

Kansas Department of Health and Environment
Bureau of Waste Management Policy 2014-P2
related to

Reduction and/or Termination of Postclosure Care Activities

Revised June 27, 2014

Purpose

This policy clarifies how the Kansas Department of Health and Environment will determine when postclosure care activities at municipal solid waste landfills may be reduced or terminated.

Background

Each landfill owner is responsible for long-term care of the site for at least 30 years after the landfill has closed. The secretary of the Kansas Department of Health and Environment (KDHE) may extend this postclosure care (PCC) period as necessary to protect public health and safety or the environment. For municipal solid waste landfills (MSWLFs), PCC includes some or all of the following:

- Maintaining the final cover;
- Monitoring the groundwater and maintaining the groundwater monitoring system;
- Conducting a gas monitoring program;
- Maintaining and operating the following systems, if they exist at the landfill:
 - Leachate collection; and
 - Gas collection.

These requirements are found in KSA 65-3406(a)(18), KAR 28-29-108(f)(2)(K), and KAR 28-29-121(p). Other PCC requirements may apply to individual landfills based on site-specific conditions.

The 30-year PCC requirement does not directly take into account the degree to which the municipal solid waste (MSW) is stabilized. Evidence strongly indicates that even 30 years after closure, many MSWLFs could still be producing leachate and gas. On the other hand, the waste in some landfill units may reach a stable and/or equilibrium state in less than 30 years.

The PCC activities in the preceding list will not necessarily all end at the same time. For example, the need for leachate collection at a landfill may end, but groundwater must still be monitored on a regular basis. Additionally, the level of effort for a particular PCC activity may change throughout the PCC period. For example, the frequency of groundwater monitoring sampling events may be reduced from semi-annual to annual. An objective assessment of when certain PCC activities may be terminated, or carried out at a reduced level, will be based on analysis of leachate, landfill gas, and/or groundwater along with other related evidence.

Many MSWLFs have individual units that have been closed while other units at the landfill are still active. If monitoring for these units can be carried out individually, the proper PCC requirements can be determined unit by unit.

Action

KDHE does not assume that all PCC activities will cease exactly 30 years after the landfill or unit is closed. Accordingly, KDHE may allow certain PCC activities to be reduced or terminated before the end of the 30-year postclosure period. However, some aspect of PCC must continue for at least 30 years (KSA 65-3406).

The following sections describe the criteria for reducing or terminating some PCC activities.

All MSWLFs

- A PCC activity may be reduced or terminated only if the owner or operator (O/O) of the landfill demonstrates to KDHE that reduction or termination of the activity will not present a risk to public health or safety or the environment.
- A PCC activity may be reduced or terminated only after the O/O has received written approval for the reduction or termination from KDHE.
- Maintenance of the final cover sufficient to prevent ponding of water and exposure of the waste must continue indefinitely (unless the waste is removed or the O/O can demonstrate to KDHE that exposure of the waste would not present a risk to public health or safety or the environment).
- Gas monitoring at the facility boundary may be required at any landfill if landfill gas emissions pose a potential threat to public health or safety or the environment.

MSWLFs that Operated After the Dates Listed in KAR 28-29-100

MSWLFs that are Subject to Full Subtitle D Requirements

Each landfill O/O who chooses to demonstrate that one or more PCC activities can be reduced, or terminated must submit a Postclosure Care Reduction and/or Termination Plan to KDHE. The Plan should be prepared according to Technical Guidance Document SW-2014-G1, Preparation of Postclosure Care Reduction and/or Termination Plans.

- Groundwater monitoring may be reduced or terminated based on trend analysis of leachate and groundwater characteristics. Groundwater parameters must meet the groundwater protection standards given in KAR 28-29-113(b)(13) to (15).
- Leachate collection system operation and monitoring (O&M) may be reduced or terminated based on trend analysis of leachate characteristics. At landfills with little or no leachate generation, O&M may be terminated after 5 consecutive years with no measurable leachate.
- Gas monitoring in structures must continue indefinitely (unless the O/O can demonstrate to KDHE that discontinuation of monitoring in a structure would not present a risk to public health or safety or the environment).
- Gas monitoring at the facility boundary may be reduced or terminated based on:
 - Trend analysis of methane at the boundary; and
 - If there is a gas collection system, trend analysis of data collected from that system.
- Sampling of the gas collection and control system (GCCS) that is conducted to meet the requirements of the solid waste program may be reduced based on trend analysis of gas and leachate characteristics. Sampling must still meet all Clean Air Act (CAA) requirements for GCCSs at MSWLFs as administered by the KDHE Bureau of Air (BOA).
- The extent of the GCCS may be reduced based trend analysis of gas and leachate characteristics. The GCCS must still meet all CAA/BOA requirements.
- Gas collection may be terminated if the following requirements are met:
 - The waste stabilization requirements of KAR 28-29-108(f)(2)(K), based on trend analysis of gas and leachate characteristics; and
 - The CAA/BOA requirements for terminating gas collection at MSWLFs.

MSWLFs that have been Granted the Small Arid Landfill Exemption

- Groundwater sampling may be reduced to every other year if:
 - No monitoring wells have had any constituents over Maximum Contaminant Levels (MCLs) for a period of 3 consecutive years (these may be the 3 years before closure); and
 - Constituents of concern are not increasing.
- Groundwater sampling may be terminated if:
 - No monitoring wells have had any constituents over MCLs for a period of 10 consecutive years after the start of the postclosure care period; and
 - Constituents of concern are not increasing.
- At landfills with leachate collection systems, leachate collection may be terminated if there has been no measurable leachate for 5 consecutive years after the start of the postclosure care period.
- Gas monitoring in structures must continue indefinitely (unless the O/O can demonstrate to KDHE that discontinuation of monitoring in a structure would not present a risk to public health or safety or the environment).
- Gas monitoring at the facility boundary may be reduced to every other year if:
 - Methane is below the lower explosive limit (LEL) for a period of 3 consecutive years (these may be the 3 years before closure); and
 - Methane levels are not increasing.
- Gas monitoring at the facility boundary may be terminated if:
 - Methane is below the LEL for a period of 10 consecutive years after the start of the postclosure care period; and
 - Methane levels are not increasing.
- All changes to the frequency of gas monitoring at the facility boundary are subject to public review and comment (Bureau of Waste Management (BWM) Policy 08-04).

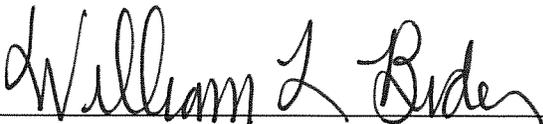
MSWLFs that Closed Before the Dates Listed in KAR 28-29-100

In general, at these landfills the primary PCC activities are groundwater monitoring and maintenance of the final cover conducted in accordance with consent agreements with KDHE.

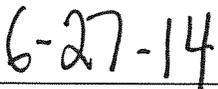
Permit Renewal Requirements

The financial and reporting requirements related to permit renewal for landfills with postclosure environmental monitoring systems are addressed in BWM Policy 2014-P1.

This policy shall remain in effect until it is revoked or is rendered obsolete by the adoption of new regulations.



William L. Bider
Director, Bureau of Waste Management


Date