Section 9 Environmental Protection Act R.S.O. 1990

GENERAL NOISE SCREENING PROCESS FOR S.9 APPLICATIONS

Version 1.0 October 13, 2010

CONTENTS OF THIS DOCUMENT ARE SUBJECT TO CHANGE WITHOUT NOTICE

PIBS ????e



Addendum:

This document is updated regularly by the Ministry of the Environment (ministry) to ensure that it provides accurate guidance relating to current policies, acts, regulations and application requirements. To obtain an updated copy of this document, please refer to the "Publications" section on the ministry Internet site at www.ene.gov.on.ca or contact the Environmental Assessment and Approvals Branch (EAAB) by telephone at 1-800-461-6290 (locally at 416-314-8001) or by e-mail at EAABGen@ontario.ca.

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FOREWORD

The Ministry of the Environment (ministry) approvals program requires that all undertakings requiring approval under ministry legislation are carried out in accordance with the Acts and applicable Regulations and Guidelines administered by the ministry. These requirements are updated from time to time by the ministry as environmental standards and environmental management approaches are modified. This document should be read in conjunction with the following approval application guides or their successors, as amended:

- Primary Noise Screening Process for S.9 Applications Supplement to Application for Approval, PIBS 4871e;
- Secondary Noise Screening Process for S.9 Applications, Supplement to Application for Approval, PIBS 6888e;
- Guide for the Preparation of an Abbreviated Acoustic Assessment Report, PIBS ????e; and
- Schedule "B" Supporting Information for the Preparation of an Acoustic Assessment Report, November 2003; or Basic Comprehensive Certificates of Approval (Air & Noise) – User Guide (April 2004) – Appendix A, Supporting Information for an Acoustic Assessment Report or Vibration Assessment Report Required by a Basic Comprehensive CofA, PIBS 4391e

As requirements are changed, the information needed to demonstrate compliance with them may also change. In recognition of this, the ministry will update this document to reflect the most current requirements. All web site addresses referred in this document were current at the time of release.

While every effort has been made to ensure the accuracy of the information contained in this document, it should not be construed as legal advice.

For any addenda or revisions to this document please visit the ministry website at:

http://www.ene.gov.on.ca/en/publications/index.php

or contact:

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INTRODUCTION

Background

Certificates of Approval (CsofA) are required by the Environmental Protection Act (EPA) and the Ontario Water Resources Act (OWRA) for specific activities related to sewage works, air, noise and vibration emissions, and waste management activities.

Air and noise CsofA are issued under Section 9 of the EPA. The EPA defines a contaminant to include sound or vibration. In order to obtain an approval under Section 9 of the EPA applicants are, as a minimum, required to assess and document the impacts of all sound (noise) and vibration emissions from their facility on all sensitive locations defined as a Point of Reception (POR).

The ministry has developed a series of Noise Pollution Control (NPC) guidelines and two Noise Screening documents (Primary & Secondary) that provide a framework to determine if noise emissions from a facility are causing, or are likely to cause, an adverse effect.

If a facility is closer to a Point of Reception than 50 metres (property line to property line), noise screening may not be used (neither the Primary nor the Secondary Noise Screening Process). Conversely, if a facility is well sited, located more than 1,000 metres from a Point of Reception, then a detailed noise assessment is not required.

If significant vibration sources, such as stamping presses or forging hammers, are present at the facility, then neither the Primary nor the Secondary Noise Screening Process may be used and a detailed noise and vibration impact assessment is required.

How to Use this Document

This document is not intended as a stand-alone document. It is expected that in addition to this document, applicants will have read, as applicable: the "Primary Noise Screening Process for S.9 Applications – Supplement to Application for Approval, PIBS 4871e; the "Secondary Noise Screening Process for S.9 Applications, Supplement to Application for Approval, PIBS 6888e"; Guide for the Preparation of an Abbreviated Acoustic Assessment Report, PIBS ????e; and "Schedule "B" Supporting Information for the Preparation of an Acoustic Assessment Report, November 2003"; or "Basic Comprehensive Certificates of Approval (Air & Noise) – User Guide (April 2004) – Appendix A, Supporting Information for an Acoustic Assessment Report or Vibration Assessment Report Required by a Basic Comprehensive CofA, PIBS 4391e", prior to submitting an application for a CofA to the EAAB.

If, after reading all of the guidance material, an applicant still has questions regarding the General, Primary or Secondary Noise Screening Process, questions should be directed to a

PIBS: ????e

Client Services Representative from the Environmental Assessment and Approvals Branch (EAAB).

General information on the CofA Program is available on the ministry web site at: http://www.ene.gov.on.ca/en/publications/index.php



NOISE SCREENING

1.1. Noise Screening for Certificates of Approval (Air) Applications

Applicants are required to follow ministry guidance to assess the noise from the facility and subsequently demonstrate compliance with ministry guidelines in order to obtain a Certificate of Approval, unless the application is for one of the following:

- a) A minor amendment to an existing approval such as a correction or name change that does not require technical review;
- b) An amendment to an existing approval for a modification that does not have the potential to change the noise emission from the facility, for example:
 - o paint reformulation;
- c) Equipment that does not have the potential to generate noise emissions,
 - o for example a storage tank; or
- d) Equipment identified for review by the Streamlined Review Unit (SRU) at EAAB

For more information regarding compliance with noise guidelines, please refer to the "Guide to Applying for Approval (Air & Noise)" and the Noise Pollution Control (NPC) documents.

1.2. Noise Screening Options

The Noise Screening Process is based on confirming that there is a sufficient separation distance between the facility's noise sources and nearby Points of Reception (PORs) to ensure that the facility's noise emissions will not exceed the ministry noise guidelines.

There are two noise screening options, the Primary Noise Screening Process and the Secondary Noise Screening Process. If an application is not screened out using either of these two screening options, then a noise review is required and either an Abbreviated Acoustic Assessment Report or an Acoustic Assessment Report must be submitted with the CofA application. The Abbreviated Acoustic Assessment Report should be prepared in accordance with MOE Publications entitled NPC-233 "Information to Be Submitted for Approval of Stationary Sources of Sound" October 1995 and "Guide for the Preparation of an Abbreviated Acoustic Assessment Report, PIBS ????e". The Acoustic Assessment Report should be prepared in accordance with MOE Publications entitled NPC-233 "Information To Be Submitted For Approval Of Stationary Sources Of Sound" October 1995 and either Schedule "B" Supporting Information for the Preparation of an Acoustic Assessment Report, November 2003; or Basic Comprehensive Certificates of Approval (Air & Noise) – User Guide (April 2004) – Appendix A, Supporting Information for an Acoustic Assessment Report or Vibration Assessment Report Required by a Basic Comprehensive C of A, PIBS 4391e.

1.2.1 Primary Noise Screening Process

The Primary Noise Screening Process has been designed to be completed by the applicant without requiring detailed calculations. The Primary Noise Screening Process uses conservative assumptions regarding the likely noise sources present at the facility to calculate the minimum required separation distance to achieve compliance with ministry noise guidelines.

If the actual separation distance between the facility and the closest Point of Reception is greater than the calculated minimum required separation distance, then no further noise assessment is required. In order to satisfy the noise assessment requirements of the approval process, a signed Primary Noise Screening form, that has been prepared in accordance with ministry guidance material, must accompany the application.

If the closest Point of Reception is closer than the minimum required separation distance calculated in the Primary Noise Screening Process, then further noise assessment is required. Applicants may choose to go through the Secondary Noise Screening Process or submit an Abbreviated Acoustic Assessment Report or an Acoustic Assessment Report.

1.2.2 Secondary Noise Screening Process

The Secondary Noise Screening Process is more rigorous than the Primary Noise Screening Process, but significantly less intensive than preparing an Abbreviated Acoustic Assessment Report or an Acoustic Assessment Report. The Secondary Noise Screening Process has been designed to be completed by a competent practitioner with a rudimentary knowledge of acoustics and basic understanding of applicable MOE noise guidelines, but who is not necessarily an acoustical consultant. The Secondary Noise Screening Process is less conservative than the Primary Noise Screening Process, because site specific conditions are factored in. The Secondary Noise Screening Process takes into account the following site specific information:

- a) Actual location of noise sources relative to the Point of Reception;
- b) Effect of barriers breaking line-of-sight; and
- c) Background noise from major highways/roadways.

If an application is screened out using the Secondary Noise Screening Process, then no further noise assessment is required. In order to satisfy the noise assessment requirements of the approval process, a signed Secondary Noise Screening Report, that has been prepared in accordance with ministry guidance material, must accompany the application.

If an application is not screened out by either the Primary or Secondary Noise Screening Process, then further assessment is required and an Abbreviated Acoustic Assessment Report or an Acoustic Assessment Report must be submitted with the application.

ABBREVIATED ACOUSTIC ASSESSMENT REPORT

Some facilities that fail to screen out using the Primary or Secondary Noise Screening Process, may have simple noise emissions that can be clearly shown to satisfy the applicable sound level limits without requiring the detail of an Acoustic Assessment Report. The Abbreviated Acoustic Assessment Report (A-AAR) has been developed to address these situations.

The intent of the Abbreviated Acoustic Assessment Report is to allow for the generation of a simplified Acoustic Assessment Report which is less time consuming to prepare and more straightforward to review. This format is only applicable to facilities comprising a simple sound emission situation. The conditions under which an Abbreviated Acoustic Assessment Report may be appropriate must include the following:

- 1. The application precipitating the Acoustic Assessment must not be for a Comprehensive Certificate of Approval (CCA). (A full Acoustic Assessment Report, with complete source inventory tables, is required for a CCA)
- 2. There should be a substantial difference between the background ambient sound levels due to traffic at the Points of Reception neighbouring the facility and the noise sources under investigation.
- 3. There must be several hundred metres of buffer space between the facility and nearest Points of Reception, with intervening:
 - a. densely massed industrial/commercial buildings, and/or
 - b. a deep grove of dense, tall permanent foliage, and/or
 - c. a major transportation corridor.
- 4. (a) The sound levels at the nearest Points of Reception due to significant noise sources at the facility (proposed or existing facilities) are demonstrated through measurements or prediction to be at least 6 dBA less than the applicable limit(s).

Or

(b) If the application does not meet all above conditions, but the acoustical consultant is certain that other mitigating circumstances warrant the use of the Abbreviated Acoustic Assessment format, then the format may be applied, provided a detailed rationale for its use is documented. If the Ministry does not accept the proposed rationale, the abbreviated format will not be accepted.

An application *may* be a suitable candidate for an Abbreviated Acoustic Assessment Report if it meets the above four conditions. However meeting the above conditions does not guarantee an application's eligibility to use the Abbreviated Acoustic Assessment Report format. If the Ministry rejects the Abbreviated Report (A-AAR), then the submission of a full Acoustic Assessment Report (AAR) would be required.

ACOUSTIC ASSESSMENT REPORT

An Acoustic Assessment Report is required for all those applications that are required to demonstrate compliance with ministry noise guidelines (as outlined in the NPC documents) that have not screened out using either the Primary or Secondary Noise Screening Process.

An Acoustic Assessment Report is based on a detailed noise review of the noise sources at the facility and their impacts on neighbouring Points of Reception. An Acoustic Assessment Report must include sufficient information and analysis to demonstrate compliance with ministry noise guidelines. Generally, conducting a noise assessment and preparing the accompanying Acoustic Assessment Report require the assistance of an Acoustical Consultant.

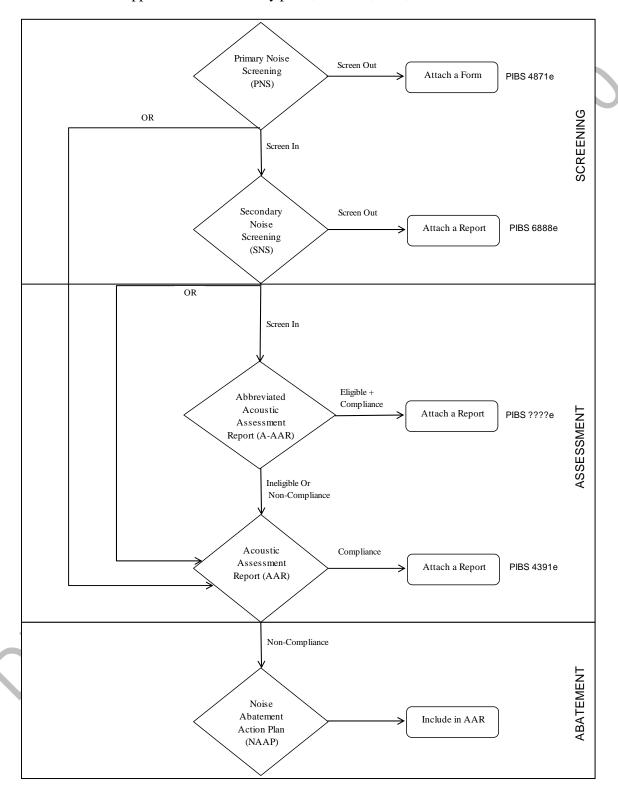
If the Acoustic Assessment Report shows that the facility is not capable of operating in compliance with the noise limits set in Publication NPC-205 and/or Publication NPC-232, as applicable (and as amended), then the Acoustic Assessment Report must include a Noise Abatement Action Plan (NAAP) to achieve compliance with the governing noise limits, that includes but is not limited to the following:

- required noise control measures (both physical and administrative) to reduce the noise emissions from the facility to comply with the limits set in Publication NPC-205 and/or Publication NPC-232, as applicable (and as amended); and
- (b) a timetable for implementation of the noise control measures (both physical and administrative), including the date for achieving compliance with the applicable sound level limits for the facility.

The Noise Screening and Assessment Process are graphically illustrated in the following flow chart:

Noise Screening and Assessment Process

An applicant can start at any point, i.e. PNS, SNS, A-AAR or AAR.



CONCLUSION

It should be noted that the Certificate of Approval (C of A) application will not be accepted by the Ministry of the Environment without the inclusion of one of the following documents:

- a) a Primary Noise Screening form indicating a successful "screening out"; or
- b) a Secondary Noise Screening Report indicating a successful "screening out"; or
- c) an Abbreviated Acoustic Assessment Report; or
- d) an Acoustic Assessment Report.