

Code of Practice for Compost Facilities

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Alberta

Agenda

- Background
- Regulatory objectives
- Overview of Code of Practice
- Key sections of Code of Practice
- Transition plan for existing facilities
- Other Code related updates

Background

- Code of Practice for Compost Facilities (COP) (1996)
- Standards for Compost Facilities (2007)
- Engagement (Fall 2020 and Spring 2021)
- Updated COP Publication (January 14, 2022)



Regulatory Objectives

- Compost facilities are designed, constructed, operated and closed in a manner that is protective of air, land, water, biodiversity, human health, and human quality of life.
- Compost quality meets minimum Canadian Council of Ministers of the Environment (CCME) requirements to not adversely affect the land, plants, or crops.
- Compost facility will meet local land use planning requirements, and not create a risk to the local community.

Code Overview

- Includes requirements for design, construction, operation, monitoring, and closure
- Odour, groundwater, fire prevention, and nuisance management requirements
- Well-defined feedstock and amendments list
- Vermicomposting and dead animals composting requirements
- Reporting and record keeping
- Transition Plan for existing facilities

Code Limitations

- The Code cannot be modified for site specific conditions.
- The Director cannot authorize deviations from the Code.
- A Code does not provide guidance, it is a regulatory document enabled in the Waste Control Regulation.

Compliance with the Code

The Code of Practice applies to:

- **Class I Compost Facility:** accepts not more than 20,000 tonnes of **waste** per year for composting
 - **Class I Compost Facility:** requires a **Registration**
- **Class II Compost Facility:** accepts not more than 20,000 tonnes of **vegetative matter or manure** per year for composting
 - **Class II Compost Facility:** requires a **Notice**

Registration – Class I

Facility Design Plan & Specifications

- Facility design report
- Groundwater monitoring system
- Groundwater monitoring system waiver, if applicable
- Maps, drawings and specifications
- Environmental set backs
- Liner and retention pond design requirements

Notification – Class II

Facility Design Plan & Specifications

- Facility design report
- Maps, drawings and specifications
- Environmental set backs
- Liner and retention pond design requirements
- No groundwater monitoring system requirement

Registration Requirements

- Compost facility checklist (Schedule C)
- Registration form (Schedule D)
- Facility design plan and specifications (Section 4)
- Soil conservation plan (Section 5)
- Operation plan (Section 6)
- Fire prevention and control plan (Section 7)
- Odour management plan (Section 8)
- Groundwater monitoring program (Section 9)
- Nuisance management plan (Section 10)
- Baseline groundwater quality report [Section 9(1)]
- Financial security as per Waste Control Regulation (AR 192/1996)
- List of intended products and intended markets for products (Section 3)

Notice Requirements

- Compost facility checklist (Schedule C)
- Notification form (Schedule E)
- Facility design plan and specifications (Section 4)
- Soil conservation plan (Section 5)
- Operation plan (Section 6)
- Fire prevention and control plan (Section 7)
- Odour management plan (Section 8)
- Nuisance management plan (Section 10)
- List of intended products and intended markets for products (Section 3)

Operations Plan

- List of feedstocks
- Waste receipt policies, inspection procedures, and storage of waste
- High moisture content feedstock management
- Site security, safety, and emergency response plan
- Maintenance program for working surfaces
- Composting process plan
- Product quality testing and verification plan
- Process water management procedures
- Liner inspection and maintenance program (Class I Compost Facility)
- Groundwater monitoring program (Class I Compost Facility)

Fire Prevention and Control Plan

- Prevention of ignition of combustible materials
- Prevent internal temperatures greater than 70 degrees Celsius in compost piles
- Actions to prevent accumulation of combustible materials
- Access plan for fire control equipment
- Training program for site personnel
- Provision of adequate water supply at compost facility
- Regular inspection of compost facility by trained personnel

Odour Management Plan

- Odour control technologies and management practices
- Odour monitoring and detection method
- Tracking and documentation of public odour complaints
- Response procedure for public odour complaints
- Mapping of locations and distances to receptor sites
- Odour contingency response plan

Groundwater Monitoring Program

- Establish baseline groundwater quality
- Establish groundwater quality control limits with the Shewart quality control chart method
- Detailed plans for collection, monitoring and analysis of groundwater samples
- Groundwater response plan

Nuisance Management Plan

- Nuisance prevention and control (noise, weed, wildlife, disease vectors, litter, and dust)
- Establish artificial barriers for litter control, wildlife, and facility access
- Minimize disease vectors for composting process, feedstock, amendments, residuals, compost, and residuals storage

Composting Methods

- Windrow composting
- In-vessel composting
- Aerated static pile composting
- Vermicomposting

Acceptable Feedstock and Amendments

- Compost facilities must only accept listed feedstock and amendments

**ACCEPTABLE FEEDSTOCK AND AMENDMENT LIST FOR
COMPOST FACILITIES**

Made Under the *Code of Practice for Compost Facilities*

(Effective January 14, 2022)

Prohibited Materials

Feedstock Limitations

- Hazardous waste or recyclables
- Dangerous oilfield waste
- Biomedical waste
- Radioactive materials
- Explosives
- Naturally Occurring Radioactive Materials (NORM) waste
- Construction and demolition waste
- Rockwool
- Car wash sump wastes
- Industrial sump and pit wastes
- Latex paint
- Hydrovac waste
- Soils containing hydrocarbons
- Waste containing sulphur
- Waste containing asbestos
- Drilling waste
- Wastes listed in Section 15(2) of the Code

Construction of Facilities

- Construction can only proceed after Director authorization
- Compost facilities must be constructed according to submitted and authorized plans:
 - Facility design plan and specifications
 - Soil conservation plan
 - Fire prevention and control plan
 - Odour management plan
 - Groundwater monitoring program

Compost Quality

- Class I or Class II compost facilities must **not** offer, give away, trade or sell compost produced unless it meets either Category A or B criteria in the CCME compost quality guidelines.



Vermicompost Quality

- Vermicompost must meet the CCME compost quality guidelines requirements for trace elements, foreign matter, and sharp foreign matter
- Meet other parameters such as pH, Electrical Conductivity, Magnesium, Calcium, Iron, Phosphorus, among others listed in Schedule B of the Code

Reporting and Record Keeping (5 years)

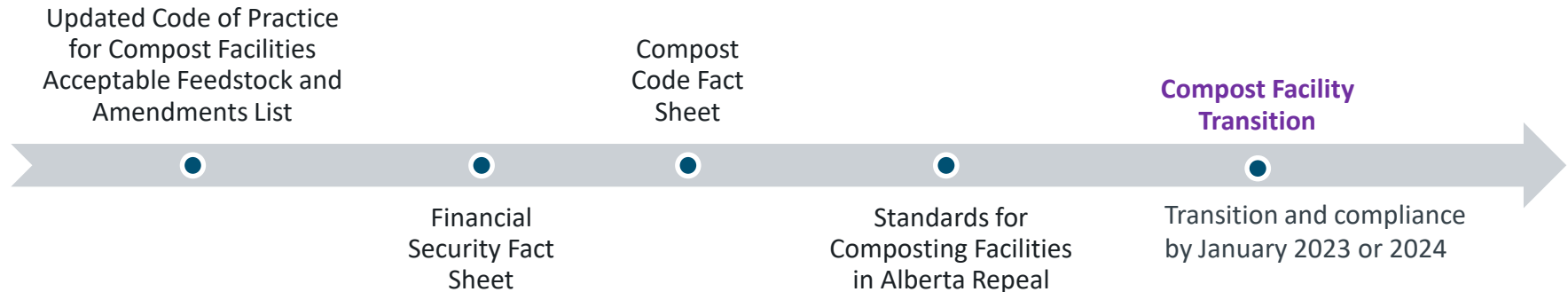
- Operating record (at all times)
- Sampling and monitoring reports
- Annual reports
- Public complaint(s)
- Annual tonnage report – March 31 (Submission to AEP)
- Nuisance management activities record
- Inspection and maintenance records
- Contravention(s)
- Compost and vermicompost product quality reports

Compost Facilities Transition

| Documents Type | Compost Facility Type | |
|---|-----------------------|----------|
| | Class I | Class II |
| Operations Plan | X | X |
| Fire Prevention and Control Plan | X | X |
| Nuisance Management Plan | X | X |
| Odour Management Plan | X | X |
| Compost Facility Checklist (Schedule C) | X | |
| Registration Application (Schedule D) | X | |
| Facility Design Report | X | |
| Groundwater Monitoring Program | X | |
| Outline intended products and markets | X | |

Other Code Related Updates

- [Financial Security Fact Sheet](#)
- [Repealed and Archived Standards for Composting Facilities in Alberta](#)
- [Code of Practice for Compost Facilities Fact Sheet](#)



Questions?

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