

Guideline for Preparing a Facility Operating Plan for Small Arid Landfills in Kansas

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This document explains the information that owners and operators of small arid landfills (SALs) need to include in the facility operating plan (FOP) and includes a template that may be used to develop the FOP.

Please be aware that the following documents should not be included in the FOP because they are independent of the FOP:

Closure and Post-Closure Plan. Submit this plan, including drawings and text, as a separate document. K.A.R. 28-29-12 and Form DS135

Restrictive Covenant. Consult your KDHE-BWM Permit Manager before preparing this document. K.A.R. 28-29-325(a)(7) and K.A.R. 28-29-20

Financial Information. Discuss with the KDHE-BWM accountant to prepare this document. K.A.R. 28-29-325(a)(8)

Construction Quality Assurance (CQA) plan

FOP Format

Title page for the FOP that includes the name of the facility, permit number, and date

Table of contents that lists the page number of each required topic

The body of the FOP will contain the information that is required in the plan

FOP Requirements

Operating conditions. Discuss the operating schedule and identify the operating hours of the facility. State how trespassing and unauthorized dumping will be prevented by access control. State how access roads are maintained for the site. For more information on access control, see K.A.R. 28-29-108(i), 28-29-23(e), and BWM 2012-P1.

Origin of waste. Discuss where incoming waste was generated with regard to county and state boundaries. For more information on origin of waste see K.A.R. 28-29-23(f).

Daily volume. Provide the approximate volume of waste received by the facility. Discuss how the facility will document accepted waste. Discuss how tonnage is measured (e.g. scales, volume estimates). For more information on tonnage reporting and fee payments see K.A.R. 28-29-23(f), and 28-29-85(c).

Random inspection procedures. Describe in detail the procedures for inspecting incoming waste including the location where inspections will occur. Random inspections are required to ensure that incoming loads do not contain regulated hazardous wastes, PCB wastes, and bulk or noncontainerized liquids. Inspections are required at a minimum of once a month. Attach a copy of the landfill's random inspection form. For more information on screening procedures see K.A.R. 28-29-108(a), (k) and (r)(13).

Special waste. Describe in detail the method for recording the location of special waste disposed of at the landfill. Attach a copy of the landfill's special waste form. For more information on special waste procedures see K.A.R. 28-29-109.

Salvaging. If salvaging will occur on-site, describe the material that will be salvaged, where the salvaging will occur, where salvageable material will be stored on-site, and when material will be removed from site. Provide the name and address of where the waste will be recycled and disposed of, as applicable. For more information on salvaging see K.A.R. 28-29-23(l) and K.A.R. 28-29-108(p).

Scavenging. Scavenging is prohibited. For more information on scavenging see K.A.R. 28-29-108(p)(4).

Appliances. Describe the handling of appliances that will be disposed of at the landfill. If any appliances will be recycled, this management practice should be discussed in the “salvaging and scavenging” section of the operating plan. For more information on the management of appliances (“white goods”) see BWM TGD SW-1995-G2.

Disposal of asbestos. Describe the handling of asbestos that will be disposed of at the landfill.

1. Non-friable asbestos requires careful handling, kept wet, and contained
2. Friable asbestos may be disposed of at a SAL but only after a special waste authorization has been obtained.

Waste placement and compaction. Describe the method and procedures for moving inspected waste to the working face, the placement of non-inspected waste, and the compaction of the waste in the landfill. For more information on placement and compaction requirements see K.A.R. 28-29-108(m) and (o).

Safety procedures. Describe in detail the specific safety procedures that will be followed by employees and the general public at the landfill. Describe employee training, including yearly FOP training. For more information on safety procedures see K.A.R. 28-29-23(m) and TGD SW-2005-G1.

Vector control. Describe methods to prevent or control on-site populations of disease vectors (e.g. rodents, birds, flies, mosquitoes). For more information on vector control see K.A.R. 28-29-108(d).

Cover application. Describe the material, thickness, and frequency of application of the daily cover, alternative daily cover, and intermediate cover application. Describe any approved alternative daily cover. For more information on cover application see K.A.R. 28-29-108(b) and (c).

Leachate management.

Unlined landfill – Describe the system in place to prevent leachate from leaving the disposal area. For more information regarding leachate management see K.A.R. 28-29-108(j).

Lined landfill – Describe the system in place to drain, collect, and dispose of leachate. Include information regarding the location and measurement of the point of compliance (POC). For more information regarding leachate management see K.A.R. 28-29-108(j) and K.A.R. 28-29-104(g), (h), and (i).

Engineer drawings – Have an engineer provide a typical plan, cross section, and berm sizes that illustrate how leachate will be retained within the facility. For example illustrations see attachment one of the operating plan template.

Landfill gas management.

1. Describe the explosive gases monitoring program. For information about the requirements regarding gas monitoring see K.A.R. 28-29-108(e) and K.A.R. 28-29-23(p).
2. If a landfill gas management system is required, include a description of the system as an attachment. For more information on gas management standards see K.A.R. 28-29-108(f).

Odor, dust, and litter. Describe the procedures that will be used to minimize odors, litter, and dust at the disposal unit and on haul roads. For more information on dust suppression and litter control see K.A.R. 28-29-108(r)(4), and BWM 02-03.

Storm water control. Describe the facility’s system of managing storm water. Include how the flow of storm water will be diverted away from the active area to minimize leachate and how the flow of storm water will be slowed to minimize erosion. For more information on storm water control see K.A.R. 28-29-108(j) and BWM 02-03.

Utilities. Describe the facility’s utilities including heat, power, water, communication equipment, and

sanitary facilities.

Machinery and Equipment. List the equipment the facility will use and its design capacity.

Contingency plan. Develop a contingency plan that describes the following:

1. Explain the facilities fire and spill emergency procedures. See K.A.R. 28-29-108(r)(6); and
2. Other unexpected suspension of operations, including weather, equipment breakdown and personnel emergencies.

Closure. Describe when and why the operator would suspend the receipt of waste at the facility, including the following:

1. Temporary situations;
2. Final situations due to conditions of the permit or attainment of final elevation.

Facility development and waste placement progression.

1. Provide a drawing that delineates and numerates phases in the landfill development sequence. The purpose of the drawing is to optimize the filling of units or cells which will decrease the facility's long-term costs. Also, the drawing can provide specific guidance to equipment operators so they may operate efficiently. For regulations regarding phasing see K.A.R. 28-29-108(n).
2. Describe the approach of facility development and the waste placement progression in individual units. The following topics should be included:
 - a. Describe the operation scheme: continuous vs. trench fill. Most operators use continuous area fill because it maximizes use of airspace.
 - b. Discuss stockpiling of various types of soil for use as daily and final cover.
 - c. Discuss access, slopes, berms, drainage, and safety. Consider the location of access roads, stockpiles, and haul roads in order to provide the most efficient operation. For regulations regarding the size and slope of the working face see K.A.R. 28-29-108(o).
3. Illustrate and explain how the horizontal and vertical limits of waste disposal will be managed. Buffers are not be encroached upon. For regulations regarding survey controls see K.A.R. 28-29-108(l).

Facility capacity. Provide the proposed capacity of the facility. Make sure it matches the capacity reported in the design plans and engineering report.

Expected facility life. Provide the expected life in years of the small arid landfill. Make sure it matches the life recorded in the design plans and engineering report.

Recordkeeping. Describe where records will be kept.

The following records must be retained for a minimum of five years:

1. Location restriction demonstrations
2. Hazardous waste exclusion program records – inspection records including notifications to KDHE, and hazardous waste training procedures.
3. Gas monitoring results from scheduled monitoring and any remediation plans required by gas monitoring.
4. Demonstrations, certifications, findings, monitoring, testing or analytical data required for groundwater monitoring and for groundwater corrective action.
5. For closed cells, closure and post-closure care plans and any monitoring testing, or analytical data.
6. Cost estimates and financial assurance documentation
7. Demonstrations for the small landfill exemption
8. Demonstrations that the liner meets the liner standards.
9. A copy of the current facility permit, including all approved plans and specifications.

The following must be retained for the lifetime of the facility:

1. A log of commercial or industrial solid wastes received, including sludges, barreled wastes, and special wastes.

Attachments. Area for all documents relative to the FOP. Include the burn pit acceptance if applicable.