



Redefining possible.

AIR QUALITY AND NOISE INFORMATION SESSION

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Noise - Ontario Applicable Guidelines and Standards

Compliance Process Overview

- Requirement for noise compliance comes under **Section 9** of the **EPA**
- Applications (**ECAs/EASRs**) need to show noise compliance
- **Noise Pollution Control (NPC)** publications provide Ministry guidelines for noise compliance
- Applications are reviewed and approved by MECP professional engineers

Predictable Worst-Case Scenario

- Need to present the “predictable worst-case” noise impact
- “All sources on” = maximum flexibility, but may not be the “predictable worst-case” scenario
- Predictable worst-case may include:
 - Time-averaging of operations
 - Turning off daily periodical sources and infrequent sources




Example Site

From Planning to
Operating

Permitting

- Submitted noise model and noise report to MECP
- MECP engineers discussed operations with Teeswater/RWDI
- Environmental Compliance Approval issued

Ontario  Ministry of the Environment
Ministère de l'Environnement, de la Protection

ENVIRONMENTAL COMPLIANCE

Teeswater Concrete Ltd.
1201 Bruce County Road 6
South Bruce, Ontario
N0G 2S0

Site Location: 341076 Grey Road 28
Hanover Town, County of Grey
N4N 3B9

You have applied under section 20.2 of Part II.1 of the Environmental Protection Act (Environmental Protection Act) for approval of:

Description Section

A ready-mix concrete batching facility, consisting of the following processes and supplies:

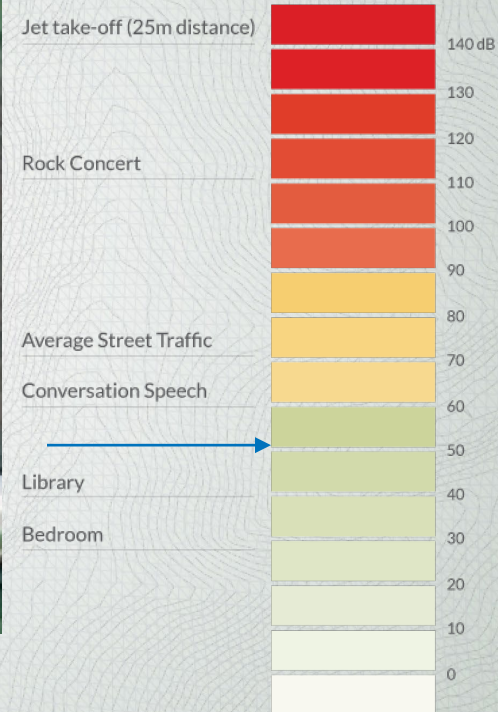
- aggregate materials, including gravel, limestone, and sand, delivery, storage and handling;
- cementitious materials, including Portland cement and additives, delivery, storage and handling;
- concrete batching;
- ready-mix truck loading and shipping; and
- fugitive emissions from the delivery, storage and transfer of materials associated with the above processes.



Predicted Arthur Site

Predicted Sound Levels

- Based on MECP-approved Hanover noise model
- Arthur plant will be more enclosed than Hanover site, thus actual sound levels to be lower
- Future plant to be quieter than existing Clark Brothers operations



Air Quality - Ontario Applicable Guidelines and Standards

Compliance Process Overview

- Under Section 9 of the Environmental Protection Act (EPA) - Facilities that release contaminants to air are required to obtain approval.
- For facilities such as Teeswater, this takes the form of an Environmental Compliance Approval (**ECA**).
- In order to obtain an ECA, the facility must demonstrate compliance with the air quality criteria.
- ECA Applications are reviewed and approved by MECP professional engineers.
- MECP has authority to inspect any facility at any time to ensure they are operating in accordance with their permit.

Steps to Obtain an ECA

- Develop a reasonable maximum operating scenario
- Assess all emissions to air from the facility
- Predict off-site concentrations using an approved dispersion model
- Compare to MECP standards, guidelines, and screening levels
- Prepare an Emission Summary and Dispersion Modelling (ESDM) report
- Prepare a Best Management Practices Plan for fugitive dust or odour (if applicable)
- Submit the application package to the MECP for review and approval



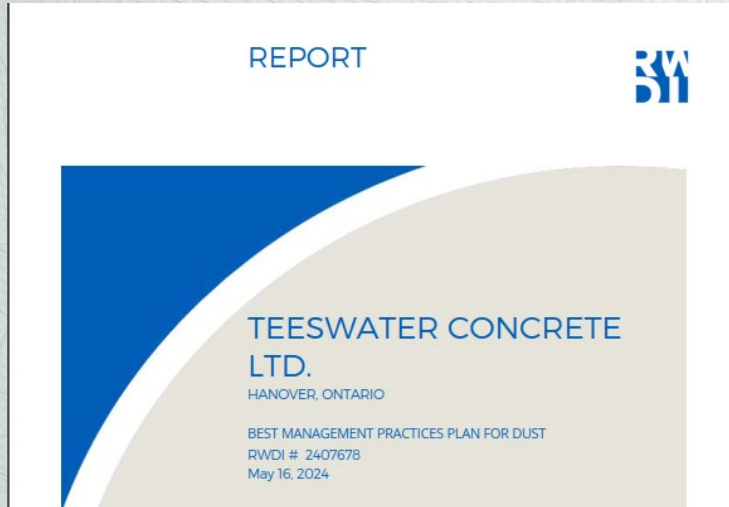
Example Site

From Planning to
Operating

Example Teeswater Hanover Site

- Maximum operating scenario – delivery, production, shipping all at maximum daily capacity
- Emissions calculated using conservative emission factors from the US EPA and MECP
- Sources entered into dispersion model
- Grid of receptors at and beyond property line assessed
- Cumulative impact assessed (all sources operating at once)
- **All predicted concentrations were below the applicable air quality criteria**

BMPP for Dust



- BMPP for Dust developed based on discussions between Teeswater and RWDI
- Provides controls for fugitive dust sources such as material handling and on-site traffic
- Includes inspection, monitoring, and record keeping requirements
- Follows “Plan, Do, Check, Act” process
- As part of an inspection, MECP will check that BMPP is being followed.

Permitting

- Submitted ESDM report, dispersion modelling files, and Dust BMPP to MECP
- MECP engineers discussed operations with Teeswater/RWDI
- Environmental Compliance Approval issued



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- concrete batching;
- ready-mix truck loading and shipping; and
- fugitive emissions from the delivery, storage and transfer of materials asso



Arthur Site

Arthur Site

- Air quality assessment would need to be completed.
 - Compliance with air quality criteria will be required in order to obtain an ECA.
- Arthur plant will be more enclosed than Hanover site, thus actual dust levels expected to be lower.
- Approach taken would be similar to Hanover but will take into account the specific site plans and operation plans for the Arthur facility.





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THANK YOU!