by the director, and must verify that post-closure care has been completed in accordance with the post-closure plan.
- (Authorized by K.S.A. 1993 Supp. 65-3406; implementing K.S.A. 65-3401; effective Oct. 24, 1994.)

Minnesota

7035.2645 POSTCLOSURE.

Subpart 1. **Submittal of postclosure plan.** The landowner and the owner of a solid waste management facility shall submit a postclosure plan with the permit application. The agency must approve the plan in accordance with part 7001.3055 as part of the

permit issuance procedure or as a submittal required by a closure document, stipulation agreement, or other enforcement action. Compliance with the approved postclosure plan shall be a condition of any permit or closure document issued.

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

A. A description, schedule, and estimated costs of planned monitoring activities to comply

with parts 7035.2815, subparts 10 and 14, and 7035.2885, subpart 16, during the postclosure care period.

B. A description, schedule, and estimated costs of the inspection and maintenance activities

planned to ensure the integrity of the final cover and other containment systems according to parts 7035.2815, subpart 13, and 7035.2885, subpart 15, and the function of

the facility monitoring equipment according to parts 7035.2815, subpart 14, and 7035.2885, subpart 16.

C. The name, address, and telephone number of the person or office to contact about the

facility during the postclosure care period. This person or office must keep an updated postclosure plan during the postclosure care period.

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

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

STAT AUTH: MS s [115.03](#); [115A.97](#); [116.07](#)

HIST: 13 SR 1150; 16 SR 2321

Current as of 03/16/04

7035.2655 POSTCLOSURE CARE AND USE OF PROPERTY.

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

- A. Postclosure care must continue for at least 20 years after the date of completing closure.
- B. During the postclosure care period, based on the results of sampling, analysis, and other pertinent information, the commissioner may reevaluate and modify the closure document to the extent postclosure care is needed at a facility based on compliance with the requirements of item C; subpart 2; parts 7035.2565, and 7035.2815 to 7035.2915; and gas, leachate, or ground and surface water monitoring results.
- C. All postclosure care activities must be in accordance with the approved postclosure plan.

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

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

STAT AUTH: MS s 115.03; 115A.97; 116.07

HIST: 13 SR 1150; 16 SR 2321

Current as of 03/16/04

- B. After final closure, the owner or operator must comply with all postclosure requirements contained in parts 7035.2645 and 7035.2655, including maintenance and monitoring throughout the postclosure care period specified in part 7035.2655 and the closure document. The owner or operator must:
 - (1) restrict access to the facility by use of gates, fencing, or other means to prevent further disposal at the site, unless the site's final use allows access;
 - (2) maintain the integrity and effectiveness of the final cover, including making repairs to the final cover system as necessary to correct the effects of settling, subsidence, gas and leachate migration, erosion, root penetration, burrowing animals, or other events;
 - (3) maintain and monitor the gas and ground water monitoring systems and comply with all other applicable requirements of subparts 11 and 14;
 - (4) continue to operate the leachate collection and removal system;
 - (5) prevent run-on and runoff from eroding or otherwise damaging the final cover;

- (6) protect and maintain surveyed benchmarks used in complying with subpart 12;
- (7) survey the facility at least annually to determine the extent of settling, subsidence, erosion, or other events;
- (8) submit an annual report to the commissioner as required in part 7035.2585 describing the present conditions and corrective actions taken or needed for subitems (1) to (7); and
- (9) complete repair work within 30 days of discovery.

STAT AUTH: MS s 115.03 subd 1; 116.07 subds 2,4,4g,4h
HIST: 13 SR 1150
Current as of 03/16/04

Missouri

B. Post-closure plans shall include maintenance and monitoring activities to be performed at a solid waste disposal area for the thirty (30)-year period after the approved completion of closure. In the case of phased development, the post-closure plan shall describe specific maintenance and monitoring activities which are related to each phase; distinct and separable activities shall be performed for a thirty (30)-year period following proper implementation of closure of each phase; inseparable activities shall be performed for a thirty (30)-year period following proper implementation of closure of the solid waste disposal area. Post-closure care shall include performance of the following, where applicable, except as otherwise specified by the department:

- (I) Maintenance of cover integrity (for example, recovering, regrading), vegetative growth to protect cover material and surface water drainage systems;
- (II) Operation and maintenance of the leachate collection system(s) and methane gas control system(s);
- (III) Maintenance, sampling and testing of groundwater monitoring wells and methane gas monitoring systems; and
- (IV) Necessary operation or maintenance, or both, of any other environmental control features which are included in the design and operation of the solid waste disposal area to protect the public health and environment.

Nebraska

006 Post-closure criteria. The owners or operators of solid waste disposal areas, accepting waste after October 1, 1993, shall provide for post-closure care for a period of thirty (30) years.

006.01 Post-closure care shall include, at a minimum, the performance and recording of each of the following activities in the operating record:

006.01A Annual inspection and maintenance of the cover to ensure integrity and effectiveness, including making repairs to the cover as necessary to correct the effects of settlement, subsidence, erosion, or other

events, and preventing run-on and runoff from eroding or otherwise damaging the final cover;

006.01B Annual inspection and maintenance of access control structures and posted signs;

006.01C Maintenance and operation of any existing leachate collection system;

006.01D Maintenance and semiannual sampling and testing of any existing groundwater monitoring well, and maintenance and quarterly sampling of any landfill gas monitoring systems. Results of testing shall be reported to the Department, and placed in the operating record; and

006.01E Maintenance and operation of any other environmental control features which are included in the design and operation of the solid waste disposal area or required by the Department to protect human health and the environment.

006.02 Owners or operators of solid waste disposal areas accepting waste after October 1, 1993, shall submit a post-closure plan to the Department for approval. This post-closure plan and any revisions shall be placed in the operating record, with copies of any such revisions forwarded to the Department.

006.03 Post-closure plans required pursuant to 006.02 shall include annual maintenance and monitoring activities to be performed at a solid waste disposal area for the specified post-closure period after the approved completion of closure. The length of the post-closure period may be increased, if the Department determines that the lengthened period is necessary to protect human health and the environment. The length of the post-closure period may be reduced, if the Department determines that the reduced period is sufficient to protect human health and the environment.

006.04 A detailed written post-closure plan shall include, at a minimum, the following information:

006.04A A description of the monitoring and maintenance activities required in 006 for each solid waste disposal area and the frequency at which these activities will be performed;

006.04B Name, address, and telephone number of the person or office to contact about the closed solid waste disposal area during the post-closure period; and

006.04C A description of the planned uses of the property during the post-closure period and a description of the period of time during which access to the facility will be controlled. Post-closure use of the property shall not disturb the integrity of the final cover, liner, or any other components of the containment system, or the function of the monitoring systems.

006.05 The owner or operator shall begin implementing the post-closure plan required in Section 006.02 immediately after closure is completed and continue implementing the plan over the entire post-closure period.

006.06 Following the post-closure period of each solid waste disposal area, the owner or operator shall submit a certification to the Department signed by an independent professional engineer registered in the State of Nebraska verifying that post-closure care has been completed in accordance with the approved post-closure plan.

North Dakota

1. Postclosure standards for solid waste management facilities regulated by this section.
 - a) The owner or operator of a landfill or a surface impoundment closed with solid waste in place shall meet the following during the postclosure period:
 - 1) Maintain the integrity and effectiveness of the final cover, including making repairs to the cover to correct effects of settlement, subsidence, and other events, and preventing run-on and runoff from eroding or otherwise damaging the final cover;
 - 2) Maintain and operate the leachate collection system, if applicable;
 - 3) Monitor the ground water and maintain the ground water monitoring system, if applicable; and
 - 4) Operate and maintain the gas control system, if applicable.
 - b) The owner or operator of a municipal waste landfill, an industrial waste landfill, a special waste landfill, a surface impoundment closed with solid waste remaining in place, or a land treatment facility shall prepare and implement a written postclosure plan approved by the department as a part of the permitting process. The postclosure plan must address facility maintenance and monitoring activities for a postclosure period of thirty years.
 - 1) Postclosure includes appropriate: ground water monitoring; surface water monitoring; gas monitoring; and maintenance of the facility, facility structures, and ground water monitoring systems.
 - 2) The postclosure plan must: provide the name, address, and telephone number of the person or office to contact during the postclosure period; and project time intervals at which postclosure activities are to be implemented, identify postclosure cost estimates, and provide financial assurance mechanisms as required by chapter 33-20-14.

- 3) The department may require an owner or operator to amend the postclosure plan, including an extension of the postclosure period, and implement the changes. If the permittee demonstrates that the facility is stabilized, the department may authorize the owner or operator to discontinue postclosure activities.
- c) Following completion of the postclosure period, the owner or operator shall notify the department verifying that postclosure management has been completed in accordance with the postclosure plan.

South Dakota

74:27:15:08. Postclosure care. The owner or operator shall provide postclosure care for 30 years.

Source: 17 SDR 8, effective July 26, 1990; 19 SDR 186, effective June 10, 1993.

General Authority: SDCL 34A-6-1.6.

Law Implemented: SDCL 34A-6-1.6, 34A-6-1.8.

74:27:15:08.01. Postclosure requirements. Postclosure care must conform to the postclosure plan required by § 74:27:15:09.

Source: 19 SDR 186, effective June 10, 1993; 20 SDR 56, effective October 24, 1993.

General Authority: SDCL 34A-6-1.6.

Law Implemented: SDCL 34A-6-1.6, 34A-6-1.8.

74:27:15:09. Postclosure plan. The owner or operator shall prepare a written postclosure plan that describes the monitoring and routine maintenance activities that will be carried out during the postclosure care period. The postclosure plan, at a minimum, must include:

- 1) The name, address, and telephone number of the responsible party during the postclosure care period;
- 2) A description of the planned uses of the property during the postclosure care period;
- 3) A description of the period of time during which access to the facility will be controlled;
- 4) A description of the methods of monitoring and maintaining the integrity and effectiveness of final cover, including making repairs to the cover as necessary to correct the effects of settling, subsidence, erosion, or other events, and preventing run-on and run-off from eroding or otherwise damaging the final cover;
- 5) A description of the methods of maintaining, operating, and monitoring the leachate collection and removal system, if applicable, until leachate no longer is generated;
- 6) A description of the methods of maintaining and operating the groundwater monitoring system, if applicable;
- 7) A description of the methods of maintaining and operating the gas monitoring system, if applicable;

- 8) A description of the frequency at which the monitoring and maintenance activities in this section will be performed;
- 9) Methods of decommissioning any remaining components of the facility;
- 10) A description of the estimated postclosure period necessary to ensure that the performance standard of § 74:27:15:02 is met; and
- 11) Cost estimates, including calculations for hiring a third party to complete each postclosure activity.

Source: 17 SDR 8, effective July 26, 1990; 19 SDR 186, effective June 10, 1993.

General Authority: SDCL 34A-6-1.6.

Law Implemented: SDCL 34A-6-1.6, 34A-6-1.8.

74:27:15:10. Postclosure certification. Upon completion of the activities required during the postclosure care period, the owner or operator of a solid waste facility shall submit to the secretary a certification by a registered professional engineer confirming that the provisions of the postclosure plan have been met.

Source: 17 SDR 8, effective July 26, 1990; 19 SDR 186, effective June 10, 1993.

General Authority: SDCL 34A-6-1.6.

Law Implemented: SDCL 34A-6-1.6, 34A-6-1.8.

74:27:15:11. Variances. The board or secretary may grant variances to the provisions of this chapter case by case. Demonstrations for variances for MSWLFs must meet the requirements of 40 C.F.R. Part 258, as published on 56 Fed. Reg. 50,978 to 51,119, inclusive (October 9, 1991).

Source: 19 SDR 186, effective June 10, 1993.

General Authority: SDCL 34A-6-1.6.

Law Implemented: SDCL 34A-6-1.6, 34A-6-1.8.

Wisconsin

NR 506.085 Final use. The following activities are prohibited at solid waste disposal facilities which are no longer in operation unless specifically approved by the department in writing:

- (1) Use of the waste disposal area for agricultural purposes.
- (2) Establishment or construction of any buildings over the waste disposal area.
- (3) Excavation of the final cover or any waste materials.

Note: Activities at closed solid waste disposal facilities shall be restricted in accordance with the applicable transference of responsibility provisions of s. 289.46 (2), Stats.

History: Cr., Register, June, 1996, No. 486, eff. 7-1-96.