Proposed NWT Air Regulatory Framework

Purpose

- Air Regulations are a priority of the 18th Legislative Assembly of the Northwest Territories (NWT).
- Air quality is largely unregulated in the NWT. As a result:
  - There is a gap in environmental protection
  - There is a lack of clarity for proponents conducting business in the NWT
- Environment and Natural Resources (ENR) is proposing to fill that gap, to protect air quality, as well as the land and water of the NWT. This will benefit:
  - Human health and the environment
  - Industry, by creating regulatory certainty and consistency

Authority

ENR is proposing new Air Regulations be created under the Northwest Territories *Environmental Protection Act* (EPA). These potential Air Regulations would apply to the whole territory.

Guiding Principles

- Keep Clean Areas Clean
- Pollution prevention
- Continuous improvement of operations as they relate to air quality management
- Air emissions can impact other components of the environment, including land and/or water

For more information on the proposed amendments to the *Environmental Protection Act* and Air Regulations, please visit our website at http://www.enr.gov.nt.ca/programs/air-quality.

Proposed NWT Air Regulatory Framework

Framework Overview

Two types of requirements:*

- Air Registrations
- Air Permits

Framework Components and Concepts:

- Air Zone Management
- Best Available Technology Economically Achievable (BATEA)
- Best Operating Practices (BOP)
- Contaminant Limits
- Equipment Inventories and Air Assessments
- Source Performance Standards

Additional components depend on whether a Registration or Permit is required.

The proposed Air Regulatory framework was developed by reviewing practices in other Canadian jurisdictions and current practices used for air quality management in the NWT.

The proposed Air Regulatory framework will apply to all of the NWT.

***Note: subsequent pages will explain each part of this framework overview**

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Air Registrations
(small operations)

Will require:
- Equipment inventory
- Fuel / Chemical use or engine hours summary

ENR to develop templates and guidance material.

Other details:
- No registration fees
- No emission fees
- Administrative penalties for late/incomplete/non-compliance
- Renew every three years
- No reporting requirements

Activities that Require Registration – *see Schedule A of the technical Appendix on our website for more information.*
1. Operation of diesel-powered electricity generating facilities or equipment: 10kW <= combined max nameplate capacity < 1 MW
2. Operation of Crematories, human and animal
3. Operation of dry-cleaning facilities
4. Operation of wood product manufacturing facilities
5. Operation of heavy duty equipment equal to or in excess of three units or a combined Rated Net Power of 1,000kW
6. Operation of portable engines (water pumps, engine heaters, fuel pumps, etc) equal to or in excess of three units or a combined Rated Net Power of 1,000kW
7. Heavy duty vehicle fleet, equal to or in excess of three units
8. Boilers and heaters: 500kW <= nameplate capacity < 1500kW
9. Asphalt plants
10. Incinerators, in accordance with Source Performance Standard section

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Air Permits
(Large Operations)

Will require:
- Air Assessment and Equipment Inventory
- Use of BOP and BATEA (*see next page*)
- Compliance with Contaminant Limits, Source Performance Standards, etc.

Other details:
- Permit terms and conditions will be applied
- Monitoring and adaptive management
- Reporting
-Application fee and emission fees
Administrative penalties for late/incomplete submissions and non-compliance
- Permit renewal every five years (option of two-year extension)

Activities that Require Air Permits – *see Schedule B of the technical Appendix on our website for more information.*
1. Mineral mining construction and operations
2. Production, transportation (including pipelines), refining and exploration of oil and gas, including combustion products of flaring or burning petroleum and the release of petroleum vapours
3. Operation of combined electricity generating equipment or a facility with a maximum nameplate capacity >=1.0 MW on a given development site
4. Processing, handling or use of coal
5. The manufacture or processing of: • Chemical and allied products • Cement and lime products • Primary metal or metal products
6. Operation of boilers or heaters with a maximum nameplate capacity equal to or more than 1500kW
7. Any other activity the Minister deems to be a risk to local or regional air quality

Proposed NWT Air Regulatory Framework

Overview of Proposed Concepts

Air Zone Management

- **What is it:** This approaches Air Assessment and Air Permitting from a geographic context – it considers clusters of emitters as a whole instead of as individuals. There are no identified Air Zones (from this context) at this time in the NWT.
- **Who does it apply to:** Air Zone management is a potential future regulatory tool, and is being implemented as a placeholder. ENR is not proposing any Air Zones at this time.
- **Why are we doing it:** ENR believes that this concept is important for the management of cumulative effects as they relate to air emissions. Air zone management is an important part of the federal Air Quality Management System (AQMS), which fits with the Keep Clean Areas Clean principle and approaches by the Canadian Council of Ministers of the Environment (CCME).

BATEA – Best Available Technology Economically Achievable

- **What is it:** Permittees will be required to select and use the best available equipment that minimizes emissions, and secondary waste streams, while making sense economically. This is a progressive concept that minimizes emissions at the outset of an operation.
- **Who does it apply to:** Operations that require Air Permits are expected to implement BATEA on the majority of their emission-generating equipment. *Refer to Schedule C in the Appendix document for further details.*
- **Why are we doing it:** There's no better way to reduce emissions than at the source. BATEA is a progressive approach, and a concept that other jurisdictions are beginning to implement via a regulatory or voluntary approach. ENR has strongly encouraged its use during regulatory proceedings that have happened in the NWT.

***Note:** see Technical Appendix on our website for more details on each concept. http://www.enr.gov.nt.ca/programs/air-quality

Proposed NWT Air Regulatory Framework

Overview of Proposed Concepts*

BOP – Best Operating Practices

- **What is it:** Permittees must operate and maintain their emission-producing equipment in ways that minimizes or reduce impacts to air quality. It requires considerations beyond individual activities to look at overall operations.
- **Who does it apply to:** Operations that require Air Permits are expected to implement BOP.
- **Why are we doing it:** This concept allows for more adaptive management actions and gives ENR the ability to work with Permittees rather than pursuing more rigid corrective actions.

Contaminant Limits

- **What is it:** They are a standard tool to set thresholds on allowable amounts of a particular substance in the environment. Contaminant Limits for air management can be established for ambient air, point of impingement, deposition, etc.
- **Who does it apply to:** Operations that require Air Permits are expected to comply with Contaminant Limits. At this time, ENR is proposing Ambient Air Quality Limits and Ambient Air Quality Objectives only.
- **Why are we doing it:** Contaminant Limits are a final mechanism to ensure human health and the environment are being protected.

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Overview of Proposed Concepts*

Equipment Inventories and Air Assessments

- **What is it:** These are the methods of gathering the necessary information to assess the potential impacts on air quality from a particular operation.
- **Who does it apply to:** Operations that require Registration are expected to populate an equipment inventory and fuel/chemical use template. Operations that require an Air Permit are expected to provide an air quality assessment, which includes equipment and emissions inventories, as well as dispersion and deposition modeling.
- **Why are we doing it:** For registration purposes this is an information gathering exercise to determine future regulatory considerations. The air quality assessment is standard practice for establishing air emission inputs into the environment.

Source Performance Standards

- **What is it:** An emission limit applied to a particular equipment type, to reduce emissions at the source to protect air quality.
- **Who does it apply to:** At this time ENR is proposing a Source Performance Standard for waste incinerators (*see next page for this specific Source Performance Standard*).
- **Why are we doing it:** This emission management approach is effective at reducing emissions at the source to protect air quality.

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Waste Incineration – Source Performance Standard

Components and Thresholds
Solid waste incinerators in the NWT require **Registration**. For all waste incinerators, the following applies:
• restrictions on what types of materials can be incinerated.
• waste incinerator operational and maintenance logs shall be kept.
• details on type of information to provide to ENR regarding all waste incinerators.
• operators to maintain a record of logs and data for a minimum of three years.
• proper management and disposal of ash and scrubber water from all waste incinerators.
The following additional requirements apply to a waste incinerator with a design capacity >100 kg/batch, >400 kg/day, >10 tonnes/month, or >26 tonnes/year:
• compliance with emissions standards for particular contaminants.
• stack testing within six months of start-up and every three years thereafter.
• reporting and adaptive management requirements for stack testing.
• intermittent incinerator stack in-line emission monitoring (ICEM) or continuous emission monitoring (CEM)
• annual reporting requirements.

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Additional Framework Components:
Emission fees – apply to Air Permittees. Operations pay $10/tonne per year on criteria air contaminants and industry-specific parameters above a 30 tonne threshold. Anything under 30 tonnes per year does not require payment of an emission fee.
Administrative penalties – fines will be applied for a variety of reasons through the Summary Conviction Procedures Regulations. Examples include: failure to adhere to a term and condition of a Permit, failure to adhere to contaminant limits, failure to register emission sources, etc.
Open burning – only clean wood, clean paper, or clean paperboard shall be openly burned. An exception will apply in case of emergency spill clean-ups, fire-fighter training, and burning of wildlife (e.g. anthrax outbreak).
Unanticipated releases – this component sets some requirements if an operation has an unexpected failure in equipment or emergency situation resulting in air emissions.
Nuisance emissions - this component allows the ENR to issue a stop work order if an air emission from an operation is considered to be a nuisance.

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***Environmental Protection Act* Amendments**

The EPA needs some minor amendments to enable the proposed Air Regulatory framework.

Proposed Amendments
Remove **non-application clause** - this clause creates a situation in which the EPA may not apply to an activity being regulated by another piece of legislation. For regulatory clarity, ENR is proposing its removal.
Add an **exemption clause** to the EPA that allows regulations under the EPA to include exemptions. This allow for more flexibility and considers potential unforeseen circumstances in any air regulatory framework.
Create authority for **Registries** and require registration of emitters - this allows ENR to gather necessary information and inform future regulatory decision-making.
Make certain information **publically available on a Registry** – this will allow the Air Permit process and associated documents to be publically available, similar to Land Use Permits and Water Licenses.
Remove **Vehicle Sources exception –** this will allow ENR to gather information from heavy duty vehicle fleets, and require BATEA for mobile sources for Permittees**.** ENR has not proposed and is not focused on any public requirements for small vehicle fleets etc.
Define **Domestic Sources exception** to ensure it doesn't include **woodstoves –** ENR is not proposing to regulate woodstoves at this time, but would like the authority to deal with poor air quality events resulting from woodstove use.

Proposed NWT Air Regulatory Framework

Air Regulatory Framework Development – Stages 1 - 4

Stage 1:
• Carry out engagement/consultation on Air Regulatory framework
• Develop Registry templates and online Registration System
• Develop online Public Registry
• Develop application guidance documents
• Initiate research project for deposition contaminants limits (with Wildlife Division of ENR)
Stage 2:
• Develop Air Dispersion and Deposition Modeling Guideline
• Develop Air Quality Monitoring Guideline to direct monitoring, QA/QC and reporting requirements
• Work with Climate Change Unit of ENR on greenhouse gas related additions to Air Regulations
• Refine Oil and Gas-specific components within the Air Regulations

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Air Regulation Framework Development – Stages 1 - 4

Stage 3:
• Update and incorporate ENR's Guideline for Ozone Depleting Substances (ODS) into the Air Regulations
• Make determination on deposition contaminant limits
• Develop Air Zone Management framework
• Research and add new Contaminant Limits or Source Performance Standards to the Air Regulations
• Review NWT emission/equipment Registration inventory and make determinations on need for: • Updating Schedule B (activities requiring a permit)
Stage 4:
• Review functionality and effectiveness of Air Regulations and revise as necessary

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Engagement Timelines

Date	Activity
June 17th, 2016	Engagement/Consultation begins
September 16th, 2016	**Final comments on proposed Air Regulatory framework due to ENR**
September 30th, 2016	ENR will process reviewer comments
Fall 2016/Early 2017	Draft bill for EPA amendments introduced and passed in the Legislative Assembly. Three readings of the Bill are required. ENR will provide responses to reviewers comments
Early 2017	Draft NWT Air Regulations published in the NWT Gazette for a 90-day review period
Spring 2017	ENR Minister approves NWT Air Regulations

ENR wants to ensure meaningful engagement and consultation on the proposed Air Regulatory framework. As such, the dates above are the ideal timeline that ENR anticipates following.