SunE Newboro 1 Solar Farm

Acoustic Assessment Report
December, 2012

Prepared for:
SunEdison Canada, LLC
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Project No. 111-18739-00

GENIVAR

Project No. 111-18739-00

December 27, 2012

Simon Gill
SunEdison Canada, LLC
945 Princess Street
Kingston, ON K7L 3N6

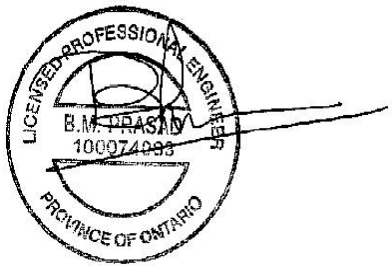
Re: SunE Newboro 1 Solar Farm
Acoustic Assessment Report

Dear Mr. Gill:

Please find, attached, a copy of Acoustic Assessment Report carried out for the SunE Newboro 1 Solar Farm to be located in the area of Crosby, Ontario.

If you have any question, please, feel free to call me at 905-475-7270 ext. 18384 or email me at bhuwan.prasad@genivar.com.

Yours truly,
GENIVAR Inc.



Bhuwan M. Prasad, P. Eng.
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Executive Summary

GENIVAR Inc. (GENIVAR) was retained by SunEdison to prepare an acoustic assessment report for the SunE Newboro 1 Solar Farm with an installed capacity of 10 MW to be located in the area of Crosby, Township of Rideau Lakes, Ontario in support of the Renewable Energy Approval (REA) application under Ontario Regulation 359/09 (O.Reg.359/09) of the Environmental Protection Act.

According to the project classification scheme outlined in Part II (Classes of Renewable Energy Generation Facilities); Section 4 of O. Reg. 359/09 the SunE Newboro 1 solar farm is categorized as a Class 3 solar facility. This acoustic assessment report has been prepared in accordance with Appendix A of the publication of the Ontario Ministry of the Environment entitled, “Basic Comprehensive Certificates of Approval (Air) – User Guide”, dated April 2004 and subsequent amendments.

The noise analysis was conducted using the CadnaA (Computer Aided Noise Abatement) 3-D acoustical modelling software V4.3 to predict the noise levels at the points of reception, within one (1) km distance around the site boundary in each direction, with all noise sources from the facility and adjacent solar farms operating at full load simultaneously. CadnaA is based on ISO Standard 9613-2 “*Acoustics - Attenuation of Sound During Propagation Outdoors – Part 2: General Method of Calculation*”. The applicable sound level limits for this Facility are considered to be the exclusionary minimum sound levels for Class 3 areas (45 dBA for daytime and 40 dBA for evening & nighttime).

Based on the results obtained in this noise study, the environmental noise produced by the proposed SunE Newboro 1 Solar Farm would be well below the applicable MOE noise guidelines at all Points of Reception.

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1. Introduction

SunEdison Canada (SunEdison), through its wholly owned subsidiary, SunE Ray LP, is proposing a single Class 3 Solar Facility with a nameplate capacity of 10 MW (AC) in the area of Crosby, Ontario. If approved, this facility will convert solar energy into electricity to be fed into the Hydro One distribution grid. The defined study area is presented as Figure 1 in Appendix A, covering approximately 142 hectares (ha). Noise sources include inverters and transformers, with 28 Points of Reception identified as sensitive receptors, and 17 Points of Reception as vacant lots (total of 45 Points of Reception) within one km distance around the site boundary in each direction, for assessment.

SunEdison is a global leader in solar energy generation with a current operating portfolio of more than 350 facilities generating over a combined 120 Megawatts (MW) of solar power across the globe. Active Ontario solar farms currently owned and operated by SunEdison include First Light 1 (9.1 MW) located in Stone Mills, north of Napanee, Norfolk I and II (18 MW combined) located in Norfolk County and Erie Ridge (9.3 MW) in Ridgetown, Chatham-Kent.

Subject to receiving all approvals, the preliminary schedule anticipates that full commercial operation of the SunE Newboro 1 Solar Farm will be achieved by the end of 2013. The project has received a 20-year FIT contract from the Ontario Power Authority to sell the generated electricity to the Ontario electricity grid. As such, the project is anticipated to operate until at least 2033, at which time it may continue to generate electricity or the site may be decommissioned and the land returned to its former vacant use.

The estimated power capacity is the aggregate gross electricity power output during a peak sunny day, when output from the facility is at its maximum.

1.1 Report Objectives

GENIVAR Inc. (GENIVAR) was retained by SunEdison to prepare this acoustic assessment report in support of the Renewable Energy Approval (REA) application for the SunE Newboro 1 Solar Farm in Newboro 1, north of the City of Kingston, Ontario.

Ontario Regulation 359/09 (O. Reg. 359/09) of the Environmental Protection Act received Royal Assent on September 24, 2009 and was filed and came into force on October 1, 2009. O. Reg. 359/09 contains the current requirements for approval of a renewable energy project under the REA process. According to the project classification scheme outlined in Part II (Classes of Renewable Energy Generation Facilities); Section 4 of O. Reg. 359/09 the SunE Newboro 1 solar farm is categorized as a Class 3 solar facility. A Class 3 solar facility is defined as a facility of solar panels situated at any location other than mounted on the roof or wall of a building with a name plate capacity greater than 12 kW.

As required by O. Reg. 359/09 for a Class 3 solar facility, this noise study report has been prepared in accordance with Appendix A of the publication of the Ministry of the Environment entitled, “Basic Comprehensive Certificates of Approval (Air) – User Guide”, dated April 2004 and subsequent amendments.

1.2 Project Location

The project is located on McCann Road, north of Crosby, Township of Rideau Lakes, Ontario. The area is generally bounded by:

- → McCann Road along the north
- → Narrows Lock Road along the west

The following coordinates (in UTM NAD 83, Zone 18N coordinate system) define the extremities of the Study Area for the project:

North-west: Easting 398594 Northing 4947801

North-east: Easting 399669 Northing 4948434

South-east: Easting 400208 Northing 4947752

South-west: Easting 399142 Northing 4946932

The solar farm will be located on privately owned land. The project's electrical substation will also be located on site. One overhead electrical connection line would run south within the Narrows Lock right of way and then north-west with the County Road 42 right of way to connect to the existing Hydro One distribution line running east-west along County Road 42

The noise sources and receptors are shown on Figure 1 in Appendix A and the zoning / land-use information is provided in Appendix B.

2. Facility Description

The Facility will consist of solar modules or panels, inverters, transformers and other ancillary equipment to convert solar energy into electricity (equipment list provided in Appendix C). The modules will be held by a single-axis tracking system which is supported off the ground by vertical posts. The major components of the proposed project are as follows:

- Approximately 40,000 x MEMC solar modules (260 to 300-watt generation capacity)
- Approximately 320 disconnect combiners
- 44 kV Substation including pole-top motor-operated disconnect, 44kV switchgear, 10 MVA oil filled pad-mount transformer, interrupter switches, communication equipment, etc.
- 10 inverter huts, each inverter hut consisting of two 500-kW inverters within an enclosure (or a house) and one corresponding 1000 kVA transformer

The solar photovoltaic panels will capture the incident solar energy and produce direct current (DC) electrical energy; this low voltage DC output will be converted into 560 V alternating current (AC) electrical energy by means of clusters of inverters. The 560 V power will then be transformed to 13.8 kV by a transformer located at each inverter cluster. Finally, the 13.8 kV power will be brought to a single central substation transformer to be stepped up to a voltage compatible with the local electrical grid, the Hydro One grid.

The Facility will operate 24 hours per day and 7 days per week to convert sunlight into electricity whenever solar energy is available.

In the absence of sunlight, no electricity generation will take place. This scenario is found at nighttime after sunset, and under these conditions the inverters are not operating and therefore not producing any noise. The medium-voltage transformers are energized from the energy generation process during hours of sunlight, and therefore continue to generate some magnetostrictive noise at reduced levels during the evening, even without the cooling fans in operation.

3. Noise Source Summary

The main sources of noise associated with the Project will be the inverter huts (each hut containing two inverters and one medium-voltage transformer) and the substation containing the main step-up transformer installed on a concrete pad.

Switch gear and a small step-down transformer meant for lighting within the substation are insignificant sources of noise in comparison to the above noted sources. The trackers operate using small motors and only emit noise when moving the panels. This noise is not significant and the motors have not been considered as sources of noise.

3.1 Inverter Huts

The facility will have ten (10) inverter huts, each consisting of a set of two (2) 500 kW inverters and an associated 1 MVA transformer contained within a sound dampening enclosure. Based on the inverter design (Appendix C), each inverter hut has been considered to have two noise components: (a) two (2) 500 kW inverters in an enclosure and (b) 1 MVA transformer located outside of the inverter enclosure (descriptions of which are provided below).

The inverters and associated transformer in each hut are identified by unique identification numbers. For example, H1T is the transformer of Hut 1, while H1|1 and H1|2 are inverter 1 and inverter 2 respectively for Hut 1; H2T is the transformer of Hut 2, while H2|1 and H2|2 are inverter 1 and inverter 2 respectively for Hut 2; etc. The complete list of inverters and associated transformers can be found in Table 2.

3.1.1 Inverters

Noise data has been received for two different 500 kW Inverters: (a) Satcon, the inverters which are most likely to be used in this facility as given in Appendix C and (b) Solaron as provided in Appendix D by Advanced Energy Industries (AEI). The inverter make and model has not been selected at this time, although it is anticipated that Satcon inverters will be used.

The overall noise level of the Solaron inverter, given in the third-octave band frequency, is higher than that of the Satcon inverter. For modeling purposes and a more conservative estimate, the Solaron noise data has been used to assess the anticipated noise levels of this Project.

The third-octave spectrum noise data, provided for the Solaron 500 unit, Configuration 2 (similar input voltage level as Satcon), was converted into a full octave spectrum for modeling purposes.

The sound power levels include a 5 dB tonal penalty per MOE publication NPC-104 as the MOE considers these sources to be tonal.

As the two inverters for each Hut are within an enclosure, on the advice of Ontario MOE, inverter enclosure attenuation has been applied to the overall sound power levels as per the values provided in Table 1.

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3.1.2 Transformers

The sound power levels for the 1 MVA transformers were calculated in the same manner as for the substation transformer, details of which are given in Section 3.2 Substation Transformer below. The sound power levels include a 5 dB tonal penalty per MOE publication NPC-104 as the MOE considers these sources to be tonal.

3.2 Substation Transformer

The octave band sound power levels of the transformers are calculated using Equation 7-23 in the "*Noise Control for Building and Manufacturing Plants*" report (provided in Appendix E; Reference 1) and National Electrical Manufacturers Association (NEMA) sound data for the transformers (Appendix E):

$$L_w = \text{NEMA Rating} + 10 \log A + C$$

Where, NEMA Rating = the A weighted sound level of the transformer
A = the total surface area of the sidewall of the transformer in ft²
C = octave band correction (Appendix C, Reference 1, Table 7-30)

The sound power levels include a 5 dB tonal penalty per MOE publication NPC-104 as the MOE considers these sources to be tonal.

An overall list of all noise sources of the Facility is shown in Table 2: Noise Source Summary Table, along with the corresponding coordinates as shown on Figure 1 (Appendix A). The height of the substation

transformer and the height of the inverters are modeled as 2.5 metres whereas the height of the inverter transformers is modeled as 1.8 metres above the ground so as to model them as point sources.

Two different scenarios have been modeled as per the details given below:

Daytime Scenario: When all the above equipment is in operation.

Nighttime Scenario: (i) When all the above equipment is in operation if sunlight available and (ii) When all equipment is in operation except inverters (i.e. only hut transformers and the substation transformer being in operation) (ii)

4. Adjacent Solar Projects

According to the information available as of now, there are three solar farms around Newboro 1 Site as shown on **Figure 1** below (*courtesy: Northland Power Inc. and Hatch*).

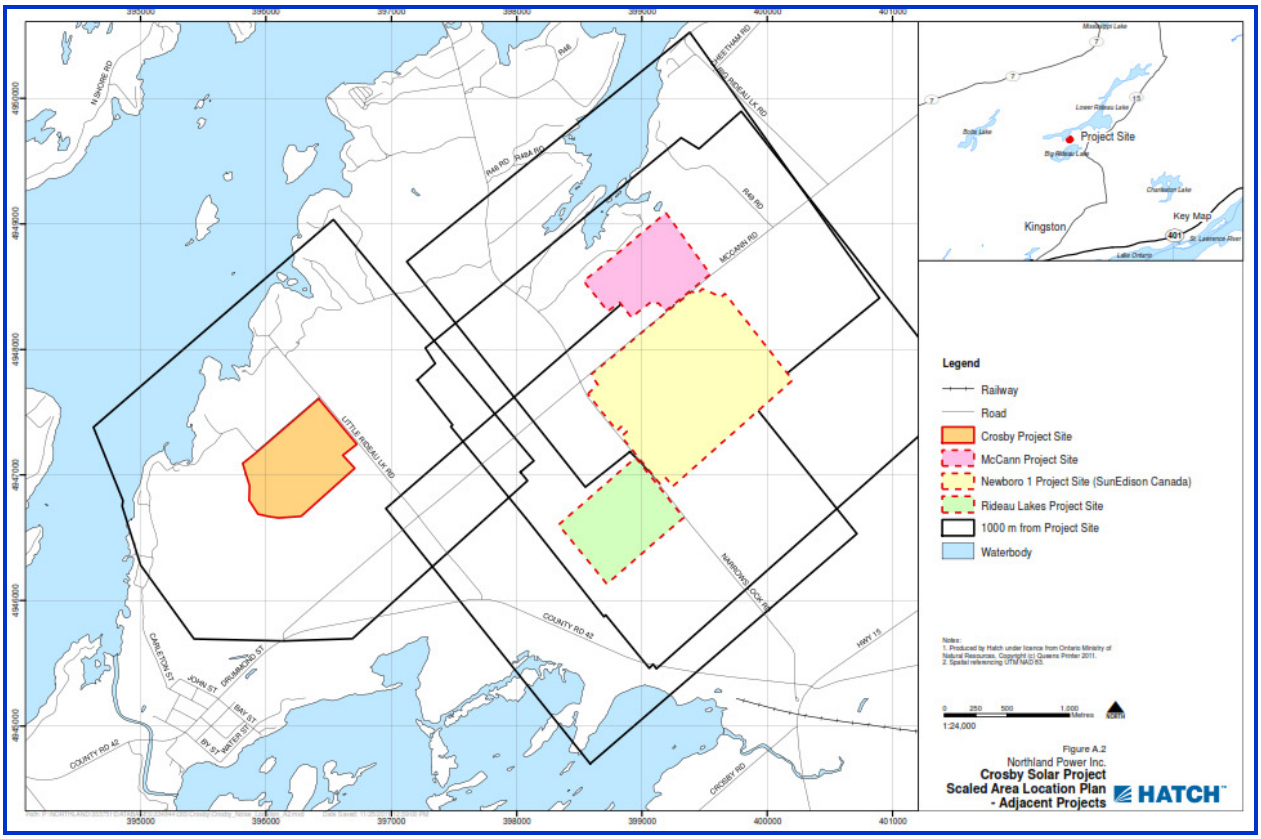


Figure 1 Solar Farms Adjacent to Newboro1

However, two – McCann and Rideau Lakes Solar Projects are within the distance of 1000 metre of Newboro1 and they had been taken into account for further noise impact study.

Table 1a shows the Sound Power Levels of Inverters, Inverter-Transformers and Substation Transformer in octave band spectrum for the adjacent solar farms.

Table 2a shows the details of sources from McCann and Rideau Lakes Solar Projects with IDs preceeding with Mc_ and RL_ respectively.

5. Points of Reception Summary

Forty five (45) Points of Reception (PORs) within a one (1) km distance around the site boundary in each direction were identified for this acoustic assessment as shown on Figure 1 in Appendix A as well as on below.

With a recent aerial photo, land information and site shape files loaded into the GIS program, ArcMap, the noise receptors and vacant lots were determined by visual review of the composite map. Structures that were identified as potential occupied buildings/houses were plotted on the map as noise receptors. This data was stored and saved into the shapefile entitled, *Noise Receptors*. Once all the potential noise receptors were identified, any lots without noise receptor plots were marked with a vacant lot receptor. Each marker was plotted on the vacant lot where future development would most likely take place (i.e. near the existing road access to the lot). The vacant lot receptors were plotted and saved in a separate shapefile entitled, *Vacant Lots*.

The daytime POR noise impact for each receptor from each individual noise source is shown in Table 3 and includes the distance in metres from each source to each receptor and the sound level at each receptor (Leq in dBA). The nighttime POR noise impact from each individual noise source is not presented since the nighttime noise impacts follow the same trend but with a lower magnitude.

To simulate a worst-case scenario, each receptor was set to a height of 4.5 m above ground representing an upper storey window of a two-storey structure. A receptor at this height is more exposed to the elevated sources (substation transformer and inverters) at the subject site and benefit least from the absorption of sound into the ground.

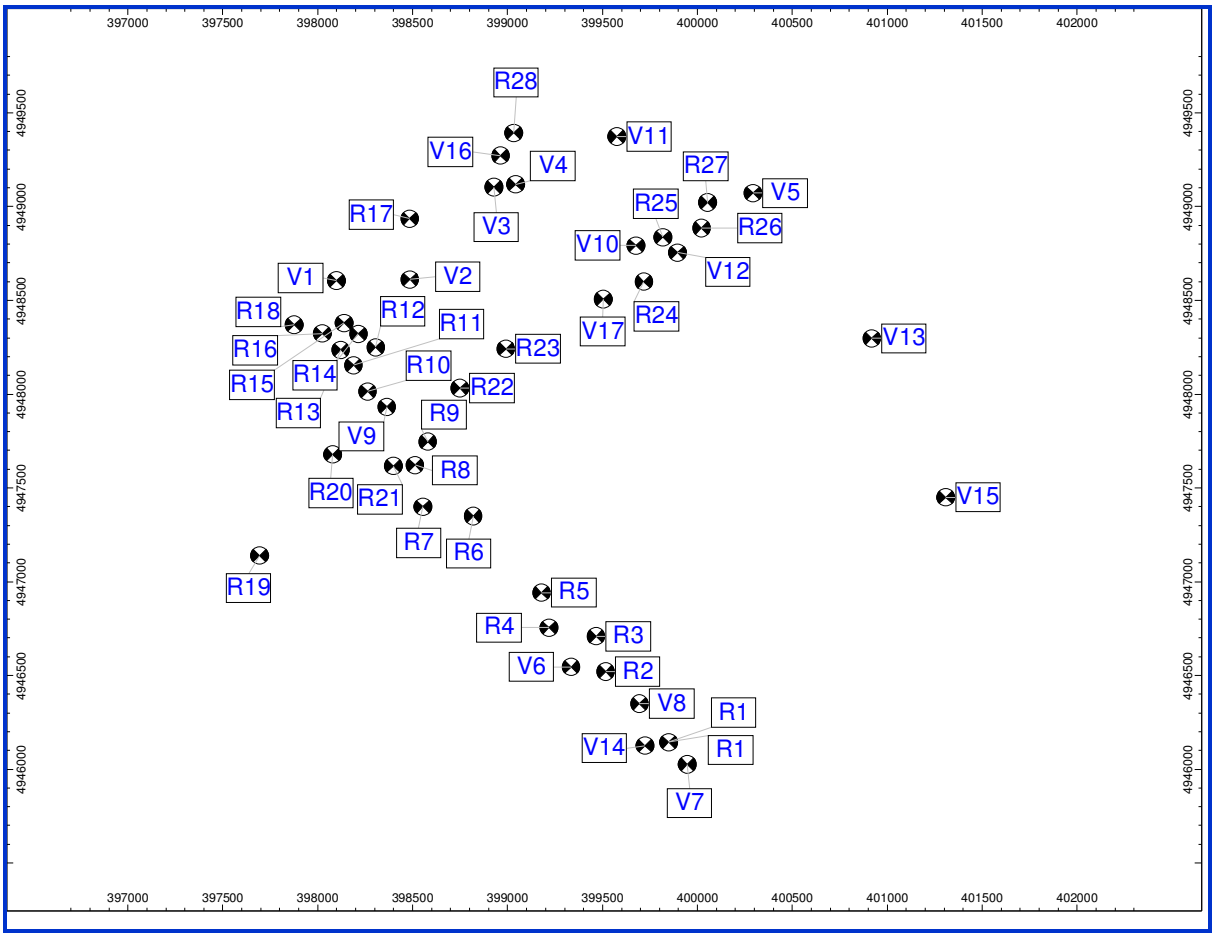


Figure 2 **Newboro 1 Solar Farm receptors and vacant lots**

6. Assessment Criteria (Performance Limits)

The solar farm will be located on privately owned land which is zone A2 agricultural. Therefore, all PORs have been considered to be located in Class 3 rural areas to reflect the rural nature of the area.

In predicting the sound level at each POR due to the proposed solar farm, MOE publication NPC-232 requires the application of the principle of "predictable worst case" noise impact. The predictable worst case impact is defined as the largest noise excess produced by the facility over the applicable limit.

The background sound level is considered to be traffic noise and other sounds in the area excluding the sound from the facility under assessment. The sound level limit for the residential receptors in a Class 3 area can be described as follows:

> *The energy averaged sound level (Leq) produced by a source at a receptor location in any one hour period should not exceed the greater of: the energy averaged background sound level in the same hour period, or 45 dBA in the daytime of 07:00 – 19:00, or 40 dBA in the evening period of 19:00 – 23:00 and 40 dBA in the nighttime period of 23:00 – 07:00.*

The applicable sound level limits for this Facility are considered to be the exclusionary minimum sound levels for Class 3 areas as follows:

Time Period	**Sound Level Limit for POR in Class 3 Area**
Daytime (07:00 – 19:00)	45 dBA
Evening (19:00 – 23:00)	40 dBA
Nighttime (23:00 – 07:00)	40 dBA

7. Impact Assessment

The noise analysis was conducted using the CadnaA (Computer Aided Noise Abatement) 3-D acoustical modelling software V4.3 to predict the noise levels at the Points of Reception with all noise sources operating at full load simultaneously and each noise source modelled as a point source. CadnaA is based on ISO Standard 9613-2 "*Acoustics - Attenuation of Sound During Propagation Outdoors – Part 2: General Method of Calculation*". The CadnaA configuration settings are summarized in Appendix F.

The attenuation due to atmospheric absorption was based on the atmospheric coefficients for 10 °C temperature and 70% relative humidity. The Ground Attenuation value (G) was calculated using the "General" method in standard ISO 9613-2 (included in the CadnaA software), with a global value ground factor of G = 0.7 being used (this is based on MOE wind farm guidelines for rural areas). G = 1 was used to model the porous soil nearby where the sound energy would be completely absorbed and G = 0 to model for hard surfaces such as paved hard roads where sound energy would be reflected totally.

The predicted sound levels at the receptors from the facility and adjacent solar farms are provided in Table 4: Acoustic Assessment Summary Table which indicates that the predicted noise levels for all identified PORs are in compliance with the respective performance limits. As a result, no mitigation is required.

Due to the nature of the noise sources, a vibration assessment is not required.

It should be noted that the acoustic assessment carried out for this project is conservative since the Sound Power Level used for the Inverters (as obtained from Advanced Energy Industries) is greater than that of the actual inverters (Satcon) to be used for the project.

8. Conclusions

For the proposed SunE Newboro 1 Solar Farm to be located in the area of Crosby, Township of Rideau Lakes, Ontario, a noise impact study has been carried out by GENIVAR. The study was carried out using

CadnaA V4.3 to predict the noise levels at the Points of Reception (PORs), within a one (1) km distance around the site boundary in each direction, with all noise sources operating at full load simultaneously during the daytime scenario and only transformers (without inverters) operating at full load during the nighttime scenario. The applicable sound level limits for this Facility are considered to be the exclusionary minimum sound levels for Class 3 areas (45 dBA for daytime and 40 dBA for evening & nighttime). Based on the results presented in this report, it is concluded that the environmental noise produced by the proposed SunE Newboro 1 Solar Farm would be well below the applicable MOE noise guidelines at all PORs.

Tables

Table 1: Solar Power Inverter and Transformer Sound Levels
SunE Newboro 1 Solar Farm, Crosby, Ontario

Inverter - AEI Solaron 500 - based on April 2010 test report (see Appendix D)										
					Octave Band Centre Frequency (Hz)					
Sound Description	**63**	**125**	**250**	**500**	**1000**	**2000**	**4000**	**8000**	**Sum**	**Description**
AEI Solaron 500 PWL (dB)*	83.4	89.6	81.8	81.0	78.0	73.1	70.3	75.2	**91.9**	Appendix D, Table 1, Configuration 2
AEI Solaron 500 SPL (dB)	75.4	81.6	73.8	73.0	70.0	65.1	62.3	67.2	**83.9**	at 1 m
AEI Solaron 500 PWL (dBA)	57.2	73.5	73.2	77.8	78.0	74.3	71.3	74.1	**83.7**	less than 84 dBA from report
AEI Solaron 500 SPL (dBA)	49.2	65.5	65.2	69.8	70.0	66.3	63.3	66.1	**75.7**	at 1 m - close to other vendors
Tonal Penalty (dB)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		as per NPC-104
Inverter Total PWL (dB)	88.4	94.6	86.8	86.0	83.0	78.1	75.3	80.2	**96.9**	including Tonal Penalty
Inverters Enclosures Attenuation	5.0	6.0	7.0	7.0	8.0	8.0	7.0	7.0		
* Each Octave bands have been normalised with its adjacent 1/3 octave sound power levels, for example, PWL for 63 Hz is log sum of PWLs of 50, 63 & 80 Hz										

Inverter transformer NEMA rating (dBA)	58	(CSA C227.4-06, Table 5, 1,000 kVA)
Area of four sides (ft^2)	175	Based on Satcon Prism MVP1 Transformer

					Octave Band Centre Frequency (Hz)					
Sound Description	**63**	**125**	**250**	**500**	**1000**	**2000**	**4000**	**8000**	**Sum**	**Description**
Inverter Transformer PWL (dB) 1,000 kVA	75.4	77.4	72.4	72.4	66.4	61.4	56.4	49.4	**81.2**	Ref. 1, Eq. 7-23 and Table 7-30, C_1 octave band corrections
PWL (dBA)	49.2	61.3	63.8	69.2	66.4	62.6	57.4	48.3	**72.8**	
SPL (dBA) at 1 m	41.2	53.3	55.8	61.2	58.4	54.6	49.4	40.3	**64.8**	
Transformer Total PWL (dB)	80.4	82.4	77.4	77.4	71.4	66.4	61.4	54.4	**86.2**	including Tonal Penalty

Substation transformer NEMA rating (dBA)	68	(CSA-C88-M90, Table 8, 10 MVA)
Area of four sides (ft^2)	251	Estimated based on similar project

					Octave Band Centre Frequency (Hz)					
Sound Description	**63**	**125**	**250**	**500**	**1000**	**2000**	**4000**	**8000**	**Sum**	**Description**
Substation Transformer PWL (dB) 10,000 kVA	87.0	89.0	84.0	84.0	78.0	73.0	68.0	61.0	**92.8**	Ref. 1, Eq. 7-23 and Table 7-30, C_3 octave band corrections
PWL (dBA)	60.8	72.9	75.4	80.8	78.0	74.2	69.0	59.9	**84.4**	
SPL (dBA) at 1 m	52.8	64.9	67.4	72.8	70.0	66.2	61.0	51.9	**76.4**	
Transformer Total PWL (dB)	92.0	94.0	89.0	89.0	83.0	78.0	73.0	66.0	**97.8**	including Tonal Penalty

Reference 1: Noise Control for Buildings, Manufacturing Plants, Equipment and Products (19th printing, 2005)

Table 1a: Solar Power Inverter and Transformer Sound Levels
McCann and Rideau Lakes Solar Projects

Spectra ID	Octave Band Centre Frequency (Hz), dBA									A	lin
	31.5	63	125	250	500	1000	2000	4000	8000		
SMA_SC800CPX2 (Inverter)		63.1	73.9	80.5	82.3	78.7	74.1	65	72.7	86.3	95
T27.6kV_1.6MVA(Inverter Transformer)	32.3	51.5	63.6	66.1	71.5	68.7	64.9	59.7	50.6	75.1	83.7
T44kV_10MVA (Substation Transformer)	43	62.2	74.3	76.8	82.2	79.4	75.6	70.4	61.3	85.8	94.4

In each case, a tonality of 5 dBA has been added for CadnaA modeling.

Ref.: (i) http://www.northlandpower.ca/mccann and (ii) http://www.northlandpower.ca/rideaulakes sited on December 22, 2012

Table 2: Noise Source Summary Table
SunE Newboro 1 Solar Farm, Crosby, Ontario

Source ID	Source Description	Sound Power Level	Coordinates		Height	Daytime Source	Nighttime Source	Source Location	Source Characteristics	Noise Control Measures
		(dBA)	X m)	Y (m)	(m)	Yes or No	Yes or No	(1)	(2)	(3)
H1T	Hut 1 Transformer	72.8	399524.9	4947879.8	1.8	Y	Y	O	S, T	U
H1I1	Hut 1 Inverter 1	83.7	399523.6	4947884.5	2.5	Y	N	O	S, T	E
H1I2	Hut 1 Inverter 2	83.7	399526.2	4947884.5	2.5	Y	N	O	S, T	E
H2T	Hut 2 Transformer	72.8	399353.8	4947777.7	1.8	Y	Y	O	S, T	U
H2I1	Hut 2 Inverter 1	83.7	399352.5	4947773.1	2.5	Y	N	O	S, T	E
H2I2	Hut 2 Inverter 2	83.7	399355.0	4947773.0	2.5	Y	N	O	S, T	E
H3T	Hut 3 Transformer	72.8	399619.3	4947777.9	1.8	Y	Y	O	S, T	U
H3I1	Hut 3 Inverter 1	83.7	399618.0	4947773.3	2.5	Y	N	O	S, T	E
H3I2	Hut 3 Inverter 2	83.7	399620.5	4947773.3	2.5	Y	N	O	S, T	E
H4T	Hut 4 Transformer	72.8	399637.0	4947717.7	1.8	Y	Y	O	S, T	U
H4I1	Hut 4 Inverter 1	83.7	399635.7	4947722.4	2.5	Y	N	O	S, T	E
H4I2	Hut 4 Inverter 2	83.7	399638.3	4947722.4	2.5	Y	N	O	S, T	E
H5T	Hut 5 Transformer	72.8	399377.4	4947669.9	1.8	Y	Y	O	S, T	U
H5I1	Hut 5 Inverter 1	83.7	399376.1	4947665.3	2.5	Y	N	O	S, T	E
H5I2	Hut 5 Inverter 2	83.7	399378.6	4947665.2	2.5	Y	N	O	S, T	E
H6T	Hut 6 Transformer	72.8	399265.3	4947555.7	1.8	Y	Y	O	S, T	U
H6I1	Hut 6 Inverter 1	83.7	399264.0	4947560.4	2.5	Y	N	O	S, T	E
H6I2	Hut 6 Inverter 2	83.7	399266.6	4947560.4	2.5	Y	N	O	S, T	E
H7T	Hut 7 Transformer	72.8	399554.4	4947555.7	1.8	Y	Y	O	S, T	U
H7I1	Hut 7 Inverter 1	83.7	399553.1	4947560.4	2.5	Y	N	O	S, T	E
H7I2	Hut 7 Inverter 2	83.7	399555.7	4947560.4	2.5	Y	N	O	S, T	E
H8T	Hut 8 Transformer	72.8	399760.9	4947555.7	1.8	Y	Y	O	S, T	U
H8I1	Hut 8 Inverter 1	83.7	399759.6	4947560.4	2.5	Y	N	O	S, T	E
H8I2	Hut 8 Inverter 2	83.7	399762.2	4947560.4	2.5	Y	N	O	S, T	E
H9T	Hut 9 Transformer	72.8	399182.7	4947399.8	1.8	Y	Y	O	S, T	U
H9I1	Hut 9 Inverter 1	83.7	399181.4	4947395.2	2.5	Y	N	O	S, T	E
H9I2	Hut 9 Inverter 2	83.7	399183.9	4947395.2	2.5	Y	N	O	S, T	E
H10T	Hut 10 Transformer	72.8	399412.8	4947399.8	1.8	Y	Y	O	S, T	U
H10I1	Hut 10 Inverter 1	83.7	399411.5	4947395.2	2.5	Y	N	O	S, T	E
H10I2	Hut 10 Inverter 2	83.7	399414.0	4947395.2	2.5	Y	N	O	S, T	E
ST	Substation Transformer	84.4	399112.2	4947187.7	2.5	Y	Y	O	S, T	U

Notes:

(1) Source Location:
O - located/installed outside the building, including on the roof
I - located/installed inside the building

(2) Sound Characteristics:
S - Steady
Q - Quasi Steady Impulsive
I - Impulsive
B - Buzzing
T - Tonal
C - Cyclic

(3) 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 3: Point of Reception Noise Impact
SunE Newboro 1 Solar Farm, Crosby, Ontario

Nearest Receptor in each directon has been taken.

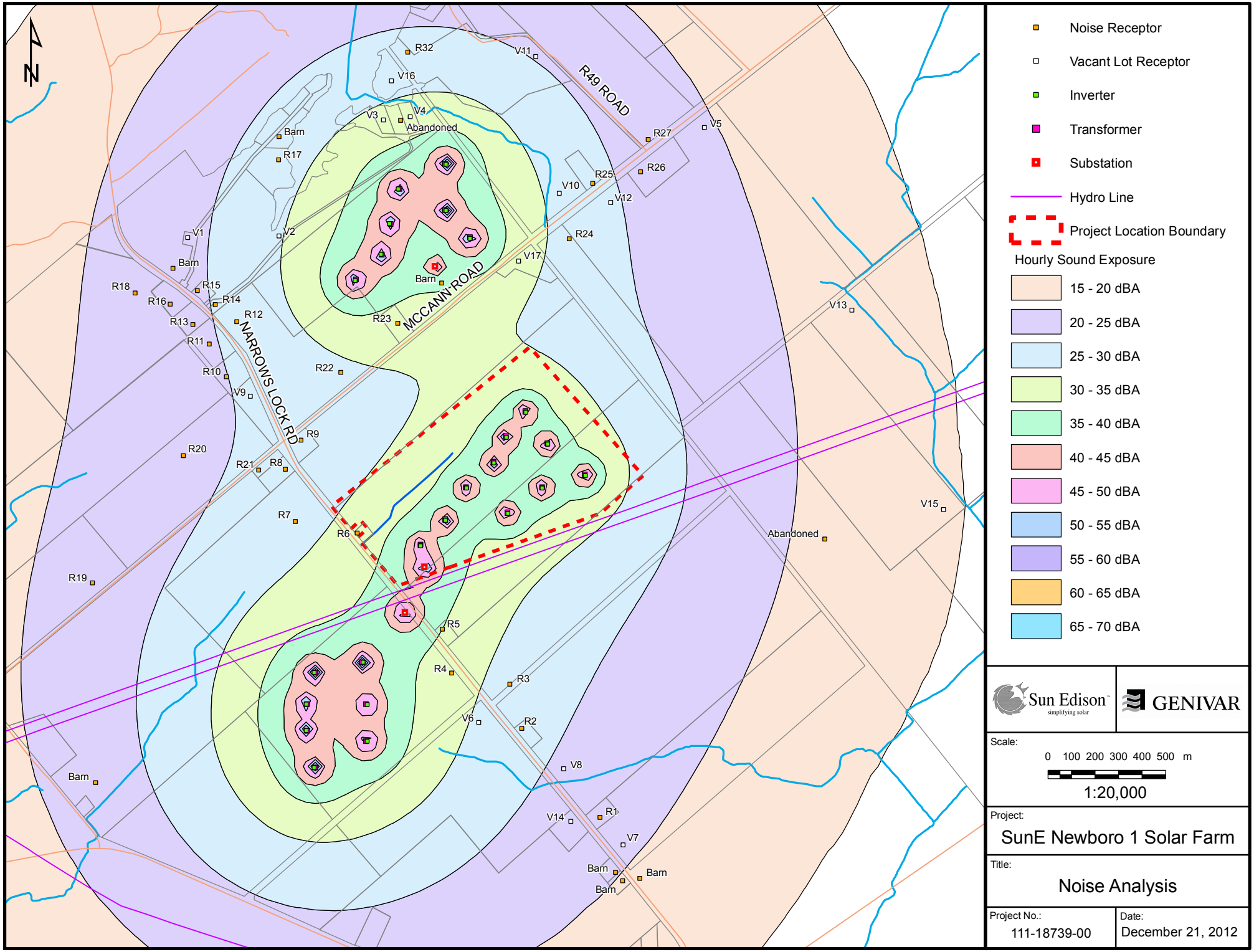
Noise Source ID	Point of Reception R5		Point of Reception R6		Point of Reception R23		Point of Reception V15	
	Distance to R8	Sound Level at R8 (Leq)	Distance to R6	Sound Level at R6 (Leq)	Distance to R23	Sound Level at R23 (Leq)	Distance to V15	Sound Level at V15 (Leq)
	(m)	(dBA)	(m)	(dBA)	(m)	(dBA)	(m)	(dBA)
H1T	999.6	3.6	883	4.9	646	8.2	1834	-3.5
H1I1	1003.5	7.2	885	8.5	642	11.9	1836	0.2
H1I2	1004.4	7.2	887	8.5	644	11.9	1834	0.2
H2T	853.8	5.3	685	7.6	590	9.2	1981	-4.5
H2I1	849.0	9	682	11.3	592	12.8	1982	-0.8
H2I2	849.4	9	683	11.3	594	12.7	1979	-0.8
H3T	944.8	4.2	908	4.6	782	6.2	1720	-2.7
H3I1	940.2	7.9	905	8.3	783	9.9	1720	1
H3I2	941.3	7.9	907	8.3	785	9.8	1718	1
H4T	900.9	4.7	898	4.8	833	5.6	1692	-2.5
H4I1	904.3	8.3	898	8.4	829	9.3	1694	1.2
H4I2	905.6	8.3	901	8.4	831	9.2	1691	1.2
H5T	754.5	6.6	644	8.3	691	7.5	1943	-4.2
H5I1	749.7	10.3	641	12	694	11.1	1944	-0.5
H5I2	750.3	10.3	643	11.9	695	11.1	1941	-0.5
H6T	619.7	8.7	492	11	739	6.8	2045	-4.9
H6I1	624.2	12.2	493	14.6	734	10.5	2047	-1.2
H6I2	624.5	12.2	495	14.6	735	10.5	2044	-1.2
H7T	719.5	7.1	765	6.5	888	4.9	1756	-3
H7I1	722.8	10.7	765	10.1	884	8.6	1758	0.7
H7I2	724.2	10.7	767	10.1	886	8.5	1755	0.7
H8T	845.8	5.4	965	4	1032	3.2	1550	-1.4
H8I1	848.3	9	965	7.6	1028	6.9	1552	2.2
H8I2	850.1	9	967	7.6	1030	6.9	1549	2.2
H9T	457.8	11.7	368	13.8	864	5.2	2126	-5.4
H9I1	453.1	15.4	366	17.5	868	8.8	2127	-1.7
H9I2	453.1	15.4	369	17.4	869	8.8	2125	-1.6
H10T	514.1	10.6	597	9	942	4.2	1896	-3.9
H10I1	509.4	14.3	595	12.7	946	7.8	1897	-0.2
H10I2	510.5	14.3	598	12.7	947	7.8	1895	-0.2
ST	254.5	29.6	336	27.1	1061	15.6	2211	6.9

Table 4: Acoustic Assessment Summary Table
SunE Newboro 1 Solar Farm, Crosby, Ontario

Point of Reception ID	Coordinates (height 4.5 m)		Daytime Sound Level at Point of Reception ((Leq, dBA)				Performance Limit (Leq) (dBA)	Compliance with Performance Limit (Yes/No)
	X (m)	Y (m)	Rideau Lakes	McCann	Newboro1	Total		
R1	399849.0	4946143.9	25.6	17.6	18.1	26.5	40	Yes
R2	399515.8	4946521.3	30.2	20.3	22.6	31	40	Yes
R3	399465.8	4946708.8	31.2	21.7	25.0	32.3	40	Yes
R4	399218.8	4946755.7	35.2	22.1	26.7	35.8	40	Yes
R5	399178.8	4946942.1	37.1	23.6	30.9	38.1	40	Yes
R6	398818.0	4947350.3	32.3	26.1	29.7	34.5	40	Yes
R7	398554.5	4947399.9	30.5	25.4	25.0	32.2	40	Yes
R8	398511.7	4947621.4	28.0	26.8	23.9	30.9	40	Yes
R9	398578.5	4947746.1	27.2	28.3	24.2	31.1	40	Yes
R10	398262.0	4948014.4	24.0	28.1	20.0	29.6	40	Yes
R11	398188.4	4948154.3	22.9	28.2	18.8	29.4	40	Yes
R12	398305.7	4948248.8	22.7	30.0	19.2	30.8	40	Yes
R13	398120.4	4948236.6	22.1	27.8	18.0	28.9	40	Yes
R14	398214.5	4948321.7	21.9	29.2	18.3	30	40	Yes
R15	398138.3	4948379.7	21.4	28.5	17.5	29.3	40	Yes
R16	398023.7	4948323.4	21.3	27.1	17.0	28.2	40	Yes
R17	398484.2	4948935.9	19.1	32.0	16.4	32.2	40	Yes
R18	397874.7	4948370.0	20.5	25.7	15.9	27	40	Yes
R19	397692.6	4947139.3	25.8	20.0	16.3	27	40	Yes
R20	398078.6	4947679.1	25.5	24.6	19.4	28.3	40	Yes
R21	398399.0	4947617.8	27.6	26.2	22.6	30.3	40	Yes
R22	398748.3	4948032.5	25.7	32.6	24.2	33.5	40	Yes
R23	398990.2	4948241.8	25.2	37.2	24.6	37.4	40	Yes
R24	399717.7	4948599.8	22.3	32.6	21.9	32.9	40	Yes
R25	399818.2	4948836.5	20.1	30.7	19.3	31	40	Yes
R26	400021.2	4948885.7	19.1	28.2	18.3	28.6	40	Yes
R27	400053.1	4949022.3	18.0	27.4	17.1	27.8	40	Yes
R28	399032.7	4949393.7	16.8	31.0	15.0	31.2	40	Yes
V1	398097.7	4948605.1	20.0	28.2	16.3	28.9	40	Yes
V2	398484.9	4948611.9	21.0	33.7	18.3	34	40	Yes
V3	398928.3	4949104.4	18.7	35.5	16.7	35.6	40	Yes
V4	399041.7	4949119.5	18.7	36.1	16.9	36.2	40	Yes
V5	400292.1	4949072.8	16.7	25.1	16.0	25.6	40	Yes
V6	399334.1	4946546.1	32.8	20.6	23.4	33.3	40	Yes
V7	399946.7	4946026.3	24.4	16.8	17.0	25.4	40	Yes
V8	399694.4	4946350.1	27.7	19.0	20.3	28.6	40	Yes
V9	398362.8	4947932.3	25.0	28.4	21.2	30.2	40	Yes
V10	399675.3	4948792.8	20.7	33.0	20.0	33.2	40	Yes
V11	399575.3	4949373.7	16.5	29.4	15.4	29.6	40	Yes
V12	399894.4	4948754.7	20.4	29.9	19.8	30.3	40	Yes
V13	400918.1	4948297.6	17.7	21.1	16.5	22.8	40	Yes
V14	399724.5	4946125.8	26.5	17.7	18.3	27.3	40	Yes
V15	401307.8	4947450.8	17.1	17.6	14.8	20.6	40	Yes
V16	398963.0	4949271.5	17.7	32.7	15.7	32.9	40	Yes
V17	399503.4	4948506.3	23.6	36.5	23.3	36.6	40	Yes

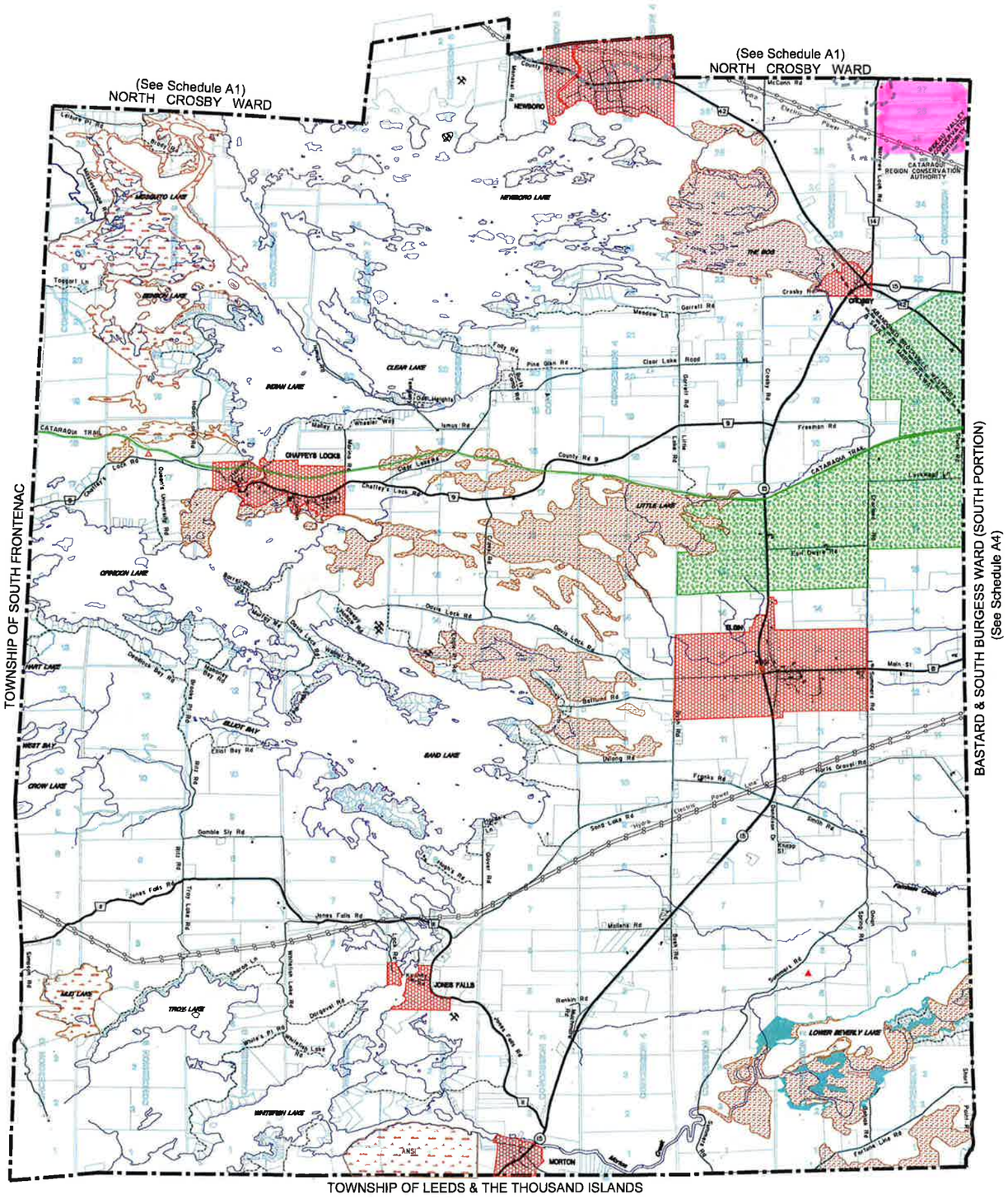
Appendix A

Site Location Map


N
R49 ROAD
MCCANN ROAD
NARROWS LOCK RD
R32
V11
V16
V3
V4
Abandoned
Barn
R17
R27
V5
R26
R25
V10
V12
R24
V17
V1
V2
Barn
R18
R15
R16
R14
R13
R12
R11
R10
V9
R23
R22
V13
R9
R20
R21
R8
R7
R6
V15
Abandoned
R19
R5
R4
R3
V6
R2
V8
Barn
V14
R1
V7
Barn
Barn
Barn
Noise Receptor
Vacant Lot Receptor
Inverter
Transformer
Substation
Hydro Line
Project Location Boundary
Hourly Sound Exposure
15 - 20 dBA
20 - 25 dBA
25 - 30 dBA
30 - 35 dBA
35 - 40 dBA
40 - 45 dBA
45 - 50 dBA
50 - 55 dBA
55 - 60 dBA
60 - 65 dBA
65 - 70 dBA
Sun Edison
simplifying solar
GENIVAR
Scale:
0 100 200 300 400 500 m
1:20,000
Project:
SunE Newboro 1 Solar Farm
Title:
Noise Analysis
Project No.:
111-18739-00
Date:
December 21, 2012

Appendix B

Zoning / Land-Use Information

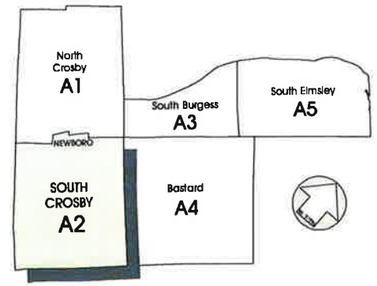


Township of Rideau Lakes

OFFICIAL PLAN

SCHEDULE A2
SOUTH CROSBY WARD & NEWBORO WARD

KEY PLAN



Site Location (Newboro 1)

LAND USE

- RURAL
- VILLAGE & HAMLET
- AGRICULTURE
- MINERAL RESOURCE
- NATURAL HERITAGE 'A'
- NATURAL HAZARD
- NATURAL HERITAGE 'B'

WASTE DISPOSAL SITE ▲ OPEN △ CLOSED

SEWAGE TREATMENT FACILITY ●

SIGNIFICANT WILDLIFE HABITAT

SIGNIFICANT WOODLANDS

ORGANIC SOILS

ABANDONED MINES & MINERAL RESOURCE OPERATIONS

ROADS

- PROVINCIAL HIGHWAY
- COUNTY ROAD
- TOWNSHIP ROAD
- PRIVATE ROAD

0 500 1000 2000 4000m

SCALE 1 : 25,000

ISSUE DATE: APRIL, 2004

NOVATECH ENGINEERING CONSULTANTS LTD.

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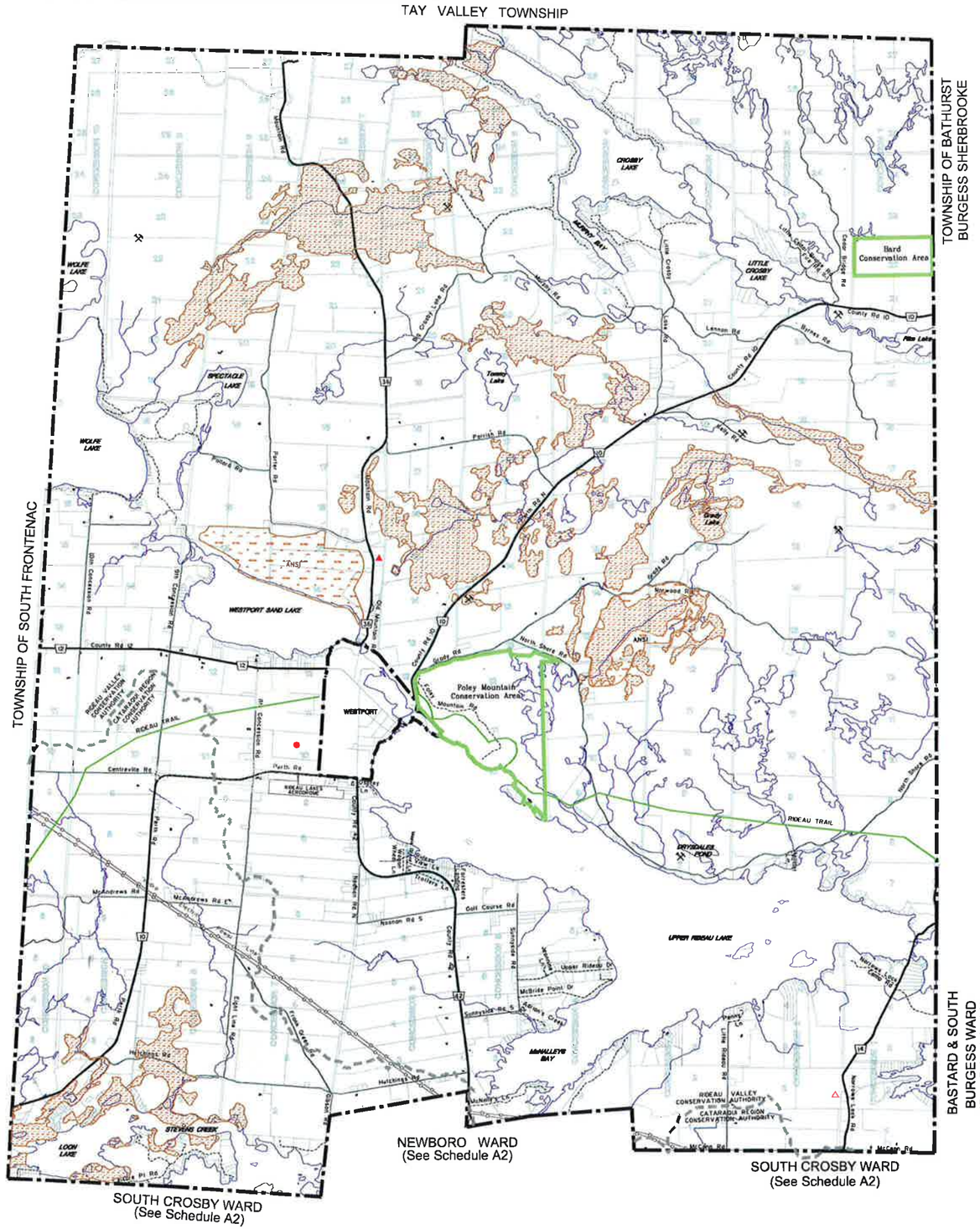
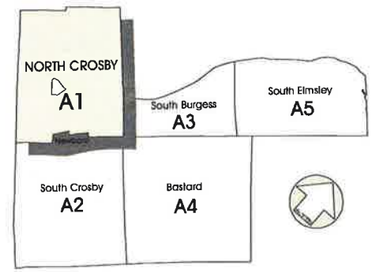


Township of Rideau Lakes

OFFICIAL PLAN
SCHEDULE A1
NORTH CROSBY WARD

KEY PLAN



LAND USE

- RURAL
- VILLAGE & HAMLET
- AGRICULTURE
- MINERAL RESOURCE
- NATURAL HERITAGE 'A'
- NATURAL HAZARD
- NATURAL HERITAGE 'B'

WASTE DISPOSAL SITE ▲ OPEN △ CLOSED

SEWAGE TREATMENT FACILITY ●

SIGNIFICANT WILDLIFE HABITAT

SIGNIFICANT WOODLANDS

ORGANIC SOILS

ABANDONED MINES & MINERAL RESOURCE OPERATIONS

ROADS

- PROVINCIAL HIGHWAY
- COUNTY ROAD
- TOWNSHIP ROAD
- PRIVATE ROAD

0 500 1000 2000 4000m

SCALE 1 : 25,000

ISSUE DATE: APRIL, 2004

NOVATECH ENGINEERING CONSULTANTS LTD.

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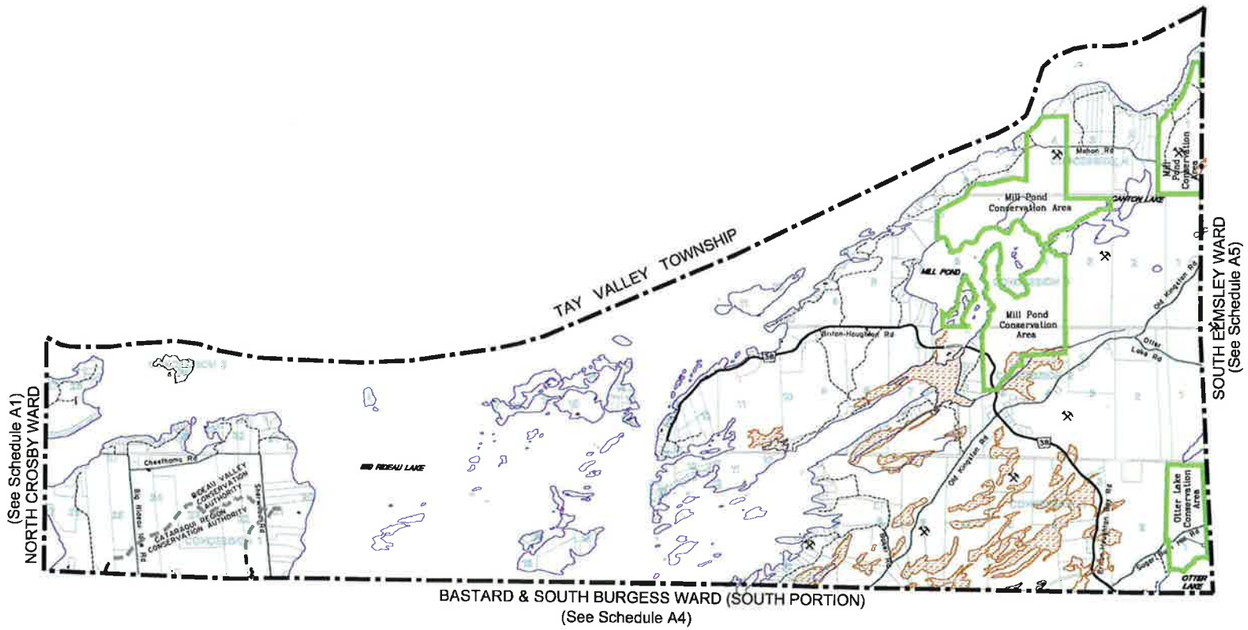


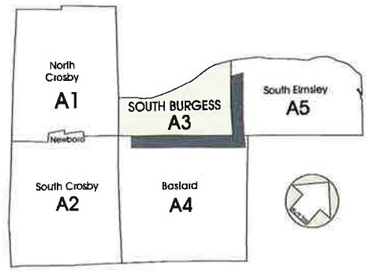
Township of Rideau Lakes

OFFICIAL PLAN

SCHEDULE A3

BASTARD and SOUTH BURGESS WARD (NORTH PORTION)

KEY PLAN



LAND USE

- RURAL
- VILLAGE & HAMLET
- AGRICULTURE
- MINERAL RESOURCE
- NATURAL HERITAGE 'A'
- NATURAL HAZARD
- NATURAL HERITAGE 'B'

WASTE DISPOSAL SITE ▲ OPEN △ CLOSED

SEWAGE TREATMENT FACILITY ●

SIGNIFICANT WILDLIFE HABITAT

SIGNIFICANT WOODLANDS

ORGANIC SOILS

ABANDONED MINES & MINERAL RESOURCE OPERATIONS

ROADS

- PROVINCIAL HIGHWAY
- COUNTY ROAD
- TOWNSHIP ROAD
- PRIVATE ROAD

0 500 1000 2000 4000m

SCALE 1 : 25,000

ISSUE DATE: APRIL, 2004

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(See Schedule A3)
BASTARD & SOUTH BURGESS WARD
WARD (NORTH PORTION)

(See Schedule A2)
SOUTH CROSBY WARD

TOWNSHIP OF ELIZABETHTOWN-KITLEY

TOWNSHIP OF LEEDS &
THE THOUSAND ISLANDS

TOWNSHIP OF ATHENS

Township of Rideau Lakes

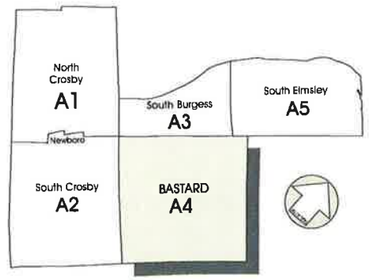
OFFICIAL PLAN

SCHEDULE A4

BASTARD and SOUTH BURGESS WARD

(SOUTH PORTION)

KEY PLAN



LAND USE

- RURAL
- VILLAGE & HAMLET
- AGRICULTURE
- MINERAL RESOURCE
- NATURAL HERITAGE 'A'
- NATURAL HAZARD
- NATURAL HERITAGE 'B'

WASTE DISPOSAL SITE ▲ OPEN △ CLOSED

SEWAGE TREATMENT FACILITY ●

SIGNIFICANT WILDLIFE HABITAT

SIGNIFICANT WOODLANDS

ORGANIC SOILS

ABANDONED MINES & MINERAL RESOURCE OPERATIONS

ROADS

- PROVINCIAL HIGHWAY
- COUNTY ROAD
- TOWNSHIP ROAD
- PRIVATE ROAD

0 500 1000 2000 4000m

SCALE 1 25,000

ISSUE DATE: APRIL, 2004

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http://www.cgiscentre.com

Appendix C

Satcon 500kW Inverter Datasheets

PVS-500 (MVT)

PVS-500 (480 V)

PVS-500 (265 V) CE

Peak Efficiency 97.6%

Power Efficiency

Power Level	Output Power[1]	Efficiency[2]
10%	50 kW	92.2%
20%	100 kW	95.6%
30%	150 kW	96.2%
50%	250 kW	96.5%
75%	375 kW	96.4%
100%	500 kW	96.0%

[1] 320V minimum [2] 480V model

Power Efficiency without Transformer

Power Level	Output Power[1]	Efficiency
10%	50 kW	97.08%
20%	100 kW	97.52%
30%	150 kW	97.58%
50%	250 kW	97.46%
75%	375 kW	97.09%
100%	500 kW	96.52%

[1] 310V minimum

Unparalleled Performance

With their advanced system intelligence, next-generation Edge™ MPPT technology, and industrial-grade engineering, PowerGate Plus inverters maximize system uptime and power production, even in cloudy conditions.

Edge MPPT

Provides rapid and accurate control that boosts PV plant kilowatt yield

Provides a wide range of operation across all photovoltaic cell technologies

Printed Circuit Board Durability

Wide thermal operating range: -40° C (-40° F) to 85° C (185° F)

Conformal coated to withstand extreme humidity and air-pollution levels

PV Inverters | PowerGate® Plus 500 kW

Profitable PV Power

The Satcon® PowerGate® Plus 500 kW PV inverter has a significant impact on the profitability dynamic of large-scale solar PV systems. With its unparalleled system intelligence, next-generation Edge™ MPPT technology, and industrial-grade engineering, the PowerGate Plus 500 kW inverter maximizes system uptime and power production, even in the harshest environments.

Commercial and Utility Scale

The world's largest solar power installations depend on Satcon PowerGate Plus PV inverters to provide efficient and stable power—even in the harshest climates.

Advanced, Rugged, and Reliable

Engineered from the ground up to meet the demands of large-scale installations, Satcon PV inverters feature an outdoor-rated enclosure, advanced monitoring and control capabilities, and Edge,™ Satcon's next-generation MPPT solution.

Proven Performance

The proven leader in solar PV inverter solutions for commercial installations, Satcon sets the standards for efficient large-scale power conversion.

Increased PV Plant Yield

At the heart of PowerGate Plus is Edge, Satcon's next-generation power optimization solution. With rapid and accurate MPPT control, Edge increases PV plant kilowatt yield by extending the production window of arrays, enabling them to operate at optimal voltage and current levels for longer periods of time—even in varied sun conditions. To maximize efficiency, Edge improves the performance of all PV technologies, including fixed and tracking solar arrays, enabling you to get the most from your investment.

Satcon®

PowerGate® Plus 500 kW

Proven Reliability

Rugged and reliable, PowerGate Plus PV inverters are engineered from the ground up to meet the demands of large-scale installations.

Low Maintenance

- Modular components make service efficient
- Dual cooling fans

Safety

- UBC Seismic Zone 4 compliant
- Built-in DC and AC disconnect switches
- Integrated DC two-pole disconnect switch isolates the inverter (with the exception of the GFDI circuit) from the photovoltaic power system to allow inspection and maintenance
- Protective covers over exposed power connections

PowerGate Plus 500 kW Specifications			UL/CSA	CE
Input Parameters				
Maximum Array Input Voltage	600 VDC		●	
	900 VDC			●
PV Array Configuration	Positive Ground		○	○
	Negative Ground		●	○
	Floating			●
Input Voltage Range (MPPT; Full Power)	320/333–600 VDC	200/208 VAC[1]	●	
	420–850 VDC	265 VAC[1]		●
	320–600 VDC	480 VAC	●	
Maximum Input Current	1,628 ADC/ 1,565 ADC	200/208 VAC[1]	●	
	1,228 ADC	265 VAC[1]		●
	1,628 ADC	480 VAC	●	
Output Parameters				
Output Voltage Range (L-L)	176–220 VAC/ 183-229 VAC	200/208 VAC[1]	●	
	233–292 VAC	265 VAC[1]		●
	422–528 VAC	480 VAC	●	
Nominal Output Voltage	200/208 VAC[1]		●	
	265 VAC[1]			●
	480 VAC		●	
Output Frequency Range	59.3–60.5 Hz		●	
	49.3–50.5 Hz			●
AC Voltage Range (Standard)	-12%/+10%		●	●
Nominal Output Frequency	60 Hz		●	
	50 Hz			●
Number of Phases	3		●	●
Maximum Output Current per Phase	1,443/1,388 A	200/208 VAC[1]	●	
	1090 A	265 VAC[1]		●
	602 A	480 VAC	●	

▫ Standard ○ Optional

The integrated external transformer is standard on the 480 VAC models only; custom transformer solutions are also available.

Satcon®

PowerGate® Plus 500 kW

Streamlined Design

With all components encased in a single, space-saving enclosure, PowerGate Plus PV inverters are easy to install, operate, and maintain.

Single Cabinet with Small Footprint

Convenient access to all components

Large in-floor cable glands make access to DC and AC cables easy

Rugged Construction

Engineered for outdoor environments

Output Transformer

Provides galvanic isolation

Matches the output voltage of the PV inverter to the grid

Quiet Operation

65 dB(A) standard

PowerGate Plus 500 kW Specifications			UL/CSA	CE
Peak Efficiency	**97.6%**			
CEC-Weighted Efficiency[3]	97%	200/208 VAC[1]	▪	
	97%	265 VAC[1]		▪
	96%	480 VAC	▪	
Maximum Continuous Output Power	500 kW (500 kVA)		▪	▪
Tare Losses	138.12 W	200/208 VAC[1]	▪	
	170 W	265 VAC[1]		▪
	138.12 W	480 VAC	▪	
Power Factor at Full Load	>0.99		▪	▪
Harmonic Distortion	<3% THD		▪	▪
Temperature				
Operating Ambient Temperature Range (Full Power)	-20° C to +50° C		▪	▪
Storage Temperature Range	-30° C to +70° C		▪	▪
Cooling	Forced Air		▪	▪
Noise				
Noise Level	<65 dB(A)		▪	▪
Combiner				
Number of Inputs and Fuse Rating (2 fuses/input for floating)	20 (160 ADC)		○	
	30 (100 ADC)		○	
	20 (160 ADC)			○
	20 (125 ADC)			○
Transformer				
Integrated External Transformer		480 VAC	▪	
Low Tap Voltage[2]	20%		▪	
External Transformer[2]			○	○
Inverter and Integrated External Transformer Cabinets				
Enclosure Rating	NEMA 3R		▪	
	IP54			▪
Enclosure Finish (11 Gauge CRS, painted, base zinc coated)	RAL-7032		▪	▪
Stainless Steel Finish			○	○
Cabinet Dimensions (Height x Width x Depth)	Inverter		92.6" x 138.8" x 43.1" (235 cm x 352 cm x 109 cm)	92.6" x 153.8" x 43.1" (235 cm x 391 cm x 109 cm)
	Transformer	480 VAC	77" x 49" x 30.5" (195.58 cm x 124.46 cm x 77.47 cm)	
Cabinet Weight	Inverter		5,900 lbs.	2,676 kg
	Transformer	480 VAC	3,200 lbs.	1,451 kg

▪ Standard ○ Optional

PowerGate® Plus 500 kW

Output Options

PowerGate Plus 500 kW	
UL/CSA	208 VAC[1] Output
	480 VAC Output
CE	265 VAC[1] Output

[1] External transformer

PowerGate Plus 500 kW Specifications	UL/CSA	CE
Testing and Certification		
UL1741, CSA 107.1-01, IEEE 1547, IEEE C62.41.2, IEEE C62.45, IEEE C37.90.1, IEEE C37.90.2	●	
CE Certification (EN 50178, EN 61000-6-2, EN 61000-6-4)		●
UBC Zone 4 Seismic Rating	●	●
Warranty		
Five Years	●	●
Extended Warranty (up to 10, 15, or 20 years)	○	○
Extended Service Agreement	○	○
Uptime Guarantee	○	○
Intelligent Monitoring		
Satcon PV View® Plus	○	○
Satcon PV Zone	○	○
Third-Party Compatibility	●	●

▫ Standard
○ Optional

[1] Options designed to be used with external transformer.

[2] The 20% boost tap on the isolation transformer increases the AC voltage output range for applications where the solar array DC operating voltage is at or near the lower end of the DC input range. This boost allows for continued inverter operation at lower DC voltage input levels.

[3] For 265 VAC and 200/208 VAC models efficiency is listed as "Inverter Only" efficiency.

Note: Specifications are subject to change.

PG500210.1

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Prism MVP 1

Two-piece, pre-packaged MV system for grounded 1,000VDC arrays:

- 2 x PVS-500kW NEMA 1 inverters
- Prefabricated weather-tight outdoor enclosure with dual entrances houses inverters
- Corresponding 1000kVA transformer with dual secondary-side windings and integral MV disconnect switch
- Transformer configurable to meet any primary side voltage
- Two-piece installation allows for separation of the inverter and transformer to suit site requirements

Prism MVP 2

One piece, factory integrated MV system for grounded 1,000 VDC arrays:

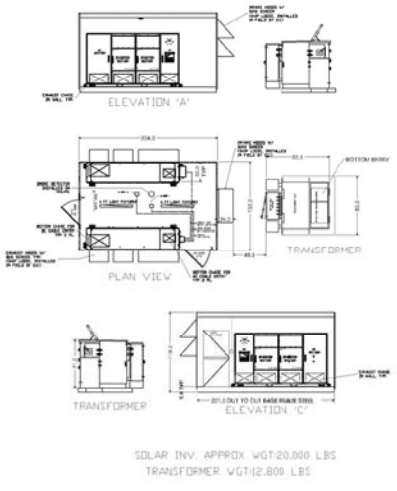
- 2 x PVS-500 kW NEMA 1 inverters
- Prefabricated weather-tight outdoor enclosure with dual entrances houses inverters
- Corresponding 1000 kVA transformer with dual secondary-side windings and integral MV disconnect switch
- Transformer configurable to meet any primary side voltage
- One piece design with inverter and transformer on same transportable chassis allows for "ship and drop" installation with minimal site preparation

Satcon Prism 1 MW Medium Voltage Solution

Satcon Prism a fully integrated one megawatt medium voltage (MV) solution optimized for utility scale solar PV installations. Leveraging Satcon's industry standard setting PowerGate® Plus 500kW solar PV inverters, Prism is a utility grade one megawatt platform, complete with factory integrated step-up transformers, MV disconnect switches, and power conversion electronics.

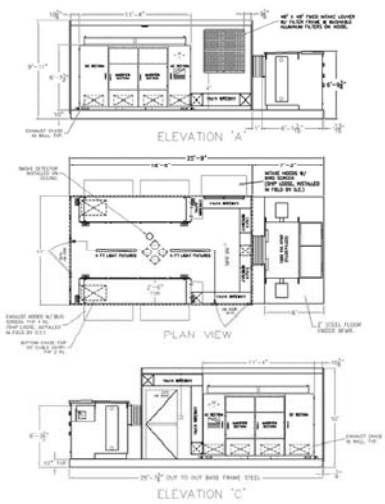
The solution is delivered in two configurations; both complete with an all-climate outdoor enclosure and ready to connect to the PV array and utility grid, enabling rapid installation through a modular prepackaged design.

Satcon Prism MVP 1



Two-Piece, pre-packaged MV system for grounded 1,000VDC array systems

Satcon Prism MVP 2



Pre-packaged, 1MW, integrated, one – piece MV solution for grounded, 1,000VDC PV array systems

• Standard o Optional

Appendix D

Inverter Sound Level Testing

VACC, Inc. DBA
VIBRO-ACOUSTIC CONSULTANTS

490 POST STREET • SUITE • 427
SAN FRANCISCO • CA • 94•02 • USA
TEL / FAX: (+•) 4• 5-693-0424 / • 398
http://www.va-consult.com

Inverter Sound Power Level Testing

Advanced Energy Industries, Fort Collins, CO

Prepared by: **Tyler Rynberg, PE**

Vibro-Acoustic Consultants

tyler@va-consult.com

Date: **14 April 2010**

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1. Background

Advanced Energy Industries (AEI) wishes to document the sound power levels generated by the Solaron 500, a 500 kW inverter. AEI has requested that the testing of the fuel cell be performed per the ISO 3744•1994 Standard. We visited the AEI facility on Thursday, 1 April 2010, to perform the testing.

Since sound power is a property of the source being tested (rather than the cumulative result of multiple sources interacting with the environment), these data are applicable to many different installation conditions. In this document, we report the measured sound power levels and sound pressure levels and provide commentary on how we would insert this source into computer•based noise propagation models.

2. Description of Inverter

The device under test was designated as Solaron 500 model number 3159500•0000 A1 (with 3R enclosure), a 500 kW inverter, manufactured by AEI in March 2010. The inverter had a serial number of 750385 F/R A1. The inverter was 1.83m wide x 0.97m deep x 2m high.

The inverter was mounted on a rigid wood platform constructed using 2x4 studs and rigid foam. The platform raised the inverter 0.2m off the floor. The reference box established for the inverter had the following dimensions: L1 = 1.83m, L2 = 0.97m, L3 = 2.21m.

The inverter was supplied DC input voltage by power generation equipment located in an adjacent room.

3. General Methodology

We measured the sound pressure levels generated by the inverter per the ISO 3744•1994 Standard. During the measurements, we collected the overall un•weighted equivalent continuous sound level (L_{EQ}), as well as the un•weighted 1/3•octave band spectra from both the inverter and ambient conditions. The measurement duration at each microphone position was 60 seconds.

To measure the inverter, we established a parallelepiped measurement surface 1 meter from the reference box. The resultant measurement surface had the following dimensions: L1 = 3.83m, L2 = 2.97m, L3 = 3.21m, and totaled 55.01 square meters. We used 9 microphone positions, per Figure C2 of the ISO 3744•1994 Standard. For all 9 positions, the fixed microphone position technique was used.

We tested four operating configurations of the inverter. As an exploratory test, we also measured a fifth configuration at only one microphone position. The tested configurations are shown in the following table:

Configuration	Input Voltage	Output Power	Blower Setting
1	790V	100% (500kW)	Maximum
2	850V	100% (500kW)	Maximum
3	730~745V[1]	100% (500kW)	Maximum
4	790V	50% (250kW)	Maximum
5	850V	50% (250kW)	Maximum

[1]During this measurement, the voltage regulator was not operating properly. The input voltage was observed to oscillate between 730V and 745V.

We understand from our discussions with AEI personnel that the operating conditions tested are representative of a real•world installation.

4. Data Collection

4.1 Measurement System Parameters

We measured the sound power levels using our standard testing suite:

Instrument	Make / Model	Identification
Microphone Calibrator	Bruel & Kjaer 4231	S/N 2292439
Noise Meter	Norsonic N-140	S/N 1403581
Microphone Preamplifier	Norsonic N-1209	S/N 12749
Microphone	Norsonic N-1225	S/N 96063

The noise meter was calibrated to 94 dB at 1 kHz before and after the measurements. The microphone windscreen was used. The Norsonic N•140 has an internal correction filter to correct for the effects of the windscreen.

4.2 Measurement Locations and Site Conditions

We collected data in the Solaron testing lab adjacent to the main fabrication area at the AEI facility in Fort Collins, CO. The testing lab measured approximately 13.41m x 19.51m x 3.35m. The floor is an exposed concrete slab; three of the walls are constructed using vinyl•faced gypsum board on stud•framing; the remaining wall was open to the main fabrication area; the ceiling is a suspended grid containing vinyl•faced gypsum board panels. The testing area contains several workstations and other inverters. The inverter was placed near the center of the testing lab space, at least 5.5m from any of the lab walls. No workstations or other inverters were located within 4m of the inverter. However, the top of the inverter was only 1.14m below the suspended gypsum board ceiling. In an effort to reduce the effects of the ceiling on the measurements, several ceiling tiles above the

inverter were removed. This roof deck is approximately 2.8m above the suspended ceiling, providing a vertical clearance of 3.9m.

The temperature in the fabrication area was estimated to be 22°C. The relative humidity was typical of an indoor air•conditioned environment.

4.3 Qualification of Acoustical Environment

Ambient Noise Correction Factor K_1

In the majority of 1/3 octave bands, the ambient noise levels were greater than 6 dB below the test conditions. In the 50~80Hz, 630Hz, and 2~6.3kHz 1/3 octave bands, the ambient noise was frequently only 1~4 dB below the test conditions. Generally, the "middle" four measurement positions had a greater signal•to•noise ratio than the "top" five positions.

Acoustical Correction Factor K_2

The reflecting plane extended a minimum of 4.5m from the measurement surface in all directions, which meets the ISO•3744 Standard for the 50 Hz lower boundary of the presented data. The reflecting plane was concrete slab•on•grade and was estimated to have an absorption coefficient of 0.05 or less in the frequency bands of interest.

The Approximate Method was used to determine the environmental correction factor, K_2. Our calculations show that the highest value for K_2 is 9.6 dB and occurs in the 500Hz octave band. The environment does not meet the ISO•3744 Standard requirement of $K_2 < 2$ dB. The following table presents the calculated octave band K_2 values:

Calculated K_2	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
	5.2 dB	4.6 dB	6.8 dB	9.6 dB	9.3 dB	8.6 dB	7.1 dB	6.2 dB

While the values for K_2 exceed the ISO Standard in all octave bands, the Standard allows for compliance by using a maximum correction factor of 2 dB. Values for which the correction factor is limited to 2 dB therefore represent a "worst•case" or upper boundary for the actual performance of the device under test.

4.4 Data Presentation

Data are presented in Tables 1~7. For each configuration, we present the overall A•weighted (LwA) and the un•weighted 1/3 octave band sound power levels in decibels referenced to $1x10^{-12}$ W. We also present the overall A•weighted (dBA) and the un•weighted 1/3 octave band sound pressure levels in decibels referenced to 20 μPa for each configuration.

5. Discussion

Non•Compliance Sound Pressure Levels

The noise generated in the 50~80Hz, 630Hz, and 2~6.3kHz 1/3 octave bands do not exceed the ambient conditions by the minimum 6 dB required by the ISO•3744 Standard. The published levels in these bands should be considered to be the upper boundary of the exact level – the true level is likely to be lower in level than the calculated values. The overall sound power level, LwA, does meet the requirements of the ISO•3744 Standard, in terms of ambient noise. However, the acoustical environment does not meet the ISO•3744 Standard in any of the 1/3 octave bands. Therefore, the published levels in all of the bands, including the overall LwA, should be considered as the upper boundary of the actual level.

Configurations

There was no significant difference in sound power level between the configurations. The only statistically important variation was the amplitude of a 9kHz tone, which was highest with Configuration 2. This tone could be a sub•harmonic of the switching circuitry, which runs at 18kHz.

Noise Modeling

In all of the configurations tested, the relatively broadband noise from the blower dominated the noise character. There is also significant tonality at the 160 Hz band from the blower. The directionality in the noise generation appears to be modest, with all four sides fitting within a 2 dB window. The relatively uniform directivity is due to the presence of air inlets or outlets on all four sides as well as at the bottom of the inverter. As there are no openings in the top of the inverter, the levels at the top typically measured 7 dB lower than the sides of the unit.

With the configurations tested, we would model the unit as a box with uniform directivity at an elevation of approximately 1m.

• • •

Please feel free to call if you have any questions; we may be reached in our San Francisco office by telephone at (+1) 415•693•0424 or via email at tyler@va consult.com.

Sincerely,

Tyler Rynberg, PE

Vibro Acoustic Consultants

Table 1: AEI Solaron 500 Sound Power Measurements – Calculated Sound Power Levels in dB, re: $1x10^{-12}$ W

Configuration	LwA	50 Hz	63 Hz	80 Hz	100 Hz	125 Hz	160 Hz	200 Hz	250 Hz	315 Hz	400 Hz	500 Hz	630 Hz	800 Hz	1 kHz	1.25 kHz	1.6 kHz	2 kHz	2.5 kHz	3.15 kHz	4 kHz	5 kHz	6.3 kHz	8 kHz	10 kHz
1	83.5	77.5	81.0	77.0	80.0	84.0	87.5	79.0	75.5	77.0	76.0	77.5	73.0	74.0	74.0	71.0	70.0	68.0	65.0	64.5	64.5	63.0	58.5	67.5	66.5
2	84.0	77.5	80.5	77.0	80.0	84.0	87.5	78.5	75.5	76.5	76.0	78.0	73.5	74.0	74.0	71.0	70.0	68.0	66.0	66.0	65.5	65.0	62.5	72.0	72.0
3	83.5	77.0	80.5	76.5	80.0	83.5	87.5	78.5	75.5	76.5	77.5	78.0	73.5	74.5	74.0	71.5	72.0	69.5	66.5	65.5	64.5	63.0	58.0	63.0	61.5
4	83.0	77.0	77.0	76.5	80.0	83.5	87.5	78.5	73.5	76.5	76.0	77.5	73.5	74.0	74.0	71.0	70.0	67.5	65.0	64.5	64.5	63.0	58.0	61.5	61.5

*The testing environment did not meet the requirements in the ISO-3744 Standard. The presented data in all 1/3 octave bands should be considered as the upper boundary of the exact sound power levels.

Table 2: AEI Solaron 500 Configuration 1 – Measured Sound Pressure Level at 1m in dB, re: 20µPa

Mic Position	dBA	50 Hz	63 Hz	80 Hz	100 Hz	125 Hz	160 Hz	200 Hz	250 Hz	315 Hz	400 Hz	500 Hz	630 Hz	800 Hz	1 kHz	1.25 kHz	1.6 kHz	2 kHz	2.5 kHz	3.15 kHz	4 kHz	5 kHz	6.3 kHz	8 kHz	10 kHz
Front	67.7	61.0	69.0	61.0	63.9	68.4	75.2	61.7	57.2	59.5	58.5	59.7	55.9	58.1	57.7	56.1	54.5	51.3	49.5	49.5	48.9	48.1	43.6	52.2	51.1
Left	66.1	59.0	61.1	61.9	65.0	67.4	66.0	59.1	61.0	60.4	61.5	61.9	57.3	56.7	56.4	53.2	52.5	50.3	47.9	46.6	45.8	42.8	39.3	49.3	48.5
Rear	67.8	61.0	65.5	60.1	62.4	65.9	68.3	64.4	59.9	59.4	59.3	59.9	57.3	58.9	60.1	56.3	55.4	52.2	50.7	49.5	49.6	48.7	44.0	54.3	54.7
Right	67.7	58.2	65.6	57.1	63.1	68.7	75.0	66.6	58.9	63.5	58.2	60.8	57.0	56.7	57.1	54.1	52.6	50.2	47.5	46.9	46.9	47.0	41.5	51.9	51.3
Front Top	64.3	60.6	59.4	59.2	61.2	66.7	67.9	56.7	56.2	56.9	57.7	59.5	54.3	55.3	54.5	51.9	51.2	49.3	46.7	45.8	45.5	43.0	39.1	48.2	43.7
Left Top	63.9	60.7	60.6	59.6	59.8	63.0	62.6	55.7	54.2	58.3	56.9	59.7	55.2	55.8	55.0	52.3	50.4	49.3	46.2	45.1	45.0	42.5	38.0	46.7	42.9
Rear Top	64.8	59.5	60.1	57.4	62.5	65.8	62.5	55.8	56.8	58.9	59.3	60.7	55.9	55.1	56.5	52.7	52.2	50.7	46.6	45.9	46.8	45.1	39.7	47.2	43.3
Right Top	64.9	59.8	60.3	56.9	63.4	67.5	67.5	59.4	54.3	56.8	56.3	60.1	55.0	55.4	56.1	52.7	52.7	51.0	47.9	47.2	47.0	46.1	40.9	45.5	43.8
Top	62.3	60.6	59.6	58.3	60.9	64.3	67.7	59.1	57.5	55.8	56.6	56.4	52.5	52.3	52.3	49.9	48.4	49.5	44.4	43.3	46.3	42.7	35.8	41.3	38.5

*The testing environment did not meet the requirements in the ISO-3744 Standard. The presented data in all 1/3 octave bands should be considered as the upper boundary of the exact sound power levels.

Table 3: AEI Solaron 500 Configuration 2 – Measured Sound Pressure Level at 1m in dB, re: 20µPa

Mic Position	dBA	50 Hz	63 Hz	80 Hz	100 Hz	125 Hz	160 Hz	200 Hz	250 Hz	315 Hz	400 Hz	500 Hz	630 Hz	800 Hz	1 kHz	1.25 kHz	1.6 kHz	2 kHz	2.5 kHz	3.15 kHz	4 kHz	5 kHz	6.3 kHz	8 kHz	10 kHz
Front	68.3	60.9	67.3	61.5	64.2	68.2	74.7	61.9	57.4	59.1	58.8	61.4	56.7	58.7	57.8	55.8	54.8	51.6	50.7	50.6	49.8	49.4	47.5	57.4	57.6
Left	66.7	58.7	61.1	62.0	65.0	67.5	65.7	58.8	62.6	59.5	62.1	62.1	56.9	57.3	56.7	53.3	52.3	50.3	48.9	48.4	47.4	45.4	44.6	53.9	48.5
Rear	68.1	61.0	65.1	60.2	62.3	64.7	67.4	63.1	58.2	59.0	59.8	60.1	57.7	59.1	59.9	55.9	55.2	52.1	51.3	51.1	50.3	50.6	48.4	57.1	59.5
Right	68.1	58.3	65.5	57.0	63.0	68.5	74.6	66.5	59.6	63.3	58.2	61.0	56.9	56.6	56.8	54.0	52.6	50.3	49.1	49.2	48.3	48.9	46.6	56.9	57.1
Front Top	64.7	60.8	59.2	58.8	61.2	67.0	68.4	56.6	55.7	56.6	57.7	59.9	53.9	55.4	55.0	52.6	51.3	49.6	47.7	47.4	46.2	44.9	43.0	51.8	49.3
Left Top	64.6	59.9	60.7	59.3	58.8	62.2	65.7	57.4	56.0	57.2	57.4	60.6	56.5	54.7	54.7	52.4	50.4	49.5	47.1	47.5	47.0	45.8	43.3	53.0	50.3
Rear Top	65.1	60.2	59.9	57.2	61.8	65.4	62.0	56.9	56.6	59.2	59.2	60.1	56.1	56.1	55.5	52.9	52.4	50.5	48.0	47.6	47.8	46.8	42.9	50.2	49.8
Right Top	65.1	59.5	59.7	56.8	63.7	67.1	68.1	60.1	54.2	57.3	56.3	59.9	55.2	55.5	55.5	52.7	52.9	50.4	48.5	48.4	47.5	47.3	44.2	51.4	49.2
Top	62.5	60.1	58.8	58.2	61.3	63.9	67.6	59.0	56.3	56.2	56.6	57.0	52.5	51.9	52.5	50.3	48.8	49.3	45.1	44.3	46.4	43.5	38.8	48.2	44.7

*The testing environment did not meet the requirements in the ISO-3744 Standard. The presented data in all 1/3 octave bands should be considered as the upper boundary of the exact sound power levels.

Table 4: AEI Solaron 500 Configuration 3 – Measured Sound Pressure Level at 1m in dB, re: 20µPa

Mic Position	dBA	50 Hz	63 Hz	80 Hz	100 Hz	125 Hz	160 Hz	200 Hz	250 Hz	315 Hz	400 Hz	500 Hz	630 Hz	800 Hz	1 kHz	1.25 kHz	1.6 kHz	2 kHz	2.5 kHz	3.15 kHz	4 kHz	5 kHz	6.3 kHz	8 kHz	10 kHz
Front	68.0	60.8	67.6	61.4	64.0	68.3	74.8	62.0	57.2	58.7	58.4	60.9	57.0	58.7	58.1	56.2	57.5	52.4	50.9	50.2	48.9	47.6	43.0	48.6	46.1
Left	67.0	58.5	61.2	61.6	64.7	67.1	66.3	59.0	62.3	60.7	63.9	63.5	56.6	56.5	56.7	53.7	54.8	52.5	49.3	47.6	45.8	42.8	38.7	45.2	43.7
Rear	67.9	61.2	65.8	60.2	62.3	64.4	67.4	63.1	58.7	58.6	60.0	60.4	58.0	60.2	59.9	56.4	56.2	55.3	51.3	50.6	49.5	49.0	43.8	49.4	49.0
Right	67.3	58.6	66.1	57.5	62.3	68.2	74.1	66.2	59.6	62.8	58.7	59.5	57.1	57.1	57.0	54.1	53.7	51.5	50.1	48.4	46.9	47.0	41.5	48.0	47.0
Front Top	65.1	60.2	58.7	59.0	61.5	67.3	68.5	56.6	55.8	57.7	59.4	59.9	55.0	55.5	55.1	53.9	53.6	50.9	48.2	46.5	45.3	43.1	38.2	42.9	39.7
Left Top	64.8	59.7	60.3	58.9	58.1	61.9	65.4	58.0	55.6	58.1	58.5	59.8	55.3	55.9	55.2	53.3	55.4	51.0	47.3	46.1	45.6	42.9	37.5	42.6	39.6
Rear Top	65.5	58.5	58.9	55.3	61.3	64.2	61.1	55.3	58.4	59.0	60.0	61.5	56.6	56.8	56.5	53.3	54.1	51.8	48.3	46.5	47.2	45.5	39.3	42.5	39.3
Right Top	65.6	59.0	60.4	56.6	63.1	66.4	67.6	58.9	52.9	58.4	58.9	61.2	55.2	56.1	56.2	54.3	54.3	52.1	48.8	47.5	47.0	46.1	40.9	43.2	40.1
Top	62.7	59.5	58.5	57.7	61.3	64.6	67.6	58.8	56.1	56.3	56.8	57.2	53.2	52.5	53.1	50.3	49.7	50.1	45.1	43.7	45.7	42.4	35.0	37.1	33.7

*The testing environment did not meet the requirements in the ISO-3744 Standard. The presented data in all 1/3 octave bands should be considered as the upper boundary of the exact sound power levels.

Table 5: AEI Solaron 500 Configuration 4 – Measured Sound Pressure Level at 1m in dB, re: 20µPa

Mic Position	dBA	50 Hz	63 Hz	80 Hz	100 Hz	125 Hz	160 Hz	200 Hz	250 Hz	315 Hz	400 Hz	500 Hz	630 Hz	800 Hz	1 kHz	1.25 kHz	1.6 kHz	2 kHz	2.5 kHz	3.15 kHz	4 kHz	5 kHz	6.3 kHz	8 kHz	10 kHz
Front	67.5	59.6	62.3	61.0	64.0	68.2	75.2	61.9	55.6	58.9	58.2	60.3	56.0	58.0	57.9	55.8	54.7	51.2	49.1	49.2	49.1	47.8	43.1	46.9	47.5
Left	65.6	57.9	59.9	61.9	64.9	67.1	66.3	58.2	56.8	59.4	61.2	61.3	56.9	56.7	56.1	53.2	52.5	50.2	47.5	46.4	45.8	42.4	38.7	45.5	43.8
Rear	67.0	60.3	61.2	60.0	62.0	64.4	67.6	63.8	59.3	58.2	59.1	59.8	56.8	58.8	59.7	55.9	55.0	51.6	50.1	49.4	49.4	48.5	43.5	47.2	48.8
Right	66.8	56.4	59.8	56.6	62.2	67.6	73.8	65.8	57.7	63.7	58.8	58.8	57.1	56.1	57.0	53.8	52.3	49.7	46.7	46.9	46.8	46.6	41.1	46.3	46.2
Front Top	64.1	60.8	58.7	58.7	61.1	65.5	68.1	56.0	54.7	57.0	57.8	59.5	54.8	56.1	54.7	51.8	50.2	49.1	46.1	45.7	45.3	42.7	37.8	41.4	39.5
Left Top	64.0	59.2	58.6	59.1	58.3	62.1	65.6	57.9	55.7	57.6	57.3	60.1	55.5	55.6	54.7	52.1	50.8	49.0	45.7	45.1	45.7	42.9	37.6	42.7	40.0
Rear Top	64.8	59.8	59.0	58.0	63.1	65.3	63.4	56.7	54.3	57.2	58.1	60.8	56.1	55.5	56.8	53.9	51.8	50.2	46.6	45.7	47.0	46.0	39.4	40.5	38.9
Right Top	65.0	59.8	57.9	57.6	64.4	67.4	68.1	60.3	53.4	57.2	55.4	59.9	57.1	55.6	55.9	54.2	52.9	50.2	47.6	47.0	46.8	46.1	40.5	41.7	40.9
Top	62.3	60.3	58.4	58.4	61.1	63.0	67.1	58.7	53.3	56.1	56.8	57.5	53.0	52.8	53.0	49.6	47.6	49.5	44.2	43.0	45.9	42.3	34.9	35.3	34.3

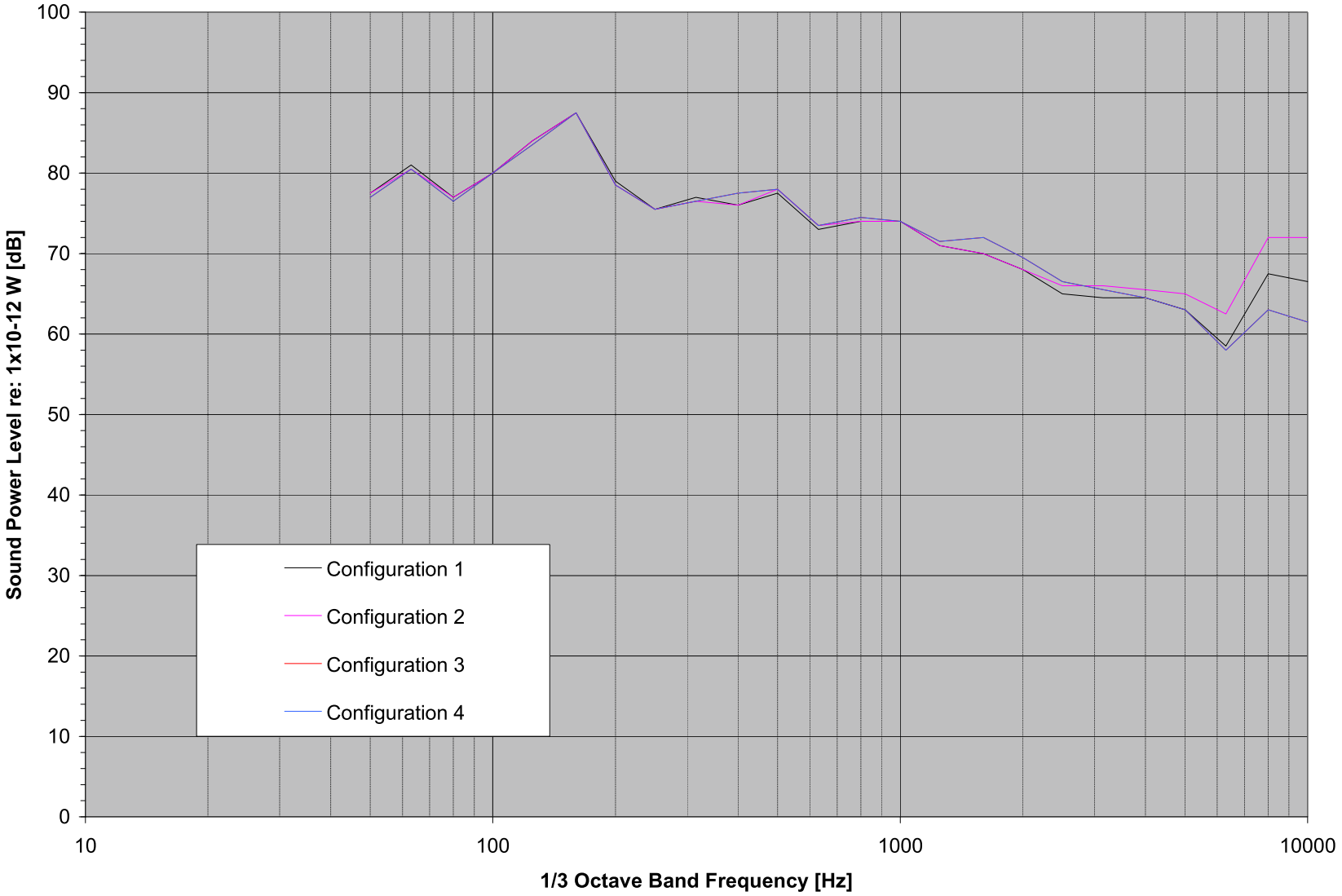
*The testing environment did not meet the requirements in the ISO-3744 Standard. The presented data in all 1/3 octave bands should be considered as the upper boundary of the exact sound power levels.

Table 6: AEI Solaron 500 Configuration 5 – Measured Sound Pressure Level at 1m in dB, re: 20µPa

Mic Position	dBA	50 Hz	63 Hz	80 Hz	100 Hz	125 Hz	160 Hz	200 Hz	250 Hz	315 Hz	400 Hz	500 Hz	630 Hz	800 Hz	1 kHz	1.25 kHz	1.6 kHz	2 kHz	2.5 kHz	3.15 kHz	4 kHz	5 kHz	6.3 kHz	8 kHz	10 kHz
Front	67.4	60.5	63.3	61.3	63.9	68.1	74.6	61.9	56.2	58.9	58.5	61.2	56.1	58.2	57.4	55.8	54.8	51.5	49.2	48.8	48.6	47.5	42.6	45.6	45.3

*The testing environment did not meet the requirements in the ISO-3744 Standard. The presented data in all 1/3 octave bands should be considered as the upper boundary of the exact sound power levels.

Table 7: AEI Solaron 500 – 1/3 Octave Band Sound Power Levels in dB, re: $1x10^{-12}$ W



Preliminary Sound Level Measurements PV GEN II
Measuements are in dBA

Model		No Power 1 meter	No Power 3 meters	Full Power 1 meter	Full Power 3 meters	Date	NOTES
30kw	Back	55		58.5	57	10/23/08	LOAD IN WAY
	Right Side	55.1		58.7		10/23/08	WATER NOISE
	Front	55.4		58.7	57.6	10/23/08	
	Left Side	55.2		59.5		10/23/08	LOAD IN WAY
50kw COASTAL	Back	55.7		62.5		10/23/08	LOAD IN WAY
	Right Side	55.1		62.6		10/23/08	EQUIPMENT IN WAY
	Front	54.1		67.2	61.6	10/23/08	
	Left Side	53.2		60.2		10/23/08	EQUIPMENT IN WAY
50kw	Back	53.9	52.9	62.4	60.9	10/24/08	
	Right Side	52.6	52	63.2	58.8	10/24/08	
	Front	52.7	52.2	67.6	63.3	10/24/08	
	Left Side	52.1	51.5	61.2	58.7	10/24/08	
75kw	Back	54.6	53	65.5	63.8	10/24/08	
	Right Side	55.8	52.8	66.5	61.9	10/24/08	
	Front	56.4	55.9	73.8	67.1	10/24/08	
	Left Side	56.2	55.9	65.4	63.3	10/24/08	
100kw	Back						use 75 kw
	Right Side						
	Front						
	Left Side						
135kw	Back	58.5		62.7		10/23/08	LOAD IN WAY WATER NOISE
	Right Side	58.6		62.4		10/23/08	WALL IN WAY WATER NOISE
	Front	56.5		63	60.4	10/23/08	
	Left Side	57.5		61	60.4	10/23/08	
250kw	Back						use 375 kw
	Right Side						
	Front						
	Left Side						
375kw	Front DC	53.7	52.4	70.1	65	10/24/08	
	Front IV	53.8	52.7	70	65.4	10/24/08	
	Front AC	53.4	52.6	69.5	65.8	10/24/08	
	Front TRO	53.5	52.9	68.3	65	10/24/08	
500kw	Back	61.1	63.8	72	71.5	10/21/08	
	Right Side	60	57.6	72.5	68.4	10/21/08	
	Front	58.2	56.9	68.7	68	10/21/08	
	Left Side	60.4	59.6	68	69.5	10/21/08	

Appendix E

Transformer Noise NEMA Ratings

10,000 kVA Transformer Noise Data (10 MVA)

Table 8
Audible Sound Levels for Single- and Three-Phase Transformers and Autotransformers, Equivalent Two-Winding Rating, MV·A(1)

Average sound level, dB A-weighted	High voltage maximum operating kV								
	Up to 72.5			123 and 145			170 and 245		
	a	b	c	a	b	c	a	b	c
60	1.5								
61	2.0								
62	2.5								
63	3.0								
64	4.0								
65	5.0								
66	6.0								
67	7.5								
68	10	7.5							
69	12.5	9.4		7.5					
70	15	12.5		10	7.5		7.5		
71	20	16.7		12.5	9.4		10	7.5	
72	25	20	20.8	15	12.5		12.5	9.4	
73	30	26.7	25	20	16.7		15	12.5	
74	40	33.3	33.3	25	20	20.8	20	16.7	
75	50	40	41.7	30	26.7	25	25	20	20.8
76	60	53.3	50.	40	33.3	33.3	30	26.7	25
77	80	66.7	66.7	50	40	41.7	40	33.3	33.3
78	100	80	83.3	60	53.3	50	50	40	41.7
79	125	107	100	80	66.7	66.7	60	53.3	50
80	150	133	133	100	80	83.3	80	66.7	66.7
81	200	167	167	125	107	100	100	80	83.3
82	250	200	200	150	133	133	125	107	100
83	300	267	250	200	167	167	150	133	133
84	400	333	300	250	200	200	200	167	167
85	500	400	400	300	267	250	250	200	200
86	600	533	500	400	333	300	300	267	250
87		667	600	500	400	400	400	333	300
88		800	800	600	533	500	500	400	400
89			1000		667	600	600	533	500
90					800	800		667	600
91						1000		800	800
92									1000
93									
94									
95									

(Continued)

Table 8 (Concluded)

Average sound level, dB A-weighted	High voltage maximum operating kV								
	300			362			420 to 765		
	a	b	c	a	b	c	a	b	c
60									
61									
62									
63									
64									
65									
66									
67									
68									
69									
70									
71									
72									
73	12.5								
74	15			12.5					
75	20	16.7		15			12.5		
76	25	20	20.8	20	16.7		15		
77	30	26.7	25	25	20	20.8	20	16.7	
78	40	33.3	33.3	30	26.7	25	25	20	20.8
79	50	40	41.7	40	33.3	33.3	30	26.7	25
80	60	53.3	50	50	40	41.7	40	33.3	33.3
81	80	66.7	66.7	60	53.3	50	50	40	41.7
82	100	80	83.3	80	66.7	66.7	60	53.3	50
83	125	107	100	100	80	83.3	80	66.7	66.7
84	150	133	133	125	107	100	100	80	83.3
85	200	167	167	150	133	133	125	107	100
86	250	200	200	200	167	167	150	133	133
87	300	267	250	250	200	200	200	167	167
88	400	333	300	300	267	250	250	200	200
89	500	400	400	400	333	300	300	267	250
90	600	533	500	500	400	400	400	333	300
91		667	600	600	533	500	500	400	400
92		800	800		667	600	600	533	500
93			1000		800	800		667	600
94						1000		800	800
95									1000

Notes:
(1) The equivalent two-winding rating* is one half the sum of the rating of all windings using the principal tap. When a tertiary (stabilizing) winding is present, either with a known rating or "buried", add 17.5% (35% ÷ 2) or half the rating of the tertiary (whichever is larger) to the otherwise calculated equivalent rating of the transformer. For autotransformers use ((N-1) ÷ N) × rated power of the autotransformer for the autoconnected portion (N is the overall ratio of the autotransformer). For intermediate ratings, use the average sound level of the next highest rating.
(2) For ratings less than those shown in Table 8, use the dB A-weighted value for the lowest given rating.
(3) For cooling designations, see Clauses 6.5 and 6.6.
(4) Columns with heading
(a) "a" are applicable to cooling designations: ONAN; ONWF;
(b) "b" are applicable to cooling designations: ONAF; OFAF (first stage of auxiliary cooling); and
(c) "c" are applicable to cooling designations: ONAF; OFAF or ODAF (second stage of auxiliary cooling and single OFAF or ODAF ratings).
(5) For OFWF cooling, use Column "c" minus 1 dB A-weighted.
*The base rating is different from equivalent two-winding rating. Base rating is the equivalent ONAN rating only.

Transformer Noise Specs
1,000 kVA Inverter Unit

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4.4 Loading capabilities

4.4.1
The loading capabilities of transformers shall be in accordance with ANSI/IEEE C57.91.

4.4.2
Leads, terminals, and switches shall not limit the loading capability.

4.5 Off-circuit voltage taps

4.5.1
Transformers without taps are the standard. Taps are included as an option in Clause 10(g).

4.5.2
High-voltage taps, unless otherwise specified, shall be ±2.5% and ±5% of the rated voltage.

4.5.3
When a transformer is connected on a tap below rated voltage, the kV•A capacity shall be reduced in direct proportion to the voltage of the tap. When a transformer is connected on a tap above rated voltage, the capacity shall be the rated kV•A of the transformer.

4.6 Insulation class and preferred voltages

4.6.1 Preferred high-voltage ratings and required BIL ratings
The preferred high-voltage ratings, required BIL ratings, and associated high-voltage terminal components shall be as specified in Table 2.

4.6.2 Preferred low-voltage ratings and required BIL ratings
The preferred low-voltage ratings and the required BIL ratings shall be as specified in Table 3.

4.7 Operating voltage range
Transformers shall be capable of operating continuously at rated kV•A at 10% above or 5% below rated voltage of the connected tap, but not necessarily within the specified performance limits.

4.8 Radio interference
Transformers shall be designed to operate without causing radio interference to exceed the limits set forth in Table 4 when tested in accordance with CAN3-C108.3.1.

4.9 Audible sound
Transformers shall be designed so that the audible sound level, when operated at rated voltage and measured in accordance with ANSI/IEEE C57.12.90, shall not exceed the sound levels specified in Table 5.

4.10 Short-circuit capabilities

4.10.1 General
Transformers shall be built to withstand the mechanical and thermal stresses caused by the short-circuit currents and their corresponding duration as shown in Table 6. Impedance values need not be limited to the minimum values implied by this table except as modified by Clause 4.10.2 when the impedance is over 4%.

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Table 5
Audible sound levels
(See Clause 4.9.)

Transformer size, kV•A	Audible sound level, dBA
75	51
150 –300	55
500	56
750 –1000	58
1500	60
2000	61
2500	62
3000	63

Table 6
Short-circuit capability
(See Clauses 4.10.1 and 4.10.2.)

Transformer size, kV•A	Withstand capability per unit of base current (symmetrical)	Duration in cycles
75	40	48
150–300	35	60
500–3000	25	120

Table 7
Minimum transformer impedance
(See Clause 4.11.)

Transformer size, kV•A	Minimum transformer impedance, %
0–150	1.8
225 –300	2.0
500	3.0
750–1000	4.0
>1000	5.0

Table 7-28. Approximate overall PWL in dB of generators, excluding the noise of the driver unit.

Generator Speed, rpm	Overall Sound Power Level, dB							
	Rating of Generator, MW							
	0.2	0.5	1	2	5	10	20	50
600	95	99	102	105	109	112	115	119
1200	97	101	104	107	111	114	117	121
1800	98	102	105	108	112	115	118	122
2400	99	103	106	109	113	116	119	123
3600	100	104	107	110	114	117	120	124
4800	101	105	108	111	115	118	121	125

specified positions. The NEMA sound level for a transformer can be provided by the manufacturer. On the basis of field studies of many transformer installations, the PWL in octave bands has been related to the NEMA rating and the area of the four side walls of the unit. This relationship is expressed by Equation 7-23:

$$L_W = \text{NEMA rating} + 10 \log A + C \quad \text{US units}$$
$$L_W = \text{NEMA rating} + 10 \log A + C + 10 \quad \text{SI units} \qquad (7\text{-}23)$$

where "NEMA rating" is the A-weighted sound level of the transformer provided by the manufacturer, obtained in accordance with NEMA Standards Publication No. TR 1-1968, A is the total surface area of the four side walls of the transformer in ft^2 (m^2), and C is an octave band correction that has different values for different uses, as shown in Table 7-30.

If the exact dimensions of the transformer are not known, an approximation will suffice. If in doubt, estimate the area on the high side. An error of 25% in area will produce a change of only 1 dB in the PWL. Select the most nearly applicable C value from Table 7-30. The C_1 value assumes normal radiation of sound. The C_2 value should be used in regular-shaped confined spaces where standing waves will very likely occur, which typically may produce 6 dB higher sound levels at the transformer harmonic frequencies of 120, 240, 360, 480, and 600 Hz (for 60-Hz line frequency; or other sound frequencies for other line frequencies). Actually, the sound power level of the transformer does not increase in this location, but the sound analysis procedure is more readily handled by presuming that the sound power is increased. The C_3 value is an approximation of the noise of a transformer that has grown noisier (by about 10 dB) during its lifetime. This happens occasionally when the laminations or tie-bolts become loose, and the transformer begins to buzz or rattle. In a highly critical location, it might be wise to use this value. All the Table 7-30 values assume that the transformer initially meets the quoted NEMA sound level rating. Field measurements have shown that transformers may actually have A-weighted sound levels that range from a few decibels (2 or 3 dB) above to as much as 5 or 6 dB below the quoted NEMA value. Quieted transformers that contain various forms of noise control treatments can be pur-

Table 7-29. Frequency adjustments in dB for generators, without drive unit: Subtract these values from the overall PWL (Table 7-28) to obtain octave band and A-weighted PWLs.

Octave Frequency Band, Hz	Value to be Subtracted from Overall PWL, dB
31	11
63	8
125	7
250	7
500	7
1000	9
2000	11
4000	14
8000	19
A-weighted (dBA)	4

chased at as much as 15 to 20 dB below normal NEMA ratings. If a quieter transformer is purchased and used, insert in Equation 7-23 the lowered sound level rating in place of the regular NEMA rating, and then select the appropriate corrections from Table 7-30.

Table 7-30. Octave band corrections in dB to be used in Equation 7-23 for obtaining PWL of transformers in different installation conditions. See notes for details.

Octave Frequency Band, Hz	Octave Band Corrections, dB		
	C_1, see Note 1	C_2, see Note 2	C_3, see Note 3
31	-11	-11	-11
63	-5	-2	-2
125	-3	+3	+3
250	-8	-2	+2
500	-8	-2	+2
1000	-14	-11	-4
2000	-19	-19	-9
4000	-24	-24	-14
8000	-31	-31	-21

Note 1. Use C_1 for outdoor location or for indoor location in a large mechanical room (over about 5000 ft^3 or 140 m^3) containing many other pieces of mechanical equipment that serve as obstacles to diffuse sound and breakup standing waves.

Note 2. Use C_2 for indoor locations in transformer vaults or small rooms (under about 5000 ft^3 or 140 m^3) with parallel walls and relatively few other large-size obstacles that can diffuse sound and breakup standing waves.

Note 3. Use C_3 for any location where a serious noise problem would result if the transformer should become noisy above its NEMA rating, following its installation and initial period of use.

7-22. MULTIPLE SOURCES

When an assembly of equipment is built up from components, such as those listed in this chapter, the PWL or the normalized 3-ft (0.9-m) distance SPL values of the component parts can be added together, band by band, by decibel addition to obtain the total sound for the assembly. Examples of such combinations are a motor-pump, a fan housing, and a fan-drive motor, a steam turbine and a centrifugal compressor, etc. If the SPL at 3 ft (0.9 m) is given for one source and the PWL is given for another source, the values should first be converted to similar forms, either SPL or PWL. Conversion from PWL to SPL at the normalized conditions used in the manual [3-ft (0.9-m) distance and 800-ft^2 (74-m^2) Room Constant] is done by using Equation 4-3 and Figure 4-2 or Table 4-4. Conversion from SPL (at the normalized conditions) to PWL uses the same material but in reverse order; that is, the PWL is calculated from given SPL data.

7-23. NOISE SPECIFICATIONS

The noise level estimates given in this manual will probably equal or exceed the actual noise levels of approximately 80 to 90% of all those types of machinery that will be encountered in typical building use. In many cases, actual noise levels may fall 3 to 6 dB (or more) below the estimates. Thus, there appears to be no shortage of available equipment that will fall at or below the estimated noise levels given in the manual, and it would not be discriminatory or unreasonable to specify that purchased equipment for a particular building be required not to exceed the estimated values given here for that equipment. This is especially true if the actual acoustic design of a wall or floor or room treatment is dependent upon one or two particularly noisy pieces of equipment. A noise specification would not be necessary for relatively quiet equipment that does not dictate noise control design for the MER or the building.

A. WAIVER. If a noise level specification is required to be met for a particular piece of equipment, and this becomes a "hardship" on the manufacturer or the owner in terms of costs or availability, the noise specification could be waived, depending on the response of all the bidders. If some bidders agree to meet the specification while others do not, this could be a valid basis for selecting the quieter equipment. If no bidders can meet the specification, the specification can be waived, but it may be necessary to reevaluate the noise control requirements of the equipment room, if this particular equipment is so noisy that it is responsible for the noise design in the first place. Of course, it is the primary purpose of this manual to prevent just such situations as this, as too many waivers would negate the value of the noise evaluation as a part of the design phase of the building. If the equipment measured for this study represents a fair sampling, it is likely that most of the equipment would meet a noise specification.

Appendix F

CadnaA Configuration Settings

Output from Receiver R 5

Configuration	
Parameter	Value
General	
Country	(user defined)
Max. Error (dB)	0.00
Max. Search Radius (m)	3000.00
Min. Dist Src to Rcvr	0.00
Partition	
Raster Factor	0.50
Max. Length of Section (m)	1000.00
Min. Length of Section (m)	1.00
Min. Length of Section (%)	0.00
Proj. Line Sources	On
Proj. Area Sources	On
Ref. Time	
Reference Time Day (min)	960.00
Reference Time Night (min)	480.00
Daytime Penalty (dB)	0.00
Recr. Time Penalty (dB)	0.00
Night-time Penalty (dB)	0.00
DTM	
Standard Height (m)	0.00
Model of Terrain	Triangulation
Reflection	
max. Order of Reflection	2
Search Radius Src	100.00
Search Radius Rcvr	100.00
Max. Distance Source - Rcvr	1000.00 1000.00
Min. Distance Rvcr - Reflector	1.00 1.00
Min. Distance Source - Reflector	0.10
Industrial (ISO 9613)	
Lateral Diffraction	some Obj
Obst. within Area Src do not shield	On
Screening	Excl. Ground Att. over Barrier
	Dz with limit (20/25)
Barrier Coefficients C1,2,3	3.0 20.0 0.0
Temperature (°C)	10
rel. Humidity (%)	70
Ground Absorption G	0.70
Wind Speed for Dir. (m/s)	3.0
Roads (???)	
Railways (???)	
Aircraft (???)	
Strictly acc. to AzB	

Receiver
Name: R5
ID: R5
X: 399178.77
Y: 4946942.06
Z: 4.50

Point Source, ISO 9613, Name: "H1T", ID: "H1T"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	399524.93	4947879.76	1.80	0	32	-39.4	-39.4	0.0	0.0	71.0	0.0	-5.4	0.0	0.0	0.0	0.0	-0.0	-105.0	-105.0
2	399524.93	4947879.76	1.80	0	63	54.2	54.2	0.0	0.0	71.0	0.1	-5.4	0.0	0.0	0.0	0.0	-0.0	-11.5	-11.5
3	399524.93	4947879.76	1.80	0	125	66.3	66.3	0.0	0.0	71.0	0.4	4.4	0.0	0.0	0.0	0.0	-0.0	-9.5	-9.5
4	399524.93	4947879.76	1.80	0	250	68.8	68.8	0.0	0.0	71.0	1.0	3.8	0.0	0.0	0.0	0.0	-0.0	-7.1	-7.1
5	399524.93	4947879.76	1.80	0	500	74.2	74.2	0.0	0.0	71.0	1.9	0.6	0.0	0.0	0.0	0.0	-0.0	0.7	0.7
6	399524.93	4947879.76	1.80	0	1000	71.4	71.4	0.0	0.0	71.0	3.7	-1.4	0.0	0.0	0.0	0.0	-0.0	-1.8	-1.8
7	399524.93	4947879.76	1.80	0	2000	67.6	67.6	0.0	0.0	71.0	9.7	-1.6	0.0	0.0	0.0	0.0	-0.0	-11.4	-11.4
8	399524.93	4947879.76	1.80	0	4000	62.4	62.4	0.0	0.0	71.0	32.8	-1.6	0.0	0.0	0.0	0.0	-0.0	-39.7	-39.7
9	399524.93	4947879.76	1.80	0	8000	53.3	53.3	0.0	0.0	71.0	116.8	-1.6	0.0	0.0	0.0	0.0	-0.0	-132.9	-132.9

Point Source, ISO 9613, Name: "H1I1", ID: "H1I1"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	399523.59	4947884.49	2.50	0	32	-39.4	-39.4	0.0	0.0	71.0	0.0	-5.4	0.0	0.0	0.0	0.0	-0.0	-105.1	-105.1
2	399523.59	4947884.49	2.50	0	63	57.2	57.2	0.0	0.0	71.0	0.1	-5.4	0.0	0.0	0.0	0.0	-0.0	-8.6	-8.6
3	399523.59	4947884.49	2.50	0	125	72.5	72.5	0.0	0.0	71.0	0.4	4.2	0.0	0.0	0.0	0.0	-0.0	-3.1	-3.1
4	399523.59	4947884.49	2.50	0	250	71.2	71.2	0.0	0.0	71.0	1.1	2.8	0.0	0.0	0.0	0.0	-0.0	-3.7	-3.7
5	399523.59	4947884.49	2.50	0	500	75.8	75.8	0.0	0.0	71.0	1.9	-1.1	0.0	0.0	0.0	0.0	-0.0	3.9	3.9
6	399523.59	4947884.49	2.50	0	1000	75.0	75.0	0.0	0.0	71.0	3.7	-1.6	0.0	0.0	0.0	0.0	-0.0	1.9	1.9
7	399523.59	4947884.49	2.50	0	2000	71.3	71.3	0.0	0.0	71.0	9.7	-1.6	0.0	0.0	0.0	0.0	-0.0	-7.8	-7.8
8	399523.59	4947884.49	2.50	0	4000	69.3	69.3	0.0	0.0	71.0	32.9	-1.6	0.0	0.0	0.0	0.0	-0.0	-33.0	-33.0
9	399523.59	4947884.49	2.50	0	8000	72.1	72.1	0.0	0.0	71.0	117.3	-1.6	0.0	0.0	0.0	0.0	-0.0	-114.6	-114.6

Point Source, ISO 9613, Name: "H1I2", ID: "H1I2"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	399526.20	4947884.49	2.50	0	32	-39.4	-39.4	0.0	0.0	71.0	0.0	-5.4	0.0	0.0	0.0	0.0	-0.0	-105.1	-105.1
2	399526.20	4947884.49	2.50	0	63	57.2	57.2	0.0	0.0	71.0	0.1	-5.4	0.0	0.0	0.0	0.0	-0.0	-8.6	-8.6
3	399526.20	4947884.49	2.50	0	125	72.5	72.5	0.0	0.0	71.0	0.4	4.2	0.0	0.0	0.0	0.0	-0.0	-3.1	-3.1
4	399526.20	4947884.49	2.50	0	250	71.2	71.2	0.0	0.0	71.0	1.1	2.8	0.0	0.0	0.0	0.0	-0.0	-3.7	-3.7
5	399526.20	4947884.49	2.50	0	500	75.8	75.8	0.0	0.0	71.0	1.9	-1.1	0.0	0.0	0.0	0.0	-0.0	3.9	3.9
6	399526.20	4947884.49	2.50	0	1000	75.0	75.0	0.0	0.0	71.0	3.7	-1.6	0.0	0.0	0.0	0.0	-0.0	1.9	1.9
7	399526.20	4947884.49	2.50	0	2000	71.3	71.3	0.0	0.0	71.0	9.7	-1.6	0.0	0.0	0.0	0.0	-0.0	-7.8	-7.8
8	399526.20	4947884.49	2.50	0	4000	69.3	69.3	0.0	0.0	71.0	32.9	-1.6	0.0	0.0	0.0	0.0	-0.0	-33.0	-33.0
9	399526.20	4947884.49	2.50	0	8000	72.1	72.1	0.0	0.0	71.0	117.4	-1.6	0.0	0.0	0.0	0.0	-0.0	-114.7	-114.7

Point Source, ISO 9613, Name: "H2T", ID: "H2T"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	399353.76	4947777.69	1.80	0	32	-39.4	-39.4	0.0	0.0	69.6	0.0	-5.3	0.0	0.0	0.0	0.0	-0.0	-103.7	-103.7
2	399353.76	4947777.69	1.80	0	63	54.2	54.2	0.0	0.0	69.6	0.1	-5.3	0.0	0.0	0.0	0.0	-0.0	-10.2	-10.2
3	399353.76	4947777.69	1.80	0	125	66.3	66.3	0.0	0.0	69.6	0.4	4.2	0.0	0.0	0.0	0.0	-0.0	-7.9	-7.9
4	399353.76	4947777.69	1.80	0	250	68.8	68.8	0.0	0.0	69.6	0.9	3.9	0.0	0.0	0.0	0.0	-0.0	-5.6	-5.6
5	399353.76	4947777.69	1.80	0	500	74.2	74.2	0.0	0.0	69.6	1.7	0.6	0.0	0.0	0.0	0.0	-0.0	2.3	2.3
6	399353.76	4947777.69	1.80	0	1000	71.4	71.4	0.0	0.0	69.6	3.1	-1.4	0.0	0.0	0.0	0.0	-0.0	0.1	0.1
7	399353.76	4947777.69	1.80	0	2000	67.6	67.6	0.0	0.0	69.6	8.3	-1.6	0.0	0.0	0.0	0.0	-0.0	-8.7	-8.7
8	399353.76	4947777.69	1.80	0	4000	62.4	62.4	0.0	0.0	69.6	28.0	-1.6	0.0	0.0	0.0	0.0	-0.0	-33.6	-33.6
9	399353.76	4947777.69	1.80	0	8000	53.3	53.3	0.0	0.0	69.6	99.8	-1.6	0.0	0.0	0.0	0.0	-0.0	-114.5	-114.5

Point Source, ISO 9613, Name: "H2I1", ID: "H2I1"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	399352.52	4947773.06	2.50	0	32	-39.4	-39.4	0.0	0.0	69.6	0.0	-5.3	0.0	0.0	0.0	0.0	-0.0	-103.8	-103.8

Point Source, ISO 9613, Name: "H2I1", ID: "H2I1"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
2	399352.52	4947773.06	2.50	0	63	57.2	57.2	0.0	0.0	69.6	0.1	-5.3	0.0	0.0	0.0	0.0	-0.0	-7.2	-7.2
3	399352.52	4947773.06	2.50	0	125	72.5	72.5	0.0	0.0	69.6	0.4	4.0	0.0	0.0	0.0	0.0	-0.0	-1.4	-1.4
4	399352.52	4947773.06	2.50	0	250	71.2	71.2	0.0	0.0	69.6	0.9	2.8	0.0	0.0	0.0	0.0	-0.0	-2.1	-2.1
5	399352.52	4947773.06	2.50	0	500	75.8	75.8	0.0	0.0	69.6	1.6	-1.0	0.0	0.0	0.0	0.0	-0.0	5.6	5.6
6	399352.52	4947773.06	2.50	0	1000	75.0	75.0	0.0	0.0	69.6	3.1	-1.6	0.0	0.0	0.0	0.0	-0.0	3.9	3.9
7	399352.52	4947773.06	2.50	0	2000	71.3	71.3	0.0	0.0	69.6	8.2	-1.6	0.0	0.0	0.0	0.0	-0.0	-4.9	-4.9
8	399352.52	4947773.06	2.50	0	4000	69.3	69.3	0.0	0.0	69.6	27.8	-1.6	0.0	0.0	0.0	0.0	-0.0	-26.5	-26.5
9	399352.52	4947773.06	2.50	0	8000	72.1	72.1	0.0	0.0	69.6	99.2	-1.6	0.0	0.0	0.0	0.0	-0.0	-95.1	-95.1

Point Source, ISO 9613, Name: "H2I2", ID: "H2I2"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	399355.01	4947773.02	2.50	0	32	-39.4	-39.4	0.0	0.0	69.6	0.0	-5.3	0.0	0.0	0.0	0.0	-0.0	-103.8	-103.8
2	399355.01	4947773.02	2.50	0	63	57.2	57.2	0.0	0.0	69.6	0.1	-5.3	0.0	0.0	0.0	0.0	-0.0	-7.2	-7.2
3	399355.01	4947773.02	2.50	0	125	72.5	72.5	0.0	0.0	69.6	0.4	4.0	0.0	0.0	0.0	0.0	-0.0	-1.4	-1.4
4	399355.01	4947773.02	2.50	0	250	71.2	71.2	0.0	0.0	69.6	0.9	2.8	0.0	0.0	0.0	0.0	-0.0	-2.1	-2.1
5	399355.01	4947773.02	2.50	0	500	75.8	75.8	0.0	0.0	69.6	1.6	-1.0	0.0	0.0	0.0	0.0	-0.0	5.6	5.6
6	399355.01	4947773.02	2.50	0	1000	75.0	75.0	0.0	0.0	69.6	3.1	-1.6	0.0	0.0	0.0	0.0	-0.0	3.9	3.9
7	399355.01	4947773.02	2.50	0	2000	71.3	71.3	0.0	0.0	69.6	8.2	-1.6	0.0	0.0	0.0	0.0	-0.0	-4.9	-4.9
8	399355.01	4947773.02	2.50	0	4000	69.3	69.3	0.0	0.0	69.6	27.8	-1.6	0.0	0.0	0.0	0.0	-0.0	-26.5	-26.5
9	399355.01	4947773.02	2.50	0	8000	72.1	72.1	0.0	0.0	69.6	99.3	-1.6	0.0	0.0	0.0	0.0	-0.0	-95.2	-95.2

Point Source, ISO 9613, Name: "H3T", ID: "H3T"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	399619.25	4947777.94	1.80	0	32	-39.4	-39.4	0.0	0.0	70.5	0.0	-5.4	0.0	0.0	0.0	0.0	-0.0	-104.5	-104.5
2	399619.25	4947777.94	1.80	0	63	54.2	54.2	0.0	0.0	70.5	0.1	-5.4	0.0	0.0	0.0	0.0	-0.0	-11.0	-11.0
3	399619.25	4947777.94	1.80	0	125	66.3	66.3	0.0	0.0	70.5	0.4	4.4	0.0	0.0	0.0	0.0	-0.0	-9.0	-9.0
4	399619.25	4947777.94	1.80	0	250	68.8	68.8	0.0	0.0	70.5	1.0	3.8	0.0	0.0	0.0	0.0	-0.0	-6.5	-6.5
5	399619.25	4947777.94	1.80	0	500	74.2	74.2	0.0	0.0	70.5	1.8	0.6	0.0	0.0	0.0	0.0	-0.0	1.3	1.3
6	399619.25	4947777.94	1.80	0	1000	71.4	71.4	0.0	0.0	70.5	3.5	-1.4	0.0	0.0	0.0	0.0	-0.0	-1.1	-1.1
7	399619.25	4947777.94	1.80	0	2000	67.6	67.6	0.0	0.0	70.5	9.1	-1.6	0.0	0.0	0.0	0.0	-0.0	-10.4	-10.4
8	399619.25	4947777.94	1.80	0	4000	62.4	62.4	0.0	0.0	70.5	31.0	-1.6	0.0	0.0	0.0	0.0	-0.0	-37.4	-37.4
9	399619.25	4947777.94	1.80	0	8000	53.3	53.3	0.0	0.0	70.5	110.4	-1.6	0.0	0.0	0.0	0.0	-0.0	-126.0	-126.0

Point Source, ISO 9613, Name: "H3I1", ID: "H3I1"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	399618.01	4947773.31	2.50	0	32	-39.4	-39.4	0.0	0.0	70.5	0.0	-5.3	0.0	0.0	0.0	0.0	-0.0	-104.6	-104.6
2	399618.01	4947773.31	2.50	0	63	57.2	57.2	0.0	0.0	70.5	0.1	-5.3	0.0	0.0	0.0	0.0	-0.0	-8.1	-8.1
3	399618.01	4947773.31	2.50	0	125	72.5	72.5	0.0	0.0	70.5	0.4	4.1	0.0	0.0	0.0	0.0	-0.0	-2.4	-2.4
4	399618.01	4947773.31	2.50	0	250	71.2	71.2	0.0	0.0	70.5	1.0	2.8	0.0	0.0	0.0	0.0	-0.0	-3.0	-3.0
5	399618.01	4947773.31	2.50	0	500	75.8	75.8	0.0	0.0	70.5	1.8	-1.1	0.0	0.0	0.0	0.0	-0.0	4.6	4.6
6	399618.01	4947773.31	2.50	0	1000	75.0	75.0	0.0	0.0	70.5	3.4	-1.6	0.0	0.0	0.0	0.0	-0.0	2.7	2.7
7	399618.01	4947773.31	2.50	0	2000	71.3	71.3	0.0	0.0	70.5	9.1	-1.6	0.0	0.0	0.0	0.0	-0.0	-6.6	-6.6
8	399618.01	4947773.31	2.50	0	4000	69.3	69.3	0.0	0.0	70.5	30.8	-1.6	0.0	0.0	0.0	0.0	-0.0	-30.4	-30.4
9	399618.01	4947773.31	2.50	0	8000	72.1	72.1	0.0	0.0	70.5	109.9	-1.6	0.0	0.0	0.0	0.0	-0.0	-106.6	-106.6

Point Source, ISO 9613, Name: "H3I2", ID: "H3I2"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	399620.50	4947773.27	2.50	0	32	-39.4	-39.4	0.0	0.0	70.5	0.0	-5.3	0.0	0.0	0.0	0.0	-0.0	-104.6	-104.6
2	399620.50	4947773.27	2.50	0	63	57.2	57.2	0.0	0.0	70.5	0.1	-5.3	0.0	0.0	0.0	0.0	-0.0	-8.1	-8.1
3	399620.50	4947773.27	2.50	0	125	72.5	72.5	0.0	0.0	70.5	0.4	4.1	0.0	0.0	0.0	0.0	-0.0	-2.5	-2.5
4	399620.50	4947773.27	2.50	0	250	71.2	71.2	0.0	0.0	70.5	1.0	2.8	0.0	0.0	0.0	0.0	-0.0	-3.1	-3.1
5	399620.50	4947773.27	2.50	0	500	75.8	75.8	0.0	0.0	70.5	1.8	-1.1	0.0	0.0	0.0	0.0	-0.0	4.6	4.6
6	399620.50	4947773.27	2.50	0	1000	75.0	75.0	0.0	0.0	70.5	3.4	-1.6	0.0	0.0	0.0	0.0	-0.0	2.7	2.7
7	399620.50	4947773.27	2.50	0	2000	71.3	71.3	0.0	0.0	70.5	9.1	-1.6	0.0	0.0	0.0	0.0	-0.0	-6.7	-6.7
8	399620.50	4947773.27	2.50	0	4000	69.3	69.3	0.0	0.0	70.5	30.9	-1.6	0.0	0.0	0.0	0.0	-0.0	-30.4	-30.4
9	399620.50	4947773.27	2.50	0	8000	72.1	72.1	0.0	0.0	70.5	110.0	-1.6	0.0	0.0	0.0	0.0	-0.0	-106.8	-106.8

Point Source, ISO 9613, Name: "H4T", ID: "H4T"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	399637.03	4947717.71	1.80	0	32	-39.4	-39.4	0.0	0.0	70.1	0.0	-5.4	0.0	0.0	0.0	0.0	-0.0	-104.1	-104.1
2	399637.03	4947717.71	1.80	0	63	54.2	54.2	0.0	0.0	70.1	0.1	-5.4	0.0	0.0	0.0	0.0	-0.0	-10.6	-10.6
3	399637.03	4947717.71	1.80	0	125	66.3	66.3	0.0	0.0	70.1	0.4	4.3	0.0	0.0	0.0	0.0	-0.0	-8.5	-8.5
4	399637.03	4947717.71	1.80	0	250	68.8	68.8	0.0	0.0	70.1	0.9	3.9	0.0	0.0	0.0	0.0	-0.0	-6.1	-6.1
5	399637.03	4947717.71	1.80	0	500	74.2	74.2	0.0	0.0	70.1	1.7	0.6	0.0	0.0	0.0	0.0	-0.0	1.8	1.8
6	399637.03	4947717.71	1.80	0	1000	71.4	71.4	0.0	0.0	70.1	3.3	-1.4	0.0	0.0	0.0	0.0	-0.0	-0.6	-0.6
7	399637.03	4947717.71	1.80	0	2000	67.6	67.6	0.0	0.0	70.1	8.7	-1.6	0.0	0.0	0.0	0.0	-0.0	-9.6	-9.6
8	399637.03	4947717.71	1.80	0	4000	62.4	62.4	0.0	0.0	70.1	29.5	-1.6	0.0	0.0	0.0	0.0	-0.0	-35.6	-35.6
9	399637.03	4947717.71	1.80	0	8000	53.3	53.3	0.0	0.0	70.1	105.3	-1.6	0.0	0.0	0.0	0.0	-0.0	-120.5	-120.5

Point Source, ISO 9613, Name: "H4I1", ID: "H4I1"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	399635.69	4947722.44	2.50	0	32	-39.4	-39.4	0.0	0.0	70.1	0.0	-5.3	0.0	0.0	0.0	0.0	-0.0	-104.3	-104.3
2	399635.69	4947722.44	2.50	0	63	57.2	57.2	0.0	0.0	70.1	0.1	-5.3	0.0	0.0	0.0	0.0	-0.0	-7.7	-7.7
3	399635.69	4947722.44	2.50	0	125	72.5	72.5	0.0	0.0	70.1	0.4	4.1	0.0	0.0	0.0	0.0	-0.0	-2.1	-2.1
4	399635.69	4947722.44	2.50	0	250	71.2	71.2	0.0	0.0	70.1	0.9	2.8	0.0	0.0	0.0	0.0	-0.0	-2.7	-2.7
5	399635.69	4947722.44	2.50	0	500	75.8	75.8	0.0	0.0	70.1	1.7	-1.0	0.0	0.0	0.0	0.0	-0.0	5.0	5.0
6	399635.69	4947722.44	2.50	0	1000	75.0	75.0	0.0	0.0	70.1	3.3	-1.6	0.0	0.0	0.0	0.0	-0.0	3.1	3.1
7	399635.69	4947722.44	2.50	0	2000	71.3	71.3	0.0	0.0	70.1	8.7	-1.6	0.0	0.0	0.0	0.0	-0.0	-6.0	-6.0
8	399635.69	4947722.44	2.50	0	4000	69.3	69.3	0.0	0.0	70.1	29.6	-1.6	0.0	0.0	0.0	0.0	-0.0	-28.9	-28.9
9	399635.69	4947722.44	2.50	0	8000	72.1	72.1	0.0	0.0	70.1	105.7	-1.6	0.0	0.0	0.0	0.0	-0.0	-102.1	-102.1

Point Source, ISO 9613, Name: "H4I2", ID: "H4I2"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	399638.30	4947722.44	2.50	0	32	-39.4	-39.4	0.0	0.0	70.1	0.0	-5.3	0.0	0.0	0.0	0.0	-0.0	-104.3	-104.3
2	399638.30	4947722.44	2.50	0	63	57.2	57.2	0.0	0.0	70.1	0.1	-5.3	0.0	0.0	0.0	0.0	-0.0	-7.7	-7.7
3	399638.30	4947722.44	2.50	0	125	72.5	72.5	0.0	0.0	70.1	0.4	4.1	0.0	0.0	0.0	0.0	-0.0	-2.1	-2.1
4	399638.30	4947722.44	2.50	0	250	71.2	71.2	0.0	0.0	70.1	0.9	2.8	0.0	0.0	0.0	0.0	-0.0	-2.7	-2.7
5	399638.30	4947722.44	2.50	0	500	75.8	75.8	0.0	0.0	70.1	1.8	-1.0	0.0	0.0	0.0	0.0	-0.0	5.0	5.0
6	399638.30	4947722.44	2.50	0	1000	75.0	75.0	0.0	0.0	70.1	3.3	-1.6	0.0	0.0	0.0	0.0	-0.0	3.1	3.1
7	399638.30	4947722.44	2.50	0	2000	71.3	71.3	0.0	0.0	70.1	8.8	-1.6	0.0	0.0	0.0	0.0	-0.0	-6.0	-6.0
8	399638.30	4947722.44	2.50	0	4000	69.3	69.3	0.0	0.0	70.1	29.7	-1.6	0.0	0.0	0.0	0.0	-0.0	-28.9	-28.9
9	399638.30	4947722.44	2.50	0	8000	72.1	72.1	0.0	0.0	70.1	105.8	-1.6	0.0	0.0	0.0	0.0	-0.0	-102.3	-102.3

Point Source, ISO 9613, Name: "H5T", ID: "H5T"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	399377.35	4947669.91	1.80	0	32	-39.4	-39.4	0.0	0.0	68.5	0.0	-5.3	0.0	0.0	0.0	0.0	-0.0	-102.7	-102.7
2	399377.35	4947669.91	1.80	0	63	54.2	54.2	0.0	0.0	68.5	0.1	-5.3	0.0	0.0	0.0	0.0	-0.0	-9.2	-9.2
3	399377.35	4947669.91	1.80	0	125	66.3	66.3	0.0	0.0	68.5	0.3	4.0	0.0	0.0	0.0	0.0	-0.0	-6.5	-6.5
4	399377.35	4947669.91	1.80	0	250	68.8	68.8	0.0	0.0	68.5	0.8	3.9	0.0	0.0	0.0	0.0	-0.0	-4.4	-4.4
5	399377.35	4947669.91	1.80	0	500	74.2	74.2	0.0	0.0	68.5	1.5	0.6	0.0	0.0	0.0	0.0	-0.0	3.6	3.6
6	399377.35	4947669.91	1.80	0	1000	71.4	71.4	0.0	0.0	68.5	2.8	-1.4	0.0	0.0	0.0	0.0	-0.0	1.5	1.5
7	399377.35	4947669.91	1.80	0	2000	67.6	67.6	0.0	0.0	68.5	7.3	-1.6	0.0	0.0	0.0	0.0	-0.0	-6.7	-6.7
8	399377.35	4947669.91	1.80	0	4000	62.4	62.4	0.0	0.0	68.5	24.7	-1.6	0.0	0.0	0.0	0.0	-0.0	-29.3	-29.3
9	399377.35	4947669.91	1.80	0	8000	53.3	53.3	0.0	0.0	68.5	88.2	-1.6	0.0	0.0	0.0	0.0	-0.0	-101.9	-101.9

Point Source, ISO 9613, Name: "H5I1", ID: "H5I1"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	399376.11	4947665.28	2.50	0	32	-39.4	-39.4	0.0	0.0	68.5	0.0	-5.2	0.0	0.0	0.0	0.0	-0.0	-102.8	-102.8
2	399376.11	4947665.28	2.50	0	63	57.2	57.2	0.0	0.0	68.5	0.1	-5.2	0.0	0.0	0.0	0.0	-0.0	-6.2	-6.2
3	399376.11	4947665.28	2.50	0	125	72.5	72.5	0.0	0.0	68.5	0.3	3.8	0.0	0.0	0.0	0.0	-0.0	-0.1	-0.1
4	399376.11	4947665.28	2.50	0	250	71.2	71.2	0.0	0.0	68.5	0.8	2.9	0.0	0.0	0.0	0.0	-0.0	-0.9	-0.9
5	399376.11	4947665.28	2.50	0	500	75.8	75.8	0.0	0.0	68.5	1.5	-1.0	0.0	0.0	0.0	0.0	-0.0	6.8	6.8
6	399376.11	4947665.28	2.50	0	1000	75.0	75.0	0.0	0.0	68.5	2.7	-1.5	0.0	0.0	0.0	0.0	-0.0	5.3	5.3
7	399376.11	4947665.28	2.50	0	2000	71.3	71.3	0.0	0.0	68.5	7.2	-1.6	0.0	0.0	0.0	0.0	-0.0	-2.9	-2.9
8	399376.11	4947665.28	2.50	0	4000	69.3	69.3	0.0	0.0	68.5	24.6	-1.6	0.0	0.0	0.0	0.0	-0.0	-22.2	-22.2
9	399376.11	4947665.28	2.50	0	8000	72.1	72.1	0.0	0.0	68.5	87.6	-1.6	0.0	0.0	0.0	0.0	-0.0	-82.5	-82.5

Point Source, ISO 9613, Name: "H5I2", ID: "H5I2"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	399378.60	4947665.24	2.50	0	32	-39.4	-39.4	0.0	0.0	68.5	0.0	-5.2	0.0	0.0	0.0	0.0	-0.0	-102.8	-102.8
2	399378.60	4947665.24	2.50	0	63	57.2	57.2	0.0	0.0	68.5	0.1	-5.2	0.0	0.0	0.0	0.0	-0.0	-6.2	-6.2
3	399378.60	4947665.24	2.50	0	125	72.5	72.5	0.0	0.0	68.5	0.3	3.8	0.0	0.0	0.0	0.0	-0.0	-0.1	-0.1
4	399378.60	4947665.24	2.50	0	250	71.2	71.2	0.0	0.0	68.5	0.8	2.8	0.0	0.0	0.0	0.0	-0.0	-0.9	-0.9
5	399378.60	4947665.24	2.50	0	500	75.8	75.8	0.0	0.0	68.5	1.5	-1.0	0.0	0.0	0.0	0.0	-0.0	6.8	6.8
6	399378.60	4947665.24	2.50	0	1000	75.0	75.0	0.0	0.0	68.5	2.7	-1.5	0.0	0.0	0.0	0.0	-0.0	5.3	5.3
7	399378.60	4947665.24	2.50	0	2000	71.3	71.3	0.0	0.0	68.5	7.3	-1.6	0.0	0.0	0.0	0.0	-0.0	-2.9	-2.9
8	399378.60	4947665.24	2.50	0	4000	69.3	69.3	0.0	0.0	68.5	24.6	-1.6	0.0	0.0	0.0	0.0	-0.0	-22.2	-22.2
9	399378.60	4947665.24	2.50	0	8000	72.1	72.1	0.0	0.0	68.5	87.7	-1.6	0.0	0.0	0.0	0.0	-0.0	-82.5	-82.5

Point Source, ISO 9613, Name: "H6T", ID: "H6T"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	399265.33	4947555.66	1.80	0	32	-39.4	-39.4	0.0	0.0	66.8	0.0	-5.1	0.0	0.0	0.0	0.0	-0.0	-101.2	-101.2
2	399265.33	4947555.66	1.80	0	63	54.2	54.2	0.0	0.0	66.8	0.1	-5.1	0.0	0.0	0.0	0.0	-0.0	-7.6	-7.6
3	399265.33	4947555.66	1.80	0	125	66.3	66.3	0.0	0.0	66.8	0.3	3.5	0.0	0.0	0.0	0.0	-0.0	-4.3	-4.3
4	399265.33	4947555.66	1.80	0	250	68.8	68.8	0.0	0.0	66.8	0.7	3.9	0.0	0.0	0.0	0.0	-0.0	-2.6	-2.6
5	399265.33	4947555.66	1.80	0	500	74.2	74.2	0.0	0.0	66.8	1.2	0.7	0.0	0.0	0.0	0.0	-0.0	5.5	5.5
6	399265.33	4947555.66	1.80	0	1000	71.4	71.4	0.0	0.0	66.8	2.3	-1.3	0.0	0.0	0.0	0.0	-0.0	3.6	3.6
7	399265.33	4947555.66	1.80	0	2000	67.6	67.6	0.0	0.0	66.8	6.0	-1.5	0.0	0.0	0.0	0.0	-0.0	-3.7	-3.7
8	399265.33	4947555.66	1.80	0	4000	62.4	62.4	0.0	0.0	66.8	20.3	-1.5	0.0	0.0	0.0	0.0	-0.0	-23.2	-23.2
9	399265.33	4947555.66	1.80	0	8000	53.3	53.3	0.0	0.0	66.8	72.4	-1.5	0.0	0.0	0.0	0.0	-0.0	-84.5	-84.5

Point Source, ISO 9613, Name: "H6I1", ID: "H6I1"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	399263.99	4947560.39	2.50	0	32	-39.4	-39.4	0.0	0.0	66.9	0.0	-5.0	0.0	0.0	0.0	0.0	-0.0	-101.3	-101.3
2	399263.99	4947560.39	2.50	0	63	57.2	57.2	0.0	0.0	66.9	0.1	-5.0	0.0	0.0	0.0	0.0	-0.0	-4.8	-4.8
3	399263.99	4947560.39	2.50	0	125	72.5	72.5	0.0	0.0	66.9	0.3	3.5	0.0	0.0	0.0	0.0	-0.0	1.9	1.9
4	399263.99	4947560.39	2.50	0	250	71.2	71.2	0.0	0.0	66.9	0.7	2.9	0.0	0.0	0.0	0.0	-0.0	0.7	0.7
5	399263.99	4947560.39	2.50	0	500	75.8	75.8	0.0	0.0	66.9	1.2	-0.9	0.0	0.0	0.0	0.0	-0.0	8.6	8.6
6	399263.99	4947560.39	2.50	0	1000	75.0	75.0	0.0	0.0	66.9	2.3	-1.5	0.0	0.0	0.0	0.0	-0.0	7.3	7.3
7	399263.99	4947560.39	2.50	0	2000	71.3	71.3	0.0	0.0	66.9	6.0	-1.5	0.0	0.0	0.0	0.0	-0.0	-0.1	-0.1
8	399263.99	4947560.39	2.50	0	4000	69.3	69.3	0.0	0.0	66.9	20.4	-1.5	0.0	0.0	0.0	0.0	-0.0	-16.6	-16.6
9	399263.99	4947560.39	2.50	0	8000	72.1	72.1	0.0	0.0	66.9	73.0	-1.5	0.0	0.0	0.0	0.0	-0.0	-66.3	-66.3

Point Source, ISO 9613, Name: "H6I2", ID: "H6I2"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	399266.60	4947560.39	2.50	0	32	-39.4	-39.4	0.0	0.0	66.9	0.0	-5.0	0.0	0.0	0.0	0.0	-0.0	-101.3	-101.3
2	399266.60	4947560.39	2.50	0	63	57.2	57.2	0.0	0.0	66.9	0.1	-5.0	0.0	0.0	0.0	0.0	-0.0	-4.8	-4.8
3	399266.60	4947560.39	2.50	0	125	72.5	72.5	0.0	0.0	66.9	0.3	3.5	0.0	0.0	0.0	0.0	-0.0	1.9	1.9
4	399266.60	4947560.39	2.50	0	250	71.2	71.2	0.0	0.0	66.9	0.7	2.9	0.0	0.0	0.0	0.0	-0.0	0.7	0.7
5	399266.60	4947560.39	2.50	0	500	75.8	75.8	0.0	0.0	66.9	1.2	-0.9	0.0	0.0	0.0	0.0	-0.0	8.6	8.6
6	399266.60	4947560.39	2.50	0	1000	75.0	75.0	0.0	0.0	66.9	2.3	-1.5	0.0	0.0	0.0	0.0	-0.0	7.3	7.3
7	399266.60	4947560.39	2.50	0	2000	71.3	71.3	0.0	0.0	66.9	6.0	-1.5	0.0	0.0	0.0	0.0	-0.0	-0.2	-0.2
8	399266.60	4947560.39	2.50	0	4000	69.3	69.3	0.0	0.0	66.9	20.5	-1.5	0.0	0.0	0.0	0.0	-0.0	-16.6	-16.6
9	399266.60	4947560.39	2.50	0	8000	72.1	72.1	0.0	0.0	66.9	73.0	-1.5	0.0	0.0	0.0	0.0	-0.0	-66.3	-66.3

Point Source, ISO 9613, Name: "H7T", ID: "H7T"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	399554.43	4947555.66	1.80	0	32	-39.4	-39.4	0.0	0.0	68.1	0.0	-5.2	0.0	0.0	0.0	0.0	-0.0	-102.3	-102.3
2	399554.43	4947555.66	1.80	0	63	54.2	54.2	0.0	0.0	68.1	0.1	-5.2	0.0	0.0	0.0	0.0	-0.0	-8.8	-8.8
3	399554.43	4947555.66	1.80	0	125	66.3	66.3	0.0	0.0	68.1	0.3	3.9	0.0	0.0	0.0	0.0	-0.0	-6.0	-6.0
4	399554.43	4947555.66	1.80	0	250	68.8	68.8	0.0	0.0	68.1	0.8	3.9	0.0	0.0	0.0	0.0	-0.0	-4.0	-4.0
5	399554.43	4947555.66	1.80	0	500	74.2	74.2	0.0	0.0	68.1	1.4	0.7	0.0	0.0	0.0	0.0	-0.0	4.0	4.0
6	399554.43	4947555.66	1.80	0	1000	71.4	71.4	0.0	0.0	68.1	2.6	-1.4	0.0	0.0	0.0	0.0	-0.0	2.0	2.0
7	399554.43	4947555.66	1.80	0	2000	67.6	67.6	0.0	0.0	68.1	7.0	-1.6	0.0	0.0	0.0	0.0	-0.0	-5.9	-5.9
8	399554.43	4947555.66	1.80	0	4000	62.4	62.4	0.0	0.0	68.1	23.6	-1.6	0.0	0.0	0.0	0.0	-0.0	-27.8	-27.8
9	399554.43	4947555.66	1.80	0	8000	53.3	53.3	0.0	0.0	68.1	84.1	-1.6	0.0	0.0	0.0	0.0	-0.0	-97.4	-97.4

Point Source, ISO 9613, Name: "H7I1", ID: "H7I1"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	399553.09	4947560.39	2.50	0	32	-39.4	-39.4	0.0	0.0	68.2	0.0	-5.1	0.0	0.0	0.0	0.0	-0.0	-102.5	-102.5
2	399553.09	4947560.39	2.50	0	63	57.2	57.2	0.0	0.0	68.2	0.1	-5.1	0.0	0.0	0.0	0.0	-0.0	-5.9	-5.9
3	399553.09	4947560.39	2.50	0	125	72.5	72.5	0.0	0.0	68.2	0.3	3.7	0.0	0.0	0.0	0.0	-0.0	0.3	0.3
4	399553.09	4947560.39	2.50	0	250	71.2	71.2	0.0	0.0	68.2	0.8	2.9	0.0	0.0	0.0	0.0	-0.0	-0.6	-0.6
5	399553.09	4947560.39	2.50	0	500	75.8	75.8	0.0	0.0	68.2	1.4	-1.0	0.0	0.0	0.0	0.0	-0.0	7.2	7.2
6	399553.09	4947560.39	2.50	0	1000	75.0	75.0	0.0	0.0	68.2	2.6	-1.5	0.0	0.0	0.0	0.0	-0.0	5.7	5.7
7	399553.09	4947560.39	2.50	0	2000	71.3	71.3	0.0	0.0	68.2	7.0	-1.5	0.0	0.0	0.0	0.0	-0.0	-2.3	-2.3
8	399553.09	4947560.39	2.50	0	4000	69.3	69.3	0.0	0.0	68.2	23.7	-1.5	0.0	0.0	0.0	0.0	-0.0	-21.0	-21.0
9	399553.09	4947560.39	2.50	0	8000	72.1	72.1	0.0	0.0	68.2	84.5	-1.5	0.0	0.0	0.0	0.0	-0.0	-79.0	-79.0

Point Source, ISO 9613, Name: "H7I2", ID: "H7I2"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	399555.70	4947560.39	2.50	0	32	-39.4	-39.4	0.0	0.0	68.2	0.0	-5.1	0.0	0.0	0.0	0.0	-0.0	-102.5	-102.5
2	399555.70	4947560.39	2.50	0	63	57.2	57.2	0.0	0.0	68.2	0.1	-5.1	0.0	0.0	0.0	0.0	-0.0	-6.0	-6.0
3	399555.70	4947560.39	2.50	0	125	72.5	72.5	0.0	0.0	68.2	0.3	3.7	0.0	0.0	0.0	0.0	-0.0	0.3	0.3
4	399555.70	4947560.39	2.50	0	250	71.2	71.2	0.0	0.0	68.2	0.8	2.9	0.0	0.0	0.0	0.0	-0.0	-0.6	-0.6
5	399555.70	4947560.39	2.50	0	500	75.8	75.8	0.0	0.0	68.2	1.4	-1.0	0.0	0.0	0.0	0.0	-0.0	7.2	7.2
6	399555.70	4947560.39	2.50	0	1000	75.0	75.0	0.0	0.0	68.2	2.6	-1.5	0.0	0.0	0.0	0.0	-0.0	5.7	5.7
7	399555.70	4947560.39	2.50	0	2000	71.3	71.3	0.0	0.0	68.2	7.0	-1.5	0.0	0.0	0.0	0.0	-0.0	-2.4	-2.4
8	399555.70	4947560.39	2.50	0	4000	69.3	69.3	0.0	0.0	68.2	23.7	-1.5	0.0	0.0	0.0	0.0	-0.0	-21.1	-21.1
9	399555.70	4947560.39	2.50	0	8000	72.1	72.1	0.0	0.0	68.2	84.6	-1.5	0.0	0.0	0.0	0.0	-0.0	-79.2	-79.2

Point Source, ISO 9613, Name: "H8T", ID: "H8T"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	399760.93	4947555.66	1.80	0	32	-39.4	-39.4	0.0	0.0	69.5	0.0	-5.3	0.0	0.0	0.0	0.0	-0.0	-103.6	-103.6
2	399760.93	4947555.66	1.80	0	63	54.2	54.2	0.0	0.0	69.5	0.1	-5.3	0.0	0.0	0.0	0.0	-0.0	-10.1	-10.1
3	399760.93	4947555.66	1.80	0	125	66.3	66.3	0.0	0.0	69.5	0.4	4.2	0.0	0.0	0.0	0.0	-0.0	-7.8	-7.8
4	399760.93	4947555.66	1.80	0	250	68.8	68.8	0.0	0.0	69.5	0.9	3.9	0.0	0.0	0.0	0.0	-0.0	-5.5	-5.5
5	399760.93	4947555.66	1.80	0	500	74.2	74.2	0.0	0.0	69.5	1.6	0.6	0.0	0.0	0.0	0.0	-0.0	2.4	2.4
6	399760.93	4947555.66	1.80	0	1000	71.4	71.4	0.0	0.0	69.5	3.1	-1.4	0.0	0.0	0.0	0.0	-0.0	0.2	0.2
7	399760.93	4947555.66	1.80	0	2000	67.6	67.6	0.0	0.0	69.5	8.2	-1.6	0.0	0.0	0.0	0.0	-0.0	-8.5	-8.5
8	399760.93	4947555.66	1.80	0	4000	62.4	62.4	0.0	0.0	69.5	27.7	-1.6	0.0	0.0	0.0	0.0	-0.0	-33.3	-33.3
9	399760.93	4947555.66	1.80	0	8000	53.3	53.3	0.0	0.0	69.5	98.9	-1.6	0.0	0.0	0.0	0.0	-0.0	-113.5	-113.5

Point Source, ISO 9613, Name: "H8I1", ID: "H8I1"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	399759.59	4947560.39	2.50	0	32	-39.4	-39.4	0.0	0.0	69.6	0.0	-5.3	0.0	0.0	0.0	0.0	-0.0	-103.7	-103.7
2	399759.59	4947560.39	2.50	0	63	57.2	57.2	0.0	0.0	69.6	0.1	-5.3	0.0	0.0	0.0	0.0	-0.0	-7.2	-7.2
3	399759.59	4947560.39	2.50	0	125	72.5	72.5	0.0	0.0	69.6	0.4	4.0	0.0	0.0	0.0	0.0	-0.0	-1.4	-1.4
4	399759.59	4947560.39	2.50	0	250	71.2	71.2	0.0	0.0	69.6	0.9	2.8	0.0	0.0	0.0	0.0	-0.0	-2.1	-2.1
5	399759.59	4947560.39	2.50	0	500	75.8	75.8	0.0	0.0	69.6	1.6	-1.0	0.0	0.0	0.0	0.0	-0.0	5.6	5.6
6	399759.59	4947560.39	2.50	0	1000	75.0	75.0	0.0	0.0	69.6	3.1	-1.6	0.0	0.0	0.0	0.0	-0.0	3.9	3.9
7	399759.59	4947560.39	2.50	0	2000	71.3	71.3	0.0	0.0	69.6	8.2	-1.6	0.0	0.0	0.0	0.0	-0.0	-4.9	-4.9
8	399759.59	4947560.39	2.50	0	4000	69.3	69.3	0.0	0.0	69.6	27.8	-1.6	0.0	0.0	0.0	0.0	-0.0	-26.5	-26.5
9	399759.59	4947560.39	2.50	0	8000	72.1	72.1	0.0	0.0	69.6	99.2	-1.6	0.0	0.0	0.0	0.0	-0.0	-95.0	-95.0

Point Source, ISO 9613, Name: "H8I2", ID: "H8I2"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	399762.20	4947560.39	2.50	0	32	-39.4	-39.4	0.0	0.0	69.6	0.0	-5.3	0.0	0.0	0.0	0.0	-0.0	-103.8	-103.8
2	399762.20	4947560.39	2.50	0	63	57.2	57.2	0.0	0.0	69.6	0.1	-5.3	0.0	0.0	0.0	0.0	-0.0	-7.2	-7.2
3	399762.20	4947560.39	2.50	0	125	72.5	72.5	0.0	0.0	69.6	0.4	4.0	0.0	0.0	0.0	0.0	-0.0	-1.4	-1.4
4	399762.20	4947560.39	2.50	0	250	71.2	71.2	0.0	0.0	69.6	0.9	2.8	0.0	0.0	0.0	0.0	-0.0	-2.1	-2.1
5	399762.20	4947560.39	2.50	0	500	75.8	75.8	0.0	0.0	69.6	1.6	-1.0	0.0	0.0	0.0	0.0	-0.0	5.6	5.6
6	399762.20	4947560.39	2.50	0	1000	75.0	75.0	0.0	0.0	69.6	3.1	-1.6	0.0	0.0	0.0	0.0	-0.0	3.9	3.9
7	399762.20	4947560.39	2.50	0	2000	71.3	71.3	0.0	0.0	69.6	8.2	-1.6	0.0	0.0	0.0	0.0	-0.0	-4.9	-4.9
8	399762.20	4947560.39	2.50	0	4000	69.3	69.3	0.0	0.0	69.6	27.9	-1.6	0.0	0.0	0.0	0.0	-0.0	-26.6	-26.6
9	399762.20	4947560.39	2.50	0	8000	72.1	72.1	0.0	0.0	69.6	99.4	-1.6	0.0	0.0	0.0	0.0	-0.0	-95.3	-95.3

Point Source, ISO 9613, Name: "H9T", ID: "H9T"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	399182.65	4947399.83	1.80	0	32	-39.4	-39.4	0.0	0.0	64.2	0.0	-4.8	0.0	0.0	0.0	0.0	-0.0	-98.9	-98.9
2	399182.65	4947399.83	1.80	0	63	54.2	54.2	0.0	0.0	64.2	0.1	-4.8	0.0	0.0	0.0	0.0	-0.0	-5.3	-5.3
3	399182.65	4947399.83	1.80	0	125	66.3	66.3	0.0	0.0	64.2	0.2	2.8	0.0	0.0	0.0	0.0	-0.0	-0.9	-0.9
4	399182.65	4947399.83	1.80	0	250	68.8	68.8	0.0	0.0	64.2	0.5	4.0	0.0	0.0	0.0	0.0	-0.0	0.1	0.1
5	399182.65	4947399.83	1.80	0	500	74.2	74.2	0.0	0.0	64.2	0.9	0.8	0.0	0.0	0.0	0.0	-0.0	8.3	8.3
6	399182.65	4947399.83	1.80	0	1000	71.4	71.4	0.0	0.0	64.2	1.7	-1.2	0.0	0.0	0.0	0.0	-0.0	6.8	6.8
7	399182.65	4947399.83	1.80	0	2000	67.6	67.6	0.0	0.0	64.2	4.4	-1.4	0.0	0.0	0.0	0.0	-0.0	0.4	0.4
8	399182.65	4947399.83	1.80	0	4000	62.4	62.4	0.0	0.0	64.2	15.0	-1.4	0.0	0.0	0.0	0.0	-0.0	-15.4	-15.4
9	399182.65	4947399.83	1.80	0	8000	53.3	53.3	0.0	0.0	64.2	53.5	-1.4	0.0	0.0	0.0	0.0	-0.0	-63.0	-63.0

Point Source, ISO 9613, Name: "H9I1", ID: "H9I1"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	399181.41	4947395.19	2.50	0	32	-39.4	-39.4	0.0	0.0	64.1	0.0	-4.6	0.0	0.0	0.0	0.0	-0.0	-98.9	-98.9
2	399181.41	4947395.19	2.50	0	63	57.2	57.2	0.0	0.0	64.1	0.1	-4.6	0.0	0.0	0.0	0.0	-0.0	-2.4	-2.4
3	399181.41	4947395.19	2.50	0	125	72.5	72.5	0.0	0.0	64.1	0.2	2.9	0.0	0.0	0.0	0.0	-0.0	5.3	5.3
4	399181.41	4947395.19	2.50	0	250	71.2	71.2	0.0	0.0	64.1	0.5	3.0	0.0	0.0	0.0	0.0	-0.0	3.6	3.6
5	399181.41	4947395.19	2.50	0	500	75.8	75.8	0.0	0.0	64.1	0.9	-0.8	0.0	0.0	0.0	0.0	-0.0	11.6	11.6
6	399181.41	4947395.19	2.50	0	1000	75.0	75.0	0.0	0.0	64.1	1.7	-1.4	0.0	0.0	0.0	0.0	-0.0	10.6	10.6
7	399181.41	4947395.19	2.50	0	2000	71.3	71.3	0.0	0.0	64.1	4.4	-1.4	0.0	0.0	0.0	0.0	-0.0	4.2	4.2
8	399181.41	4947395.19	2.50	0	4000	69.3	69.3	0.0	0.0	64.1	14.9	-1.4	0.0	0.0	0.0	0.0	-0.0	-8.3	-8.3
9	399181.41	4947395.19	2.50	0	8000	72.1	72.1	0.0	0.0	64.1	53.0	-1.4	0.0	0.0	0.0	0.0	-0.0	-43.6	-43.6

Point Source, ISO 9613, Name: "H9I2", ID: "H9I2"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	399183.90	4947395.15	2.50	0	32	-39.4	-39.4	0.0	0.0	64.1	0.0	-4.6	0.0	0.0	0.0	0.0	-0.0	-98.9	-98.9
2	399183.90	4947395.15	2.50	0	63	57.2	57.2	0.0	0.0	64.1	0.1	-4.6	0.0	0.0	0.0	0.0	-0.0	-2.4	-2.4
3	399183.90	4947395.15	2.50	0	125	72.5	72.5	0.0	0.0	64.1	0.2	2.9	0.0	0.0	0.0	0.0	-0.0	5.3	5.3
4	399183.90	4947395.15	2.50	0	250	71.2	71.2	0.0	0.0	64.1	0.5	3.0	0.0	0.0	0.0	0.0	-0.0	3.6	3.6
5	399183.90	4947395.15	2.50	0	500	75.8	75.8	0.0	0.0	64.1	0.9	-0.8	0.0	0.0	0.0	0.0	-0.0	11.6	11.6
6	399183.90	4947395.15	2.50	0	1000	75.0	75.0	0.0	0.0	64.1	1.7	-1.4	0.0	0.0	0.0	0.0	-0.0	10.6	10.6
7	399183.90	4947395.15	2.50	0	2000	71.3	71.3	0.0	0.0	64.1	4.4	-1.4	0.0	0.0	0.0	0.0	-0.0	4.2	4.2
8	399183.90	4947395.15	2.50	0	4000	69.3	69.3	0.0	0.0	64.1	14.9	-1.4	0.0	0.0	0.0	0.0	-0.0	-8.3	-8.3
9	399183.90	4947395.15	2.50	0	8000	72.1	72.1	0.0	0.0	64.1	53.0	-1.4	0.0	0.0	0.0	0.0	-0.0	-43.6	-43.6

Point Source, ISO 9613, Name: "H10T", ID: "H10T"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	399412.75	4947399.83	1.80	0	32	-39.4	-39.4	0.0	0.0	65.2	0.0	-4.9	0.0	0.0	0.0	0.0	-0.0	-99.7	-99.7
2	399412.75	4947399.83	1.80	0	63	54.2	54.2	0.0	0.0	65.2	0.1	-4.9	0.0	0.0	0.0	0.0	-0.0	-6.2	-6.2
3	399412.75	4947399.83	1.80	0	125	66.3	66.3	0.0	0.0	65.2	0.2	3.1	0.0	0.0	0.0	0.0	-0.0	-2.2	-2.2
4	399412.75	4947399.83	1.80	0	250	68.8	68.8	0.0	0.0	65.2	0.5	4.0	0.0	0.0	0.0	0.0	-0.0	-1.0	-1.0
5	399412.75	4947399.83	1.80	0	500	74.2	74.2	0.0	0.0	65.2	1.0	0.7	0.0	0.0	0.0	0.0	-0.0	7.3	7.3
6	399412.75	4947399.83	1.80	0	1000	71.4	71.4	0.0	0.0	65.2	1.9	-1.3	0.0	0.0	0.0	0.0	-0.0	5.6	5.6
7	399412.75	4947399.83	1.80	0	2000	67.6	67.6	0.0	0.0	65.2	5.0	-1.5	0.0	0.0	0.0	0.0	-0.0	-1.1	-1.1
8	399412.75	4947399.83	1.80	0	4000	62.4	62.4	0.0	0.0	65.2	16.9	-1.5	0.0	0.0	0.0	0.0	-0.0	-18.2	-18.2
9	399412.75	4947399.83	1.80	0	8000	53.3	53.3	0.0	0.0	65.2	60.1	-1.5	0.0	0.0	0.0	0.0	-0.0	-70.5	-70.5

Point Source, ISO 9613, Name: "H10I1", ID: "H10I1"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	399411.51	4947395.19	2.50	0	32	-39.4	-39.4	0.0	0.0	65.1	0.0	-4.8	0.0	0.0	0.0	0.0	-0.0	-99.8	-99.8
2	399411.51	4947395.19	2.50	0	63	57.2	57.2	0.0	0.0	65.1	0.1	-4.8	0.0	0.0	0.0	0.0	-0.0	-3.2	-3.2
3	399411.51	4947395.19	2.50	0	125	72.5	72.5	0.0	0.0	65.1	0.2	3.1	0.0	0.0	0.0	0.0	-0.0	4.0	4.0
4	399411.51	4947395.19	2.50	0	250	71.2	71.2	0.0	0.0	65.1	0.5	3.0	0.0	0.0	0.0	0.0	-0.0	2.5	2.5
5	399411.51	4947395.19	2.50	0	500	75.8	75.8	0.0	0.0	65.1	1.0	-0.9	0.0	0.0	0.0	0.0	-0.0	10.6	10.6
6	399411.51	4947395.19	2.50	0	1000	75.0	75.0	0.0	0.0	65.1	1.9	-1.4	0.0	0.0	0.0	0.0	-0.0	9.4	9.4
7	399411.51	4947395.19	2.50	0	2000	71.3	71.3	0.0	0.0	65.1	4.9	-1.4	0.0	0.0	0.0	0.0	-0.0	2.7	2.7
8	399411.51	4947395.19	2.50	0	4000	69.3	69.3	0.0	0.0	65.1	16.7	-1.4	0.0	0.0	0.0	0.0	-0.0	-11.1	-11.1
9	399411.51	4947395.19	2.50	0	8000	72.1	72.1	0.0	0.0	65.1	59.5	-1.4	0.0	0.0	0.0	0.0	-0.0	-51.1	-51.1

Point Source, ISO 9613, Name: "H10I2", ID: "H10I2"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	399414.00	4947395.15	2.50	0	32	-39.4	-39.4	0.0	0.0	65.2	0.0	-4.8	0.0	0.0	0.0	0.0	-0.0	-99.8	-99.8
2	399414.00	4947395.15	2.50	0	63	57.2	57.2	0.0	0.0	65.2	0.1	-4.8	0.0	0.0	0.0	0.0	-0.0	-3.3	-3.3
3	399414.00	4947395.15	2.50	0	125	72.5	72.5	0.0	0.0	65.2	0.2	3.1	0.0	0.0	0.0	0.0	-0.0	4.0	4.0
4	399414.00	4947395.15	2.50	0	250	71.2	71.2	0.0	0.0	65.2	0.5	3.0	0.0	0.0	0.0	0.0	-0.0	2.5	2.5
5	399414.00	4947395.15	2.50	0	500	75.8	75.8	0.0	0.0	65.2	1.0	-0.9	0.0	0.0	0.0	0.0	-0.0	10.5	10.5
6	399414.00	4947395.15	2.50	0	1000	75.0	75.0	0.0	0.0	65.2	1.9	-1.4	0.0	0.0	0.0	0.0	-0.0	9.4	9.4
7	399414.00	4947395.15	2.50	0	2000	71.3	71.3	0.0	0.0	65.2	4.9	-1.4	0.0	0.0	0.0	0.0	-0.0	2.6	2.6
8	399414.00	4947395.15	2.50	0	4000	69.3	69.3	0.0	0.0	65.2	16.7	-1.4	0.0	0.0	0.0	0.0	-0.0	-11.2	-11.2
9	399414.00	4947395.15	2.50	0	8000	72.1	72.1	0.0	0.0	65.2	59.7	-1.4	0.0	0.0	0.0	0.0	-0.0	-51.3	-51.3

Point Source, ISO 9613, Name: "ST", ID: "ST"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	399112.16	4947187.68	2.50	0	32	-39.4	-39.4	0.0	0.0	59.1	0.0	-3.5	0.0	0.0	0.0	0.0	-0.0	-95.0	-95.0
2	399112.16	4947187.68	2.50	0	63	65.8	65.8	0.0	0.0	59.1	0.0	-3.5	0.0	0.0	0.0	0.0	-0.0	10.2	10.2
3	399112.16	4947187.68	2.50	0	125	77.9	77.9	0.0	0.0	59.1	0.1	2.4	0.0	0.0	0.0	0.0	-0.0	16.2	16.2
4	399112.16	4947187.68	2.50	0	250	80.4	80.4	0.0	0.0	59.1	0.3	3.3	0.0	0.0	0.0	0.0	-0.0	17.7	17.7
5	399112.16	4947187.68	2.50	0	500	85.8	85.8	0.0	0.0	59.1	0.5	-0.5	0.0	0.0	0.0	0.0	-0.0	26.7	26.7
6	399112.16	4947187.68	2.50	0	1000	83.0	83.0	0.0	0.0	59.1	0.9	-1.0	0.0	0.0	0.0	0.0	-0.0	24.0	24.0
7	399112.16	4947187.68	2.50	0	2000	79.2	79.2	0.0	0.0	59.1	2.5	-1.1	0.0	0.0	0.0	0.0	-0.0	18.7	18.7
8	399112.16	4947187.68	2.50	0	4000	74.0	74.0	0.0	0.0	59.1	8.3	-1.1	0.0	0.0	0.0	0.0	-0.0	7.6	7.6
9	399112.16	4947187.68	2.50	0	8000	64.9	64.9	0.0	0.0	59.1	29.8	-1.1	0.0	0.0	0.0	0.0	-0.0	-22.9	-22.9

Point Source, ISO 9613, Name: "Mc_Sub", ID: "Mc_Sub"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	399149.00	4948483.00	3.50	0	32	48.0	48.0	0.0	0.0	74.8	0.1	-5.5	0.0	0.0	0.0	0.0	-0.0	-21.3	-21.3
2	399149.00	4948483.00	3.50	0	63	67.2	67.2	0.0	0.0	74.8	0.2	-5.5	0.0	0.0	0.0	0.0	-0.0	-2.2	-2.2
3	399149.00	4948483.00	3.50	0	125	79.3	79.3	0.0	0.0	74.8	0.6	3.9	0.0	0.0	0.0	0.0	-0.0	-0.0	-0.0
4	399149.00	4948483.00	3.50	0	250	81.8	81.8	0.0	0.0	74.8	1.6	1.3	0.0	0.0	0.0	0.0	-0.0	4.1	4.1
5	399149.00	4948483.00	3.50	0	500	87.2	87.2	0.0	0.0	74.8	3.0	-1.6	0.0	0.0	0.0	0.0	-0.0	11.1	11.1
6	399149.00	4948483.00	3.50	0	1000	84.4	84.4	0.0	0.0	74.8	5.6	-1.7	0.0	0.0	0.0	0.0	-0.0	5.7	5.7
7	399149.00	4948483.00	3.50	0	2000	80.6	80.6	0.0	0.0	74.8	14.9	-1.7	0.0	0.0	0.0	0.0	-0.0	-7.4	-7.4
8	399149.00	4948483.00	3.50	0	4000	75.4	75.4	0.0	0.0	74.8	50.5	-1.7	0.0	0.0	0.0	0.0	-0.0	-48.2	-48.2
9	399149.00	4948483.00	3.50	0	8000	66.3	66.3	0.0	0.0	74.8	180.1	-1.7	0.0	0.0	0.0	0.0	-0.0	-186.9	-186.9

Point Source, ISO 9613, Name: "Mc_Inv1", ID: "Mc_Inv1"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	398809.00	4948423.00	2.60	0	63	68.1	68.1	0.0	0.0	74.7	0.2	-5.6	0.0	0.0	0.0	0.0	-0.0	-1.2	-1.2
2	398809.00	4948423.00	2.60	0	125	78.9	78.9	0.0	0.0	74.7	0.6	4.2	0.0	0.0	0.0	0.0	-0.0	-0.6	-0.6
3	398809.00	4948423.00	2.60	0	250	85.5	85.5	0.0	0.0	74.7	1.6	2.6	0.0	0.0	0.0	0.0	-0.0	6.7	6.7
4	398809.00	4948423.00	2.60	0	500	87.3	87.3	0.0	0.0	74.7	2.9	-1.2	0.0	0.0	0.0	0.0	-0.0	10.9	10.9
5	398809.00	4948423.00	2.60	0	1000	83.7	83.7	0.0	0.0	74.7	5.6	-1.7	0.0	0.0	0.0	0.0	-0.0	5.1	5.1
6	398809.00	4948423.00	2.60	0	2000	79.1	79.1	0.0	0.0	74.7	14.8	-1.7	0.0	0.0	0.0	0.0	-0.0	-8.7	-8.7
7	398809.00	4948423.00	2.60	0	4000	70.0	70.0	0.0	0.0	74.7	50.0	-1.7	0.0	0.0	0.0	0.0	-0.0	-53.0	-53.0
8	398809.00	4948423.00	2.60	0	8000	77.7	77.7	0.0	0.0	74.7	178.4	-1.7	0.0	0.0	0.0	0.0	-0.0	-173.7	-173.7

Point Source, ISO 9613, Name: "Mc_Inv2", ID: "Mc_Inv2"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	398918.00	4948534.00	2.60	0	63	68.1	68.1	0.0	0.0	75.1	0.2	-5.6	0.0	0.0	0.0	0.0	-0.0	-1.7	-1.7
2	398918.00	4948534.00	2.60	0	125	78.9	78.9	0.0	0.0	75.1	0.7	4.2	0.0	0.0	0.0	0.0	-0.0	-1.1	-1.1
3	398918.00	4948534.00	2.60	0	250	85.5	85.5	0.0	0.0	75.1	1.7	2.6	0.0	0.0	0.0	0.0	-0.0	6.1	6.1
4	398918.00	4948534.00	2.60	0	500	87.3	87.3	0.0	0.0	75.1	3.1	-1.2	0.0	0.0	0.0	0.0	-0.0	10.3	10.3
5	398918.00	4948534.00	2.60	0	1000	83.7	83.7	0.0	0.0	75.1	5.9	-1.7	0.0	0.0	0.0	0.0	-0.0	4.3	4.3
6	398918.00	4948534.00	2.60	0	2000	79.1	79.1	0.0	0.0	75.1	15.6	-1.7	0.0	0.0	0.0	0.0	-0.0	-10.0	-10.0
7	398918.00	4948534.00	2.60	0	4000	70.0	70.0	0.0	0.0	75.1	52.9	-1.7	0.0	0.0	0.0	0.0	-0.0	-56.3	-56.3
8	398918.00	4948534.00	2.60	0	8000	77.7	77.7	0.0	0.0	75.1	188.6	-1.7	0.0	0.0	0.0	0.0	-0.0	-184.3	-184.3

Point Source, ISO 9613, Name: "Mc_Inv3", ID: "Mc_Inv3"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	398955.00	4948665.00	2.60	0	63	68.1	68.1	0.0	0.0	75.8	0.2	-5.6	0.0	0.0	0.0	0.0	-0.0	-2.3	-2.3

Point Source, ISO 9613, Name: "Mc_Inv3", ID: "Mc_Inv3"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
2	398955.00	4948665.00	2.60	0	125	78.9	78.9	0.0	0.0	75.8	0.7	4.2	0.0	0.0	0.0	0.0	-0.0	-1.8	-1.8
3	398955.00	4948665.00	2.60	0	250	85.5	85.5	0.0	0.0	75.8	1.8	2.6	0.0	0.0	0.0	0.0	-0.0	5.3	5.3
4	398955.00	4948665.00	2.60	0	500	87.3	87.3	0.0	0.0	75.8	3.3	-1.3	0.0	0.0	0.0	0.0	-0.0	9.4	9.4
5	398955.00	4948665.00	2.60	0	1000	83.7	83.7	0.0	0.0	75.8	6.3	-1.7	0.0	0.0	0.0	0.0	-0.0	3.2	3.2
6	398955.00	4948665.00	2.60	0	2000	79.1	79.1	0.0	0.0	75.8	16.8	-1.7	0.0	0.0	0.0	0.0	-0.0	-11.8	-11.8
7	398955.00	4948665.00	2.60	0	4000	70.0	70.0	0.0	0.0	75.8	56.9	-1.7	0.0	0.0	0.0	0.0	-0.0	-61.0	-61.0
8	398955.00	4948665.00	2.60	0	8000	77.7	77.7	0.0	0.0	75.8	203.1	-1.7	0.0	0.0	0.0	0.0	-0.0	-199.5	-199.5

Point Source, ISO 9613, Name: "Mc_Inv4", ID: "Mc_Inv4"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	398991.00	4948812.00	2.60	0	63	68.1	68.1	0.0	0.0	76.5	0.2	-5.7	0.0	0.0	0.0	0.0	-0.0	-2.9	-2.9
2	398991.00	4948812.00	2.60	0	125	78.9	78.9	0.0	0.0	76.5	0.8	4.2	0.0	0.0	0.0	0.0	-0.0	-2.6	-2.6
3	398991.00	4948812.00	2.60	0	250	85.5	85.5	0.0	0.0	76.5	2.0	2.5	0.0	0.0	0.0	0.0	-0.0	4.5	4.5
4	398991.00	4948812.00	2.60	0	500	87.3	87.3	0.0	0.0	76.5	3.6	-1.3	0.0	0.0	0.0	0.0	-0.0	8.5	8.5
5	398991.00	4948812.00	2.60	0	1000	83.7	83.7	0.0	0.0	76.5	6.9	-1.7	0.0	0.0	0.0	0.0	-0.0	2.0	2.0
6	398991.00	4948812.00	2.60	0	2000	79.1	79.1	0.0	0.0	76.5	18.2	-1.7	0.0	0.0	0.0	0.0	-0.0	-13.8	-13.8
7	398991.00	4948812.00	2.60	0	4000	70.0	70.0	0.0	0.0	76.5	61.6	-1.7	0.0	0.0	0.0	0.0	-0.0	-66.4	-66.4
8	398991.00	4948812.00	2.60	0	8000	77.7	77.7	0.0	0.0	76.5	219.7	-1.7	0.0	0.0	0.0	0.0	-0.0	-216.7	-216.7

Point Source, ISO 9613, Name: "Mc_Inv5", ID: "Mc_Inv5"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	399195.00	4948918.00	2.60	0	63	68.1	68.1	0.0	0.0	76.9	0.2	-5.7	0.0	0.0	0.0	0.0	-0.0	-3.4	-3.4
2	399195.00	4948918.00	2.60	0	125	78.9	78.9	0.0	0.0	76.9	0.8	4.2	0.0	0.0	0.0	0.0	-0.0	-3.0	-3.0
3	399195.00	4948918.00	2.60	0	250	85.5	85.5	0.0	0.0	76.9	2.1	2.5	0.0	0.0	0.0	0.0	-0.0	4.0	4.0
4	399195.00	4948918.00	2.60	0	500	87.3	87.3	0.0	0.0	76.9	3.8	-1.3	0.0	0.0	0.0	0.0	-0.0	7.8	7.8
5	399195.00	4948918.00	2.60	0	1000	83.7	83.7	0.0	0.0	76.9	7.2	-1.7	0.0	0.0	0.0	0.0	-0.0	1.3	1.3
6	399195.00	4948918.00	2.60	0	2000	79.1	79.1	0.0	0.0	76.9	19.1	-1.7	0.0	0.0	0.0	0.0	-0.0	-15.2	-15.2
7	399195.00	4948918.00	2.60	0	4000	70.0	70.0	0.0	0.0	76.9	64.8	-1.7	0.0	0.0	0.0	0.0	-0.0	-70.0	-70.0
8	399195.00	4948918.00	2.60	0	8000	77.7	77.7	0.0	0.0	76.9	231.0	-1.7	0.0	0.0	0.0	0.0	-0.0	-228.5	-228.5

Point Source, ISO 9613, Name: "Mc_Inv6", ID: "Mc_Inv6"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	399195.00	4948721.00	2.60	0	63	68.1	68.1	0.0	0.0	76.0	0.2	-5.6	0.0	0.0	0.0	0.0	-0.0	-2.5	-2.5
2	399195.00	4948721.00	2.60	0	125	78.9	78.9	0.0	0.0	76.0	0.7	4.2	0.0	0.0	0.0	0.0	-0.0	-2.0	-2.0
3	399195.00	4948721.00	2.60	0	250	85.5	85.5	0.0	0.0	76.0	1.9	2.6	0.0	0.0	0.0	0.0	-0.0	5.1	5.1
4	399195.00	4948721.00	2.60	0	500	87.3	87.3	0.0	0.0	76.0	3.4	-1.3	0.0	0.0	0.0	0.0	-0.0	9.1	9.1
5	399195.00	4948721.00	2.60	0	1000	83.7	83.7	0.0	0.0	76.0	6.5	-1.7	0.0	0.0	0.0	0.0	-0.0	2.9	2.9
6	399195.00	4948721.00	2.60	0	2000	79.1	79.1	0.0	0.0	76.0	17.2	-1.7	0.0	0.0	0.0	0.0	-0.0	-12.4	-12.4
7	399195.00	4948721.00	2.60	0	4000	70.0	70.0	0.0	0.0	76.0	58.3	-1.7	0.0	0.0	0.0	0.0	-0.0	-62.6	-62.6
8	399195.00	4948721.00	2.60	0	8000	77.7	77.7	0.0	0.0	76.0	207.9	-1.7	0.0	0.0	0.0	0.0	-0.0	-204.6	-204.6

Point Source, ISO 9613, Name: "Mc_Inv7", ID: "Mc_Inv7"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	399296.00	4948602.00	2.60	0	63	68.1	68.1	0.0	0.0	75.4	0.2	-5.6	0.0	0.0	0.0	0.0	-0.0	-1.9	-1.9
2	399296.00	4948602.00	2.60	0	125	78.9	78.9	0.0	0.0	75.4	0.7	4.2	0.0	0.0	0.0	0.0	-0.0	-1.4	-1.4
3	399296.00	4948602.00	2.60	0	250	85.5	85.5	0.0	0.0	75.4	1.7	2.6	0.0	0.0	0.0	0.0	-0.0	5.8	5.8
4	399296.00	4948602.00	2.60	0	500	87.3	87.3	0.0	0.0	75.4	3.2	-1.3	0.0	0.0	0.0	0.0	-0.0	9.9	9.9
5	399296.00	4948602.00	2.60	0	1000	83.7	83.7	0.0	0.0	75.4	6.1	-1.7	0.0	0.0	0.0	0.0	-0.0	3.9	3.9
6	399296.00	4948602.00	2.60	0	2000	79.1	79.1	0.0	0.0	75.4	16.1	-1.7	0.0	0.0	0.0	0.0	-0.0	-10.7	-10.7
7	399296.00	4948602.00	2.60	0	4000	70.0	70.0	0.0	0.0	75.4	54.5	-1.7	0.0	0.0	0.0	0.0	-0.0	-58.3	-58.3
8	399296.00	4948602.00	2.60	0	8000	77.7	77.7	0.0	0.0	75.4	194.5	-1.7	0.0	0.0	0.0	0.0	-0.0	-190.5	-190.5

Point Source, ISO 9613, Name: "Mc_Trans1", ID: "Mc_Trans1"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	398813.00	4948427.00	2.58	0	32	37.3	37.3	0.0	0.0	74.7	0.1	-5.6	0.0	0.0	0.0	0.0	-0.0	-31.9	-31.9
2	398813.00	4948427.00	2.58	0	63	56.5	56.5	0.0	0.0	74.7	0.2	-5.6	0.0	0.0	0.0	0.0	-0.0	-12.8	-12.8
3	398813.00	4948427.00	2.58	0	125	68.6	68.6	0.0	0.0	74.7	0.6	4.2	0.0	0.0	0.0	0.0	-0.0	-11.0	-11.0
4	398813.00	4948427.00	2.58	0	250	71.1	71.1	0.0	0.0	74.7	1.6	2.6	0.0	0.0	0.0	0.0	-0.0	-7.8	-7.8
5	398813.00	4948427.00	2.58	0	500	76.5	76.5	0.0	0.0	74.7	2.9	-1.2	0.0	0.0	0.0	0.0	-0.0	0.1	0.1

Point Source, ISO 9613, Name: "Mc_Trans1", ID: "Mc_Trans1"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
6	398813.00	4948427.00	2.58	0	1000	73.7	73.7	0.0	0.0	74.7	5.6	-1.7	0.0	0.0	0.0	0.0	-0.0	-4.9	-4.9
7	398813.00	4948427.00	2.58	0	2000	69.9	69.9	0.0	0.0	74.7	14.8	-1.7	0.0	0.0	0.0	0.0	-0.0	-17.9	-17.9
8	398813.00	4948427.00	2.58	0	4000	64.7	64.7	0.0	0.0	74.7	50.1	-1.7	0.0	0.0	0.0	0.0	-0.0	-58.4	-58.4
9	398813.00	4948427.00	2.58	0	8000	55.6	55.6	0.0	0.0	74.7	178.8	-1.7	0.0	0.0	0.0	0.0	-0.0	-196.2	-196.2

Point Source, ISO 9613, Name: "Mc_Trans2", ID: "Mc_Trans2"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	398923.00	4948533.00	2.58	0	32	37.3	37.3	0.0	0.0	75.1	0.1	-5.6	0.0	0.0	0.0	0.0	-0.0	-32.3	-32.3
2	398923.00	4948533.00	2.58	0	63	56.5	56.5	0.0	0.0	75.1	0.2	-5.6	0.0	0.0	0.0	0.0	-0.0	-13.2	-13.2
3	398923.00	4948533.00	2.58	0	125	68.6	68.6	0.0	0.0	75.1	0.7	4.2	0.0	0.0	0.0	0.0	-0.0	-11.4	-11.4
4	398923.00	4948533.00	2.58	0	250	71.1	71.1	0.0	0.0	75.1	1.7	2.6	0.0	0.0	0.0	0.0	-0.0	-8.3	-8.3
5	398923.00	4948533.00	2.58	0	500	76.5	76.5	0.0	0.0	75.1	3.1	-1.2	0.0	0.0	0.0	0.0	-0.0	-0.5	-0.5
6	398923.00	4948533.00	2.58	0	1000	73.7	73.7	0.0	0.0	75.1	5.9	-1.7	0.0	0.0	0.0	0.0	-0.0	-5.7	-5.7
7	398923.00	4948533.00	2.58	0	2000	69.9	69.9	0.0	0.0	75.1	15.6	-1.7	0.0	0.0	0.0	0.0	-0.0	-19.1	-19.1
8	398923.00	4948533.00	2.58	0	4000	64.7	64.7	0.0	0.0	75.1	52.8	-1.7	0.0	0.0	0.0	0.0	-0.0	-61.6	-61.6
9	398923.00	4948533.00	2.58	0	8000	55.6	55.6	0.0	0.0	75.1	188.3	-1.7	0.0	0.0	0.0	0.0	-0.0	-206.2	-206.2

Point Source, ISO 9613, Name: "Mc_Trans3", ID: "Mc_Trans3"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	398960.00	4948664.00	2.58	0	32	37.3	37.3	0.0	0.0	75.8	0.1	-5.6	0.0	0.0	0.0	0.0	-0.0	-32.9	-32.9
2	398960.00	4948664.00	2.58	0	63	56.5	56.5	0.0	0.0	75.8	0.2	-5.6	0.0	0.0	0.0	0.0	-0.0	-13.9	-13.9
3	398960.00	4948664.00	2.58	0	125	68.6	68.6	0.0	0.0	75.8	0.7	4.2	0.0	0.0	0.0	0.0	-0.0	-12.1	-12.1
4	398960.00	4948664.00	2.58	0	250	71.1	71.1	0.0	0.0	75.8	1.8	2.6	0.0	0.0	0.0	0.0	-0.0	-9.1	-9.1
5	398960.00	4948664.00	2.58	0	500	76.5	76.5	0.0	0.0	75.8	3.3	-1.2	0.0	0.0	0.0	0.0	-0.0	-1.4	-1.4
6	398960.00	4948664.00	2.58	0	1000	73.7	73.7	0.0	0.0	75.8	6.3	-1.7	0.0	0.0	0.0	0.0	-0.0	-6.8	-6.8
7	398960.00	4948664.00	2.58	0	2000	69.9	69.9	0.0	0.0	75.8	16.8	-1.7	0.0	0.0	0.0	0.0	-0.0	-21.0	-21.0
8	398960.00	4948664.00	2.58	0	4000	64.7	64.7	0.0	0.0	75.8	56.9	-1.7	0.0	0.0	0.0	0.0	-0.0	-66.3	-66.3
9	398960.00	4948664.00	2.58	0	8000	55.6	55.6	0.0	0.0	75.8	202.9	-1.7	0.0	0.0	0.0	0.0	-0.0	-221.4	-221.4

Point Source, ISO 9613, Name: "Mc_Trans4", ID: "Mc_Trans4"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	398996.00	4948812.00	2.58	0	32	37.3	37.3	0.0	0.0	76.5	0.1	-5.7	0.0	0.0	0.0	0.0	-0.0	-33.6	-33.6
2	398996.00	4948812.00	2.58	0	63	56.5	56.5	0.0	0.0	76.5	0.2	-5.7	0.0	0.0	0.0	0.0	-0.0	-14.6	-14.6
3	398996.00	4948812.00	2.58	0	125	68.6	68.6	0.0	0.0	76.5	0.8	4.2	0.0	0.0	0.0	0.0	-0.0	-12.9	-12.9
4	398996.00	4948812.00	2.58	0	250	71.1	71.1	0.0	0.0	76.5	2.0	2.6	0.0	0.0	0.0	0.0	-0.0	-9.9	-9.9
5	398996.00	4948812.00	2.58	0	500	76.5	76.5	0.0	0.0	76.5	3.6	-1.2	0.0	0.0	0.0	0.0	-0.0	-2.4	-2.4
6	398996.00	4948812.00	2.58	0	1000	73.7	73.7	0.0	0.0	76.5	6.9	-1.7	0.0	0.0	0.0	0.0	-0.0	-8.0	-8.0
7	398996.00	4948812.00	2.58	0	2000	69.9	69.9	0.0	0.0	76.5	18.2	-1.7	0.0	0.0	0.0	0.0	-0.0	-23.0	-23.0
8	398996.00	4948812.00	2.58	0	4000	64.7	64.7	0.0	0.0	76.5	61.6	-1.7	0.0	0.0	0.0	0.0	-0.0	-71.6	-71.6
9	398996.00	4948812.00	2.58	0	8000	55.6	55.6	0.0	0.0	76.5	219.6	-1.7	0.0	0.0	0.0	0.0	-0.0	-238.8	-238.8

Point Source, ISO 9613, Name: "Mc_Trans5", ID: "Mc_Trans5"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	399190.00	4948919.00	2.58	0	32	37.3	37.3	0.0	0.0	76.9	0.1	-5.7	0.0	0.0	0.0	0.0	-0.0	-34.0	-34.0
2	399190.00	4948919.00	2.58	0	63	56.5	56.5	0.0	0.0	76.9	0.2	-5.7	0.0	0.0	0.0	0.0	-0.0	-15.0	-15.0
3	399190.00	4948919.00	2.58	0	125	68.6	68.6	0.0	0.0	76.9	0.8	4.2	0.0	0.0	0.0	0.0	-0.0	-13.3	-13.3
4	399190.00	4948919.00	2.58	0	250	71.1	71.1	0.0	0.0	76.9	2.1	2.6	0.0	0.0	0.0	0.0	-0.0	-10.5	-10.5
5	399190.00	4948919.00	2.58	0	500	76.5	76.5	0.0	0.0	76.9	3.8	-1.2	0.0	0.0	0.0	0.0	-0.0	-3.0	-3.0
6	399190.00	4948919.00	2.58	0	1000	73.7	73.7	0.0	0.0	76.9	7.2	-1.7	0.0	0.0	0.0	0.0	-0.0	-8.8	-8.8
7	399190.00	4948919.00	2.58	0	2000	69.9	69.9	0.0	0.0	76.9	19.1	-1.7	0.0	0.0	0.0	0.0	-0.0	-24.4	-24.4
8	399190.00	4948919.00	2.58	0	4000	64.7	64.7	0.0	0.0	76.9	64.8	-1.7	0.0	0.0	0.0	0.0	-0.0	-75.3	-75.3
9	399190.00	4948919.00	2.58	0	8000	55.6	55.6	0.0	0.0	76.9	231.1	-1.7	0.0	0.0	0.0	0.0	-0.0	-250.7	-250.7

Point Source, ISO 9613, Name: "Mc_Trans6", ID: "Mc_Trans6"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	399190.00	4948722.00	2.58	0	32	37.3	37.3	0.0	0.0	76.0	0.1	-5.6	0.0	0.0	0.0	0.0	-0.0	-33.1	-33.1
2	399190.00	4948722.00	2.58	0	63	56.5	56.5	0.0	0.0	76.0	0.2	-5.6	0.0	0.0	0.0	0.0	-0.0	-14.1	-14.1
3	399190.00	4948722.00	2.58	0	125	68.6	68.6	0.0	0.0	76.0	0.7	4.2	0.0	0.0	0.0	0.0	-0.0	-12.4	-12.4
4	399190.00	4948722.00	2.58	0	250	71.1	71.1	0.0	0.0	76.0	1.9	2.6	0.0	0.0	0.0	0.0	-0.0	-9.4	-9.4

Point Source, ISO 9613, Name: "Mc_Trans6", ID: "Mc_Trans6"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
5	399190.00	4948722.00	2.58	0	500	76.5	76.5	0.0	0.0	76.0	3.4	-1.2	0.0	0.0	0.0	0.0	-0.0	-1.7	-1.7
6	399190.00	4948722.00	2.58	0	1000	73.7	73.7	0.0	0.0	76.0	6.5	-1.7	0.0	0.0	0.0	0.0	-0.0	-7.1	-7.1
7	399190.00	4948722.00	2.58	0	2000	69.9	69.9	0.0	0.0	76.0	17.2	-1.7	0.0	0.0	0.0	0.0	-0.0	-21.6	-21.6
8	399190.00	4948722.00	2.58	0	4000	64.7	64.7	0.0	0.0	76.0	58.3	-1.7	0.0	0.0	0.0	0.0	-0.0	-68.0	-68.0
9	399190.00	4948722.00	2.58	0	8000	55.6	55.6	0.0	0.0	76.0	208.1	-1.7	0.0	0.0	0.0	0.0	-0.0	-226.8	-226.8

Point Source, ISO 9613, Name: "Mc_Trans7", ID: "Mc_Trans7"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	399297.00	4948607.00	2.58	0	32	37.3	37.3	0.0	0.0	75.5	0.1	-5.6	0.0	0.0	0.0	0.0	-0.0	-32.6	-32.6
2	399297.00	4948607.00	2.58	0	63	56.5	56.5	0.0	0.0	75.5	0.2	-5.6	0.0	0.0	0.0	0.0	-0.0	-13.5	-13.5
3	399297.00	4948607.00	2.58	0	125	68.6	68.6	0.0	0.0	75.5	0.7	4.2	0.0	0.0	0.0	0.0	-0.0	-11.8	-11.8
4	399297.00	4948607.00	2.58	0	250	71.1	71.1	0.0	0.0	75.5	1.7	2.6	0.0	0.0	0.0	0.0	-0.0	-8.7	-8.7
5	399297.00	4948607.00	2.58	0	500	76.5	76.5	0.0	0.0	75.5	3.2	-1.2	0.0	0.0	0.0	0.0	-0.0	-0.9	-0.9
6	399297.00	4948607.00	2.58	0	1000	73.7	73.7	0.0	0.0	75.5	6.1	-1.7	0.0	0.0	0.0	0.0	-0.0	-6.2	-6.2
7	399297.00	4948607.00	2.58	0	2000	69.9	69.9	0.0	0.0	75.5	16.1	-1.7	0.0	0.0	0.0	0.0	-0.0	-20.0	-20.0
8	399297.00	4948607.00	2.58	0	4000	64.7	64.7	0.0	0.0	75.5	54.7	-1.7	0.0	0.0	0.0	0.0	-0.0	-63.8	-63.8
9	399297.00	4948607.00	2.58	0	8000	55.6	55.6	0.0	0.0	75.5	195.1	-1.7	0.0	0.0	0.0	0.0	-0.0	-213.3	-213.3

Point Source, ISO 9613, Name: "RL-Sub", ID: "RL_Sub"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	399020.36	4947013.11	3.50	0	32	48.0	48.0	0.0	0.0	55.8	0.0	-3.0	0.0	0.0	0.0	0.0	-0.0	-4.8	-4.8
2	399020.36	4947013.11	3.50	0	63	67.2	67.2	0.0	0.0	55.8	0.0	-3.0	0.0	0.0	0.0	0.0	-0.0	14.4	14.4
3	399020.36	4947013.11	3.50	0	125	79.3	79.3	0.0	0.0	55.8	0.1	2.8	0.0	0.0	0.0	0.0	-0.0	20.7	20.7
4	399020.36	4947013.11	3.50	0	250	81.8	81.8	0.0	0.0	55.8	0.2	2.0	0.0	0.0	0.0	0.0	-0.0	23.9	23.9
5	399020.36	4947013.11	3.50	0	500	87.2	87.2	0.0	0.0	55.8	0.3	-0.9	0.0	0.0	0.0	0.0	-0.0	31.9	31.9
6	399020.36	4947013.11	3.50	0	1000	84.4	84.4	0.0	0.0	55.8	0.6	-0.9	0.0	0.0	0.0	0.0	-0.0	28.9	28.9
7	399020.36	4947013.11	3.50	0	2000	80.6	80.6	0.0	0.0	55.8	1.7	-0.9	0.0	0.0	0.0	0.0	-0.0	24.0	24.0
8	399020.36	4947013.11	3.50	0	4000	75.4	75.4	0.0	0.0	55.8	5.7	-0.9	0.0	0.0	0.0	0.0	-0.0	14.8	14.8
9	399020.36	4947013.11	3.50	0	8000	66.3	66.3	0.0	0.0	55.8	20.3	-0.9	0.0	0.0	0.0	0.0	-0.0	-8.9	-8.9

Point Source, ISO 9613, Name: "RL_Inv1", ID: "RL_Inv1"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	398634.91	4946758.64	2.60	0	63	68.1	68.1	0.0	0.0	66.2	0.1	-4.9	0.0	0.0	0.0	0.0	-0.0	6.7	6.7
2	398634.91	4946758.64	2.60	0	125	78.9	78.9	0.0	0.0	66.2	0.2	3.3	0.0	0.0	0.0	0.0	-0.0	9.2	9.2
3	398634.91	4946758.64	2.60	0	250	85.5	85.5	0.0	0.0	66.2	0.6	2.8	0.0	0.0	0.0	0.0	-0.0	15.9	15.9
4	398634.91	4946758.64	2.60	0	500	87.3	87.3	0.0	0.0	66.2	1.1	-1.0	0.0	0.0	0.0	0.0	-0.0	21.0	21.0
5	398634.91	4946758.64	2.60	0	1000	83.7	83.7	0.0	0.0	66.2	2.1	-1.5	0.0	0.0	0.0	0.0	-0.0	16.9	16.9
6	398634.91	4946758.64	2.60	0	2000	79.1	79.1	0.0	0.0	66.2	5.5	-1.5	0.0	0.0	0.0	0.0	-0.0	8.8	8.8
7	398634.91	4946758.64	2.60	0	4000	70.0	70.0	0.0	0.0	66.2	18.8	-1.5	0.0	0.0	0.0	0.0	-0.0	-13.5	-13.5
8	398634.91	4946758.64	2.60	0	8000	77.7	77.7	0.0	0.0	66.2	67.1	-1.5	0.0	0.0	0.0	0.0	-0.0	-54.1	-54.1

Point Source, ISO 9613, Name: "RL_Inv2", ID: "RL_Inv2"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	398599.65	4946624.33	2.60	0	63	68.1	68.1	0.0	0.0	67.4	0.1	-5.0	0.0	0.0	0.0	0.0	-0.0	5.6	5.6
2	398599.65	4946624.33	2.60	0	125	78.9	78.9	0.0	0.0	67.4	0.3	3.6	0.0	0.0	0.0	0.0	-0.0	7.7	7.7
3	398599.65	4946624.33	2.60	0	250	85.5	85.5	0.0	0.0	67.4	0.7	2.7	0.0	0.0	0.0	0.0	-0.0	14.7	14.7
4	398599.65	4946624.33	2.60	0	500	87.3	87.3	0.0	0.0	67.4	1.3	-1.1	0.0	0.0	0.0	0.0	-0.0	19.7	19.7
5	398599.65	4946624.33	2.60	0	1000	83.7	83.7	0.0	0.0	67.4	2.4	-1.5	0.0	0.0	0.0	0.0	-0.0	15.4	15.4
6	398599.65	4946624.33	2.60	0	2000	79.1	79.1	0.0	0.0	67.4	6.4	-1.5	0.0	0.0	0.0	0.0	-0.0	6.8	6.8
7	398599.65	4946624.33	2.60	0	4000	70.0	70.0	0.0	0.0	67.4	21.7	-1.5	0.0	0.0	0.0	0.0	-0.0	-17.5	-17.5
8	398599.65	4946624.33	2.60	0	8000	77.7	77.7	0.0	0.0	67.4	77.2	-1.5	0.0	0.0	0.0	0.0	-0.0	-65.4	-65.4

Point Source, ISO 9613, Name: "RL_Inv3", ID: "RL_Inv3"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	398599.65	4946512.26	2.60	0	63	68.1	68.1	0.0	0.0	68.2	0.1	-5.1	0.0	0.0	0.0	0.0	-0.0	5.0	5.0
2	398599.65	4946512.26	2.60	0	125	78.9	78.9	0.0	0.0	68.2	0.3	3.7	0.0	0.0	0.0	0.0	-0.0	6.7	6.7
3	398599.65	4946512.26	2.60	0	250	85.5	85.5	0.0	0.0	68.2	0.8	2.7	0.0	0.0	0.0	0.0	-0.0	13.9	13.9
4	398599.65	4946512.26	2.60	0	500	87.3	87.3	0.0	0.0	68.2	1.4	-1.1	0.0	0.0	0.0	0.0	-0.0	18.8	18.8
5	398599.65	4946512.26	2.60	0	1000	83.7	83.7	0.0	0.0	68.2	2.6	-1.5	0.0	0.0	0.0	0.0	-0.0	14.4	14.4

Point Source, ISO 9613, Name: "RL_Inv3", ID: "RL_Inv3"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
6	398599.65	4946512.26	2.60	0	2000	79.1	79.1	0.0	0.0	68.2	7.0	-1.5	0.0	0.0	0.0	0.0	-0.0	5.5	5.5
7	398599.65	4946512.26	2.60	0	4000	70.0	70.0	0.0	0.0	68.2	23.6	-1.5	0.0	0.0	0.0	0.0	-0.0	-20.3	-20.3
8	398599.65	4946512.26	2.60	0	8000	77.7	77.7	0.0	0.0	68.2	84.3	-1.5	0.0	0.0	0.0	0.0	-0.0	-73.2	-73.2

Point Source, ISO 9613, Name: "RL_Inv4", ID: "RL_Inv4"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	398634.96	4946355.56	2.60	0	63	68.1	68.1	0.0	0.0	69.1	0.1	-5.2	0.0	0.0	0.0	0.0	-0.0	4.1	4.1
2	398634.96	4946355.56	2.60	0	125	78.9	78.9	0.0	0.0	69.1	0.3	3.9	0.0	0.0	0.0	0.0	-0.0	5.6	5.6
3	398634.96	4946355.56	2.60	0	250	85.5	85.5	0.0	0.0	69.1	0.8	2.7	0.0	0.0	0.0	0.0	-0.0	12.9	12.9
4	398634.96	4946355.56	2.60	0	500	87.3	87.3	0.0	0.0	69.1	1.5	-1.1	0.0	0.0	0.0	0.0	-0.0	17.8	17.8
5	398634.96	4946355.56	2.60	0	1000	83.7	83.7	0.0	0.0	69.1	2.9	-1.6	0.0	0.0	0.0	0.0	-0.0	13.3	13.3
6	398634.96	4946355.56	2.60	0	2000	79.1	79.1	0.0	0.0	69.1	7.7	-1.6	0.0	0.0	0.0	0.0	-0.0	3.9	3.9
7	398634.96	4946355.56	2.60	0	4000	70.0	70.0	0.0	0.0	69.1	26.2	-1.6	0.0	0.0	0.0	0.0	-0.0	-23.7	-23.7
8	398634.96	4946355.56	2.60	0	8000	77.7	77.7	0.0	0.0	69.1	93.5	-1.6	0.0	0.0	0.0	0.0	-0.0	-83.3	-83.3

Point Source, ISO 9613, Name: "RL_Inv5", ID: "RL_Inv5"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	398843.27	4946802.43	2.60	0	63	68.1	68.1	0.0	0.0	62.2	0.0	-4.2	0.0	0.0	0.0	0.0	-0.0	10.1	10.1
2	398843.27	4946802.43	2.60	0	125	78.9	78.9	0.0	0.0	62.2	0.2	2.7	0.0	0.0	0.0	0.0	-0.0	13.9	13.9
3	398843.27	4946802.43	2.60	0	250	85.5	85.5	0.0	0.0	62.2	0.4	3.0	0.0	0.0	0.0	0.0	-0.0	19.9	19.9
4	398843.27	4946802.43	2.60	0	500	87.3	87.3	0.0	0.0	62.2	0.7	-0.8	0.0	0.0	0.0	0.0	-0.0	25.2	25.2
5	398843.27	4946802.43	2.60	0	1000	83.7	83.7	0.0	0.0	62.2	1.3	-1.3	0.0	0.0	0.0	0.0	-0.0	21.4	21.4
6	398843.27	4946802.43	2.60	0	2000	79.1	79.1	0.0	0.0	62.2	3.5	-1.3	0.0	0.0	0.0	0.0	-0.0	14.7	14.7
7	398843.27	4946802.43	2.60	0	4000	70.0	70.0	0.0	0.0	62.2	11.9	-1.3	0.0	0.0	0.0	0.0	-0.0	-2.8	-2.8
8	398843.27	4946802.43	2.60	0	8000	77.7	77.7	0.0	0.0	62.2	42.5	-1.3	0.0	0.0	0.0	0.0	-0.0	-25.7	-25.7

Point Source, ISO 9613, Name: "RL_Inv6", ID: "RL_Inv6"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	398859.09	4946623.33	2.60	0	63	68.1	68.1	0.0	0.0	64.1	0.1	-4.6	0.0	0.0	0.0	0.0	-0.0	8.5	8.5
2	398859.09	4946623.33	2.60	0	125	78.9	78.9	0.0	0.0	64.1	0.2	2.9	0.0	0.0	0.0	0.0	-0.0	11.7	11.7
3	398859.09	4946623.33	2.60	0	250	85.5	85.5	0.0	0.0	64.1	0.5	2.9	0.0	0.0	0.0	0.0	-0.0	18.1	18.1
4	398859.09	4946623.33	2.60	0	500	87.3	87.3	0.0	0.0	64.1	0.9	-0.9	0.0	0.0	0.0	0.0	-0.0	23.3	23.3
5	398859.09	4946623.33	2.60	0	1000	83.7	83.7	0.0	0.0	64.1	1.7	-1.4	0.0	0.0	0.0	0.0	-0.0	19.3	19.3
6	398859.09	4946623.33	2.60	0	2000	79.1	79.1	0.0	0.0	64.1	4.4	-1.4	0.0	0.0	0.0	0.0	-0.0	12.0	12.0
7	398859.09	4946623.33	2.60	0	4000	70.0	70.0	0.0	0.0	64.1	14.8	-1.4	0.0	0.0	0.0	0.0	-0.0	-7.5	-7.5
8	398859.09	4946623.33	2.60	0	8000	77.7	77.7	0.0	0.0	64.1	52.8	-1.4	0.0	0.0	0.0	0.0	-0.0	-37.8	-37.8

Point Source, ISO 9613, Name: "RL_Inv7", ID: "RL_Inv7"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	398859.09	4946466.53	2.60	0	63	68.1	68.1	0.0	0.0	66.2	0.1	-4.9	0.0	0.0	0.0	0.0	-0.0	6.8	6.8
2	398859.09	4946466.53	2.60	0	125	78.9	78.9	0.0	0.0	66.2	0.2	3.3	0.0	0.0	0.0	0.0	-0.0	9.2	9.2
3	398859.09	4946466.53	2.60	0	250	85.5	85.5	0.0	0.0	66.2	0.6	2.8	0.0	0.0	0.0	0.0	-0.0	16.0	16.0
4	398859.09	4946466.53	2.60	0	500	87.3	87.3	0.0	0.0	66.2	1.1	-1.0	0.0	0.0	0.0	0.0	-0.0	21.1	21.1
5	398859.09	4946466.53	2.60	0	1000	83.7	83.7	0.0	0.0	66.2	2.1	-1.5	0.0	0.0	0.0	0.0	-0.0	16.9	16.9
6	398859.09	4946466.53	2.60	0	2000	79.1	79.1	0.0	0.0	66.2	5.5	-1.5	0.0	0.0	0.0	0.0	-0.0	8.9	8.9
7	398859.09	4946466.53	2.60	0	4000	70.0	70.0	0.0	0.0	66.2	18.8	-1.5	0.0	0.0	0.0	0.0	-0.0	-13.5	-13.5
8	398859.09	4946466.53	2.60	0	8000	77.7	77.7	0.0	0.0	66.2	67.0	-1.5	0.0	0.0	0.0	0.0	-0.0	-54.0	-54.0

Point Source, ISO 9613, Name: "RL_Trans1", ID: "RL_Trans1"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	398639.91	4946758.14	2.58	0	32	37.3	37.3	0.0	0.0	66.1	0.0	-4.9	0.0	0.0	0.0	0.0	-0.0	-23.9	-23.9
2	398639.91	4946758.14	2.58	0	63	56.5	56.5	0.0	0.0	66.1	0.1	-4.9	0.0	0.0	0.0	0.0	-0.0	-4.8	-4.8
3	398639.91	4946758.14	2.58	0	125	68.6	68.6	0.0	0.0	66.1	0.2	3.3	0.0	0.0	0.0	0.0	-0.0	-1.1	-1.1
4	398639.91	4946758.14	2.58	0	250	71.1	71.1	0.0	0.0	66.1	0.6	2.8	0.0	0.0	0.0	0.0	-0.0	1.6	1.6
5	398639.91	4946758.14	2.58	0	500	76.5	76.5	0.0	0.0	66.1	1.1	-1.0	0.0	0.0	0.0	0.0	-0.0	10.3	10.3
6	398639.91	4946758.14	2.58	0	1000	73.7	73.7	0.0	0.0	66.1	2.1	-1.5	0.0	0.0	0.0	0.0	-0.0	7.0	7.0
7	398639.91	4946758.14	2.58	0	2000	69.9	69.9	0.0	0.0	66.1	5.5	-1.5	0.0	0.0	0.0	0.0	-0.0	-0.3	-0.3
8	398639.91	4946758.14	2.58	0	4000	64.7	64.7	0.0	0.0	66.1	18.7	-1.5	0.0	0.0	0.0	0.0	-0.0	-18.6	-18.6
9	398639.91	4946758.14	2.58	0	8000	55.6	55.6	0.0	0.0	66.1	66.5	-1.5	0.0	0.0	0.0	0.0	-0.0	-75.6	-75.6

Point Source, ISO 9613, Name: "RL_Trans2", ID: "RL_Trans2"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	398604.65	4946623.83	2.58	0	32	37.3	37.3	0.0	0.0	67.3	0.0	-5.0	0.0	0.0	0.0	0.0	-0.0	-25.0	-25.0
2	398604.65	4946623.83	2.58	0	63	56.5	56.5	0.0	0.0	67.3	0.1	-5.0	0.0	0.0	0.0	0.0	-0.0	-5.9	-5.9
3	398604.65	4946623.83	2.58	0	125	68.6	68.6	0.0	0.0	67.3	0.3	3.6	0.0	0.0	0.0	0.0	-0.0	-2.6	-2.6
4	398604.65	4946623.83	2.58	0	250	71.1	71.1	0.0	0.0	67.3	0.7	2.8	0.0	0.0	0.0	0.0	-0.0	0.3	0.3
5	398604.65	4946623.83	2.58	0	500	76.5	76.5	0.0	0.0	67.3	1.3	-1.1	0.0	0.0	0.0	0.0	-0.0	8.9	8.9
6	398604.65	4946623.83	2.58	0	1000	73.7	73.7	0.0	0.0	67.3	2.4	-1.5	0.0	0.0	0.0	0.0	-0.0	5.5	5.5
7	398604.65	4946623.83	2.58	0	2000	69.9	69.9	0.0	0.0	67.3	6.3	-1.5	0.0	0.0	0.0	0.0	-0.0	-2.3	-2.3
8	398604.65	4946623.83	2.58	0	4000	64.7	64.7	0.0	0.0	67.3	21.5	-1.5	0.0	0.0	0.0	0.0	-0.0	-22.7	-22.7
9	398604.65	4946623.83	2.58	0	8000	55.6	55.6	0.0	0.0	67.3	76.7	-1.5	0.0	0.0	0.0	0.0	-0.0	-87.0	-87.0

Point Source, ISO 9613, Name: "RL_Trans3", ID: "RL_Trans3"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	398604.65	4946511.76	2.58	0	32	37.3	37.3	0.0	0.0	68.1	0.0	-5.1	0.0	0.0	0.0	0.0	-0.0	-25.7	-25.7
2	398604.65	4946511.76	2.58	0	63	56.5	56.5	0.0	0.0	68.1	0.1	-5.1	0.0	0.0	0.0	0.0	-0.0	-6.6	-6.6
3	398604.65	4946511.76	2.58	0	125	68.6	68.6	0.0	0.0	68.1	0.3	3.7	0.0	0.0	0.0	0.0	-0.0	-3.5	-3.5
4	398604.65	4946511.76	2.58	0	250	71.1	71.1	0.0	0.0	68.1	0.8	2.8	0.0	0.0	0.0	0.0	-0.0	-0.5	-0.5
5	398604.65	4946511.76	2.58	0	500	76.5	76.5	0.0	0.0	68.1	1.4	-1.1	0.0	0.0	0.0	0.0	-0.0	8.1	8.1
6	398604.65	4946511.76	2.58	0	1000	73.7	73.7	0.0	0.0	68.1	2.6	-1.5	0.0	0.0	0.0	0.0	-0.0	4.5	4.5
7	398604.65	4946511.76	2.58	0	2000	69.9	69.9	0.0	0.0	68.1	6.9	-1.5	0.0	0.0	0.0	0.0	-0.0	-3.6	-3.6
8	398604.65	4946511.76	2.58	0	4000	64.7	64.7	0.0	0.0	68.1	23.5	-1.5	0.0	0.0	0.0	0.0	-0.0	-25.4	-25.4
9	398604.65	4946511.76	2.58	0	8000	55.6	55.6	0.0	0.0	68.1	83.9	-1.5	0.0	0.0	0.0	0.0	-0.0	-94.8	-94.8

Point Source, ISO 9613, Name: "RL_Trans4", ID: "RL_Trans4"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	398639.96	4946355.06	2.58	0	32	37.3	37.3	0.0	0.0	69.0	0.0	-5.2	0.0	0.0	0.0	0.0	-0.0	-26.6	-26.6
2	398639.96	4946355.06	2.58	0	63	56.5	56.5	0.0	0.0	69.0	0.1	-5.2	0.0	0.0	0.0	0.0	-0.0	-7.4	-7.4
3	398639.96	4946355.06	2.58	0	125	68.6	68.6	0.0	0.0	69.0	0.3	3.9	0.0	0.0	0.0	0.0	-0.0	-4.6	-4.6
4	398639.96	4946355.06	2.58	0	250	71.1	71.1	0.0	0.0	69.0	0.8	2.7	0.0	0.0	0.0	0.0	-0.0	-1.5	-1.5
5	398639.96	4946355.06	2.58	0	500	76.5	76.5	0.0	0.0	69.0	1.5	-1.1	0.0	0.0	0.0	0.0	-0.0	7.0	7.0
6	398639.96	4946355.06	2.58	0	1000	73.7	73.7	0.0	0.0	69.0	2.9	-1.6	0.0	0.0	0.0	0.0	-0.0	3.3	3.3
7	398639.96	4946355.06	2.58	0	2000	69.9	69.9	0.0	0.0	69.0	7.7	-1.6	0.0	0.0	0.0	0.0	-0.0	-5.3	-5.3
8	398639.96	4946355.06	2.58	0	4000	64.7	64.7	0.0	0.0	69.0	26.1	-1.6	0.0	0.0	0.0	0.0	-0.0	-28.9	-28.9
9	398639.96	4946355.06	2.58	0	8000	55.6	55.6	0.0	0.0	69.0	93.1	-1.6	0.0	0.0	0.0	0.0	-0.0	-105.0	-105.0

Point Source, ISO 9613, Name: "RL_Trans5", ID: "RL_Trans5"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	398838.27	4946802.93	2.58	0	32	37.3	37.3	0.0	0.0	62.3	0.0	-4.3	0.0	0.0	0.0	0.0	-0.0	-20.8	-20.8
2	398838.27	4946802.93	2.58	0	63	56.5	56.5	0.0	0.0	62.3	0.0	-4.3	0.0	0.0	0.0	0.0	-0.0	-1.6	-1.6
3	398838.27	4946802.93	2.58	0	125	68.6	68.6	0.0	0.0	62.3	0.2	2.7	0.0	0.0	0.0	0.0	-0.0	3.4	3.4
4	398838.27	4946802.93	2.58	0	250	71.1	71.1	0.0	0.0	62.3	0.4	3.0	0.0	0.0	0.0	0.0	-0.0	5.4	5.4
5	398838.27	4946802.93	2.58	0	500	76.5	76.5	0.0	0.0	62.3	0.7	-0.8	0.0	0.0	0.0	0.0	-0.0	14.3	14.3
6	398838.27	4946802.93	2.58	0	1000	73.7	73.7	0.0	0.0	62.3	1.4	-1.3	0.0	0.0	0.0	0.0	-0.0	11.3	11.3
7	398838.27	4946802.93	2.58	0	2000	69.9	69.9	0.0	0.0	62.3	3.5	-1.3	0.0	0.0	0.0	0.0	-0.0	5.3	5.3
8	398838.27	4946802.93	2.58	0	4000	64.7	64.7	0.0	0.0	62.3	12.1	-1.3	0.0	0.0	0.0	0.0	-0.0	-8.4	-8.4
9	398838.27	4946802.93	2.58	0	8000	55.6	55.6	0.0	0.0	62.3	43.0	-1.3	0.0	0.0	0.0	0.0	-0.0	-48.4	-48.4

Point Source, ISO 9613, Name: "RL_Trans6", ID: "RL_Trans6"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	398854.09	4946623.83	2.58	0	32	37.3	37.3	0.0	0.0	64.1	0.0	-4.6	0.0	0.0	0.0	0.0	-0.0	-22.3	-22.3
2	398854.09	4946623.83	2.58	0	63	56.5	56.5	0.0	0.0	64.1	0.1	-4.6	0.0	0.0	0.0	0.0	-0.0	-3.1	-3.1
3	398854.09	4946623.83	2.58	0	125	68.6	68.6	0.0	0.0	64.1	0.2	2.9	0.0	0.0	0.0	0.0	-0.0	1.3	1.3
4	398854.09	4946623.83	2.58	0	250	71.1	71.1	0.0	0.0	64.1	0.5	2.9	0.0	0.0	0.0	0.0	-0.0	3.6	3.6
5	398854.09	4946623.83	2.58	0	500	76.5	76.5	0.0	0.0	64.1	0.9	-0.9	0.0	0.0	0.0	0.0	-0.0	12.4	12.4
6	398854.09	4946623.83	2.58	0	1000	73.7	73.7	0.0	0.0	64.1	1.7	-1.4	0.0	0.0	0.0	0.0	-0.0	9.3	9.3
7	398854.09	4946623.83	2.58	0	2000	69.9	69.9	0.0	0.0	64.1	4.4	-1.4	0.0	0.0	0.0	0.0	-0.0	2.7	2.7
8	398854.09	4946623.83	2.58	0	4000	64.7	64.7	0.0	0.0	64.1	14.9	-1.4	0.0	0.0	0.0	0.0	-0.0	-13.0	-13.0
9	398854.09	4946623.83	2.58	0	8000	55.6	55.6	0.0	0.0	64.1	53.1	-1.4	0.0	0.0	0.0	0.0	-0.0	-60.3	-60.3

Point Source, ISO 9613, Name: "RL_Trans7", ID: "RL_Trans7"																			
Nr.	X	Y	Z	Refl.	Freq.	LxT	LxN	K0	Dc	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	LrT	LrN
	(m)	(m)	(m)		(Hz)	dB(A)	dB(A)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)	dB(A)
1	398854.09	4946467.03	2.58	0	32	37.3	37.3	0.0	0.0	66.2	0.0	-4.9	0.0	0.0	0.0	0.0	-0.0	-24.0	-24.0
2	398854.09	4946467.03	2.58	0	63	56.5	56.5	0.0	0.0	66.2	0.1	-4.9	0.0	0.0	0.0	0.0	-0.0	-4.9	-4.9
3	398854.09	4946467.03	2.58	0	125	68.6	68.6	0.0	0.0	66.2	0.2	3.3	0.0	0.0	0.0	0.0	-0.0	-1.2	-1.2
4	398854.09	4946467.03	2.58	0	250	71.1	71.1	0.0	0.0	66.2	0.6	2.8	0.0	0.0	0.0	0.0	-0.0	1.5	1.5
5	398854.09	4946467.03	2.58	0	500	76.5	76.5	0.0	0.0	66.2	1.1	-1.0	0.0	0.0	0.0	0.0	-0.0	10.2	10.2
6	398854.09	4946467.03	2.58	0	1000	73.7	73.7	0.0	0.0	66.2	2.1	-1.5	0.0	0.0	0.0	0.0	-0.0	6.9	6.9
7	398854.09	4946467.03	2.58	0	2000	69.9	69.9	0.0	0.0	66.2	5.6	-1.5	0.0	0.0	0.0	0.0	-0.0	-0.4	-0.4
8	398854.09	4946467.03	2.58	0	4000	64.7	64.7	0.0	0.0	66.2	18.9	-1.5	0.0	0.0	0.0	0.0	-0.0	-18.9	-18.9
9	398854.09	4946467.03	2.58	0	8000	55.6	55.6	0.0	0.0	66.2	67.3	-1.5	0.0	0.0	0.0	0.0	-0.0	-76.4	-76.4

Appendix G

CadnaA Electronic Modeling Files

Electronic File to be sent by email when requested