

Ministry of Environment Environmental Protection Branch

SWRC Saskatchewan Ministry of Environment Composting Guidance

May 2019

Composting Guidance and Standards

- The Saskatchewan Ministry of Environment does not currently have standards specific to composting operations in place
- A results based regulatory model is in place which allows greater flexibility around the design and operation of industrial facilities in the province.
 - If available, guidance and standards from other jurisdictions can be adopted for use in Saskatchewan
 - A “qualified person” is responsible for ensuring that the design meets best management practices
- The possibility of a Environmental Code Chapter for composting facilities is currently being investigated by the Ministry of Environment
- It is expected proponents will follow an approved best management practice

Composting Guidance and Standards

- In the absence of Saskatchewan specific guidance/standards the Ministry is planning to release guidance documents to assist proponents looking to construct and operate composting facilities in the province
 - The Composting Facility Design Plan document which provides proponents with information on the requirements for establishing a composting facility; and
 - The Composting Facility Operations Plan document which provides proponents with information required to obtain a Permit to Operate, if required, and the operation requirements.
- These documents are indented to provide a general overview of the information expected from the proponent when seeking to establish and operate a composting facility in the province. The site specific nature of the facility and operations will ultimately dictate the content of the submissions to the Ministry

Composting Facility Design Plan

Who requires a permit to construct or alter?

- Less than 2000 kg of actively composting material on site → no permit
- Composting located at municipal landfill or transfer station → existing permit
- Composting located at new site → New permit required

Composting Facility Design Plan

What information will be required?

A) **Site suitability report** – The site suitability report should describe the siting of the composting facility based on site information in order to determine the site-specific design requirement and protect the environment.

The report should include:

- a) A site plan that details the topography and surface water hydrology within 500 metres of the proposed site.
- b) A statement or document describing the geological and hydrogeological conditions.

B) **Design plan** – The report should include a design that meets the applicable best practices and should:

- a) Identify the location and the surrounding land use.
- b) Include a site plan map showing:
 - legal site boundary
 - geographical location of site access, roads, earth works, buildings, buffer zones, and infrastructure
 - hydrologic information, land use and other environmental information
 - areas designated for different waste types
- c) Include details concerning waste types and quantities for temporary storage at the composting facility
- d) Include details on the process used to compost the intended feedstock
- e) Incorporate control systems for environmental protection (e.g. engineered pad, groundwater monitoring, surface water management, etc.)

Composting Facility Design Plan

What information will be required?

C) **Project Description** – The report should be accompanied by site and regional maps, flow charts, diagrams, graphs and photographs that will assist reviewers to understand the proposed project. Include examples of where best management practices will be incorporated into construction, operation and decommissioning of the proposed project.

D) **Construction Verification** - Once construction is completed as per the approved design plan, the Ministry must be notified prior to operation. The owner must abide by all conditions as outlined in the Permit to Establish, Construct, and/or Operate a Composting Facility

- The composting facility design plan should be prepared by a qualified person who possesses the core skills and competencies to design a composting facility
- Once construction is completed as per the approved design plan, the Ministry must be notified prior to operation.

Composting Facility Operations Plan

Who requires a permit to operate?

- All composting facilities processing more than 2000kg of compost at any given time.
- Facilities storing hazardous substances and waste dangerous goods (HSWDG)
- Facilities processing less than 2000kg of compost at any given time but are located in sensitive areas or with other considerations that make them high risk.

Composting Facility Operations Plan

Requirements of the Permit to Operate

Operations plan – The operations plan should include the details of the operating process and general instructions as outlined by relevant best management practices, generally including, but not limited to:

- Site plan with well-marked operational areas (i.e receiving area, curing area, finished compost storage area, etc.)
- Procedures for minimizing nuisance such as noise, dust, litter, disease vectors and insects, offensive odour, and scavengers;
- Procedures for on-site surface water run-off and ponding, and leachate management;
- Procedures for compost temperature control and management including the quality control of the finished compost product;
- Procedures for preventing wildlife, vermin and feral animals;
- An Animal Management Plan should be included for large predatory animals;
- Procedures for handling and storage of waste received at the composting facility, including the transportation of that waste to a recycling or disposal facility;
- Procedures for waste inspection and screening, handling of waste that does not meet the waste acceptance criteria, and prevention of waste violation;
- A manifest for compost feedstock type accepted;
- A manifest for sale, use or land application of the finished compost; and
- Procedures for staff training of site operations, equipment and safety.

Composting Facility Operations Plan

Requirements of the Permit to Operate

Emergency Response Plan – Outlines the methods to be used to prevent, minimize, monitor, mitigate, remedy, or reclaim an adverse effect before, during, or after any activity. The Emergency Response Plan (ERP) should detail the emergencies and/or incidents that may occur at the facility that could potentially harm human and/or environmental health and the course of action to mitigate the impacts. It should also contain a list of the emergency contacts.

Required Record Keeping - records for the operational life and retained for at least 7 years following the closure of the facility.

Operation and Environmental Monitoring Duties - Owners have a duty to ensure that the operation and environmental protection activities are carried out according to the Operation Plan.

Resources for Composting Faculty Design and Operation

- A qualified person who possesses the core skills and competencies to design and/or operate a composting facility.
- The Alberta Compost Standards
- Manitoba Waste Resource Management Regulations
- Standards and/or regulations for another jurisdiction
- The Saskatchewan Waste Reduction Council

What Regulations Apply to Composting and Composting Facilities?

- The Municipal Refuse Management Regulations, 1986 (Provincial)
- Environmental Management and Protection Act, 2010 (Provincial)
- CCME Guidelines to Compost Quality, 2005 (Federal)
- Fertilizer Act and Regulations, 1985 (Federal)
- Local bylaws/zoning (Municipal)

Questions?

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