



AMENDED CERTIFICATE OF APPROVAL

AIR

NUMBER 6117-7JYKQD

Issue Date: October 2, 2008

Haldimand War Memorial Hospital
206 John Street
Dunnville, Ontario
N1A 2P7

Site Location: 206 John Street
Dunnville, Ontario
N1A 2P7

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

- one (1) standby natural gas generator set, designated as Stack S50, having a rating of 30 kilowatts, to provide power during emergency situations, exhausting to the atmosphere at a maximum volumetric flow rate of 0.044 cubic metre per second, through a stack having an exit diameter of 0.076 metre, extending 2.0 metres above the roof of Building E and 8.0 metres above grade;

- one (1) standby diesel generator set, designated as Stack A, having a rating of 250 kilowatts, to provide power during emergency situations, exhausting to the atmosphere at a maximum volumetric flow rate of 0.86 actual cubic metre per second at an approximate temperature of 518 degrees Celsius, through a stack having an exit diameter of 0.10 metre, extending 0.61 metre above the roof of the Generator Building and 4.72 metres above grade;

- one (1) silencer for the intake air of the generator room, capable of providing the following values of Insertion-Loss in 1/1 octave frequency bands:

Centre Frequency (Hertz)	63	125	250	500	1000	2000	4000	8000
Insertion Loss (decibel)	5	10	17	22	22	20	15	12

- one (1) silencer for the exhaust air of the generator room, capable of providing the following values of Insertion-Loss in 1/1 octave frequency bands:

Centre Frequency (Hertz)	63	125	250	500	1000	2000	4000	8000
Insertion Loss (decibel)	5	10	17	22	22	20	15	12

- one (1) exhaust muffler (silencer) for the generator set, capable of providing the following values of Insertion-Loss in 1/1 octave frequency bands:

Centre Frequency (Hertz)	63	125	250	500	1000	2000	4000	8000
Insertion Loss (decibel)	23	38	42	39	38	38	42	43

- various natural gas fired combustion equipment, including twelve (12) boilers, fourteen (14) heating, ventilating and air conditioning (HVAC) units, nine (9) space heaters, two (2) residential furnaces, five (5) dryers, two (2) heat recovery units, two (2) make-up air units, four (4) water heaters, two (2) cooling units and one (1) heat exchanger, exhausting to the atmosphere, as listed in the attached Schedule "A";

all in accordance with the Application for Approval (Air & Noise) dated November 13, 2006 and signed by Paul Mailloux, CEO, Haldimand War Memorial Hospital, and all supporting information associated with the application provided by Dillon

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Consulting Limited, including additional information provided by Dillon Consulting, dated September 18, 2007, and signed by Colin McLuckie and additional information provided by Haldimand War Memorial Hospital, dated September 22, 2008, and signed by Andy Smith; the application for a Certificate of Approval (Air) and all supporting information prepared by Rowan Williams Davies & Irwin Inc. (RWDI) on behalf of the Haldimand War Memorial Hospital, signed by Paul Mailloux, CEO and dated June 2, 2000, as well as additional information dated September 11, 2000 and signed by Kim Thompson, P.Eng., RWDI.

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

- (1) "Act" means the *Environmental Protection Act*;
- (2) "Certificate" means this Certificate of Approval issued in accordance with Section 9 of the Act;
- (3) "Equipment" means the diesel fueled generator set, rated at 230 kilowatts, natural gas fired generator set, rated at 30 kilowatts, and combustion equipment described in the Owner's application, this Certificate and in the supporting documentation submitted with the application, to the extent approved by this Certificate;
- (4) "Generator Set" means both the diesel fueled generator set, rated at 230 kilowatts, and the natural gas fired generator set, rated at 30 kilowatts, described in the Owner's application, this Certificate and in the supporting documentation submitted with the application, to the extent approved by this Certificate;
- (5) "Manual" means a document or a set of documents that provide written instructions to staff of the Owner;
- (6) "Ministry" means the Ontario Ministry of the Environment;
- (7) "Owner" means Haldimand War Memorial Hospital, and includes its successors and assignees;
- (8) "Publication NPC-205" means Ministry Publication NPC-205, Sound Level Limits for Stationary Sources in Class 1 & 2 Areas (Urban), October, 1995; and
- (9) "Publication NPC-232" means Ministry Publication NPC-232, Sound Level Limits for Stationary Sources in Class 3 Areas (Rural), October, 1995.

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

TERMS AND CONDITIONS

GENERAL

1. Except as otherwise provided by these Conditions, the Owner shall design, build, install, operate and maintain the Equipment in accordance with the description given in this Certificate, application for approval of the Equipment and the submitted supporting documents and plans and specifications as listed in this Certificate.
2. Where there is a conflict between a provision of any submitted document referred to in this Certificate and the Conditions of this Certificate, the Conditions in this Certificate shall take precedence, and where there is a conflict between the listed submitted documents, the document bearing the most recent date shall prevail.

PERFORMANCE

3. The Owner shall ensure that the noise emissions from the Generator Set comply with the limits set out in Publication NPC-205 or NPC-232, as applicable.

OPERATION AND MAINTENANCE

4. The Owner shall restrict the periodic testing of the Generator Set to the daytime hours from 7:00 am to 7:00 pm.

5. The Owner shall ensure that the Generator Set is properly operated and maintained at all times. The Owner shall:

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

- (a) routine operating and maintenance procedures in accordance with good engineering practices and as recommended by the Generator Set suppliers;
- (b) emergency procedures;
- (c) procedures for any record keeping activities relating to operation and maintenance of the Generator Set;
- (d) all appropriate measures to minimize noise and odorous emissions from all potential sources;

(2) implement the recommendations of the Manual; and

(3) retain, for a minimum of two (2) years from the date of their creation, all records on the maintenance, repair and inspection of the Generator Set, and make these records available for review by staff of the Ministry upon request.

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

1. Condition Nos. 1 and 2 are imposed to ensure that the Equipment is built and operated in the manner in which it was described for review and upon which approval was granted. These conditions are also included to emphasize the precedence of Conditions in the Certificate and the practice that the Approval is based on the most current document, if several conflicting documents are submitted for review.

2. Condition No. 3 is included to provide the minimum performance requirement considered necessary to prevent an adverse effect resulting from the operation of the Generator Set.

3. Condition No. 4 is included to ensure that the proposed operation, excluding emergency situations, is not extended beyond specific daytime hours to prevent an adverse effect resulting from the operation of the Generator Set.

4. Condition No. 5 is included to emphasize that the Generator Set must be maintained and operated according to a procedure that will result in compliance with the Act, the regulations and this Certificate. In addition the Owner is required to keep records and provide information to staff of the Ministry so that compliance with the Act, the regulations and this Certificate can be verified.

Schedule "A" - Natural Gas Fired Equipment

Location	Equipment	Maximum Heat Input (kJ/hr)	Stack ID	Stack Parameters		
				Exit Diameter (m)	HAR (m)	HAG (m)

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Main Hospital Building	Building Boiler	2,637,700	H/S8-H	0.73	3.05	15.64
	Building Boiler	2,637,700				
	Boiler	316,600	J/S9-J	0.25	0.06	12.7
	Boiler	316,600	K/S10-K	0.25	0.06	12.7
	Boiler	316,600	L/S11-L	0.25	0.06	12.7
	Boiler	316,600	M/S12-M	0.25	0.06	12.7
	HVAC #3	105,600	N/S13-N	-	1.52	11.0
	HVAC #6	158,300	R/S17-R	-	1.52	7.8
	HVAC #1	158,300	O/S14-O	-	1.52	11.0
	HVAC #2	105,600	P/S15-P	-	1.52	11.0
	HVAC #4	98,300	F/S6-F	-	1.52	4.7
	HVAC #5	84,500	Q/S16-Q	-	1.52	11.0
	Generator Building	Space heater	52,800	U1/S20-U1	0.1	-
Space heater		52,800	U2/S21-U2	0.1	-	4.7
Space heater		26,400	U3/S22-U3	0.1	-	4.7
Space heater		26,400	U4/S23-U4	0.1	-	4.7
Space heater		95,000	C/S3	-	0.91	5.6
Ambulance Station	Boiler	137,200	G/S7-G	0.25	1.83	5.8
Residence	Residential furnace	63,300	T/S19-T	-	1.52	7.8
Long Term Care Building "A"	Carrier HVAC unit #5	312,297	S29	-	0.5	5.0
Long Term Care Building "B"	Residential furnace	31,652	S24	-	0.5	9.4
	Carrier HVAC unit #1	121,331	S25	-	0.5	9.4
	Carrier HVAC unit #2	189,910	S26	-	0.5	9.4
	Carrier HVAC unit #3	189,910	S27	-	0.5	9.4
	Carrier HVAC unit #4	189,910	S28	-	0.5	9.4
	Pennant boiler	1,081,432	S30	0.25	-	4.0
	Pennant boiler	1,081,432	S31	0.25	-	4.0
	Wiessmann boiler	1,081,432	S32	0.25	-	4.0
	Wiesemann boiler	1,081,432	S33	0.25	-	4.0
	Dryer	168,809	S34	-	0.5	9.4
	Dryer	168,809	S35	-	0.5	9.4
	Dryer	168,809	S36	-	0.5	9.4
	Dryer	168,809	S37	-	0.5	9.4
	Dryer	168,809	S38	-	0.5	9.4
	Heat Recovery unit #1	633,034	S39	-	1.5	10.4
Heat Recovery unit #2	633,034	S40	-	1.5	10.4	
Building "E"	Make Up Air unit #1	211,011	S41	-	-	7.5
	Make Up Air unit #2	263,764	S42	-	-	7.5
	HVAC unit #1	158,258	S43	-	-	13.2
	HVAC unit #2	84,404	S44	-	-	13.2
	Cooling unit #1	10,551	S45	-	-	7.5
	Cooling unit #2	34,817	S46	-	-	7.5
	HC-1-4; WH-1-4, AC	215,759	S47	-	-	-
	Heat Exchanger	47,478	S48	-	-	7.3

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	Boiler	158,258	S49	-	-	7.3
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Note: "HAR" means height above roof; "HAG" means height above grade; "(kJ/hr)" means kilojoules per hour; "(m)" means metre or metres; "HC-1-4" means heating units #1 to #4; "WH-1-4" means water heater units #1 to #4; "AC" means cooling unit.

This Certificate of Approval revokes and replaces Certificate(s) of Approval No. 5886-4NFQZW issued on October 13, 2000.

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 and the Environmental Review Tribunal within 15 days after receipt of this Notice, require a hearing by the Tribunal. 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 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**

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

DATED AT TORONTO this 2nd day of October, 2008

Zafar Bhatti, P.Eng.
Director
Section 9, *Environmental Protection Act*

ES/
c: District Manager, MOE Hamilton District Office
Colin McLuckie, Dillon Consulting Limited