

# Noise Screening

October 20, 2010

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# Requirement to assess noise

All applications submitted for review by the Air & Noise Unit are required to follow ministry guidance to assess the noise from the facility, unless the application is for one of the following:

- A minor amendment to an existing approval such as a correction or name change that does not require technical review;
- An amendment to an existing approval for a modification that does not have the potential to change the noise emission from the facility, such as a paint reformulation
- Equipment that does not have the potential to generate noise emissions, such as a storage tank

# Noise Assessment Options

- ▶ Primary Noise Screening Process
- ▶ Secondary Noise Screening Process
- ▶ Abbreviated Acoustic Assessment Report
- ▶ Acoustic Assessment Report

# Primary Noise Screening Process

- ▶ designed to be completed by the applicant without requiring detailed calculations
- ▶ conservative assumptions regarding the likely noise sources present at the facility
- ▶ includes adjustments for acoustical environment, hours of operation and elevated background noise from major highways/roadways
- ▶ submit a signed Primary Noise Screening form confirming the actual separation distance is greater than the minimum required

# Primary Noise Screening Process

## ► Limitations:

- only applies to facilities with NAICS Codes starting with 21, 22, 31, 32 or 33
- may not be used in the following cases:
  - application for equipment identified as candidates for the Streamlined Review Unit (SRU)
  - facility closer to a Point of Reception than 50 metres
  - facility includes significant sources of noise emissions not addressed by the Primary Noise Screening Process
  - facility/operations utilize significant sources of vibration such as stamping presses or forging hammers
  - application for Renewable Energy Approval (REA)

# Secondary Noise Screening Process

- ▶ designed to be completed by a competent practitioner with:
  - a rudimentary knowledge of acoustics
  - basic understanding of MOE noise guidelines
- ▶ less conservative than the Primary Noise Screening Process, because site specific conditions are factored in:
  - actual location of noise sources relative to the Point of Reception
  - effect of barriers breaking line-of-sight
- ▶ adjustments for acoustical environment, hours of operation and elevated background noise from major highways/roadways
- ▶ equations are provided to determine sound levels at POR
- ▶ submit a Secondary Noise Screening Report confirming the sound level at the POR is in compliance with MOE limit

# Secondary Noise Screening Process

## ► Limitations:

- does not apply to applications for Renewable Energy Approval (REA)
- can not be used if significant impulsive and/or vibration sources present at the facility
- source data limited to:
  - Noise Red Flag Tables
  - manufacturers' published noise data
- sound data obtained by measurements at site are not acceptable
- may not be used to assess noise impacts from:
  - trucks with refrigeration units
  - truck loading/unloading utilizing truck blowers or outdoor pumps

# Abbreviated Acoustic Assessment Report

- ▶ designed for facilities that fail to screen out, but can demonstrate compliance without the detail of an Acoustic Assessment Report
- ▶ to be completed by an acoustical consultant
- ▶ may include:
  - measured source sound levels
  - manufacturer's published data
  - generic sound levels
- ▶ submit an Abbreviated Acoustic Assessment Report confirming the sound level at the POR is at least 6 dB below the applicable MOE limit



# Abbreviated Acoustic Assessment Report

► Limitations:

- not acceptable for Comprehensive CofA, which requires an AAR with complete source inventory tables
- substantial difference between the POR's background sound levels and facility impacts
- significant buffer space between the facility and nearest POR, with intervening:
  - densely massed industrial/commercial buildings, and/or
  - deep grove of dense, tall permanent foliage, and/or
  - major transportation corridor
- facility sound levels are demonstrated through measurements or prediction to be at least 6 dB less than the applicable limit(s)

**Or**

- the acoustical consultant is certain that other mitigating circumstances warrant the use of the Abbreviated Acoustic Assessment Report format (subject to MOE acceptance of the detailed rationale)

# Acoustic Assessment Report

- ▶ all other applications would require an Acoustic Assessment Report
  - demonstrating compliance with the MOE limit
  - or
  - incorporating a commitment to install noise control measures to achieve compliance

# Future Considerations

- ▶ draft guidance distributed for review by Air Practitioners' Group
- ▶ submit written comments to Ortech
- ▶ comments to be addressed at a future session or considered in future updates to the guidance