Ontario

Ministry of the Environment
Ministère de l'Environnement

CERTIFICATE OF APPROVAL
AIR
NUMBER 2573-7NRV4C
Issue Date: February 11, 2009

Rogers Stadium Limited Partnership
1 Blue Jays Way
Toronto, Ontario
M5V 1J1

Site Location: Rogers Centre
1 Blue Jays Way
Toronto City, Ontario
M5V 1J1

You have applied in accordance with Section 9 of the Environmental Protection Act for approval of:

Description Section

A multi-purpose sports and entertainment stadium, consisting of the following processes and support units:

- stadium;
- hotel and fitness facilities;
- natural gas-fired boilers;
- diesel fuelled emergency generators;

including the *Equipment* and any other ancillary and support processes and activities, **operating at a *Facility Production Limit* of up to 110 million kilojoules per hour of natural gas combustion capacity** exhausting to the atmosphere as described in the *ESDM Report.*

For the purpose of this Certificate of Approval and the terms and conditions specified below, the following definitions apply:

1. *"Acoustical Consultant"* means a person currently active in the field of environmental acoustics and noise/vibration control, who is familiar with *Ministry* noise guidelines and procedures and has a combination of formal university education, training and experience necessary to assess noise emissions from a *Facility.*

2. *"Acoustic Assessment Report"* means a report, prepared in accordance with *Publication NPC-233* and the *Acoustic Assessment Report Procedure* that documents all sources of noise emissions and *Noise Control Measures* present at the *Facility.*

3. *"Acoustic Assessment Report Procedure"* means the *Ministry* procedure attached to this *Certificate* as Schedule "B".

4. *"Acoustic Assessment Summary Table"* means a table prepared in accordance with the *Acoustic Assessment Report Procedure* summarising the results of the *Acoustic Assessment Report,* up-dated as required by the Documentation Requirements conditions of this *Certificate.*

5. *"Air Standards Manager"* means the Manager, Human Toxicology and Air Standards Section, Standards Development Branch, or any other person who represents and carries out the duties of the Manager, Human Toxicology and Air Standards Section, Standards Development Branch, as those duties relate to the conditions of this *Certificate.*

6. *"Basic Comprehensive User Guide"* means the *Ministry* document titled "Basic Comprehensive Certificates of Approval

(Air) User Guide" dated April 2004 as amended.

7. *"Certificate"* means this entire certificate of approval document, issued in accordance with section 9 of the *EPA* and includes all the *Schedules,* and the *Supporting Documentation.*

8. *"Company"* means Rogers Stadium Limited Partnership operating as Rogers Centre that is responsible for the construction or operation of the *Facility* and includes any successors and assigns.

9. *"Compound of Concern"* means a contaminant that, based on generally available information, may be emitted to the atmosphere in a quantity from any source at the *Facility* that is significant either in comparison to the relevant *Ministry Point of Impingement Limit* or if a *Ministry Point of Impingement Limit* is not available for the compound then, based on generally available toxicological information, the compound has the potential to cause an adverse effect as defined by the *EPA* at a *Point of Impingement.*

10. *"Description Section"* means the section on page one of the *Certificate* describing the *Company's* operations and the *Equipment* located at the *Facility* and specifying the *Facility Production Limit* for the *Facility.*

11. *"Director"* means any person appointed in writing by the Minister of the Environment pursuant to section 5 of the *EPA* as a Director for the purposes of section 9 of the *EPA*.

12. *"District Manager"* means the District Manager of the appropriate local district office of the *Ministry,* where the *Facility* is geographically located.

13. *"Emission Summary Table"* means the table prepared in accordance with O. Reg. 419/05 and the *Procedure Document* listing the appropriate *Point of Impingement* concentrations of each *Compound of Concern* from the *Facility* and providing comparison to the corresponding *Ministry Point of Impingement Limit* or *Maximum Concentration Level Assessment.*

14. *"Environmental Assessment Act"* means the Environmental Assessment Act, R.S.O. 1990, c.E.18.

15. *"EPA"* means the Environmental Protection Act, R.S.O. 1990, c.E.19.

16. *"Equipment"* means equipment or processes described in the *ESDM Report,* this *Certificate* and in the *Supporting Documentation* referred to herein and any other equipment or processes.

17. *"Equipment with Specific Operational Limits"* means any *Equipment* related to the thermal oxidation of waste or waste derived fuels, fume incinerators or any other *Equipment* that is specifically referenced in any published *Ministry* document that outlines specific operational guidance that must be considered by the *Director* in issuing of a Certificate of Approval.

18. *"ESDM Report"* means the Emission Summary and Dispersion Modelling Report prepared in accordance with the *Procedure Document* by Glen Hanley, EMP Environmental Management & Protection, and dated July 29, 2005 submitted in support of the application, and includes any amendments to the ESDM Report listed in *Schedule A* and all up-dated ESDM Reports prepared as required by the Documentation Requirements conditions of this *Certificate.*

19. *"Facility"* means the entire operation located on the property where the *Equipment* is located.

20. *"Facility Production Limit"* means the production limit placed on the main product(s) or raw materials used by the *Facility* that represents the design capacity of the *Facility* and assists in the definition of the operations approved by the *Director.*

21. *"Log"* means the up-to-date log that is used to track all *Modifications* to the *Facility* since the date of this *Certificate* as required by the Documentation Requirements conditions of this *Certificate.*

22. *"Maximum Concentration Level Assessment"* means the Maximum Concentration Level Assessment for the purposes of a Basic Comprehensive Certificate of Approval, described in the *Basic Comprehensive User Guide,* prepared by a *Toxicologist* using currently available toxicological information, that demonstrates that the concentration at any *Point of Impingement* for a *Compound of Concern* that does not have a *Ministry Point of Impingement Limit* is not likely to cause an adverse effect as defined by the *EPA*. The concentration at *Point of Impingement* for a *Compound of Concern* must be calculated in accordance with O. Reg. 419/05.

23. *"Ministry"* means the ministry of the government of Ontario responsible for the *EPA* and includes all officials, employees or other persons acting on its behalf.

24. *"Ministry Point of Impingement Limit"* means the appropriate Standard from Schedule 1, 2 or 3 from O.Reg. 419/05 and if a standard is not provided for a *Contaminant of Concern* the appropriate criteria listed in the *Ministry* publication titled "Summary of Standards and Guidelines to support Ontario Regulation 419: Air Pollution - Local Air Quality (including Schedule 6 of O. Reg. 419 on Upper Risk Thresholds)", dated February 2008, as amended.

25. *"Modification"* means any construction, alteration, extension or replacement of any plant, structure, equipment, apparatus, mechanism or thing, or alteration of a process or rate of production at the *Facility* that may discharge or alter the rate or manner of discharge of a *Compound of Concern* to the atmosphere or discharge or alter noise or vibration emissions from the *Facility.*

26. *"Noise Abatement Action Plan"* means a noise abatement program developed by the *Company* to achieve compliance with the sound level limits set in *Publication NPC-205* and/or *Publication NPC-232,* as applicable.

27. *"Noise Control Measures"* means measures to reduce the noise emissions from the *Facility* and/or *Equipment* including, but not limited to, silencers, acoustic louvres, enclosures, absorptive treatment, plenums

28. *"O. Reg. 419/05"* means Ontario Regulation 419/05, Air Pollution – Local Air Quality.

29. *"Operating Envelope"* means the limits on the *Company's* approved operations set out in Conditions 2.3 to 2.8 of this *Certificate.*

30. *"Performance Limits"* means the performance limits specified in the section of this *Certificate* titled Performance Limits.

31. *"Point of Impingement"* means any point outside the facility in the natural environment and as defined by s.2 of O. Reg. 419/05.

32. *"Point of Reception"* means Point of Reception as defined by *Publication NPC-205* and/or *Publication NPC-232,* as applicable.

33. *"Procedure Document"* means *Ministry* Procedure titled "Procedure for Preparing an Emission Summary and Dispersion Modelling Report" dated July 2005, as amended.

34. *"Processes with Significant Environmental Aspects"* means the *Equipment* which, during regular operation or if not properly operated or maintained, may cause or are likely to cause an adverse effect.

35. *"Publication NPC-205"* means the *Ministry* Publication NPC-205, "Sound Level Limits for Stationary Sources in Class 1 & 2 Areas (Urban)", October, 1995 as amended.

36. *"Publication NPC-207"* means the *Ministry* draft technical publication "Impulse Vibration in Residential Buildings", November 1983, supplementing the Model Municipal Noise Control By-Law, Final Report, August 1978, published by the *Ministry.*

37. *"Publication NPC-232"* means the *Ministry* Publication NPC-232, "Sound Level Limits for Stationary Sources in Class 3 Areas (Rural)", October, 1995 as amended.

38. *"Publication NPC-233"* means the *Ministry* Publication NPC-233, "Information to be Submitted for Approval of Stationary Sources of Sound", October, 1995 as amended.

39. *"Schedules"* means the following schedules attached to the *Certificate* and forming part of the *Certificate* namely:

Schedule A - Supporting Documentation; and
Schedule B - Acoustic Assessment Report Procedure.

40. *"Supporting Documentation"* means the documents listed in Schedule A of this *Certificate* which forms part of this *Certificate.*

41. *"Toxicologist"* means a qualified professional currently active in the field of risk assessment, risk management and toxicology that has a combination of formal university education, training and experience necessary to assess the *Compound of Concern* in question.

42. *"Written Summary"* means the written summary that must be submitted annually to the *Ministry* as required by the Section titled Reporting Requirements of this *Certificate.*

You are hereby notified that this approval is issued to you subject to the terms and conditions outlined below:

TERMS AND CONDITIONS

1. GENERAL

1.1 Except as otherwise provided by this *Certificate*, the *Facility* shall be designed, developed, built, operated and maintained in accordance with the terms and conditions of this *Certificate* and in accordance with the application, the *ESDM Report*, plans, specifications and *Supporting Documentation* submitted and the following *Schedules* attached hereto:

Schedule A - Supporting Documentation
Schedule B – Acoustic Assessment Report Procedure

2. OPERATIONAL FLEXIBILITY

2.1 The *Company* may make *Modifications* to the *Facility* in accordance with this *Certificate.*

2.2 Despite Condition 2.1, all *Modifications* made by the *Company* shall be within the *Operating Envelope* of the *Facility* as defined by conditions 2.3 to 2.8.

2.3 Despite Condition 2.1, the *Company* shall not make *Modifications* to the *Facility* that will increase the existing noise or vibration emissions from the *Facility.*

2.4 Despite Condition 2.1, the *Company* shall not make *Modifications* to the *Facility* that are outside the scope of the intended operations of the *Facility* as described in the *Description Section.*

2.5 Despite Condition 2.1, the *Company* shall not make *Modifications* to the *Facility* that result in an increase of the *Facility Production Limit* above the level specified in this *Certificate.*

2.6 Despite Condition 2.1, the *Company* shall not make *Modifications* to the *Facility* that would add any *Equipment with Specific Operational Limits.* The *Company* shall operate *Equipment with Specific Operational Limits* approved by this *Certificate* in accordance with the original *ESDM Report* and Conditions in the *Certificate.*

2.7 Despite Condition 2.1, the *Company* shall only make *Modifications* to the *Facility* which comply with the *Performance Limits.*

2.8 Despite Condition 2.1, the *Company* shall not make *Modifications* to the *Facility* if the *Modifications* would be subject to the *Environmental Assessment Act.*

2.9 Condition 2.1 of this *Certificate* shall expire five (5) years from the date of this *Certificate,* unless this *Certificate* is revoked prior to this date. Upon expiry of Condition 2.1 of this *Certificate,* the *Company* shall apply for amendment to include the current *ESDM Report* and the current *Acoustic Assessment Report* in Schedule A as *Supporting Documentation* to this *Certificate.*

3. PERFORMANCE LIMITS

3.1 The *Company* shall, at all times, ensure that all *Equipment* that are a source of a *Compound of Concern* from the *Facility* are operated to comply with the following *Performance Limits:*

(a) the maximum half-hour average concentration of any *Compound of Concern* at a *Point of Impingement* shall not

exceed the corresponding *Ministry Point of Impingement Limit;*

(b) for any *Compound of Concern* that does not have a *Ministry Point of Impingement Limit,* the maximum half-hour average concentration of any *Compound of Concern* at a *Point of Impingement* shall not be greater than a level assessed as part of the original *ESDM Report; or*

(c) for any *Compound of Concern* that does not have a *Ministry Point of Impingement Limit,* the maximum half-hour average concentration of any *Compound of Concern* at a *Point of Impingement* shall not be greater than the *Maximum Concentration Level Assessment* submitted to the *Ministry* and accepted by the *Air Standards Manager.*

3.2 The *Company* shall, no later than thirty (30) days prior to:

(a) the introduction of a new *Compound of Concern* that does not have a *Ministry Point of Impingement Limit;*

(b) an increase to the emission rate of a *Compound of Concern* that does not have a *Ministry Point of Impingement Limit* such that the resulting concentration at a *Point of Impingement* will be greater than the level that was reviewed as part of the original *ESDM Report;* or

(c) an increase to the emission rate of a *Compound of Concern* that does not have a *Ministry Point of Impingement Limit* such that the resulting concentration at a *Point of Impingement* will be greater than the corresponding *Maximum Concentration Level Assessment* previously accepted by the *Air Standards Manager;*

submit a proposed or revised *Maximum Concentration Level Assessment* for the *Compound of Concern* to the *Director* for review by the *Air Standards Manager.*

3.3 The *Company* may not use the *Maximum Concentration Level Assessment* prior to thirty (30) days from the date of an acknowledgment letter from the *Ministry* unless the *Company* receives written acceptance by the *Director.*

3.4 If the *Air Standards Manager* does not accept the proposed *Maximum Concentration Level Assessment*, the *Company* shall not introduce or increase the emission rate of the *Compound of Concern* without approval from the *Director.*

3.5 The *Company* shall, at all times, ensure that the noise emissions from the *Facility* comply with the limits set out in *Ministry Publication NPC-205* or *Publication NPC-232,* as applicable.

3.6 The *Company* shall, at all times, ensure that the vibration emissions from the *Facility* comply with the limits set out in *Ministry Publication NPC-207.*

4. DOCUMENTATION REQUIREMENTS

4.1 The *Company* shall, at all times, maintain documentation that describes the current operations of the *Facility,* including but not limited to:

(a) a current *ESDM Report* that demonstrates compliance with the *Performance Limits* for the *Facility* regarding all *Compounds of Concern;*

(b) a current *Acoustic Assessment Report* that demonstrates compliance with the *Performance Limits* for the *Facility* regarding noise emissions;

(c) an up-to-date *Log* that describes each *Modification* to the *Facility;* and

(d) a record of the changes to the *ESDM Report* and *Acoustic Assessment Report* that documents how each *Modification* is in compliance with the *Performance Limits.*

4.2 The *Company* shall, during regular business hours, make the current *Emission Summary Table* and *Acoustic Assessment Summary Table* available for inspection at the *Facility* by any interested member of the public.

5. REPORTING REQUIREMENTS

5.1 The *Company* shall provide the *District Manager* and the *Director* no later than June 1 of each year, a *Written Summary* of activities undertaken in the previous calendar year that shall include the following:

(a) a signed statement that the *Facility* was in compliance with the *Performance Limits;*

(b) a summary of each *Modification* that took place in the previous calendar year and resulted in a change in the previously calculated concentration at the *Point of Impingement* for any *Compound of Concern* or resulted in a change in the sound levels reported in the *Acoustic Assessment Summary Table* at any *Point of Reception;*

(c) a list of each *Compound of Concern* submitted to the *Air Standards Manager* for review in the previous calendar year;

(d) a review of any changes to a *Ministry Point of Impingement Limit* undertaken in the previous calendar year that affect a *Compound of Concern* emitted from the *Facility;*

(e) a tabulated summary of the changes in the emission rate of any *Compound of Concern* and the resultant increase or decrease in the *Point of Impingement* concentration reported in the *ESDM Report* over the previous calendar year; and

(f) the *Emission Summary Table* and *Acoustic Assessment Summary Table* for the *Facility* as of December 31 from the previous calendar year.

6. OPERATION AND MAINTENANCE

6.1 The *Company* shall prepare and implement, not later than three (3) months from the date of this *Certificate,* operating procedures and maintenance programs for all *Processes with Significant Environmental Aspects.* The *Company* shall ensure that all *Processes with Significant Environmental Aspects* are operated and maintained at all times in accordance with this *Certificate,* the operating procedures and maintenance programs. The operating procedures and maintenance programs shall specify as a minimum:

(a) frequency of inspections and scheduled preventative maintenance;

(b) procedures to prevent upset conditions;

(c) procedures to minimize all fugitive emissions;

(d) procedures to prevent and/or minimize odorous emissions; and

(e) procedures for record keeping activities relating to the operation and maintenance programs.

7. ACOUSTIC ASSESSMENT REPORT

7.1 The *Company* shall submit an *Acoustic Assessment Report* for the *Facility,* prepared by an *Acoustical Consultant,* to the *District Manager* and the *Director* not later than three (3) months after the date of this *Certificate.*

7.2 In the event that the findings of the *Acoustic Assessment Report* demonstrate that the *Facility* is not in compliance with the *Performance Limits,* the *Acoustic Assessment Report* must incorporate a *Noise Abatement Action Plan* that includes but is not limited to the following:

(a) required *Noise Control Measures* to reduce the noise emissions from the *Facility* to comply with the *Performance Limits* for the *Facility* regarding noise emissions;

(b) a timetable for implementation of the *Noise Control Measures,* including the identification of specific dates for achieving compliance with specific milestones; and

(c) a timetable for submitting further assessments to demonstrate compliance with the *Performance Limits* for the *Facility* regarding noise emissions.

7.3 The *Director* may not accept the results of any *Acoustic Assessment Report* if the requirements of *Publication NPC-233* or the *Acoustic Assessment Report Procedure* were not followed.

7.4 If the *Director* does not accept the results of an *Acoustic Assessment Report,* the *Director* may, upon written notice, require the *Company* to repeat the *Acoustic Assessment Report* within the time frame specified in the notice.

8. COMPLAINTS RECORDING PROCEDURE

8.1 If at any time, the *Company* receives any environmental complaints from the public regarding the operation of the *Equipment* approved by this *Certificate,* the *Company* shall respond to these complaints according to the following procedure:

(a) the *Company* shall record and number each complaint, either electronically or in a log book, and shall include the following information: the time and date of the complaint and incident to which the complaint relates, the nature of the complaint, wind direction at the time and date of the incident to which the complaint relates and the address of the complainant, if known;

(b) the *Company,* upon notification of a complaint, shall initiate appropriate steps to determine all possible causes of the complaint, and shall proceed to take the necessary actions to appropriately deal with the cause of the subject matter of the complaint; and

(c) the *Company* shall complete and retain on-site a report written within one (1) week of the complaint date, listing the actions taken to appropriately deal with the cause of the subject matter of the complaint and any recommendations for remedial measures, and managerial or operational changes to reasonably avoid the recurrence of similar incidents**.**

9. RECORD KEEPING REQUIREMENTS

9.1 Any information requested by the *Ministry* concerning the *Facility* and its operation under this *Certificate,* including, but not limited to, any records required to be kept by this *Certificate,* shall be provided to the *Ministry,* upon request**,** in a timely manner.

9.2 The *Company* shall retain, for a minimum of seven (7) years from the date of their creation, except as noted below, all reports, records and information described in this *Certificate* and shall include but not be limited to:

(a) the *ESDM Report;*

(b) the *Acoustic Assessment Report;*

(c) supporting information used in the emission rate calculations performed in the *ESDM Report* and *Acoustic Assessment Report* to document compliance with the *Performance Limits* (superseded information must be retained for a period of three (3) years after *Modification*);

(d) the *Log* that describes each *Modification* to the *Facility;*

(e) the *Written Summaries* provided to the *Ministry;*

(f) the operating procedures and maintenance programs, including records on the maintenance, repair and inspection of the *Equipment* related to all *Processes with Significant Environmental Aspects;* and

(g) the complaints recording procedure, including records related to all environmental complaints made by the public as required by the section titled Complaints Recording Procedure of this *Certificate.*

10. REVOCATION OF PREVIOUS CERTIFICATES OF APPROVAL(Air & Noise)

10.1 This *Certificate* replaces and revokes all Section 9 Certificates of Approval issued to the *Facility* and dated prior to the date of this *Certificate.*

SCHEDULE "A"

Application dated August 08, 2005, signed by Paul Godfrey, President and CEO, and submitted by the C*ompany* for a Certificate of Approval (Air & Noise);

Emission Summary and Dispersion Modelling Report, dated July 29, 2005;

Other supporting documentation and correspondence, including:

(a) Supporting Information for Noise and Vibration Assessment entitled "Attachment 7" prepared by EMP Environmental Management & Protection, dated July 29, 2005 and signed by Glen Hanley.

SCHEDULE "B"

Supporting Information for the Preparation of an Acoustic Assessment Report

Prepared by the Air and Noise Unit, Environmental Assessment and Approvals Branch
November 2003

Ontario's Environmental Protection Act (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 the noise[1] emissions from their facility on Point(s) of Reception in comparison to specific sound level limits contained in published ministry Noise Pollution Control (NPC) guidance documents (see Section 1). Depending on the type of equipment and nature of the activities taking place at a facility, a detailed Acoustic Assessment Report[2] is not required if the facility is located further from the nearest Point of Reception than the minimum separation distance, as outlined in the "Guide to Applying for Approval(Air): Noise and Vibration", April 1998 as amended. In all other cases a detailed Acoustic Assessment Report must be submitted.

The Acoustic Assessment Report demonstrates compliance with the sound level limits. Central to these reports is the preparation of Summary Tables to present the results of the report in a tabular manner and to confirm continued compliance with the sound level limits (Performance Limits).

This Document is designed to assist the individual who is responsible for preparing an Acoustic Assessment Report and the Summary Tables included as part of the Report. Reports prepared and documented in accordance with the format described below may be considered in a format acceptable to the Director in order to document compliance with the sound level limits. Reports that do not follow the format described may not be acceptable to the Director and proponents wishing to obtain a CofA will be directed to resubmit the supporting information accompanying the application.

1. References

- NPC-205 - Sound Level Limits for Stationary Sources in Class 1 & 2 Areas (Urban)
- NPC-232 - Sound Level Limits for Stationary Sources in Class 3 Areas (Rural)
- NPC-207 - Impulse Vibration in Residential Buildings (draft)
- NPC-206 - Sound Levels Due to Road Traffic
- NPC-233 - Information to be Submitted for Approval of Stationary Sources of Sound

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1 For the purposes of this document the term noise will also mean vibration or a combination of both as appropriate.

2 When references are made within this document to Acoustic Assessment Reports and other requirements relating to sources of noise emissions, it should be noted that there are similar requirements for Vibration Assessment Reports and summary tables for facilities with significant sources of vibration emissions.

2. Documentation Requirements

The Acoustic Assessment Report must include sufficient information and analysis to demonstrate the facility's compliance

with the applicable noise sound level limit. To ensure consistency in identifying sources of air and/or noise emissions the Acoustic Assessment Report should be linked with the Emission Summary and Dispersion Modelling (ESDM) Report prepared in accordance with the ESDM Procedure Document dated June 1998 and submitted with the application for Certificate of Approval.

The suggested format and content for the report is provided in the following section. The person preparing a report must be able to defend the accuracy of the data presented in the report and tables.

3. Acoustic Assessment Reports

3.1 Introduction

The purpose of the Introduction is to provide an overview of the facility, list the objectives of the report and identify its relationship to the Certificate of Approval application. Specific information in the introduction should include the site location, facility overview and the type and number of noise sources at the facility. The introduction should also provide detailed information on the environmental noise climate surrounding the facility and should include:

• An up-to-date land use zoning designation plan of the surrounding area, complete with legend and scale. The zoning plan will be required within a radius of either 500 metres or 1,000 metres, depending on the type of equipment and nature of the activities taking place at a facility. (See "Guide to Applying for Approval (Air): Noise and Vibration", dated April 1998 for more information and the required separation distances).

• Scaled area location plan, indicating the topography and nature of the neighbourhood surrounding the facility, including the location of adjacent buildings and structures, and the nearest Point(s) of Reception. As with the zoning plan, the area location plan will be required within a radius of either 500 metres or 1,000 metres, depending on the type of equipment and nature of the activities taking place at a facility.

• The location of the nearest Point(s) of Reception that may be impacted by the facility must be clearly shown on the scaled area location plan. Point(s) of Reception include any of the following existing or zoned for future use premises:

- permanent, seasonal or rental residences;
- hotels/motels;
- nursing/retirement homes;
- hospitals;
- campgrounds; or
- noise sensitive buildings such as schools, day care facilities and places of worship

3.2 Facility Description

The purpose of the Facility Description is to provide a detailed description of the facility, processes and types of equipment that may produce noise emissions. The information listed in the ESDM Procedure Document should be included or referenced, along with the following information:

• Operating hours of the equipment/facility (including start time and stop time) and sequence of operation of multiple and/or intermittent sources.

• Relevant architectural and mechanical drawings (scaled plans, elevations and sections) of the equipment/facility. Drawings should show:

- size and location of all exterior openings in the building(s) housing the equipment/facility;
- details of the construction materials forming the exterior envelope of the building(s) (e.g. concrete block, brick, etc.);
- details of the construction materials forming the interior surfaces of the building(s) (e.g. dry wall, concrete, etc.); and

• orientation of, and distance from, all exterior openings with respect to the nearest Point(s) of Reception.

3.3 Noise Source Summary

The Noise Source Summary should identify all noise sources at the facility and provide all required technical information to predict the worst case noise impacts from the facility. Each source must be assigned a unique identifier and be clearly located on the site drawings included in the Facility Description. Where possible, the Noise Source Summary should use the same identification system used in the ESDM Report.

The use of source description sheets summarizing the following information for each source is encouraged. Sufficient information must be provided for each source to calculate the worst case noise impact from the facility. The following information should be provided as required:

• Manufacturer's make and model number, power rating, flow rate or other specifications to uniquely identify the source and calculate the sound level emissions;
• Time varying characteristics of generated sound (steady or intermittent);
• Tonal characteristics;
• Impulsive characteristics;
• Directivity pattern of the source;
• Measurement techniques and equipment used for evaluation of source emission;
• Octave or 1/3 octave sound power levels for the sources where available;
• Octave or 1/3 octave sound pressure levels generated by the sources including measurement conditions, procedure and location of measurement points; or
• noise/vibration control equipment or measures designed to reduce the noise/vibration emissions.

Detailed information may not be required for noise sources that are insignificant in comparison to the overall facility noise levels. However, noise sources that are considered insignificant should be listed as such in an appendix to the report.

Selected details relating to sources of noise emissions must be documented in the form of a Noise Source Summary Table. An example of a completed Noise Source Summary Table is included as Table A1. The following information should be included in the Noise Source Summary Table:

Source Identifier A unique identifier for each source. Wherever possible this identifier should be the same as used in the ESDM Report.

Source Description A brief description of the source.

Sound Power Level A measurement in decibels of the acoustical power radiated by a given source with respect to the international reference of 10^{-12} Watts.

Source Location An indication of where the source is located, either inside a building (I) or outside (O).

Sound Characteristics Acoustical characteristics of the source that affect the measurements, including Tonal, Impulsive, or Quasi-Steady Impulsive.

Noise Control Measures An indication of the type (if any) of Noise Control Measures that are applied to the noise source or are used to control the noise emissions from the source. The following codes should be used:

S: silencer, acoustic louvre, muffler
A: acoustic lining, plenum
B: barrier, berm, screening
L: lagging
E: acoustic enclosure
O: other
U: uncontrolled

3.4 Point of Reception Summary

The Point of Reception Summary should identify all required Point(s) of Reception in the vicinity of the facility. At a minimum, the closest Point(s) of Reception in each cardinal direction should be identified. For more complex facilities, additional Point(s) of Reception may be required to determine the critical Point(s) of Reception. Each Point of Reception must be assigned a unique identifier and located on the scaled area location plan included in the Introduction.

Sufficient information must be provided to assess the impacts of each source identified in the Source Summary Section on each Point of Reception. The following information should be provided as required:

- One Hour Equivalent Sound Level (L_{eq}) of the source. For multiple sources or sources generating intermittent or time-varying sound, the hourly L_{eq} over a minimum period of 24 hours or for the operating cycle of the source, whichever is shorter, should be provided;
- Logarithmic Mean Impulse Sound Level (L_{LM}) of the source, if applicable;
- Prevailing meteorological conditions such as wind direction and speed, percent relative humidity, temperature;
- For a location in a Class 3 Area, the existing One Hour Ninetieth Percentile Sound Level (L_{90}) of the background sound level at Point(s) of Reception, obtained through monitoring over a minimum period of 48 hours. The monitoring should be conducted during times when the background sound level is at its lowest level. The lowest hourly L_{90} value should be selected to represent the background sound level;
- For all Areas, the existing One Hour Equivalent Sound Level (L_{eq}) of the background sound level obtained either by prediction or through monitoring over a minimum period of 48 hours. The monitoring should be conducted during times when the background sound level is at its lowest level. The lowest hourly L_{eq} value should be selected to represent the background sound level; or
- Sound level using other specialized descriptors.

The relationship between the sources identified in the Noise Source Summary section and the Point of Reception Summary section should be documented in the form of a Point of Reception Noise Impact Table. An example Point of Reception Noise Impact Table is included as Table A2.

The following information should be included in the Point of Reception Noise Impact Table:

Source ID The unique identifier used in the Source Summary Section.

Distance to Point of Reception The distance in metres from each individual source to the Point of Reception.

Sound Level at Point of Reception The predicted or measured sound level (L_{eq} or L_{LM}) identified as units of dBA or dBAI at the Point of Reception resulting from the individual source.

3.5 Mitigation Measures Summary

The Mitigation Measures Summary should identify the noise mitigation measures that are used to control the noise emissions from the facility. This section identifies common mitigation measures such as berms or enclosures that are used to control more than one source. Individual mitigation measures may be detailed in the Source Summary Section.

The following information is should be provided as required when noise mitigation measures are used:

- Where sound sources are silenced, enclosed or shielded by barriers, indicate the location, dimensions, structural details, materials used and the specification of abatement equipment and materials, such as transmission loss, insertion loss, noise reduction or barrier attenuation;
- If the devices are standard catalogue items, indicate the type, manufacturer's make and model number and spectral acoustic performance specification data, such as insertion loss, transmission loss, absorption coefficient values, noise reduction; or
- If alternative measures for noise abatement are proposed, provide a full description of the alternatives, administrative

steps, changes in operational procedure or structural alterations.

3.6 Assessment Criteria (Performance Limits)

The Assessment Criteria section should indicate the applicable Performance Limit at each Point of Reception and the method used to determine that limit. The noise assessment process relates to the worst-case noise impact of the facility at Points of Reception. This means that the applicable Performance Limit at a Point of Reception is determined by identifying the time when the sound level produced by the source is at a maximum in relation to the background sound level.

The resulting Performance Limit at the Point of Reception is then based on the background sound level in accordance with Publications NPC-205 or NPC-232 and is the greater of either:

- the sound level limit based on the minimum background sound level that occurs or is likely to occur during operation of the source under assessment; or
- the exclusionary limit, as indicated in Table 205-1 for urban areas and Table 232-1 for rural areas.

Depending on the characteristics of the noise sources and the location of Point(s) of Reception, the Performance Limit may be expressed in terms of:

- L_{eq} - One Hour Equivalent Sound Level;
- L_{LM} - Logarithmic Mean Impulse Sound Level; or
- L_{90} - One Hour Ninetieth Percentile Sound Level.

The Performance Limit may be expressed in units of dBA or dBAI.

3.7 Impact Assessment

The Impact Assessment section should describe the method used to calculate the noise levels at the individual Points of Reception[3] and compare them to the applicable assessment criteria for the individual Point of Reception Performance Limits. The section should also outline the results of pre- and post-abatement assessment at Point(s) of Reception.

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3 Large manufacturing and/or process plants or industrial complexes where a multitude of sources exist may require a more detailed analysis of the noise impact. The impact reports should include sound level mapping in addition to the information specified above. The sound level mapping should include the existing level of road traffic in the vicinity of the proposed installation.

The noise impact assessment must also be presented in an Acoustic Assessment Summary Table, summarizing the results of the Acoustic Assessment Report and demonstrating compliance with the Performance Limits for the Facility regarding noise emissions.

An example Acoustic Assessment Summary Table is included as Table A3. The following information must be included in the Acoustic Assessment Summary Table:

Point of Reception Identifier	A unique identifier for each receptor used in the Point of Reception Summary section.
Point of Reception Description	A brief description of the Point of Reception to assist in the identification of the Point of Reception on the table.
Sound Level at Point of Reception	The predicted or measured sound level at the Point of Reception, in terms of L_{eq} or L_{LM} and reported in units of dBA or dBAI.

Verified by Indication whether or not the reported Sound Level of Point
Acoustic Audit of Reception has been verified by an Acoustic Audit.

Performance Limit The prescribed Performance Limit required by the CofA, in terms of L_{eq}, L_{90} or L_{LM} and reported in units of dBA or dBAI.

Compliance with Indication that the predicted sound level at the Point of
Performance Limit Reception is below the Performance Limit. The response should be Yes. No is not an acceptable response.

3.8 Conclusions and Recommendations

The Conclusions and Recommendations section should provide a written statement of compliance with the Performance Limits, signed by the qualified professional that completed the assessment. This section should also include an overview of the effects of the control measures employed at the facility and a description of verification activities conducted at the site.

3.9 Supporting Information

All supporting information necessary to support the conclusions of the report, but not specifically referenced as required in the above sections, should be referenced and attached as appendices to the report. Supporting information could include any information used to assess the impact of noise sources on Point(s) of Reception, such as details of measurements and calculations, specifications, plans, engineering drawings, etc.

Acoustic Assessment Summary Tables

Table A1
Noise Source Summary Table

Source ID[1]	Source Description	Sound Power Level (dBA)	Source Location[2]	Sound Characteristics[3]	Noise Control Measures[4]
1	Diesel Generator Exhaust Stack	128	O	S	S
2	Diesel Generator Casing	111	I	S	S,A
3	Compressor	105	O	S	E
4	Exhaust Fan	101	O	S,T	U

Notes:

1. Wherever possible, the Source ID must be identical with that used in the ESDM report.

2. Source Location:
O - located/installed outside the building, including on the roof
I - located/installed inside the building

3. Sound Characteristics:
S: Steady
Q: Quasi Steady Impulsive
I: Impulsive
B: Buzzing
T: Tonal

C: Cyclic

4. Noise Control Measures
S: silencer, acoustic louvre, muffler
A: acoustic lining, plenum
B: barrier, berm, screening
L: lagging
E: acoustic enclosure
O: other
U: uncontrolled

Table A2
Point of Reception Noise Impact Table
(add columns or tables to address additional Points of Receptions)

Source ID[1]	Point of Reception 1		Point of Reception 2		Point of Reception 3		Point of Reception 4	
	Distance to POR1 (metre)	Sound Level at POR1[2] (L_{eq})	Distance to POR2 (metre)	Sound Level at POR2[2] (L_{eq})	Distance to POR3 (metre)	Sound Level at POR3[2] (L_{eq})	Distance to POR4 (metre)	Sound Level at POR4[2] (L_{eq})
1	100	41 dBA	110	40 dBA	180	36 dBA	90	42 dBA
2	95	38 dBA	100	34 dBA	180	28 dBA	85	35 dBA
3	130	37 dBA	150	36 dBA	150	36 dBA	50	45 dBA
4	90	42 dBA	80	43 dBA	190	36 dBA	120	40 dBA

Notes:

1. Wherever possible, the Source ID must be identical with that used in the ESDM report.

2. Indicate sound level format (L_{eq} or L_{LM}) and units (dBA or dBAI).

Table A3
Acoustic Assessment Summary Table

Point of Reception ID	Point of Reception Description	Sound Level at Point of Reception[1] (L_{eq})	Verified by Acoustic Audit (Yes/No)	Performance Limit[2] (L_{eq})	Compliance with Performance Limit[3] (Yes/No)
POR1	House to North	46 dBA	Yes	54 dBA	Yes
POR2	House to East	46 dBA	Yes	52 dBA	Yes
POR3	Nursing Home to South	41 dBA	Yes	50 dBA	Yes
POR4	School to West	48 dBA	Yes	50 dBA	Yes

Notes:

1. Indicate sound level format (L_{eq} or L_{LM}) and units (dBA or dBAI).

2. Indicate sound level format (L_{eq}, L_{90} or L_{LM}) and units (dBA or dBAI).

3. The response should be “Yes”. “No” is not an acceptable response.

The reasons for the imposition of these terms and conditions are as follows:

1. GENERAL

Condition No. 1 is included to require the *Certificate* holder to build, operate and maintain the *Facility* in accordance with the *Supporting Documentation* considered by the *Director* in issuing this *Certificate.*

2. OPERATIONAL FLEXIBILITY AND PERFORMANCE LIMITS

Condition Nos. 2 and 3 are included to limit *Modifications* and define the operating envelope permitted by this *Certificate.* The holder of the *Certificate* is approved for operational flexibility for the *Facility* that is consistent with the description of the operations included with the application up to the *Facility Production Limit.* In return for the operational flexibility the *Certificate* places performance based limits that can not be exceeded under the terms of this *Certificate. Certificate* holders will still have to obtain other relevant approvals required to operate the *Facility,* including requirements under other environmental legislation such as the *Environmental Assessment Act.*

3. DOCUMENTATION REQUIREMENTS

Condition No. 4 is included to require the *Company* to maintain ongoing documentation that demonstrates compliance with the *Performance Limits* of this *Certificate* and allows the *Ministry* to monitor on-going compliance with these *Performance Limits.* The *Company* is required to have an up to date *ESDM Report* and *Acoustic Assessment Report* that describe the *Facility* at all times and make the *Emission Summary Table* and *Acoustic Assessment Summary Table* from these reports available to the public on an ongoing basis in order to maintain public communication with regard to the emissions from the *Facility.*

4. REPORTING REQUIREMENTS

Condition No. 5 is included to require the *Company* to provide a yearly *Written Summary* to the *Ministry.*

5. OPERATION AND MAINTENANCE

Condition No. 6 is included to require the *Company* to properly operate and maintain the *Processes with Significant Environmental Aspects* to minimize the impact to the environment from these processes.

6. ACOUSTIC ASSESSMENT REPORT

Condition No. 7 is included to require the *Company* to gather accurate information and submit an *Acoustic Assessment Report* in accordance with procedures set in the *Ministry's* noise guidelines, so that the environmental impact and subsequent compliance with the *EPA,* the regulation and this *Certificate* can be verified. This condition is also included to require the *Company* to develop, if necessary, a *Noise Abatement Action Plan* designed to ensure that the noise emissions from the *Facility* are in compliance with applicable limits set in the *Ministry's* noise guidelines, which are included as *Performance Limits* of this *Certificate.*

7. COMPLAINTS RECORDING PROCEDURE

Condition No. 8 is included to require the *Company* to respond to any environmental complaints regarding the operation of the *Equipment,* according to a procedure that includes methods for preventing recurrence of similar incidents and a requirement to prepare and retain a written report.

8. RECORD KEEPING REQUIREMENTS

Condition No. 9 is included to require the *Company* to retain all documentation related to this *Certificate* and provide access to *Ministry* staff, upon request, so that the *Ministry* can determine if a more detailed review of compliance with the *Performance Limits* is necessary.

9. REVOCATION OF PREVIOUS CERTIFICATES OF APPROVAL (Air & Noise)

Condition No. 10 is included to confirm that this *Certificate* replaces all Section 9 Certificate(s) of Approval that have been previously issued for this *Facility.*

In accordance with Section 139 of the Environmental Protection Act, R.S.O. 1990, Chapter E-19, as amended, you may by written Notice served upon me, the Environmental Review Tribunal and in accordance with Section 47 of the Environmental Bill of Rights, S.O. 1993, Chapter 28, the Environmental Commissioner, within 15 days after receipt of this Notice, require a hearing by the Tribunal. The Environmental Commissioner will place notice of your appeal on the Environmental Registry. Section 142 of the Environmental Protection Act, provides that the Notice requiring the hearing shall state:

1. The portions of the approval or each term or condition in the approval in respect of which the hearing is required, and;
2. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

The Notice should also include:

3. The name of the appellant;
4. The address of the appellant;
5. The Certificate of Approval number;
6. The date of the Certificate of Approval;
7. The name of the Director;
8. The municipality within which the works are located;

And the Notice should be signed and dated by the appellant.

This Notice must be served upon:

The Secretary* Environmental Review Tribunal 655 Bay Street, 15th Floor Toronto, Ontario M5G 1E5	AND	The Environmental Commissioner 1075 Bay Street, 6th Floor Suite 605 Toronto, Ontario M5S 2B1	AND	The Director Section 9, *Environmental Protection Act* Ministry of the Environment 2 St. Clair Avenue West, Floor 12A Toronto, Ontario M4V 1L5

*** Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 314-4600, Fax: (416) 314-4506 or www.ert.gov.on.ca**

This instrument is subject to Section 38 of the Environmental Bill of Rights, that allows residents of Ontario to seek leave to appeal the decision on this instrument. Residents of Ontario may seek leave to appeal within 15 days from the date this decision is placed on the Environmental Registry. By accessing the Environmental Registry at www.ene.gov.on.ca, you can determine when the leave to appeal period ends.

The above noted works are approved under Section 9 of the Environmental Protection Act.

DATED AT TORONTO this 11th day of February, 2009

Victor Low, P.Eng.
Director
Section 9, *Environmental Protection Act*

SH/
c: District Manager, MOE Toronto - District
Glen Hanley, P.Eng., EMP Environmental Management & Protection