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Directive 058 Modernization

Key Changes to *Directive 058: Oilfield Waste Management Requirements for the Upstream Petroleum Industry*

Presented by:
Tinu Odeyemi, Manger, Waste Management & Storage, Vicki Pugh, Senior Specialist, Aaron Sentes, Specialist

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Alberta Energy Regulator

Security Classification: Public

Overview

1. Directive 058 - Background & Modernization
2. Waste Characterization, Classification & Generator Knowledge
3. Documentation for Transportation
4. Waste Tracking and Reporting
5. Contamination Management
6. Biodegradation: Oilfield Waste
7. Appendix 2: Waste Codes
8. Modernization Roadmap

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Directive 058

What is Directive 058?

- Alberta's framework for oilfield waste management
- Sets requirements for handling, treatment, reuse, and disposal of oilfield waste produced by the upstream petroleum, geothermal, and brine-hosted mineral resource development industries
- Ensures oilfield waste is properly handled, tracked, treated, and disposed of throughout its lifecycle, from generation to final disposition.



Directive 058

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Effective date: June 4, 2026
Replaces previous edition issued February 7, 2025

Oilfield Waste Management Requirements for the Upstream Petroleum Industry

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Directive 058 Modernization



- No significant updates since 1996
- Requirements and processes have become outdated, unclear, and misaligned
- Industry stakeholders requested updates, consolidation, and simplification
- Modern, risk-informed regulatory approach and organizational effectiveness

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Key Changes - Clarification



Release of Oilfield Waste & Release Reporting



Waste Characterization & Classification – Generator Knowledge



Waste Receiver Verification



Transportation Documentation & Waste Tracking and Reporting

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Key Changes - Alignment & Updates



Aligned with Alberta Contaminated Sites Policy Framework and Legislation in the contamination framework



Clarified requirements around volatilization during biodegradation & included new reporting requirements



Revised Appendix 2

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Key Changes - A New Structure



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Manual 034: Oilfield Waste Management



Applications Schedules

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Waste Characterization and Classification



- Characterization assesses a waste's physical, chemical, and toxicological properties
- Classification uses characterization results to determine the dangers of transporting waste on public roads
- Classification informs the appropriate waste management option

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Waste Characterization and Classification



Waste Control Regulation, Schedule 1, sections 1 and 2



Generator Knowledge

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Generator Knowledge

- Section 3 sets out requirements when using generator knowledge to classify oilfield waste
- Generator knowledge may only be used where the process producing the waste has not changed since it was last characterized
- The generator must document how the classification was determined and provide it to the AER on request
- When generator knowledge is inadequate to make an accurate waste classification, the generator must test the waste using an accredited laboratory

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Manual 034

Generator Knowledge



Waste generators must apply generator knowledge appropriately



Any knowledge that is applied must be valid and verifiable



Using generator knowledge to determine waste classification involves a well-thought-out process

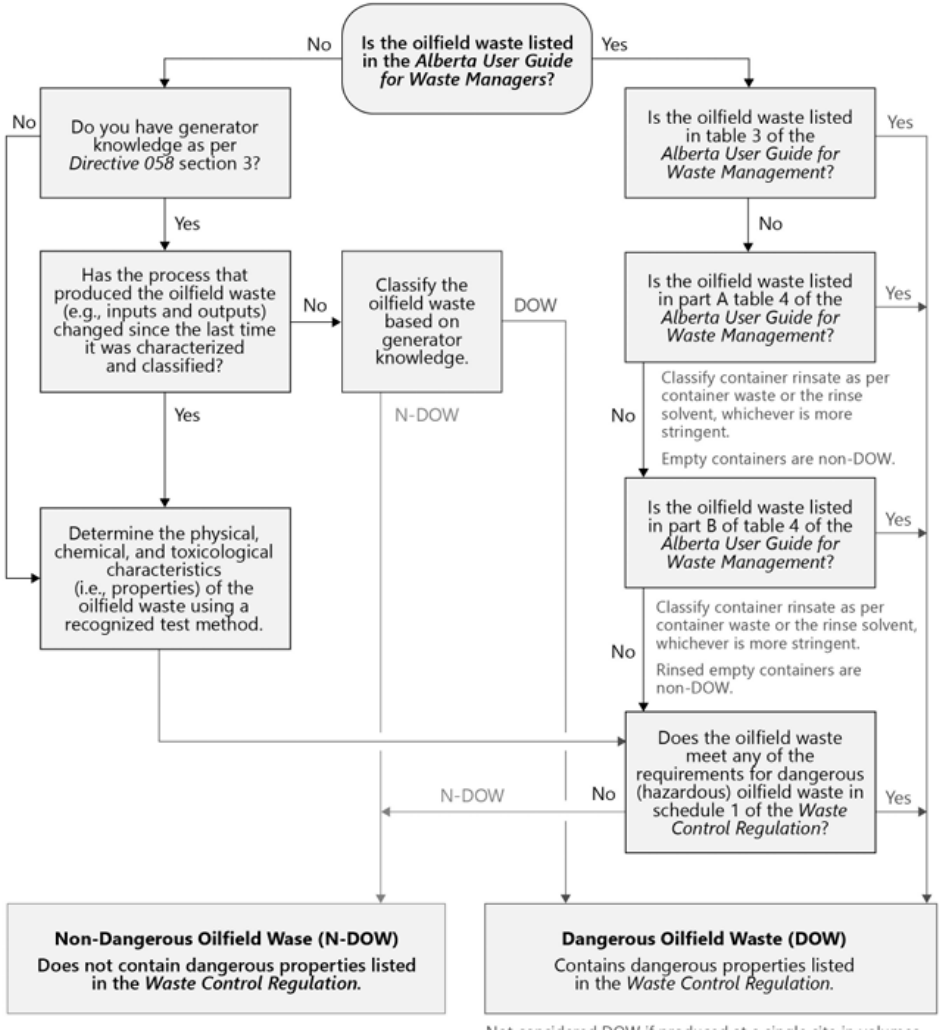


A safety data sheet may not be reliable for determining waste characterization and classification

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Manual 034

Waste generators can use Figure 2 in *Manual 034* to aid in classifying oilfield waste.



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Documentation for Transportation



Waste generator must ensure that oilfield waste is transported with the required shipping document that is complete and accurate



When shipping dangerous oilfield waste an Alberta Oilfield Waste Form must be used



A waste generator may obtain a permit for equivalent level of safety or equivalency certificate



Waste receiver must ensure that their portion of the shipping document is complete and accurate

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Manual 034

Documentation for Transportation



A printed copy of the waste form must travel with the shipment to meet Transportation of Dangerous Goods requirements



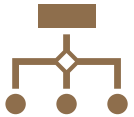
Waste form exemptions in *Directive 058* do not remove the need for complete tracking and supporting documentation before shipment



An AER Multiple Waste Attachment Sheet was created if more than four lines are need to record all waste transported in one shipment from one consignor to one consignee



Waste generators are responsible for shipping documentation that are complete and accurate



Multi-site or multi-licensee collection doesn't reduce the paperwork — document each site and waste stream individually

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Waste Tracking and Reporting

Waste Discrepancies

- Removal of serious discrepancy
- What counts as a discrepancy
- Resolving discrepancies

Waste Disposition Reporting

- Rescinding of *Directive 030: Digital Data submission of the Annual Oilfield Waste Disposition Report*
- New submission format
- What is included

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Contamination Management



Substance Release – Report the release and connect to section 2 of *Directive 058* release-reporting requirements.



Phase 2 environmental site assessment (ESA) or complete remediation and submit a report with a Record of Site Condition (RoSC) to OneStop as soon as possible upon becoming aware of a substance release.



Remedial Action Plan (RAP) if remediation cannot be completed within two years of discovering a substance release.

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Biodegradation – What's New

EFFECTIVE

June 4, 2026

Licensees must submit a notification for one-time onsite biopiles and biocells — regardless of volume — within 72 hours prior to construction.

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Volume	Work Plan or Remedial Action Plan for ≥ 100 m^3
Air	Emissions Monitoring
Analysis	Additional Parameters to Analyze
Report	Remediation Report + RoSC

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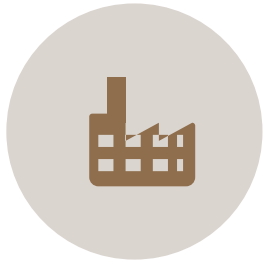
Biodegradation – Where Treatment May Occur



On the site where it was generated



On another active site within the same production system



At an authorized waste management facility

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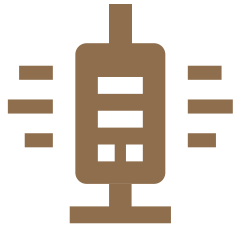
Biodegradation – Air Emissions



What is the purpose for air emissions monitoring



Volatilization - Not a primary treatment method



Ambient Air Monitoring Program

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Biodegradation – Air Emissions



Q: The ambient air monitoring program must be established under the direction of a qualified person. Who is considered a qualified person?



A: An environmental site representative overseeing the cleanup or remediation who has knowledge of an air monitoring program

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Biodegradation – Air Emissions



Q: When and how often does air monitoring need to occur?



A: During excavation and every soil processing event. Frequency is set by the qualified person, based on site conditions

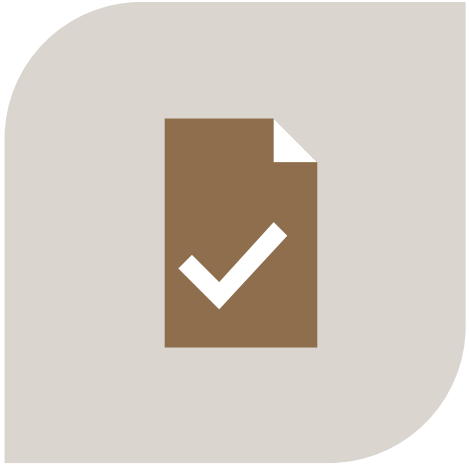
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Biodegradation – Air Emissions



Q: What do air samples need to be analyzed for?



A: Contaminants of potential concern associated with the soil undergoing treatment

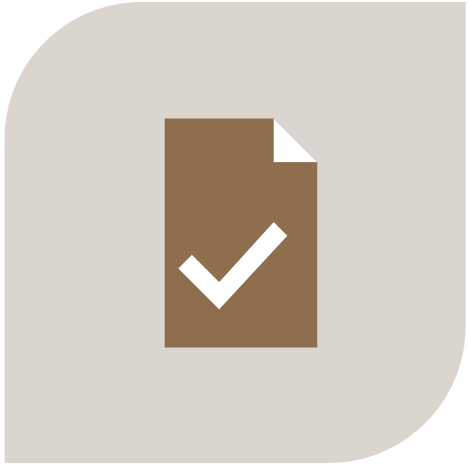
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Biodegradation – Air Emissions



Q: Are personal monitors acceptable for monitoring air emissions?



A: No

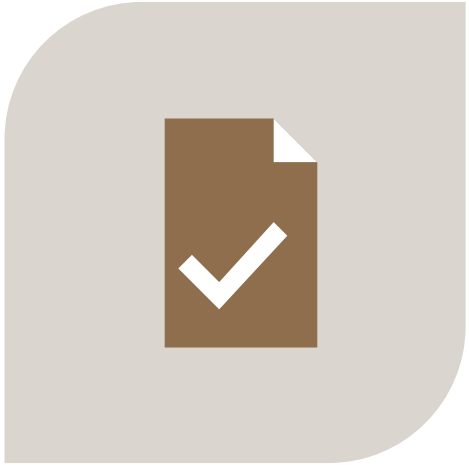
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Biodegradation – Air Emissions



Q: What happens if an air sample exceeds criteria?



A: The Licensee must have controls in place to mitigate emissions during biodegradation

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Biodegradation – Authorization under Directive 058



Deviating from a requirement



Acceptance of waste from multiple sites



Acceptance of third-party oilfield waste

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Biodegradation – Land Treatment

Since *Directive 058* (1996), the AER has not accepted applications for new dedicated land treatment facilities or expansion to existing facilities

Existing approved land treatment facilities may continue operating in accordance with their AER approvals

Effective June 2026, one-time land treatment activities are no longer permitted under *Directive 058*

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Appendix 2: Waste Codes



41% reduction in waste codes



Consolidated waste codes



Removed Common Waste Classification and Common Waste Properties

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Appendix 2: Waste Codes



Crude oil Condensate Emulsion (residuals after treatment) COEMUL to WSTEML



Contaminated Waters – (CWATER) to Surface Waters – Impacted (SWTRIM)



Table 4: Lists the oilfield waste codes to be used only when no other waste code applies



Table 5: Lists the oilfield waste codes that require special handling

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Modernization Roadmap

Phase 1 - low/medium complexity changes that resulted in substantive modernization of Directive 058

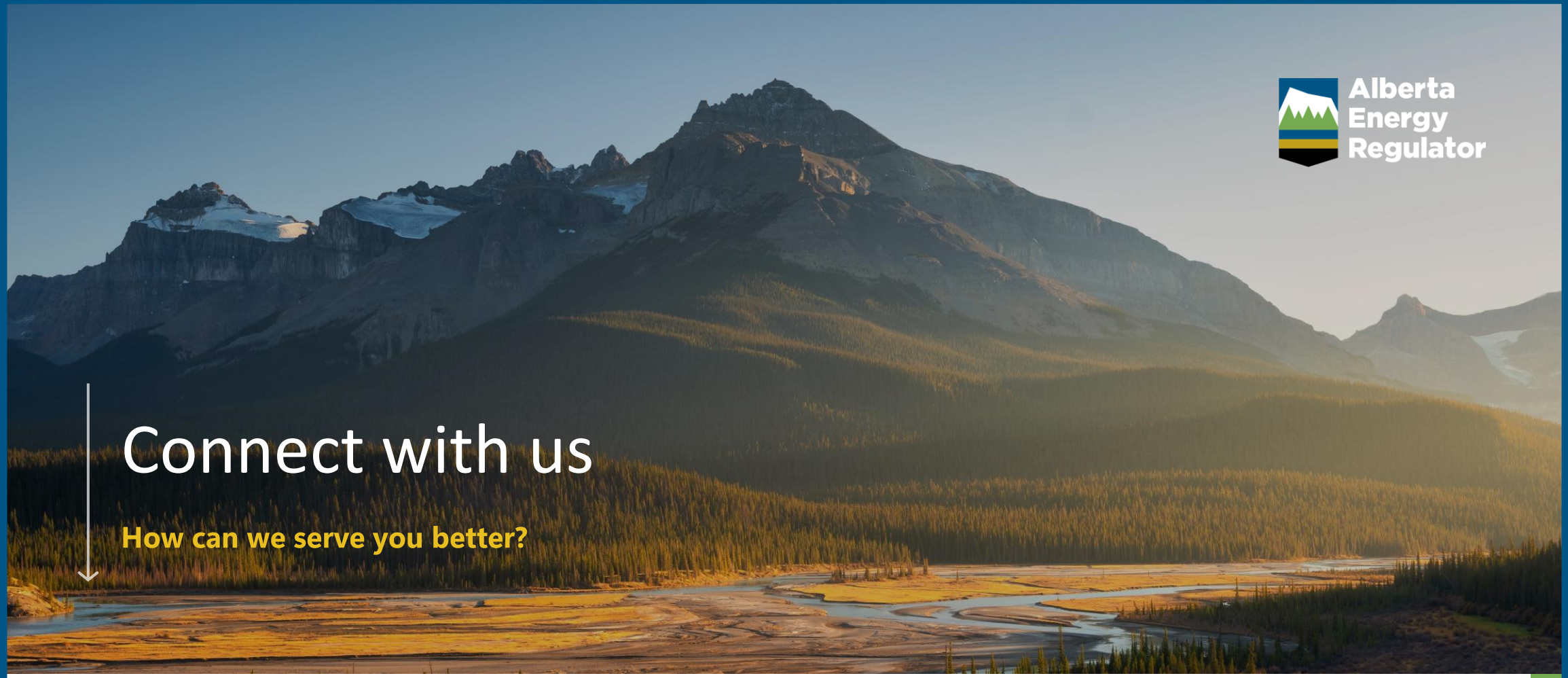
Phase 2 - complex items requiring a deeper dive, policy items related to legislative changes and require higher degree of external and government engagement

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