

**CERTIFICATE OF APPROVAL****AIR**

NUMBER 4648-89YK3C

Issue Date: March 21, 2011

Earth Essentials Construction Corp.  
4 Carlaw Ave, No. Unit 7  
Toronto, Ontario  
M4M 2R5

Site Location: Mobile Facility

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

one (1) portable crushing plant, processing building and built structure waste such as concrete and masonry at a maximum rate of 200 tonnes per hour, and consisting of the following emission sources:

- one (1) crushing and screening;
- three (3) conveyors used to stockpile/transfer material;
- one (1) diesel generator rated at 187 kilowatts used to power the enclosed crusher and conveyors, discharging products of combustion to the atmosphere through a stack;
- fugitive emissions resulting from the delivery, storage, and transfer of raw materials associated with crushing operations;

all in accordance with the Application for Approval (Air & Noise) submitted by Earth Essentials Construction Corp., dated July 31, 2009 and signed by Ravi Jain; the Emission Summary and Dispersion Modelling Report, prepared by ORTECH Environmental, dated July 29, 2010 and signed by Peter Piersol, the Acoustic Assessment Report prepared by Aercoustics Engineering Limited, dated December 2, 2010 and signed by Nicholas Sylvestre-Williams, and all other information associated with the application.

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

1. "Acoustic Assessment Report" means the report, prepared in accordance with Publication NPC-233 submitted in support of the application, that documents all sources of noise emissions and Noise Control Measures present at the Plant. "Acoustic Assessment Report" also means the Acoustic Assessment Report prepared by Aercoustics Engineering Limited, dated December 2, 2010 and signed by Nicholas Sylvester-Williams.
2. "Certificate" means this Certificate of Approval, issued in accordance with Section 9 of the EPA.
3. "Class 1 Area" means an area with an acoustical environment typical of a major population centre, where the background sound level is dominated by the urban hum.
4. "Class 2 Area" means an area with an acoustical environment that has qualities representative of both Class 1 and Class 3 Areas, and in which a low background sound level, normally occurring only between 23:00 and 07:00 hours in Class 1 Areas, will typically be realized as early as 19:00 hours. Other characteristics which may indicate the presence of a Class 2 Area include:

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- (a) absence of urban hum between 19:00 and 23:00 hours;
  - (b) evening background sound level defined by natural environment and infrequent human activity; and
  - (c) no clearly audible sound from stationary sources other than from those under impact assessment.
5. "Class 3 Area" means a rural area with an acoustical environment that is dominated by natural sounds having little or no road traffic, such as the following:
- (a) a small community with less than 1000 population;
  - (b) agricultural area;
  - (c) a rural recreational area such as a cottage or a resort area; or
  - (d) a wilderness area.
6. "Company" means Earth Essentials Construction Corp.
7. "Director" means any Ministry employee appointed by the Minister pursuant to Section 5 of the EPA.
8. "District Manager" means the District Manager of the appropriate local district office of the Ministry, at the geographic location where the Plant is operated.
9. "EPA" means the Environmental Protection Act.
10. "Equipment" means the equipment and processes described in the Company's application, this Certificate and in the supporting documentation referred to herein, to the extent approved by this Certificate.
11. "Manual" means a document or a set of documents that provides written instructions to staff of the Company.
12. "Ministry" means the Ontario Ministry of the Environment.
13. "Ministry Point of Impingement Limit" means the appropriate Standard listed in Schedule 2 or 3 of O.Reg. 419/05 or 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.
14. "Noise Control Measures" means measures to reduce the noise emissions from the Facility and/or Equipment including, but not limited to, silencers, acoustic louvers, enclosures, absorptive treatment, plenums and barriers, described in the Company's application, this Certificate and in the supporting documentation referred to herein, to the extent approved by this Certificate.
15. "O. Reg. 419/05" means the Ontario Regulation 419/05, Air Pollution – Local Air Quality.
16. "Plant" means the portable crushing plant, incorporating the Equipment.
17. "Point of Impingement" means any point outside the Facility in the natural environment and as defined by s.2 of O. Reg. 419/05;
18. "Point of Reception" means:
- (a) for Class 1 and Class 2 Areas, any point on the premises of a person where sound or vibration originating from other than those premises is received;
  - (b) for Class 3 Areas, a point on the premises of a person within 30 m of a dwelling or a camping area, where sound or vibration originating from other than those premises is received;
  - (c) for the purpose of approval of new sources, including verifying compliance with Section 9 of the Environmental Protection Act, the point of reception may be located on any of the following existing or zoned for future use premises:
    - (i) permanent or seasonal residences,
    - (ii) hotels/motels,

- (iii) nursing/retirement homes,
- (iv) rental residences,
- (v) hospitals,
- (vi) camp grounds,
- (vii) noise sensitive buildings such as schools and places of worship.

(d) for equipment/facilities proposed on premises such as nursing/retirement homes, rental residences, hospitals, and schools, the point of reception may be located on the same premises.

19. "Procedure Document" means Ministry Procedure titled "Procedure for Preparing an Emission Summary and Dispersion Modelling Report" dated March 2009, as amended.

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

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

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

23. "Sensitive Receptor" means any location where routine or normal activities occurring at reasonably expected times would experience adverse effect(s) from discharges from the Plant to the atmosphere, including one or a combination of:

- (a) private residences or public facilities where people sleep (e.g. single and multi-unit dwellings, nursing homes, hospitals, trailer parks, camping grounds, etc.),
- (b) institutional facilities (eg: schools, churches, community centres, day care centres, recreational centres, etc.),
- (c) outdoor public recreational areas (eg: trailer parks, play grounds, picnic areas, etc.), and
- (d) other outdoor public areas where there are continuous human activities (eg: commercial plazas and office buildings).

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

## TERMS AND CONDITIONS

### **Noise Performance**

1. The Company shall ensure that the noise emissions from the Plant comply with the limits determined in accordance with Publications NPC-205 or NPC-232, where applicable.

### **Minimum Separation Distance(s) to the Nearest Point of Reception**

2. The Company shall ensure a minimum separation distance between the Plant and the nearest Point of Reception as specified in Schedule "B".

### **Time Restrictions**

3. The Company shall ensure that the Equipment is not operated more than sixty (60) calendar days per year at any one site.

4. The Company shall ensure that the sound barriers, when required, are erected within 7 working days of start-up of the Equipment and until that time, the Plant operations shall be restricted to the hours of 07:00 to 19:00 Monday to Friday

### **Minimum Separation Distance(s) to the Nearest Sensitive Receptor**

5. The Company shall ensure a minimum separation distance of 220 metres ( winter- uncontrolled operation) and 120

metres (summer- controlled operation) between the Plant and the nearest Sensitive Receptor ( This separation distance is based on air compliance).

### **Fugitive Dust Control**

6. The Company shall provide effective dust suppression to the Equipment and any other sources of fugitive dust emissions from the Plant.

### **Noise Control Measures**

7. The Company shall ensure that the required Noise Control Measures described in the Acoustic Assessment Report are implemented at all times during the operation of the Plant.

8. The Company shall ensure that the sound barriers, when required, are a minimum 3.35 metres high, continuous without holes, gaps and other penetrations, and having a surface mass of at least 20 kilograms per square metre, and that they will be positioned in between the Equipment and noise sensitive receptors that require shielding according to the Acoustic Assessment Report.

9. The Company shall ensure that each sound barrier, when required, is positioned in such a way that the distance from each sound barrier to the Equipment of the Plant is not greater than 20 metres.

10. The Company shall ensure that the Noise Control Measures are properly maintained to ensure that the acoustical performance of the Noise Control Measures does not deteriorate and complies with the requirements of the Acoustic Assessment Report.

### **Operation and Maintenance Manual**

11. The Company shall ensure that the Plant is properly operated and maintained at all times. The Company shall:

(1) prepare, not later than three (3) months after the date of this Certificate, and update, as necessary, a Manual outlining the operating procedures and a maintenance program for the Equipment, including:

(a) routine operating and maintenance procedures in accordance with good engineering practices, and as recommended by the Equipment suppliers;

(b) emergency procedures;

(c) procedures for any record keeping activities relating to operation and maintenance of the Equipment and identifying separation distances between the Plant and Points of Reception and Sensitive Receptors;

(d) all appropriate measures to minimize noise emissions from all potential sources;

(f) procedures for recording and responding to environmental complaints relating to the operation of the Plant; and

(2) implement the recommendations of the Manual.

### **Marking of Portable Plant**

12. The Company shall post a legible sign in a location which is accessible to the public, clearly identifying:

(1) the Company name;

(2) the number of this Certificate;

- (3) a brief description of the nature of the operation;
- (4) a Company contact name and telephone number for the public to provide comments;
- (5) hours of operation; and
- (6) length of time the Company intends to operate the Plant at that location.

### **Keeping a Valid Certificate**

13. The Company shall ensure that a copy of this Certificate, as well as any subsequent Amended Certificates of Approval or Notices that amend this Certificate, are available at each site where the Plant is operated.

### **RECORD RETENTION**

14. The Company shall retain, for a minimum of two (2) years from the date of their creation, all records and information related to or resulting from the recording activities required by this Certificate, and make these records available for review by staff of the Ministry upon request. The Company shall retain:

- (1) all records on the maintenance, repair and inspection of the Equipment;
- (2) all records on the metal assays;
- (3) all records on the daily operation of the Equipment, including:
  - (a) daily production rate;
  - (b) daily start-up and shut-down times of the Equipment;
- (4) all records of any upset conditions associated with the operation of the Equipment;
- (5) all records on the environmental complaints, including:
  - (a) a description, time, date and location of each incident;
  - (b) operating conditions (e.g. upset conditions, etc.) at the time of the incident;
  - (c) wind direction and other weather conditions at the time of the incident;
  - (d) the name(s) of Company personnel responsible for handling the incident;
  - (e) the cause of the incident;
  - (f) the Company response to the incident; and
  - (g) a description of the measures taken to address the cause of the incident and to prevent a similar occurrence in the future, and the outcome of the measures taken.

### **NOTIFICATION REQUIREMENTS**

#### **Notification of Complaints**

15. The Company shall notify the District Manager, in writing, of each environmental complaint within two (2) business days of the complaint. The notification shall include:

- (1) a description of the nature of the complaint;
- (2) the time, date and location of the incident;
- (3) the wind direction and other weather conditions at the time of the incident; and
- (4) the name(s) of Company personnel responsible for handling the incident.

#### **Change of Owner**

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16. The Company shall notify the Director and the District Manager, in writing, of any of the following changes within one (1) month of the change occurring:

(1) change of owner or operating authority, or both;

(2) change of address of owner or operating authority or address of new owner or operating authority;

(3) change of partners if the owner or operating authority is or at any time becomes a partnership, with a copy of the most recent declaration filed under the Partnerships Registration Act included in the notification to the Director and the District Manager;

(4) change of name of the corporation if the owner or operating authority is or at any time becomes a corporation, with a copy of the "Initial Notice" or the most recent "Notice of Change" (Form 1, 2 or 3 of O. Reg. 189, R.R.O. 1980, as amended from time to time), filed under the Corporations Information Act included in the notification to the Director and the District Manager.

17. The Company shall notify any succeeding new owner, in writing, of the existence of this Certificate, as well as any subsequent Amended Certificates of Approval or Notices that amend this Certificate and, shall forward a copy of such a notice to the Director and the District Manager together with the notification required under Condition No. 16.

**Relocation**

18. The Company shall notify the District Manager, in writing, at least ten (10) business days in advance of any intended location of the Plant at each operating site, by submitting a completed Form 1, outlined in Schedule "A".

**SCHEDULE "A"**  
**NOTICE OF RELOCATION**  
**FOR**  
**PORTABLE EQUIPMENT**

1. Owner and/or Operator

(a) Company name :

(b) Contact person :

(c) Telephone number : ( )

2. Proposed Location

(a) Municipality :

(b) Lot number :

(c) Concession number : -

3. Operation

Date of commencement and completion of operation:

from to

(b) Hours of operation:

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from to

(c) Maximum production rate: (tonnes/hour)

Type of material to be processed:

Please attach the following:

1. A copy of the certificate.
2. A plot plan or sketch of the proposed location showing the following:
  - (a) the entire operating site
  - (b) distance between the Equipment and the nearest off-property Point of Reception
  - (c) distance between the Equipment and the nearest off-property Sensitive Receptor
  - (d) land use within the minimum separation distances from Equipment specified in Conditions Nos. 2 and 5 of this Certificate.

**Schedule "B"**

**Schedule "B" forms part of Certificate of Approval (Air)**

**Minimum Separation Distance to the Nearest Point of Reception**

<b>Setback Distances for Mobile Facility</b>									
	Class 1			Class 2			Class 3		
	0700 - 1900 hrs	1900 - 2300 hrs	2300 - 0700 hrs	0700 - 1900 hrs	1900 - 2300 hrs	2300 - 0700 hrs	0700 - 1900 hrs	1900 - 2300 hrs	2300 - 0700 hrs
Applicable Limit	50 dBA	47 dBA	45 dBA	50 dBA	45 dBA	45 dBA	45 dBA	40 dBA	40 dBA
<b>Side Orientation - left or right side of Equipment facing Point of Reception</b>									
Scenario 1: Unmitigated(Direct Line of Sight) Setback	430 (m)	590 (m)	725 (m)	430 (m)	725 (m)	725 (m)	725 (m)	1160 (m)	1160 (m)
Scenario 2: 3.35 (m) High Sound Barrier (located 20 (m) from Equipment)	195 (m)	270 (m)	330 (m)	195 (m)	330 (m)	330 (m)	330 (m)	535 (m)	535 (m)
<b>End Orientation - front or rear side of Equipment facing Point of Reception</b>									
Scenario 1: Unmitigated(Direct Line of Sight) Setback	340 (m)	470 (m)	575 (m)	340 (m)	575 (m)	575 (m)	575 (m)	920 (m)	920 (m)
Scenario 2: 3.35 (m) High Sound Barrier (located 20 (m) from Equipment)	155 (m)	215 (m)	260 (m)	155 (m)	260 (m)	260 (m)	260 (m)	425 (m)	425 (m)

**Note: "m" means metre(s)**

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

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1. Conditions Nos. 1 to 13, inclusive, are included to provide the minimum performance requirements considered necessary to prevent an adverse effect resulting from the operation of the Plant and to emphasize that the Plant must be maintained and operated according to a procedure that will result in compliance with the EPA, the regulations and this Certificate.
2. Condition No. 14 is included to require the Company to keep records and to provide information to staff of the Ministry so that compliance with the Act, the Regulations and this Certificate can be verified.
3. Conditions Nos. 15 to 18, inclusive, are included to require the Company to notify/report to the Ministry so that compliance with the EPA, the regulations and this Certificate can be verified.

*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](http://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](http://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.*



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DATED AT TORONTO this 21st day of March, 2011

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

AK/

c: District Manager, MOE Toronto - District  
Peter Piersol, ORTECH Environmental