

Code of Practice for Hydrovac Facilities

2022 SWANA Canadian Symposium
Hydrovac Session
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Alberta

Agenda

- Background
- Overview of Code of Practice
- Waste Control Regulation Changes

Background

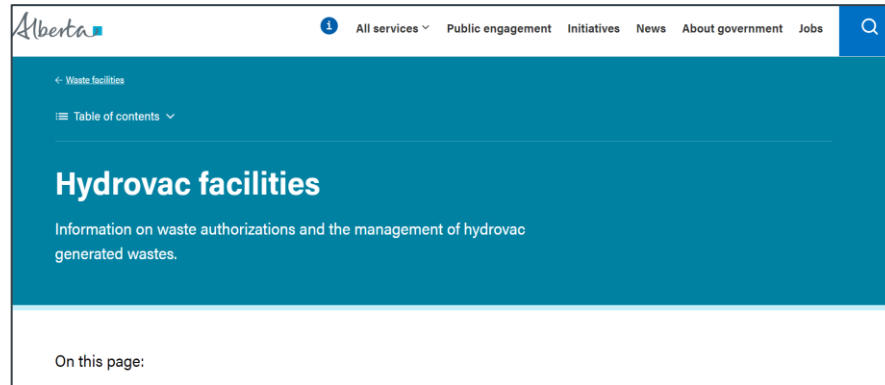
- Fact sheet on hydrovac waste in 2017
- Presentations in 2018 - 2019
- Engagement in December 2020 and June 2021
- Final version Code in December 2021



Code of Practice for Hydrovac Facilities

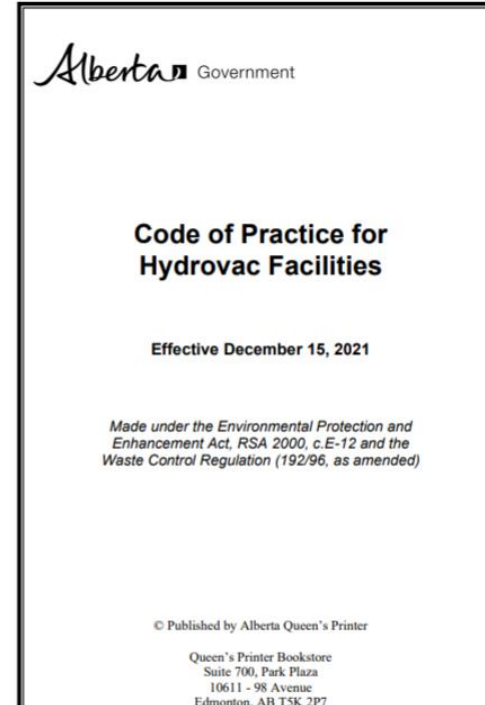
Alberta.ca

- <https://www.alberta.ca/hydrovac-facilities.aspx>



Code of Practice for Hydrovac Facilities

1. Definitions
2. Compliance
3. Registration
4. Facility Design Plan and Specifications
5. Soil Conservation Plan
6. Operations Plan
7. Groundwater Monitoring Program
8. Construction Specifications
9. Changes to Plans or Person Responsible
10. Operations of Hydrovac Facility
11. Monitoring and Testing Standards
12. Groundwater Quality Monitoring
13. Hydrovac Wastewater Quality Monitoring
14. Run-off Quality Monitoring
15. Hydrovac Solids Quality Monitoring
16. Reporting and Recordkeeping
17. Final Closure



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.

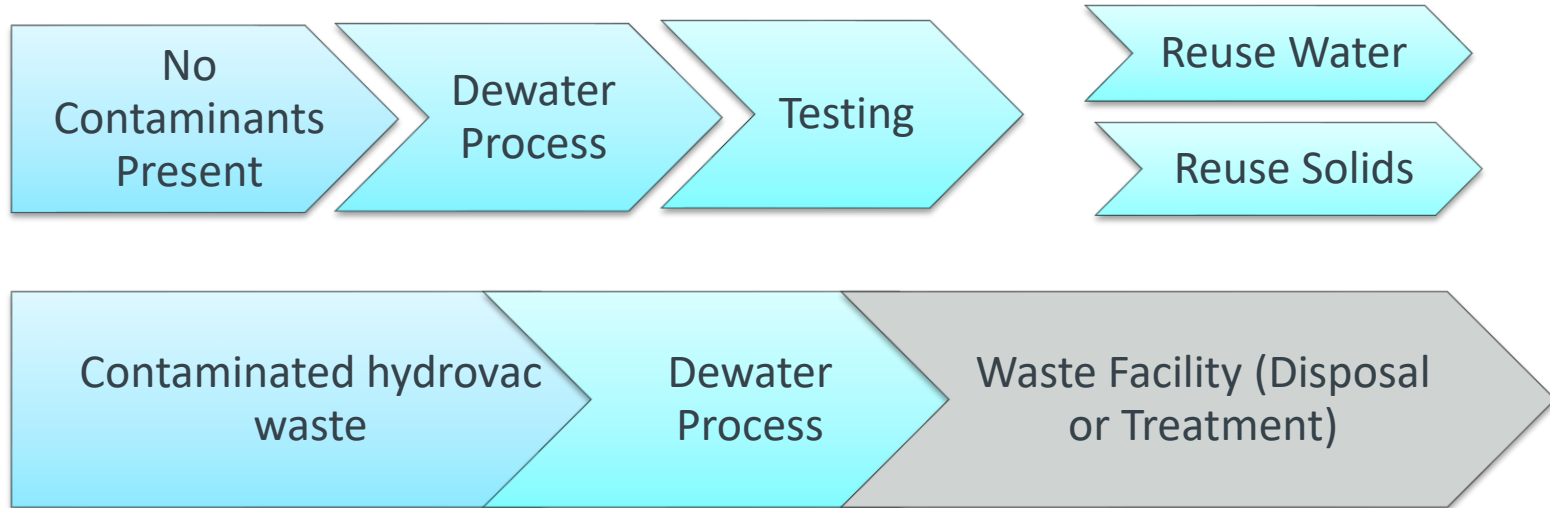
Codes Overview

- Enabled by Regulation
- Includes requirements associated with the registration, construction, operation and closure
- Design elements are part of the registration application.
- Waste acceptance and the treatment need to be include in the registration.

Code Layout



Registration – Facility Design



Registration – Facility Design

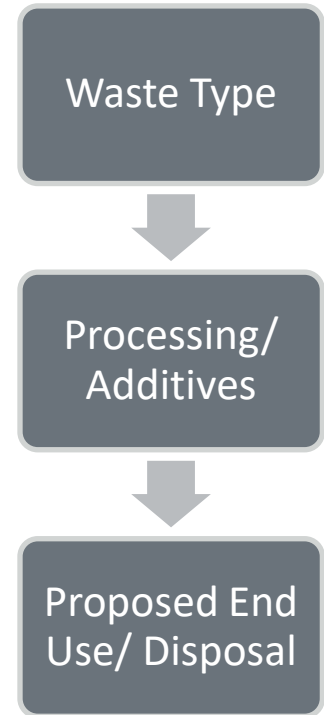
- Technology & Chemicals/Amendments
- Design Capacities (dimensions & volume in metres)
- Containment
 - 0.5 metre engineered clay liner for solids, and
 - 1.0 metre engineered clay liner for liquids
- Total capacity limited to 50,000 tonnes
- Run-on and run-off control systems
- Site Plan (include topography, nearby developments, cross-section of working surfaces and ponds)

Registration – Soil Conservation

- Plans to conserve on site topsoil and subsoil
- Evaluations of topsoil and subsoil depth
- Mapping showing the locations and volumes of each stockpile
- Background sample of soil quality
 - Also see Section 10 (11) requirements for specific requirements around the conservation of topsoil and subsoil on site.

Registration – Operations Plan

- Acceptance criteria
- Inspection procedures
- Site Security
- Inspecting of working surfaces
- Testing and Wastewater management
- Waste Disposal Procedures
- Emergency Response Plan
- Reporting plan



Registration – Groundwater Monitoring

- Baseline groundwater sample
- A plan to collect 2 samples each year for four years (8 samples)
- A plan to develop groundwater quality control limits
- A plan to sample annually, once control limits established
- Outline a groundwater response plan

Construction

- Construct to Facility Design Plans and Specifications
 - containment
 - run-on and
 - run-off control systems

Operations

- Operations Plan (registered and authorized)
 - Waste Acceptance
 - Waste Rejections
- Signage
- Recordkeeping of complaints
- Subsoil and Topsoil conservation

Operations - Waste Limitations

Waste Limitations

- Hazardous Waste
- Dangerous Oilfield Waste
Biomedical
- Radioactive and Canadian Nuclear Safety Commission regulated wastes
- Explosives
- NORM waste
- Industrial sump waste
- Biosolids, Septage**
- Municipal Solid Waste
- Waste containing sulphur
- Waste containing asbestos

**Does not include soil contaminated hydrovac around municipal sewer lines, add special handling.

Groundwater Monitoring

- Implement Groundwater Monitoring Program
- Groundwater well protection
- Well repair or replace as necessary
 - decommission within two years
- Recordkeeping
 - purging and sampling,
 - elevation,
 - temperature,
 - pH and
 - electric conductivity

Any remediation would also trigger reporting.

Additional Sampling

- Hydrovac Wastewater (section 13)
 - Sampling 250 cubic metres for release or use
- Run-off (section 14)
 - Batch sample – prior to release
- Hydrovac Solids (section 15)
 - Sampling 250 cubic metres for use

Run-off, Wastewater, Solids limits

- Must not: use, offer, give away, trade or sell unless
- Meets outlined criteria
 - Schedule C –Wastewater and Run-off
 - Schedule E - Hydrovac Solids
- does not contain any additives that do not pass toxicity test (such as Microtox)

Reporting and Record Keeping (5 years)

- Annual reports
- Public Complaint(s)
- Groundwater Monitoring
- Inspection and Maintenance Records
- Contravention(s)
- Reporting as required (Sections 12, 13, 14, 15)
- Release reporting

Final Closure - Site Restoration

- **Plan** - Within 6 months of the last day on which a hydrovac facility accepts waste, submit to the Director, in writing, a final closure plan.
 - The plan must be prepared by a qualified professional.
 - Closure implementation timelines are included in the plan.
- **Report** - The facility must submit the final closure report to the Director within 6 months of the facility completing the final closure as referred to in the above authorized plan.

Waste Control Regulation Changes

- Definition for dispose
- Email option for Hazardous Waste Manifest
- Expiry date

Waste Control Regulation Changes - Manifests

Copies of the manifest can be scanned and emailed to:

AEP.hazwastemanifest@gov.ab.ca.

- Scanned manifests must be legible and in a portable document format (PDF), preferably using optical character recognition (OCR) technology and a resolution of 600 dots per inch (dpi).
- As the subject line of the email and the PDF file use the specified format:

Generator to Receiver date shipped [yyyy-mm] Manifest # - Copy # (1 or 3)

- Limit each email and each PDF to a maximum of 5 manifests

Hard copies will no longer be accepted after **December 31, 2022**.

Generators

- Generator Company to Waste Company 2022-02 AB009999 - Copy 1

Receivers

- Generator Company to Waste Company 2022-02 AB009999 - Copy 3

Frequently Asked Questions

- **Acceptance of 50,000 tonnes per year**
- **Storage Site**
- **Groundwater Monitoring**
- **Contaminated vs. Non-contaminated**
- **Waste Screening**
- **Transition(s)**

Questions?

