Appendix B

Noise Assessment

DILLON CONSULTING

Invenergy

Noise Study Report

Proposed Upgrade of the St. Clair Energy Centre

July 2023 - 22-5016

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Acronyms and Abbreviations

Acronym	Description
°C	Degrees Celsius
°F	Degrees Fahrenheit
ANSI	Area of Natural or Scientific Interest
BTU	British Thermal Unit
dB	Decibels
dBA	A weighted scale of decibels adjusted to reflect the response of the human ear
Dillon	Dillon Consulting
DLN	Dry Low NO_x
EA	Environmental Assessment
EPA	Environmental Protection Act
ERR	Environmental Review Report
ESA	Environmentally Sensitive Area
g	Gram
GE	General Electric
Guide	MECP noise guideline document – NPC-300
HRSG	heat recovery steam generator
HVAC	Heating, ventilation, air conditioning
Hydro One	Hydro One Networks Inc.
IESO	Independent Electricity System Operator
kg	kilogram (1000 grams)
Km	Kilometre
kV	kilovolt
kW	kilowatt
kWh	kilowatt-hour
L	Litre
lb	pound
L_{eq}	Equivalent sound level
m	metre

Acronym	Description
MMBtu	Million British Thermal Units
MNR	Ontario Ministry of Natural Resources
Model By-Law	Model Municipal Noise Control By-Law
MECP	Ontario Ministry of the Environment, Conservation and Parks
MW	Megawatt
MWh	Megawatt-hour
O.Reg.	Ontario Regulation
ROW	Right-of-Way

Executive Summary

This Noise Study Report has been prepared as a technical supporting documentation to the Environmental Review Report for the proposed upgrade project at the existing St Clair Energy Centre. This analysis completed in this report are based on the information provided and/or approved by the proponent. The assessment has been completed in accordance with the applicable guidelines and requirements outlined in the Noise Pollution Control (NPC) publications of the Ontario Ministry of the Environment, Conservation and Parks, including NPC-300, NPC-103, NPC-104 and NPC-232. The guidelines were used to conduct noise monitoring to determine the acoustical environment of the area and to noise modelling to determine Points of Reception noise impacts associated with normal operations of the facility with the proposed project.

Based on site reconnaissance and ambient noise monitoring, it was determined that the existing/background sound environment in the area was elevated (higher than MECP daytime and nighttime limits for Class 1 Area) in two out of the three receptor locations as a result of existing heavy industrial operations and road traffic. The minimum daytime and nighttime values measured at the receptor locations were used as performance limits for two receptors to the south of Petrolia Line and the MECP's criteria were used as the performance limits for the one receptor north of Petrolia Line.

As confirmed by the turbine manufacturer (i.e., GE), the proposed upgrades to the facility are not expected to result in a detectable change in noise emissions from the facility. As such, with the proposed upgrades, no additional noise mitigation measures are determined to be needed in order to achieve compliance.

Model results indicate that the predicted receptor sound levels are less than the corresponding performance limits. Thus the proposed upgrade to the facility will be in compliance during the worst-case operating conditions.

The construction phase of the proposed upgrade is limited to 45 days and will occur when the facility is shut down for maintenance. The use of construction equipment is expected to be limited to one or two cranes and other typical construction equipment. The construction activities will occur mainly during daytime hours and are not expected

to result in a notable noise impact at the nearby receptors. For the construction phase the facility will adhere to any applicable municipal noise control by-law.

1.0 Introduction and Background

1.1 Background

After more than a decade of strong supply, Ontario is entering a period of emerging electricity system needs, driven by increasing demand, the retirement of the Pickering nuclear plant, the refurbishment of other nuclear generating units, as well as expiring contracts for existing facilities. Recognizing the necessity to address these needs in a timely, cost-effective and flexible manner, the Independent Electricity System Operator (IESO) has engaged with stakeholders in the development of a Resource Adequacy Framework.

To address these needs, the IESO is seeking to competitively secure 4,000 megawatts (MW) of capacity through a series of complementary expedited procurement processes, which includes the Same Technology Upgrades Solicitation. The 2022 Annual Acquisition Report and the Resource Eligibility Interim Report describe these mechanisms and needs in more detail.

It is expected that upgrades and efficiency improvements to existing contracted facilities, contemplated as part of the Same Technology Upgrades Solicitation, will provide for the timeliest and most cost-effective capacity increases to the electricity system. The streamlined process aims to incent additional output from existing dispatchable resources that can deliver a continuous amount of electricity for at least eight consecutive hours, and is expected to be in service between 2025 and May 1, 2026.

In the fall of 2022, existing suppliers such as the St. Clair Energy Centre, were invited to make submissions to the IESO to increase the capacity of their facility by means of a permitted upgrade. An eligible permitted upgrade is generally defined by the IESO as the following:

- An incremental increase to the generation capacity of the facility including both the existing contract capacity and any existing uncontracted capacity;
- Uses substantially the same technology and fuel type as the existing facility that does not involve the installation of new generating equipment except where such new generating equipment is a replacement or upgrade of existing generating equipment;

- Is at the same connection point(s) as the existing facility;
- Will be dispatchable with load-following capability for a minimum of eight hours; and,
- Is expected to have an in-service date between 2025 and May 1, 2026.

1.2 The Proponent

Invenergy is the world's largest privately held developer, owner, and operator of sustainable energy solutions. Headquartered in Chicago, with Canadian offices in Toronto and Montreal, Invenergy is proud to have significant Canadian investment through our long-standing partnership with Quebec's pension fund, Caisse de Dépôt et Placement du Québec (CDPQ). Since 2005, Invenergy has commissioned over 1 gigawatt of power projects in Ontario and Quebec. These projects include wind, solar, and natural gas facilities and have generated significant financial investments in the local communities where they are located.

Globally, Invenergy invests C$348 million annually in the home communities where its projects are located via the creation of high-quality jobs, lease payments, and local taxes. The company has successfully developed more than 200 projects worldwide, totaling over 30,000 MW, including wind, solar, transmission infrastructure, natural gas power generation, and advanced energy storage projects.

1.3 Project Overview

1.3.1 Existing Facility

The St. Clair Energy Centre (Facility) is a 584-megawatt combined-cycle natural gas turbine generation facility. The Energy Centre is located in St. Clair Township, in the province of Ontario, Canada and began operations in 2009. The Facility is located at 790 Petrolia Line, Corunna. **Figure 1** shows the Study Area and property boundary.

Power generated from the Facility is transported to the provincial electrical transmission network through an onsite transformer station, where it is eventually delivered and utilized by consumers.

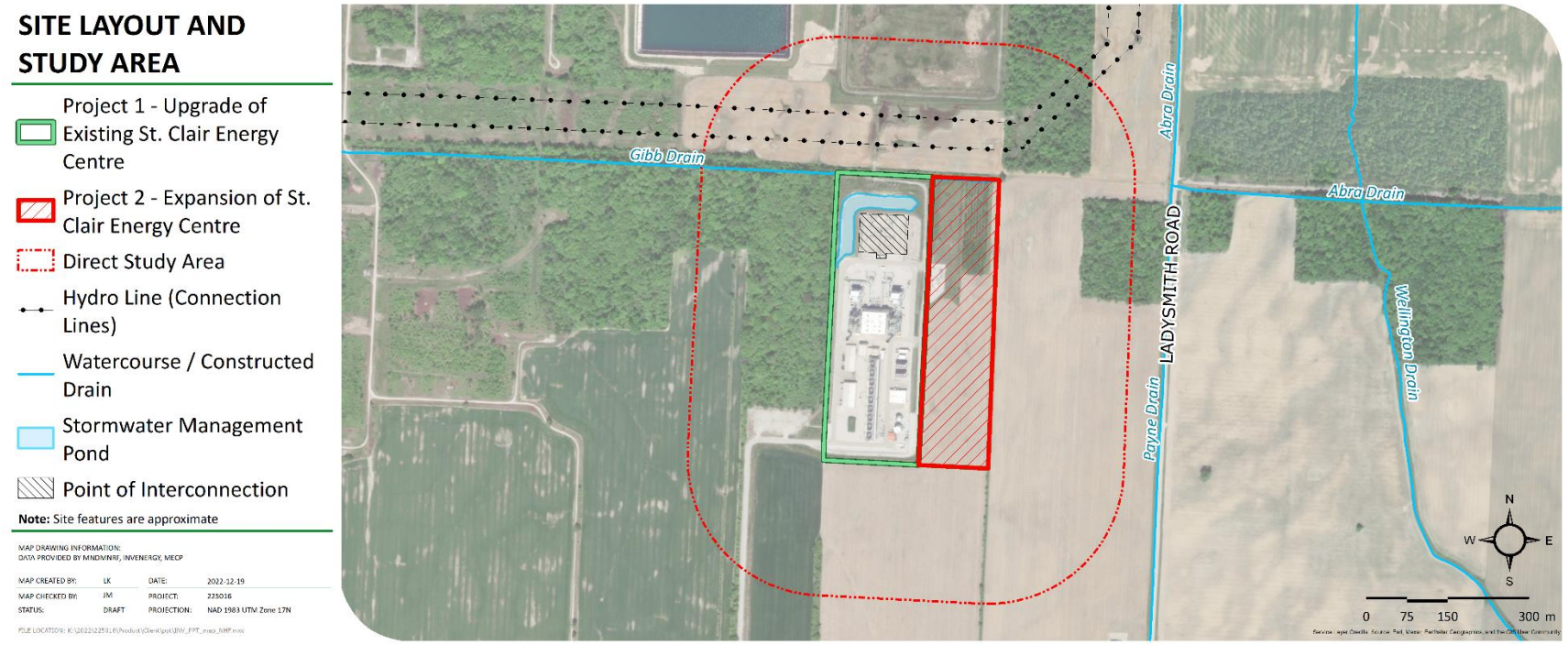


Figure 1: Study Area and Property Boundary

1.3.2 Proposed Upgrade Overview

Invenergy is proposing to upgrade the facility to generate an additional 70-80 megawatts (MW) of electricity and assist the province of Ontario's emerging electricity system needs. The proposed upgrade will involve the installation of upgraded equipment associated with the gas turbine generators and its auxiliary equipment. The upgraded equipment will enable the firing temperature of the two gas turbine generators to be increased, thereby increasing the base load generation capability. Additionally, increased exhaust thermal energy will enable additional steam generation capability and thus increase output in the two steam turbine generators.

2.0 Description of the Proposed Upgrades

The proposed upgrade to the St. Clair Energy Centre includes an Advanced Gas Path ("AGP") and Dry Low NOx ("DLN) 2.6+ combustor upgrade, herein referenced as the Upgrade(s)", of the facility's two existing General Electric ("GE") 7FA gas turbine generators and associated equipment. The upgrades enable the firing temperature of the gas turbine generators to be increased, thereby increasing the base load generation capability. Additionally, increased exhaust energy will enable more steam generation capability in the Heat Recovery Steam Generators ("HRSGs"), and thus increased output in the two steam turbine generators.

To support this increased capacity and prevent any bottlenecks with the Balance of Plant (BOP) equipment, these Upgrades will be accompanied by improvements to the plants Reverse Osmosis System (RO) and the replacement of the HRSGs reheat control valves to increase attemperation of steam to accommodate higher gas turbine exhaust thermal energy. Due to the increase in plant electrical generating capacity, an upgrade of the Generator Step-Up ("GSU") transformers is required to transfer electrical energy produced to the provincial grid.

2.1 Gas Turbine and Balance of Plant Equipment Upgrades

A description of gas turbine and balance of plant equipment retrofit required to achieve the planned St. Clair Energy Centre Upgrade are described below.

2.1.1 Gas Turbine Generators

GE proprietary AGP and DLN2.6+ upgrades to existing gas turbine generators, will refine aerodynamics through better sealing, creating higher efficiency performance. Components replaced will use advanced materials that are more durable and reduced overall component stress. Cooling technology in the turbines will be replaced and allow higher operating temperatures and increase energy output. This proposed change is not expected to impact the noise emissions from the facility (see **Appendix E**).

2.1.2 HRSG Reheat Control Valves

Upgrading of attemperation systems will be completed to maintain steam temperatures below the protection limits of downstream piping and equipment. This proposed change is not expected to impact the noise emissions from the facility (see **Appendix E**).

2.1.3 Reverse Osmosis System Upgrade

The volume of purified water output will be increased from 50 to 100 gallons per minute to allow for sufficient make-up of losses in the water-steam cycle during startup, shutdown, and normal operations. This proposed change will not impact noise emissions from the facility.

2.1.4 Generator Step-Up Transformers

The two existing GSU transformers, each with a rating of 370 megavolt amperes (MVA), will be replaced with two upgraded GSU transformers, each with a rating of 400 MVA. The increased MVA rating is necessary to facilitate the increased generation of the facility. These units will be of a roughly similar size and positioned in a similar location as the current GSUs. For the purposes of this assessment, it is assumed that the new replacement transformers will have noise levels that do not exceed the current sound power level of approximately 112 dB (excluding the 5 dB tonal penalty). Given the power ratings of the proposed transformers (i.e., 400 MVA), the assigned noise level is considered to be reasonable.

2.2 Interconnection

Modification to the adjacent interconnection gear is not anticipated at this time but will be further studied during detailed engineering prior to construction to accommodate the new GSUs being installed. No change to the circuits the facility interconnects to is anticipated. A Connection Impact Assessment will be undertaken in collaboration with Hydro One Networks Inc to update the facility's Transmission Connection Agreement with the increased capacity. This proposed change is not expected to impact the noise emissions from the facility.

2.3 Natural Gas Supply

Natural gas for the St. Clair Energy Centre is supplied by Enbridge, using existing distribution infrastructure. Peak consumption of the existing facility is approximately 108,000 MMBTU a day. Once the upgrade is in service, it is anticipated that peak daily consumption may rise to approximately 116,500 MMBTU, which is an increase of 8,500 MMBTU a day. The existing natural gas fuel delivery system for St. Clair Energy Centre includes a lateral pipe from the Enbridge system and a gas metering and control system, which is situated northeast of the facility outside the fenced area. Enbridge is responsible for the maintenance and operation of the existing lateral pipeline, gas metering and control equipment. Natural gas is supplied to the existing facility at sufficiently high pressure to meet the increased natural gas needs of the Upgrade and there is no need for additional gas compression or other changes to natural gas delivery infrastructure. This proposed change is not expected to impact the noise emissions from the facility.

2.4 Other Facility Components

Other than the gas turbine and balance of plant equipment upgrades as well as the volume of natural gas supply described above, no other changes to the facilities equipment or operations are anticipated to be required to enable the St. Clair Energy Centre Upgrade.

3.0 Noise Criteria and Existing Noise Environment

3.1 Noise Criteria

MECP Publication NPC-300 outlines applicable noise criteria for industrial and commercial stationary noise sources. The noise criteria are defined using area classifications, which are based on the receptor's existing acoustical environment. NPC-300 classification are as follows:

"Class 1 area"

> Means an area with an acoustical environment typical of a major population centre, where the background sound level is dominated by the activities of people, usually road traffic, often referred to as "urban hum."

"Class 2 area"

> Means an area with an acoustical environment that has qualities representative of both Class 1 and Class 3 areas as follows: sound levels characteristic of Class 1 during daytime (07:00 to 19:00 or to 23:00 hours); and, low evening and night background sound level defined by natural environment and infrequent human activity starting as early as 19:00 hours (19:00 or 23:00 to 07:00 hours).

"Class 3 area"

> Means a rural area with an acoustical environment that is dominated by natural sounds having little or no road traffic, such as: a small community; agricultural area; a rural recreational area such as a cottage or a resort area; or a wilderness area.

"Class 4 area"

> Means an area or specific site that would otherwise be defined as Class 1 or 2 and is an area intended for development with new noise sensitive land use(s) that are not yet built; is in proximity to existing, lawfully established stationary source(s); and, has formal confirmation from the land use planning authority with the Class 4 area classification which is determined during the land use planning process. Additionally, areas with existing noise sensitive land use(s) cannot be classified as Class 4 areas.

The MECP exclusionary sound level limits (1-hour L_{eq}) for stationary noise sources, per each area classification are presented in **Table 1**.

Table 1: Exclusionary Limits for Stationary Noise Sources

Assessment Location	Time Period	Exclusionary Sound Level Limit – L_{eq} 1hr			
		Class 1	Class 2	Class 3	Class 4
Plane of window for living area or sleeping quarters	Daytime (07:00 – 19:00)	50 dBA	50 dBA	45 dBA	60 dBA
	Evening (19:00 – 23:00)	50 dBA	50 dBA	40 dBA	60 dBA
	Nighttime (23:00 – 07:00)	45 dBA	45 dBA	40 dBA	55 dBA
Outdoor points of reception	Daytime (07:00 – 19:00)	50 dBA	50 dBA	45 dBA	55 dBA
	Evening (19:00 – 23:00)	50 dBA	45 dBA	40 dBA	55 dBA

Sound levels from steady stationary noise sources (such as the St Clair facility) are quantified in terms of A-weighted energy equivalent sound level, L_{eq}. The areas surrounding the facility can be best described as a 'Class 1 Area' with ambient noise being impacted by existing industrial activities (heavy industry such as oil refinery) in the area as well as transportation noise (i.e., road traffic noise).

For a Class 1 Area, during daytime and evening hours (i.e., 7 a.m. to 11 p.m.), the limit at a noise-sensitive receptor (e.g., plane of window of a residential dwelling), for steady noise from a stationary source is the higher of either the lowest one-hour L_{eq} (ambient noise level) resulting from road traffic and any industry which is not under investigation for noise impact, or 50 dBA. During nighttime hours (11 p.m. to 7 a.m.), the sound level limit is the higher of either the ambient (road traffic plus industry) one-hour L_{eq} noise level or 45 dBA. For outdoor Points of Reception (PORs) such as backyards/front yards, the same noise limits as plane of window apply, however, the limits are for daytime and evening hours only.

Emergency equipment, such as emergency generators and fire pumps operating in an emergency scenario are exempt from the applicable noise limits. When operated for equipment maintenance purposes (i.e., TSSA requirement for emergency equipment testing, 1 hour per month or 30 minutes every two weeks), the limits (daytime/evening/ nighttime) are 5 dBA above the applicable steady state limits, as stated above.

3.2 Point of Reception [Receptor]

The MECP noise publication NPC-300 provides the following definition for Point of Reception (POR) [also referred to as receptor in this report]:

- POR is any location on a noise sensitive land use where noise from a stationary source is received. Noise sensitive land uses may have one or more points of reception. Here is a list of locations that are considered PORs and are to be assessed for noise impact for stationary noise source(s):
  - Location outdoors within 30 m of a façade of a dwelling, at a height of 1.5 m above ground, typically in backyards, front yards, terraces or patios;
  - Common outdoor amenity area for multi-unit high rise buildings such as unenclosed balconies and elevated terraces (e.g., rooftops) with a minimum depth of 4 m;
  - Location within 30 m of a portion of property that is used as a campsite or campground;
  - Location in the centre of any window on a noise sensitive space of a dwelling or a building used for a noise sensitive institutional purpose or a noise sensitive commercial purpose;
  - If the construction of a building or structure on the property of a noise sensitive land use has not commenced but an approval under section 41 of the Planning Act or a building permit under section 8 of the Building Code Act, 1992 has been issued in respect of the building or structure, the locations described in paragraph 1, 2 or 4 above apply; and,
  - Location on a noise sensitive zoned lot, other than an inaccessible vacant lot, in respect of which no approval or building permit for a building or structure mentioned in paragraph 5 above has been issued, described by the following:
    a) If the area of the vacant lot is smaller than 1 hectare (10,000 m²), the location of the point of reception should be approximately in the centre of the vacant lot, having regard for the existing zoning by-law, the typical building pattern in the area and an appropriate or likely future use of the vacant lot, at a height of 4.5 metres above ground; and,
    b) If the area of the vacant lot is greater than 1 hectare (10,000 m²), the area of the vacant lot for noise assessment purposes should be considered limited to 1 hectare (10,000 m²). This 1 hectare portion of the vacant lot should be consistent with the existing zoning by-law, the typical building pattern in the

area and an appropriate or likely future use of the vacant lot. The location of the point of reception is the centre of this 1 hectare portion of the vacant lot, at a height of 4.5 m above ground.

For the purposes of this assessment, existing and approved land uses in the area were reviewed and three PORs to the south of the property were identified as the closest Points of Reception to the Facility. If the Facility can demonstrate compliance at the identified nearest PORs, the applicable criteria will be met at all other receptors that are located further away from the Facility. It is noted that there are no PORs within 1.5 km of the Facility in north, east and west cardinal directions from the Facility.

3.3 Existing Sound Environment – Baseline

As part of this assessment, an ambient noise monitoring campaign was undertaken at the nearest relevant PORs between April 25, 2023, and April 27, 2023. The ambient noise monitoring campaign consisted of long-term ambient noise monitoring at the nearest PORs (at approximately 900 m south of the Facility). The ambient noise monitoring was carried out during plant shutdown period to ensure operations at the Facility are not impacting the measured ambient noise levels. Two RION Model NL-52 Type I noise level analyzers were used for the ambient noise monitoring campaign. In addition to laboratory calibrated, the analyzers were field calibrated using a Larson-Davis 114.0 dB, @ 1 kHz acoustic calibrator prior to setup and at the end of the monitoring campaign. The certificates of Calibration for the two NL-52 units are provided in **Appendix C**. Also provided in this appendix are the measured hourly sound levels at the two monitoring locations.

The weather during the monitoring campaign consisted of mix of sun and cloud, with temperatures ranging between 1°C and 8°C, and generally calm conditions (low winds). The meteorological data for the monitoring period is provided in **Appendix C** of the Noise Assessment Report.

The minimum hourly background (ambient) sound levels for daytime, evening and nighttime periods, measured at the two monitoring locations are summarized in **Table 2**. As explained above, the applicable performance limit would be the higher of the existing ambient noise level (measured for this assessment) or the MECP's exclusionary limits.

Table 2: Hourly Ambient Noise Monitoring Results

POR	Time of Day	Minimum Measured Hourly Leq (dBA)
R2	07:00 – 19:00	49
	19:00 – 23:00	37.3
	23:00 – 07:00	33.7
R1/R3	07:00 – 19:00	60.4
	19:00 – 23:00	54.2
	23:00 – 07:00	45.3

4.0 Assessment of Noise Impacts

4.1 Noise Performance Limits

As explained in sub-section 3.2.2, the applicable performance limit is the higher of the existing ambient noise level (measured for this assessment) or the MECP's exclusionary limits. For the three identified closest receptors, the applicable performance limits are presented in '**bold**' in **Table 3**.

Table 3: Noise Performance Limits

POR	Time of Day	Equivalent Sound Level Limit, Leq (1-hour) [dBA]	
		Exclusionary Limit	Minimum Background Sound Level
R2	07:00 – 19:00	**50**	49
	19:00 – 23:00	**50**	37.3
	23:00 – 07:00	**45**	33.7
R1/R3	07:00 – 19:00	50	**60.4**
	19:00 – 23:00	50	**54.2**
	23:00 – 07:00	45	**45.3**

Note: Applicable performance limits are shown in **bold**.

4.2 Noise Propagation Modelling

The noise impact at the identified representative PORs, associated with the operations of the Facility (including the proposed upgrades) were determined through noise propagation modelling. Sound power levels for dominant on-site noise sources were used as input to a noise propagation model to predict receptor noise levels. CADNA/A computer software, developed by DataKustik GmbH, was used to determine receptor noise levels. This outdoor noise propagation model is based on ISO Standard 9613, Part 1: Calculation of the absorption of sound by the atmosphere, 1993 and Part 2: General method of calculation (ISO-9613-2:1996). The model is capable of incorporating various site specific features, such as elevation, berms, absorptive grounds, and barriers to accurately predict noise levels at specific receptors, pertaining to noise emissions from a particular source/sources. The ISO-based model accounts for reduction in sound level due to increased distance and geometrical spreading, air absorption, ground attenuation, and acoustical shielding by intervening structures and topography. The

model is considered conservative as it represents atmospheric conditions that promote propagation of sound from source to receiver.

The following propagation assumptions and considerations were incorporated in the model:

Reflections

Conservatively, noise sources were modelled assuming a third order of reflection.

Ground Absorption

A ground absorption coefficient of 0.50 was used for areas with aggregates (mainly within the Facility property boundary), and 0.70 for the more absorptive vegetated lands between the Facility and the surrounding areas.

Sound Quality

Several of the dominant onsite noise sources emit noise with tonal characteristics. As such, a +5 dB tonal penalty was applied to these noise sources (see Table 9).

Source Operating Time

The majority of noise sources at the Facility were assumed to operate simultaneously and on continuous basis for the duration of at least one hour during daytime, evening and/or nighttime periods.

Topography

The site and surrounding area are generally flat. As such, land topography was not incorporated in the modelling domain.

Operating Mode

In addition to start-up, shutdown and steady-state operation, the Facility can also operate under winter maintenance mode where two heaters are used to keep the HRSGs warm during cold winter months, or emergency equipment maintenance mode for testing of emergency fire-water pump or emergency generator. The assessment of impact for various operating modes are presented in the Noise Study Report Technical Supporting Document. For the purposes of the ERR, the results for the worst-case

operating scenario (i.e., start-up and steady-state operation) and operation of fire-water pump are presented herein.

4.3 Noise Sources

The dominant noise sources for the Facility and the associated sound power levels are summarized in **Table 4**. There are no new dominant noise sources that will be added to the Facility as a result of the proposed upgrades. The locations of the dominant noise sources are presented in **Figure 2**.

Table 4: Noise Source Summary Table

Source ID	Source Description	Sound Power Level (dB)
CCT1	Chiller Cooler 1	115.3
CCT2	Chiller Cooler 2	115.3
CT1	CT Fan	105.9
CT2	CT Fan	105.9
CT3	CT Fan	105.9
CT4	CT Fan	105.9
CT5	CT Fan	105.9
CT6	CT Fan	105.9
CT7	CT Fan	105.9
CT8	CT Fan	105.9
CT9	CT Fan	105.9
CTG-3	CGT3 HRSG Stack Outlet	112.1
CTG-4	CGT4 HRSG Stack Outlet	112.1
DPH-3	CGT3 Dew Point Heater Exhaust Stack	116.7
DPH-4	CGT4 Dew Point Heater Exhaust Stack	116.7
HRSG3_Heater	HRSG Mobile Heater	105.5
HRSG4_Heater	HRSG Mobile Heater	105.5
NS-01	East Transformer	111.6
NS-02	West Transformer	111.6
NS-03	CGT Pump (1 operating, 1 redundant)	99.9
NS-04	Circ Pump Building Rooftop Exhaust Fans (sum of 2)	106.3
NS-05	Circ Pump Building North OH Door	89.3
NS-06	Steam Turbine Building Condenser Vac Pump Outlet	109.2
NS-07	Steam Turbine Building South Wall Louvres (sum of 4)	102.1

Source ID	Source Description	Sound Power Level (dB)
NS-08	Steam Turbing Building SW Overhead Door	92.4
NS-09	Steam Turbing Building SE Overhead Door	92.4
NS-10	Steam Turbine Building South Mid OH Door	103.9
NS-11	Steam Turbine Building North Wall Louvres (sum of 3)	104.4
NS-12	Steam Turbing Building NE Overhead Door	107.5
NS-13	Steam Turbing Building NW Overhead Door	107.5
NS-14	*Steam Turbing Building West Wall Louvres (sum of 5)	108.3
NS-15	*Steam Turbing Building East Wall Louvres (sum of 5)	112.8
NS-16	West Cooling Tower Side Inlet	90.4
NS-17	East Cooling Tower Side Inlet	109.4
NS3-01	CGT3 Exhaust Duct East Barrier Wall	98.5
NS3-02	CGT3 Exhaust Duct West Barrier Wall	98.5
NS3-03	CGT3 Enclosure	102.1
NS3-04	CGT3 Enclosure Exhaust Fans (Sum of 2)	112.5
NS3-05	CGT3 Enclosure Ventilation Intake Unit	110.8
NS3-06	CGT3 Generator (Enclosure Walls)	105.4
NS3-07	CGT3 Inlet	105.3
NS3-09	CGT3 Dew Point Heater Combustion Fan	90.5
NS3-10	CGT3 Duct Burner Valve Unit	100.1
NS3-11	CGT3 Unlagged Pipe along W side of encl	93.4
NS3-12	CGT3 Air Processor	104.9
NS3-13	HRSG3 Walls & Roof	107.5
NS3-14	HRSG3 Superheated Steam Piping	114.9
NS3-15	HRSG3 HP Blowdown Vents (sum of 2)	110.1
NS3-16	HRSG3 Boiler Blowdown System Exhaust	102.5
NS3-17	HRSG3 Pipe to LP Sky Vent	112.0
NS3-18	CGT3 Exhaust Duct	109.7
NS3-19	CGT3 Intake Duct	109.0
NS3-20	HRSG3 Sound from Underside (thru gap)	103.7
NS3-21	CGT3 Duct Burner Gas Piping	103.8
NS3-22	HRSG3 Exhaust Stack Wall	102.4
NS4-01	CGT4 Exhaust Duct East Barrier Wall	98.5
NS4-02	CGT4 Exhaust Duct West Barrier Wall	98.5
NS4-03	CGT4 Enclosure	102.1
NS4-04	CGT4 Enclosure Exhaust Fans (Sum of 2)	112.5
NS4-05	CGT4 Enclosure Ventilation Intake Unit	115.8

Source ID	Source Description	Sound Power Level (dB)
NS4-06	CGT4 Generator (Enclosure Walls)	110.4
NS4-07	CGT4 Inlet	110.3
NS4-09	CGT4 Dew Point Heater Combustion Fan	90.5
NS4-10	CGT4 Duct Burner Valve Unit	100.1
NS4-11	CGT4 Unlagged Pipe along W side of end	93.4
NS4-12	CGT4 Air Processor	104.9
NS4-13	HRSG4 Walls & Roof	107.5
NS4-14	HRSG4 Superheated Steam Piping	114.9
NS4-15	HRSG4 HP Blowdown Vents (sum of 2)	110.1
NS4-16	HRSG4 Boiler Blowdown System Exhaust	102.5
NS4-17	HRSG4 Pipe to LP Sky Vent	112.0
NS4-18	CGT4 Exhaust Duct	109.7
NS4-19	CGT4 Intake Duct	109.0
NS4-20	HRSG4 Sound from Underside (thru gap)	103.7
NS4-21	CGT4 Duct Burner Gas Piping	103.8
NS4-22	HRSG4 Exhaust Stack Wall	102.4
FP-1	Diesel Firewater Emergency Pump (Exhaust)	103.6

Note: 5 dB tonal penalty is not included in the linear sound power levels presented in this table.

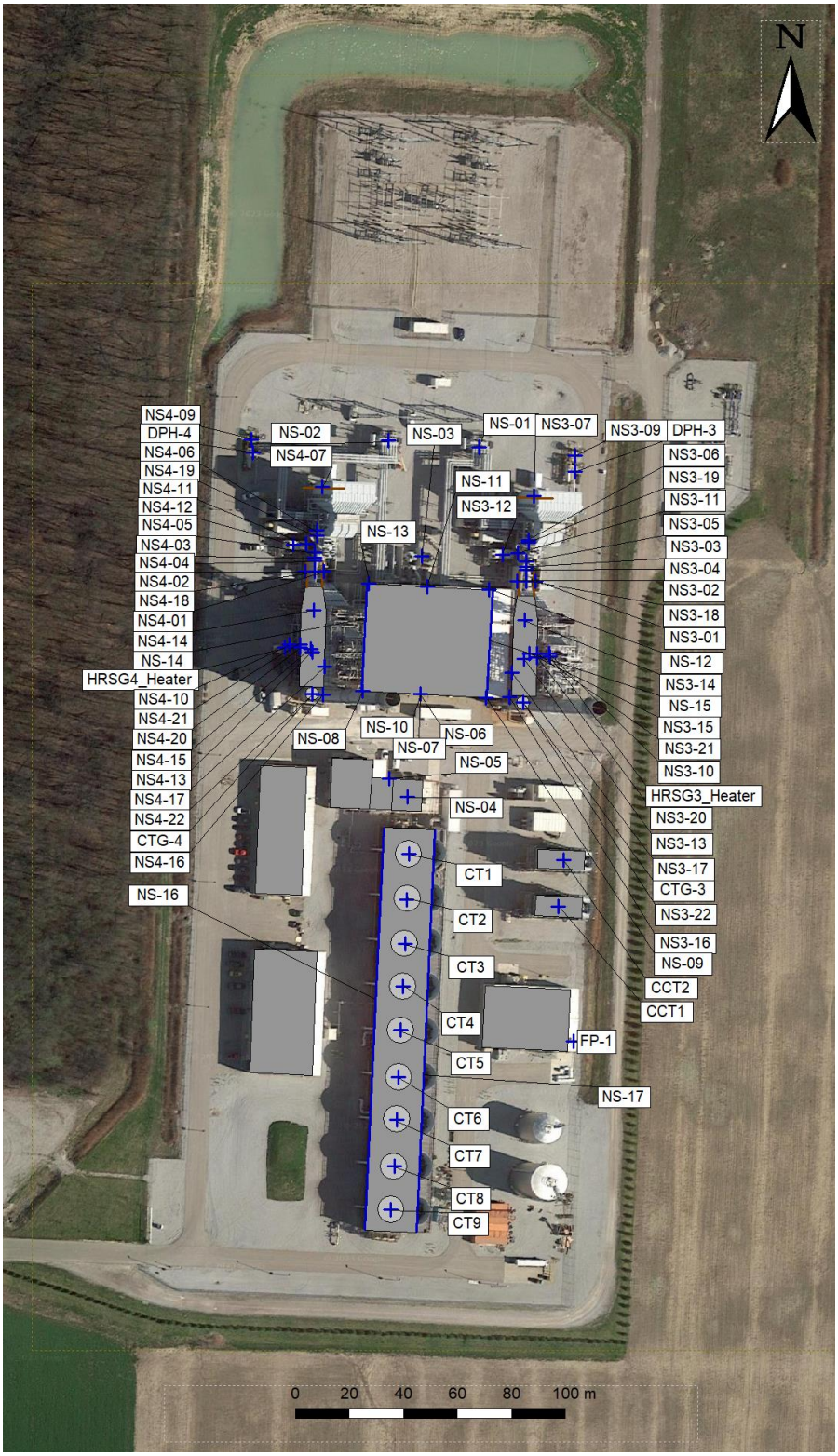


Figure 2: Noise Source Locations

4.4 Assessment of Impact – Noise modelling results

The source-specific noise impact (partial levels) for each of the noise sensitive receptors (including the outdoor living areas of those receptors) are presented in **Table 5**.

Table 5: Partial noise levels from steady Facility operation.

Source ID	R1 Partial Level [dBA]	R2 Partial Level [dBA]	R3 Partial Level [dBA]	R1_O Partial Level [dBA]	R2_O Partial Level [dBA]	R3_O Partial Level [dBA]
CCT1	27	34	31	31.8	26.6	29.8
CCT2	23.5	21.3	26.4	24.5	23.2	24.8
CT1	13.5	18.7	17.6	17.2	13	16
CT2	13.6	18.8	17.7	17.4	13.2	16.2
CT3	13.8	19	17.9	17.5	13.3	16.3
CT4	13.9	19.1	18	17.6	14.8	16.4
CT5	14.1	19.2	18.1	17.8	13.7	16.6
CT6	14.2	19.4	18.3	17.9	13.8	16.7
CT7	17.2	19.5	18.4	18.1	16.4	16.9
CT8	17.3	19.7	18.5	18.3	16.5	17
CT9	19.3	19.8	18.6	18.4	17.9	17.1
CTG-3	17.2	13.4	16.7	13.4	12.7	12.3
CTG-4	17.1	17.5	16.5	13.1	15.7	15.2
DPH-3	20.1	21	20	20.4	19.4	19.3
DPH-4	15.6	16.1	15.3	16.2	15.5	15.2
HRSG3_Heater	25.9	29.9	26.2	29	25.8	25.1
HRSG4_Heater	22	2.6	15.9	2.7	21.9	12.2
NS-01<T>	30.4	30.9	30	30	29.4	29
NS-02<T>	26.1	26.8	26.3	25.6	24.8	25.1
NS-03	-2.7	-2.1	-3.2	-2.2	-2.9	-3.4
NS-04	22.4	22.9	23.5	19.3	18.6	18.8
NS-05	12.8	8.9	7.8	8.6	11.7	7.5
NS-06<T>	31.2	28	26.5	27.5	28.8	26.3
NS-07<T>	22.8	20.6	18.2	20.7	22.5	19.3
NS-08	8.6	14.3	12.5	13.4	8.2	12.2
NS-09	15.9	10.8	11.3	10.7	15.5	11.2
NS-10<T>	26.9	25.3	22.5	25.3	26.3	23.6
NS-11<T>	1.9	2.2	1.5	2.4	2.1	1.7
NS-12<T>	7.1	7.6	0.7	8	7.4	1
NS-13<T>	3.5	5.1	4.4	5.3	3.7	4.6
NS3-01	4.7	10.9	9.8	10	4.8	8.8
NS3-02	2.8	5.6	4.8	3.3	4	4.7
NS3-03	13.2	15.5	13	15.6	13.4	13.9
NS3-04	31	33.2	32	31.1	29.2	30
NS3-05<T>	36.8	37.1	38.5	34.3	31.2	34.5
NS3-06<T>	23.5	30.3	30.1	28.9	22.4	28.7
NS3-07<T>	7.9	8.3	7.7	8.7	8.3	8

Source ID	R1 Partial Level [dBA]	R2 Partial Level [dBA]	R3 Partial Level [dBA]	R1_O Partial Level [dBA]	R2_O Partial Level [dBA]	R3_O Partial Level [dBA]
NS3-09	8	8.3	8.1	7.5	7.3	7.2
NS3-10	14.3	17.7	14.3	18.1	14.7	14.6
NS3-11	6.7	6.2	6.5	6.5	7	0.5
NS3-12	13.8	12.7	11.3	12.8	14.2	11.5
NS3-13	12.9	19.7	20.1	18.6	13.1	18.9
NS3-14	26.2	27.3	25.3	27.8	26.7	25.8
NS3-15	19.7	20.3	19.2	18.6	18	17.4
NS3-16	14.1	12.7	11.6	11.6	12.1	10.5
NS3-17	27.3	14.9	22.3	11.6	25.3	22.5
NS3-18	10.6	12.5	11.5	12.9	10.9	11.9
NS3-19	27	28	28.6	28.5	27.4	29
NS3-20	11.4	16	14.7	16	11.1	14.6
NS3-21	11.4	17.9	16.7	18	11.5	16.8
NS3-22	15.2	15.7	14.7	14	13.4	12.9
NS4-01	5.7	4.2	3.9	4.2	5.3	4.9
NS4-02	-1.7	-2.1	-3.1	-2	-1.8	-3.2
NS4-03	10.2	10.5	11.3	10.3	11.3	11.6
NS4-04	25.6	25.8	27.6	25.1	24.8	25.2
NS4-05	33.8	31.9	32.9	30.3	32.3	31.3
NS4-06	26.7	18.2	23.8	16.9	25.9	22.8
NS4-07	3.5	8	7.3	8.3	3.9	7.7
NS4-09	3.9	5.4	4	4.8	-11.7	4.3
NS4-10	8.8	-10	-11.8	-9.6	8.9	-11.5
NS4-11	-2.4	-4.2	-1.6	-7.1	-2.6	-1.8
NS4-12	2.4	5.2	5.2	5.1	2.3	5
NS4-13	14.5	19	15.4	18	14.1	14.9
NS4-14	26.1	26.9	25.1	27.4	26.6	25.5
NS4-15	19.6	20.1	19	18.4	17.9	17.3
NS4-16	6.1	10.5	9.8	9.3	4.7	8.5
NS4-17	24.1	25.4	24	25.2	23.6	23.8
NS4-18	8.5	7.9	8.3	8.2	8.6	8.4
NS4-19	24.2	22.5	21.1	22.8	24.6	21.5
NS4-20	-7.2	-1.3	-7.7	-1.5	-7.5	-8.1
NS4-21	-8.8	-3.1	-9.3	-3.3	-8.7	-9.3
NS4-22	15.1	15.5	14.6	13.8	13.3	12.7
NS-14	11.9	9.7	10.4	9.3	11.7	9.9
NS-15	19	17.7	17	17.8	19.1	16.9
NS-16	24.1	24.6	23.8	24.2	23.8	23.4
NS-17	33.7	34.4	32.9	34.2	33.4	32.6
FP-1	20.7	23.9	20.1	22	18.8	18.2

The noise impact assessment results for the steady-state operation of the facility are presented in **Table 6** and illustrated graphically in **Figure 3**. The results confirm that under the worst-case noise emission scenario, the facility with the proposed upgrade will remain in compliance with applicable noise performance limits, without the need for any additional noise mitigation measures.

Table 6: Noise Impact Table – Steady State Operation

Point of Reception	POR Description	Sound Level at POR, LEQ [dBA]	Performance Limit, LEQ [dBA] (Day/Evening/Night)	Compliance with Performance Limit	Acoustical Classification Area
R1	Residence – 855 Petrolia Line	43	60.4/54.2/45.3	Yes	Class 1
R1_O	Residence – 855 Petrolia Line	42	60.4/54.2/(N/A)	Yes	Class 1
R2	Residence – 894 Petrolia Line	44	50/50/45	Yes	Class 1
R2_O	Residence – 855 Petrolia Line	43	50/50/(N/A)	Yes	Class 1
R3	Residence – 885 Petrolia Line	44	60.4/54.2/45.3	Yes	Class 1
R3_O	Residence – 885 Petrolia Line	42	60.4/54.2/(N/A)	Yes	Class 1

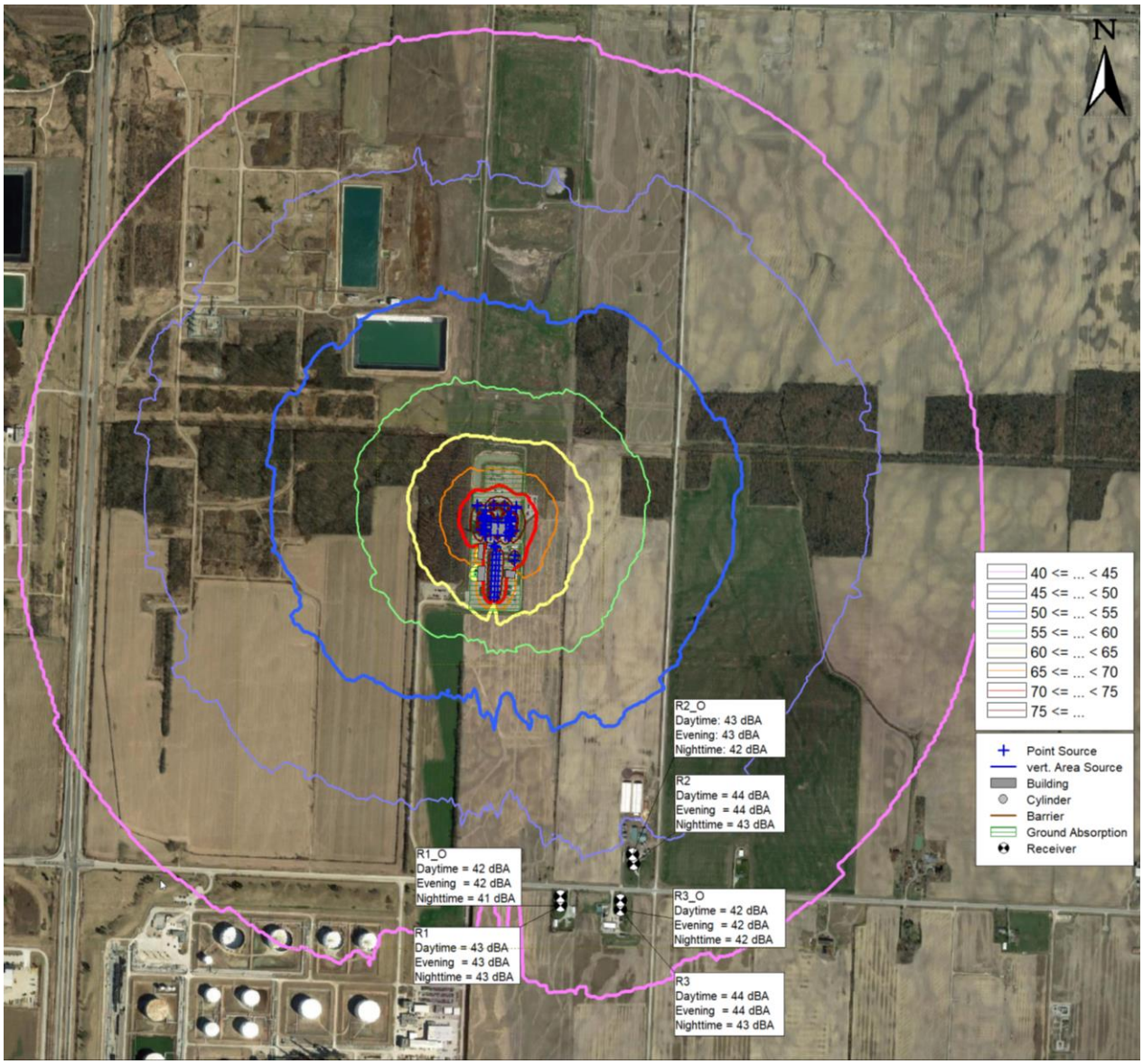


Figure 3: Noise Impact Contour – Steady State Operation

The noise impact assessment results for testing of the facility's fire water pump are presented in **Table 7** and illustrated graphically in **Figure 4**. The results confirm that the Facility with the proposed upgrades remains in compliance with the applicable noise performance limits, without the need for any additional noise mitigation measures.

Table 7: Noise Impact Table – Fire Water Pump Testing

Point of Reception	POR Description	Sound Level at POR, LEQ [dBA]	Performance Limit, LEQ [dBA] (Day/Evening/Night)	Compliance with Performance Limit	Acoustical Classification Area
R1	Residence – 855 Petrolia Line	21	60.4/54.2/45.3	Yes	Class 1
R1_O	Residence – 855 Petrolia Line	19	60.4/54.2/(N/A)	Yes	Class 1
R2	Residence – 894 Petrolia Line	24	50/50/45	Yes	Class 1
R2_O	Residence – 855 Petrolia Line	22	50/50/(N/A)	Yes	Class 1
R3	Residence – 885 Petrolia Line	20	60.4/54.2/45.3	Yes	Class 1
R3_O	Residence – 885 Petrolia Line	18	60.4/54.2/(N/A)	Yes	Class 1

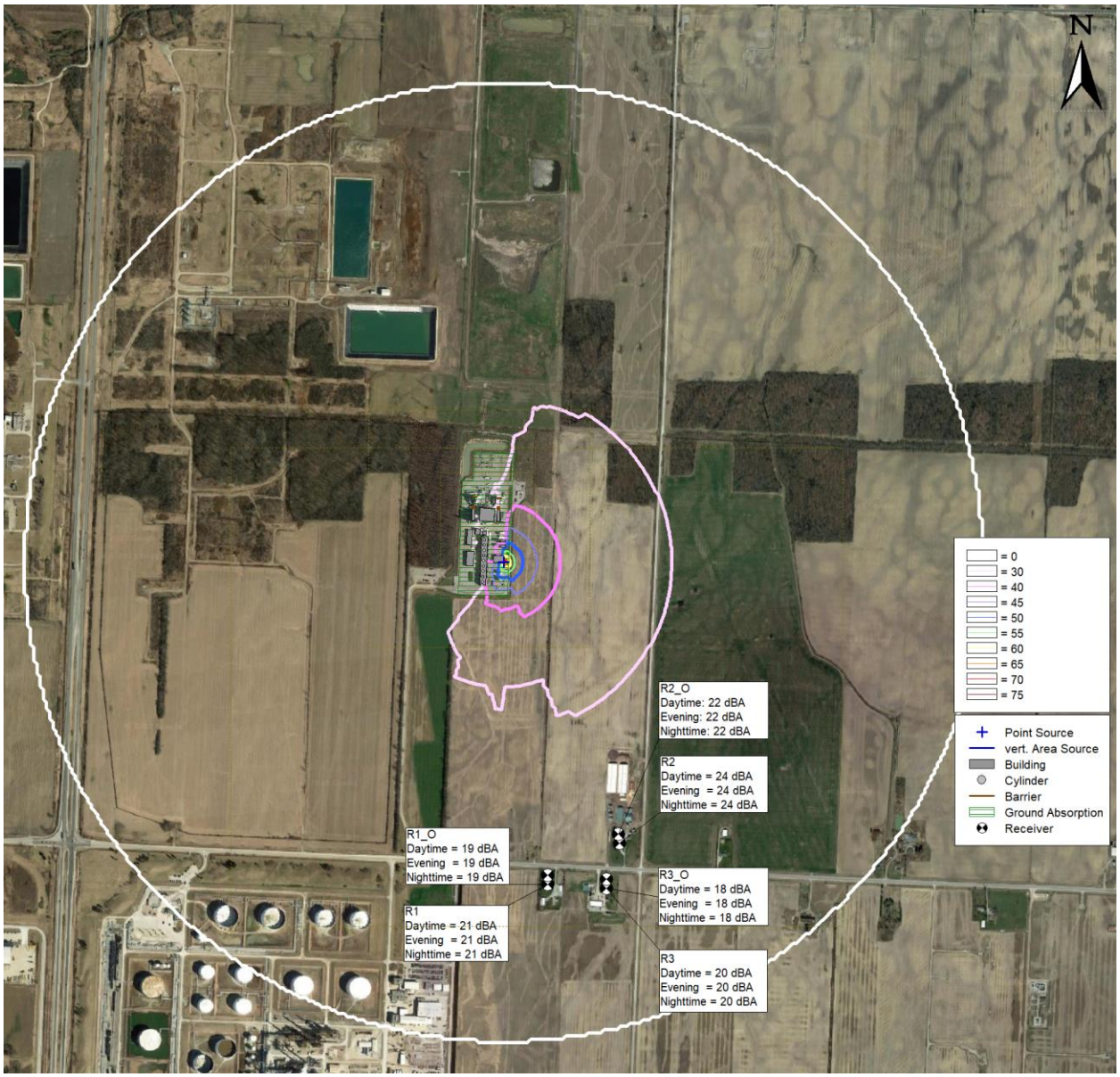


Figure 4: Noise Impact Contour – Fire-Water Pump Testing

4.5 Noise and Vibration Impact during Construction Phase

Construction related to the installation of new equipment for the proposed upgrade to the facility is anticipated to take place over a 45-day period. Construction will be coordinated to coincide with outages planned for regular maintenance of the two existing gas turbines. At this point in time, construction is anticipated to take place between March and April of 2025.

Typical construction activities during the construction period can cause a temporary and minor increase in noise levels onsite. However, given the nature of the upgrades, construction that requires extensive use of heavy machinery with potential to result in notable increase in noise and vibration levels onsite is not anticipated. The use of construction equipment is expected to be limited to one or two cranes and other typical smaller construction equipment. The construction activities will occur mainly during daytime hours and are not expected to result in a notable noise impact at the nearby receptors. For the construction phase the facility will adhere to any applicable municipal noise control by-law, including limiting hours of construction to daytime only, if required.

The potential noise impact at nearby noise-sensitive receptors is expected to be negligible, and as such, noise mitigation measures are not expected to be required. Irrespective of impact, typical Best Management Practices (BMPs) will be implemented if/when required to further minimize potential noise impact.

No vibration impact beyond the Facility's property boundary is anticipated during the construction phase, hence vibration mitigation measures are not required.

5.0 Conclusions

This Noise Study Report has been prepared as a technical supporting documentation to the Environmental Review Report for the proposed upgrade project at the existing St Clair Energy Centre. This analysis completed in this report are based on the information provided and/or approved by the proponent. The assessment has been completed in accordance with the applicable guidelines and requirements outlined in the Noise Pollution Control (NPC) publications of the Ontario Ministry of the Environment, Conservation and Parks, including NPC-300, NPC-103, NPC-104 and NPC-232. The guidelines were used to conduct noise monitoring to determine the acoustical environment of the area and to noise modelling to determine Points of Reception noise impacts associated with normal operations of the facility with the proposed project.

Acoustic modelling was completed using an MECP approved noise propagation model CADNA/A, which is based on ISO9613 Part I & II. The modelling was completed using parameters that accurately represent the types of noise sources at the facility as well as the characteristics of surrounding areas. For the purpose of this acoustic assessment and to ensure a conservative approach, the operating scenario that resulted in the maximum number of noise sources operating simultaneously and at their peak load was assessed.

Based on site reconnaissance and ambient noise monitoring, it was determined that the existing/background sound environment in the area was elevated (higher than MECP daytime and nighttime limits for Class 1 Area) in two out of the three receptor locations. This is mainly due to noise from existing heavy industrial facilities and road traffic in the area. The ambient noise monitoring program was undertaken at the nearest sensitive receptors to determine the applicable noise performance limits. In order to determine true background receptor noise levels, the monitoring program was conducted when the St. Clair Energy Centre was shut down for maintenance. The minimum daytime and nighttime values measured at the receptor locations were used as performance limits for two receptors to the south of Petrolia Line and the MECP's criteria were used as the performance limits for the one receptor north of Petrolia Line.

The proposed upgrades to the facility are not expected to result in a detectable change in noise emissions from the facility. This is confirmed by G.E., as presented in **Appendix E**. As such, with the proposed upgrades, no additional noise mitigation measures are determined to be needed in order to achieve compliance.

Model results indicate that the predicted receptor sound levels are less than the corresponding performance limits. Thus the proposed upgrade to the facility will be in compliance during the worst-case operating conditions.

The construction phase of the proposed upgrade is limited to 45 days and will occur when the facility is shut down for maintenance. The use of construction equipment is expected to be limited to one or two cranes and other typical construction equipment. The construction activities will occur mainly during daytime hours and are not expected to result in a notable noise impact at the nearby receptors. For the construction phase the facility will adhere to any applicable municipal noise control by-law.

6.0 Closure

This Noise Study Report has been prepared based on the information provided by St. Clair Power, L.P. This report is intended to provide a reasonable review of available information within an agreed work scope, schedule and budget. This report was prepared by Dillon for the sole benefit of St. Clair Power, L.P. and to satisfy reporting requirements for an Environmental Review Report being submitted to the Ontario Ministry of the Environment, Conservation and Parks. The material in the report reflects Dillon's judgment in light of the information available to Dillon at the time of this report preparation. Any use which a third party makes of this report, or any reliance on or decisions made based on it, are the responsibilities of such third parties. Dillon accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

7.0 References

Hoover & Keith Inc. Noise Control for Buildings and Manufacturing Plants.

HGC Engineering (2018). Acoustic Assessment Report St. Clair Energy Centre, St. Clair, Ontario.

International Organization for Standardization, ISO 9613-2: Acoustics – Attenuation of Sound During Propagation Outdoors Part 2: General Method of Calculation, Geneva, Switzerland, 1996.

Ontario Ministry of Environment Publication NPC-300, Environmental Noise Guideline, Stationary and Transportation Sources – Approval and Planning, October 2013.

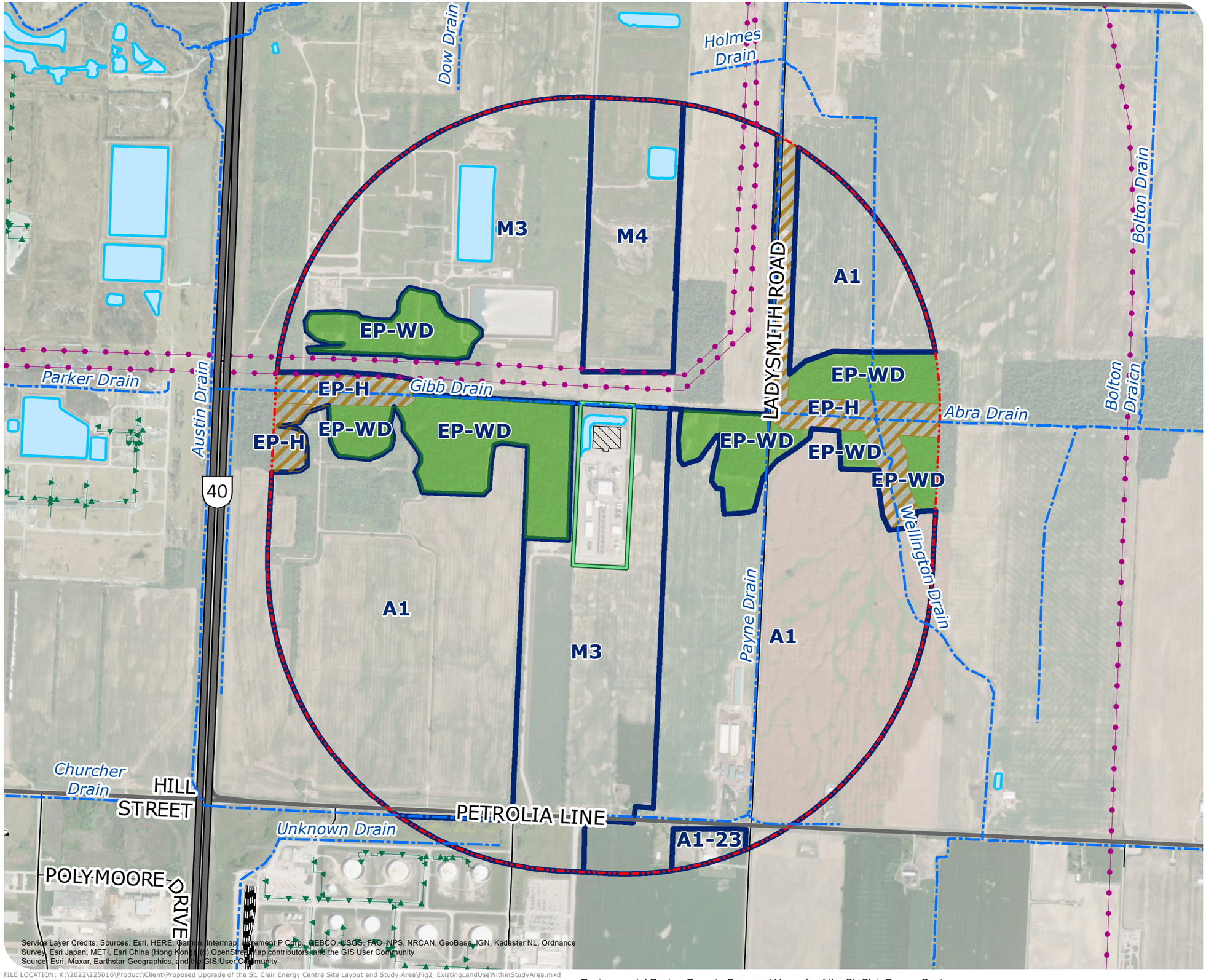
Ontario Ministry of the Environment, Model Municipal Noise Control By-Law Publication NPC-103, August 1978.

Ontario Ministry of the Environment, Model Municipal Noise Control By-Law Publication NPC-104, August 1978

Ontario Ministry of Environment noise guideline publication, NPC-233 – Information to be Submitted for Approval of Stationary Sources of Sound, 1995.

Appendix A

Land Use Zoning Designation Plan



Invenergy

ST. CLAIR ENERGY CENTRE

EXISTING LAND USE WITHIN THE STUDY AREA

FIGURE 2

- St. Clair Energy Centre
- Study Area
- Point of Interconnection
- Hydro Line
- Unknown Pipeline
- Expressway / Highway
- Major Road
- Local Road
- Constructed Drain
- Water Feature

Schedule A Zoning, Township of St. Clair, 2004 (approximate)

- Zone
- Environmental Protection - Hazard
- Environmental Protection - Woodlot

ZONING CODE

A1: AGRICULTURAL - 1
M3: INDUSTRIAL TYPE 3
M4: WASTE DISPOSAL INDUSTRIAL

SCALE 1:12,000

0 150 300 600 m

N W E S

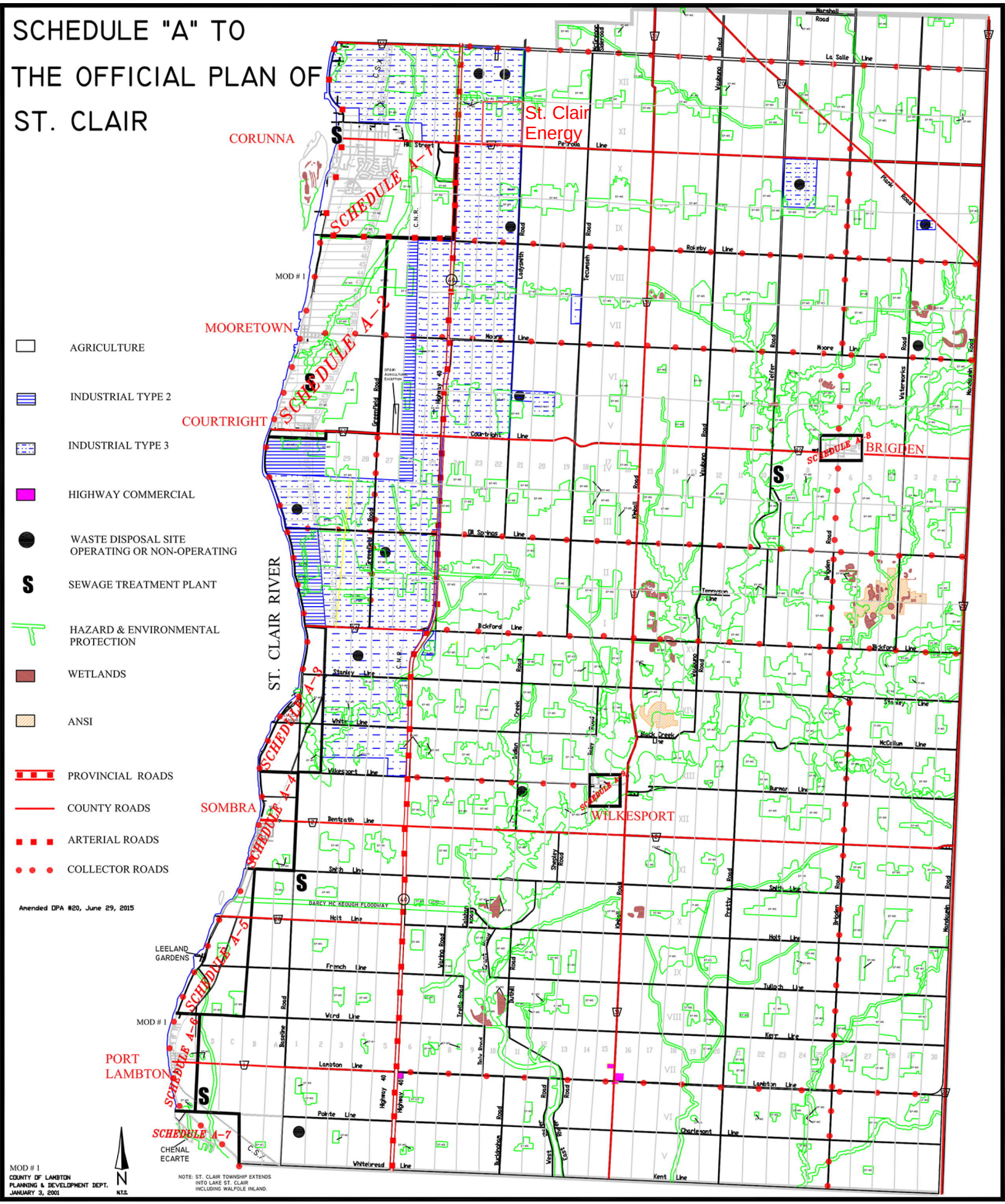
MAP DRAWING INFORMATION:
DATA PROVIDED BY MNRF, INVENERGY

MAP CREATED BY: LK/ZB
MAP CHECKED BY: LS
MAP PROJECTION: NAD 1983 UTM Zone 17N

DILLON CONSULTING

PROJECT: 22-5016
STATUS: FINAL
DATE: 2023-07-07

FILE LOCATION: K:\2022\225016\Product\Client\Proposed Upgrade of the St. Clair Energy Centre Site Layout and Study Area\Fig2_ExistingLandUseWithinStudyArea.mxd


SCHEDULE "A" TO
THE OFFICIAL PLAN OF
ST. CLAIR
St. Clair Energy
CORUNNA
MOORETOWN
COURTRIGHT
BRIGDEN
SOMBRA
WILKESPORT
PORT LAMBTON
LEELAND GARDENS
CHENAL ECARTE
ST. CLAIR RIVER
SCHEDULE A-1
SCHEDULE A-2
SCHEDULE A-3
SCHEDULE A-4
SCHEDULE A-5
SCHEDULE A-6
SCHEDULE A-7
SCHEDULE A-8
MOD # 1
AGRICULTURE
INDUSTRIAL TYPE 2
INDUSTRIAL TYPE 3
HIGHWAY COMMERCIAL
WASTE DISPOSAL SITE
OPERATING OR NON-OPERATING
SEWAGE TREATMENT PLANT
HAZARD & ENVIRONMENTAL
PROTECTION
WETLANDS
ANSI
PROVINCIAL ROADS
COUNTY ROADS
ARTERIAL ROADS
COLLECTOR ROADS
Amended OPA #20, June 29, 2015
MOD # 1
COUNTY OF LAMBTON
PLANNING & DEVELOPMENT DEPT.
JANUARY 3, 2001
N
N.T.S.
NOTE: ST. CLAIR TOWNSHIP EXTENDS
INTO LAKE ST. CLAIR
INCLUDING WALPOLE INLAND.

Appendix B

Noise Source Data

Table B.1

Noise Source Sound Level Summary
Invenergy
St. Clair Energy Centre, Corunna, Ontario

Source ID	Noise Source Description		1/1 Octave Band Data									Unadjusted Total Sound Power Level	Tonal Penalty Assessment		Height Absolute	Operating Time Day	Operating Time Evening	Operating Time Night	Reference/Comments
			31.5	63	125	250	500	1000	2000	4000	8000	(dBA)		(dBA)	(m)	(min)	(min)	(min)	
CCT1	Chiller Cooler 1	PWL (dB)	108	112	105	107	103	95	83	82	81	115							
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1								
		PWL (dBA)	69	86	89	98	100	95	84	83	80	**103**	No	0	2	60	60	60	2018 Acoustic Assessment Report
CCT2	Chiller Cooler 2	PWL (dB)	108	112	105	107	103	95	83	82	81	115							
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1								
		PWL (dBA)	69	86	89	98	100	95	84	83	80	**103**	No	0	2	60	60	60	2018 Acoustic Assessment Report
CT1	CT Fan	PWL (dB)	103	100	96	90	90	87	80	68	1	106							
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1								
		PWL (dBA)	64	74	80	81	87	87	81	69	—	**91**	No	0	15	60	60	60	2018 Acoustic Assessment Report
CT2	CT Fan	PWL (dB)	103	100	96	90	90	87	80	68	1	106							
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1								
		PWL (dBA)	64	74	80	81	87	87	81	69	—	**91**	No	0	15	60	60	60	2018 Acoustic Assessment Report
CT3	CT Fan	PWL (dB)	103	100	96	90	90	87	80	68	1	106							
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1								
		PWL (dBA)	64	74	80	81	87	87	81	69	—	**91**	No	0	15	60	60	60	2018 Acoustic Assessment Report
CT4	CT Fan	PWL (dB)	103	100	96	90	90	87	80	68	1	106							
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1								
		PWL (dBA)	64	74	80	81	87	87	81	69	—	**91**	No	0	15	60	60	60	2018 Acoustic Assessment Report
CT5	CT Fan	PWL (dB)	103	100	96	90	90	87	80	68	1	106							
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1								
		PWL (dBA)	64	74	80	81	87	87	81	69	—	**91**	No	0	15	60	60	60	2018 Acoustic Assessment Report
CT6	CT Fan	PWL (dB)	103	100	96	90	90	87	80	68	1	106							
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1								
		PWL (dBA)	64	74	80	81	87	87	81	69	—	**91**	No	0	15	60	60	60	2018 Acoustic Assessment Report
CT7	CT Fan	PWL (dB)	103	100	96	90	90	87	80	68	1	106							
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1								
		PWL (dBA)	64	74	80	81	87	87	81	69	—	**91**	No	0	15	60	60	60	2018 Acoustic Assessment Report
CT8	CT Fan	PWL (dB)	103	100	96	90	90	87	80	68	1	106							
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1								
		PWL (dBA)	64	74	80	81	87	87	81	69	—	**91**	No	0	15	60	60	60	2018 Acoustic Assessment Report
CT9	CT Fan	PWL (dB)	103	100	96	90	90	87	80	68	1	106							
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1								
		PWL (dBA)	64	74	80	81	87	87	81	69	—	**91**	No	0	15	60	60	60	2018 Acoustic Assessment Report
CTG-3	CGT3 HRSG Stack Outlet	PWL (dB)	110	106	100	92	88	82	82	78	62	112							
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1								
		PWL (dBA)	71	80	84	83	85	82	83	79	61	**91**	No	0	49	60	60	60	2018 Acoustic Assessment Report
CTG-4	CGT4 HRSG Stack Outlet	PWL (dB)	110	106	100	92	88	82	82	78	62	112							
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1								
		PWL (dBA)	71	80	84	83	85	82	83	79	61	**91**	No	0	49	60	60	60	2018 Acoustic Assessment Report
DPH-3	CGT3 Dew Point Heater Exhaust Stack	PWL (dB)	115	110	102	94	90	82	75	66	57	117							
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1								
		PWL (dBA)	76	84	86	85	87	82	76	67	56	**92**	No	0	3	60	60	60	2018 Acoustic Assessment Report
DPH-4	CGT4 Dew Point Heater Exhaust Stack	PWL (dB)	115	110	102	94	90	82	75	66	57	117							
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1								
		PWL (dBA)	76	84	86	85	87	82	76	67	56	**92**	No	0	3	60	60	60	2018 Acoustic Assessment Report
HRSG3_Heater	HRSG Mobile Heater	PWL (dB)	96	91	88	99	100	99	94	89	85	106							
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1								
		PWL (dBA)	57	65	72	90	97	99	95	90	84	**103**	No	0	2	60	60	60	2018 Acoustic Assessment Report
HRSG4_Heater	HRSG Mobile Heater	PWL (dB)	96	91	88	99	100	99	94	89	85	106							
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1								
		PWL (dBA)	57	65	72	90	97	99	95	90	84	**103**	No	0	2	60	60	60	2018 Acoustic Assessment Report
NS-01	East Transformer	PWL (dB)	101	98	107	106	105	94	87	78	69	112							
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1								
		PWL (dBA)	62	72	91	97	102	94	88	79	68	**104**							
		PWL w 5 dBA penalty (c	67	77	96	102	107	99	93	84	73	109	Yes	5	3	60	60	60	2018 Acoustic Assessment Report
NS-02	West Transformer	PWL (dB)	101	98	107	106	105	94	87	78	69	112							
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1								
		PWL (dBA)	62	72	91	97	102	94	88	79	68	**104**							
		PWL w 5 dBA penalty (c	67	77	96	102	107	99	93	84	73	109	Yes	5	3	60	60	60	2018 Acoustic Assessment Report
NS-03	CGT Pump (1 operating, 1 redundant)	PWL (dB)	87	75	88	94	93	93	92	87	81	100							
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1								
		PWL (dBA)	48	49	72	85	90	93	93	88	80	**98**	No	0	1	60	60	60	2018 Acoustic Assessment Report
NS-04	Circ Pump Building Rooftop Exhaust Fans (sum of 2)	PWL (dB)	98	101	101	97	95	91	86	80	73	106							
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1								
		PWL (dBA)	59	75	85	88	92	91	87	81	72	**96**	No	0	9	60	60	60	2018 Acoustic Assessment Report
NS-05	Circ Pump Building North OH Door	PWL (dB)	—	79	79	83	83	83	76	76	73	89							
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1								
		PWL (dBA)	—	53	63	74	80	83	77	77	72	**86**	No	0	2	60	60	60	2018 Acoustic Assessment Report
NS-06	Steam Turbine Building Condenser Vac Pump Outlet	PWL (dB)	108	96	84	103	89	89	88	88	83	109							
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1								
		PWL (dBA)	68	70	68	94	86	89	89	89	82	**97**							
		PWL w 5 dBA penalty (c	73	75	73	99	91	94	94	94	87	102	Yes	5	6	60	60	60	2018 Acoustic Assessment Report

NS-07	Steam Turbine Building South Wall Louvres (sum of 4)	PWL (dB)	87	101	90	87	84	85	86	81	72	102								
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1									
		PWL (dBA)	48	75	74	78	81	85	87	82	71	**91**								
		PWL w 5 dBA penalty (c	53	80	79	83	86	90	92	87	76	96	Yes	5	2	60	60	60	2018 Acoustic Assessment Report	
NS-08	Steam Turbine Building SW Overhead Door	PWL (dB)	—	—	84	82	82	83	87	86	80	92								
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1									
		PWL (dBA)	—	—	68	73	79	83	88	87	79	**92**	No	0	2	60	60	60	2018 Acoustic Assessment Report	
NS-09	Steam Turbine Building SE Overhead Door	PWL (dB)	—	—	84	82	82	83	87	86	80	92								
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1									
		PWL (dBA)	—	—	68	73	79	83	88	87	79	**92**	No	0	2	60	60	60	2018 Acoustic Assessment Report	
NS-10	Steam Turbine Building South Mid OH Door	PWL (dB)	75	102	95	91	89	88	92	88	81	104								
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1									
		PWL (dBA)	36	76	79	82	86	88	93	89	80	**96**								
		PWL w 5 dBA penalty (c	41	81	84	87	91	93	98	94	85	101	Yes	5	2	60	60	60	2018 Acoustic Assessment Report	
NS-11	Steam Turbine Building North Wall Louvres (sum of 3)	PWL (dB)	84	104	88	81	83	78	81	77	69	104								
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1									
		PWL (dBA)	45	78	72	72	80	78	82	78	68	**87**								
		PWL w 5 dBA penalty (c	50	83	77	77	85	83	87	83	73	92	Yes	5	2	60	60	60	2018 Acoustic Assessment Report	
NS-12	Steam Turbine Building NE Overhead Door	PWL (dB)	91	107	90	87	83	82	84	81	76	107								
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1									
		PWL (dBA)	52	81	74	78	80	82	85	82	75	**90**								
		PWL w 5 dBA penalty (c	57	86	79	83	85	87	90	87	80	95	Yes	5	2	60	60	60	2018 Acoustic Assessment Report	
NS-13	Steam Turbine Building NW Overhead Door	PWL (dB)	91	107	90	87	83	82	84	81	76	107								
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1									
		PWL (dBA)	52	81	74	78	80	82	85	82	75	**90**								
		PWL w 5 dBA penalty (c	57	86	79	83	85	87	90	87	80	95	Yes	5	2	60	60	60	2018 Acoustic Assessment Report	
NS-14	*Steam Turbine Building West Wall Louvres (sum of 5)	PWL (dB)	91	108	92	90	88	84	87	84	85	108								
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1									
		PWL (dBA)	52	82	76	82	85	84	89	85	84	**93**	No	0	1	60	60	60	2018 Acoustic Assessment Report	
NS-15	*Steam Turbine Building East Wall Louvres (sum of 5)	PWL (dB)	96	112	96	95	92	88	92	88	89	113								
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1									
		PWL (dBA)	56	86	80	86	89	88	93	89	88	**98**	No	0	2	60	60	60	2018 Acoustic Assessment Report	
NS-16	West Cooling Tower Side Inlet	PWL (dB)	—	—	75	74	81	83	83	85	83	90								
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1									
		PWL (dBA)	—	—	59	65	78	83	84	86	82	**90**	No	0	3	60	60	60	2018 Acoustic Assessment Report	
NS-17	East Cooling Tower Side Inlet	PWL (dB)	—	—	94	93	100	102	102	104	102	109								
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1									
		PWL (dBA)	—	—	78	84	97	102	103	105	101	**109**	No	0	3	60	60	60	2018 Acoustic Assessment Report	
NS3-01	CGT3 Exhaust Duct East Barrier Wall	PWL (dB)	93	96	87	81	74	69	74	79	67	99								
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1									
		PWL (dBA)	54	70	71	72	71	69	75	80	66	**83**	No	0	3	60	60	60	2018 Acoustic Assessment Report	
NS3-02	CGT3 Exhaust Duct West Barrier Wall	PWL (dB)	93	96	87	81	74	69	74	79	67	99								
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1									
		PWL (dBA)	54	70	71	72	71	69	75	80	66	**83**	No	0	3	60	60	60	2018 Acoustic Assessment Report	
NS3-03	CGT3 Enclosure	PWL (dB)	89	94	95	89	82	81	94	97	90	102								
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1									
		PWL (dBA)	50	68	79	80	79	81	95	98	89	**100**	No	0	4	60	60	60	2018 Acoustic Assessment Report	
NS3-04	CGT3 Enclosure Exhaust Fans (Sum of 2)	PWL (dB)	99	104	108	108	101	99	90	82	78	113								
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1									
		PWL (dBA)	60	78	92	99	98	99	91	83	77	**104**	No	0	10	60	60	60	2018 Acoustic Assessment Report	
NS3-05	CGT3 Enclosure Ventilation Intake Unit	PWL (dB)	98	105	102	99	107	94	91	86	80	111								
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1									
		PWL (dBA)	59	79	86	90	104	94	92	87	79	**105**								
		PWL w 5 dBA penalty (c	64	84	91	95	109	99	97	92	84	110	Yes	5	9	60	60	60	2018 Acoustic Assessment Report	
NS3-06	CGT3 Generator (Enclosure Walls)	PWL (dB)	84	96	102	93	98	95	93	86	76	105								
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1									
		PWL (dBA)	45	70	86	84	95	95	94	87	75	**100**								
		PWL w 5 dBA penalty (c	50	75	91	89	100	100	99	92	80	105	Yes	5	3	60	60	60	2018 Acoustic Assessment Report	
NS3-07	CGT3 Inlet	PWL (dB)	—	105	—	—	0	73	86	74	63	105								
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1									
		PWL (dBA)	—	79	—	—	-3	73	87	75	62	**88**								
		PWL w 5 dBA penalty (c	—	84	—	—	2	78	92	80	67	93	Yes	5	10	60	60	60	2018 Acoustic Assessment Report	
NS3-09	CGT3 Dew Point Heater Combustion Fan	PWL (dB)	54	72	86	82	83	81	80	79	75	90								
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1									
		PWL (dBA)	15	46	70	73	80	81	81	80	74	**87**	No	0	1	60	60	60	2018 Acoustic Assessment Report	
NS3-10	CGT3 Duct Burner Valve Unit	PWL (dB)	—	73	—	63	74	84	93	98	92	100								
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1									
		PWL (dBA)	—	47	—	54	71	84	94	99	91	**101**	No	0	1	60	60	60	2018 Acoustic Assessment Report	
NS3-11	CGT3 Unlagged Pipe along W side of encl	PWL (dB)	80	87	84	74	80	81	89	84	76	93								
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1									
		PWL (dBA)	41	61	68	65	77	81	90	85	75	**92**	No	0	1	60	60	60	2018 Acoustic Assessment Report	
NS3-12	CGT3 Air Processor	PWL (dB)	—	78	83	85	85	84	98	102	99	105								
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1									
		PWL (dBA)	—	52	67	76	82	84	99	103	98	**105**	No	0	1	60	60	60	2018 Acoustic Assessment Report	
NS3-13	HRSG3 Walls & Roof	PWL (dB)	100	104	99	94	89	87	90	89	97	107								
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1									
		PWL (dBA)	61	78	83	85	86	87	91	90	96	**99**	No	0	11	60	60	60	2018 Acoustic Assessment Report	
NS3-14	HRSG3 Superheated Steam Piping	PWL (dB)	97	88	77	—	81	91	107	111	111	115								
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1									
		PWL (dBA)	58	62	61	—	78	91	108	112	110	**115**	No	0	18	60	60	60	2018 Acoustic Assessment Report	
NS3-15	HRSG3 HP Blowdown Vents (sum of 2)	PWL (dB)	105	96	96	99	84	90	88	100	106	110								
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1									
		PWL (dBA)	66	70	80	90	81	90	89	101	105	**107**	No	0	27	60	60	60	2018 Acoustic Assessment Report	

NS3-16	HRSG3 Boiler Blowdown System Exhaust	PWL (dB)	100	95	90	93	88	—	71	74	58	103								
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1									
		PWL (dBA)	61	69	74	84	85	—	72	75	57	**88**	No	0	6	60	60	60	2018 Acoustic Assessment Report	
NS3-17	HRSG3 Pipe to LP Sky Vent	PWL (dB)	86	88	99	109	105	95	98	101	103	112								
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1									
		PWL (dBA)	47	62	83	100	102	95	99	102	102	**108**	No	0	2	60	60	60	2018 Acoustic Assessment Report	
NS3-18	CGT3 Exhaust Duct	PWL (dB)	95	109	94	90	—	79	88	94	88	110								
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1									
		PWL (dBA)	56	83	78	81	—	79	89	95	87	**97**	No	0	3	60	60	60	2018 Acoustic Assessment Report	
NS3-19	CGT3 Intake Duct	PWL (dB)	99	94	90	91	86	89	108	96	86	109								
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1									
		PWL (dBA)	60	68	74	82	83	89	109	97	85	**109**	No	0	10	60	60	60	2018 Acoustic Assessment Report	
NS3-20	HRSG3 Sound from Underside (thru gap)	PWL (dB)	98	101	93	89	81	78	87	79	72	104								
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1									
		PWL (dBA)	59	75	77	80	78	78	88	80	71	**90**	No	0	0	60	60	60	2018 Acoustic Assessment Report	
NS3-21	CGT3 Duct Burner Gas Piping	PWL (dB)	87	90	84	76	75	89	91	102	96	104								
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1									
		PWL (dBA)	48	64	68	67	72	89	92	103	95	**104**	No	0	5	60	60	60	2018 Acoustic Assessment Report	
NS3-22	HRSG3 Exhaust Stack Wall	PWL (dB)	—	98	99	94	80	81	80	70	60	102								
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1									
		PWL (dBA)	—	72	83	85	77	81	81	71	59	**89**	No	0	24	60	60	60	2018 Acoustic Assessment Report	
NS4-01	CGT4 Exhaust Duct East Barrier Wall	PWL (dB)	93	96	87	81	74	69	74	79	67	99								
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1									
		PWL (dBA)	54	70	71	72	71	69	75	80	66	**83**	No	0	3	60	60	60	2018 Acoustic Assessment Report	
NS4-02	CGT4 Exhaust Duct West Barrier Wall	PWL (dB)	93	96	87	81	74	69	74	79	67	99								
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1									
		PWL (dBA)	54	70	71	72	71	69	75	80	66	**83**	No	0	3	60	60	60	2018 Acoustic Assessment Report	
NS4-03	CGT4 Enclosure	PWL (dB)	89	94	95	89	82	81	94	97	90	102								
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1									
		PWL (dBA)	50	68	79	80	79	81	95	98	89	**100**	No	0	4	60	60	60	2018 Acoustic Assessment Report	
NS4-04	CGT4 Enclosure Exhaust Fans (Sum of 2)	PWL (dB)	99	104	108	108	101	99	90	82	78	113								
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1									
		PWL (dBA)	60	78	92	99	98	99	91	83	77	**104**	No	0	10	60	60	60	2018 Acoustic Assessment Report	
NS4-05	CGT4 Enclosure Ventilation Intake Unit	PWL (dB)	103	110	107	104	112	99	96	91	85	116								
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1									
		PWL (dBA)	64	84	91	95	109	99	97	92	84	**110**	No	0	9	60	60	60	2018 Acoustic Assessment Report	
NS4-06	CGT4 Generator (Enclosure Walls)	PWL (dB)	89	101	107	98	103	100	98	91	81	110								
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1									
		PWL (dBA)	50	75	91	89	100	100	99	92	80	**105**	No	0	3	60	60	60	2018 Acoustic Assessment Report	
NS4-07	CGT4 Inlet	PWL (dB)	—	110	—	—	5	78	91	79	68	110								
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1									
		PWL (dBA)	—	84	—	—	2	78	92	80	67	**93**	No	0	10	60	60	60	2018 Acoustic Assessment Report	
NS4-09	CGT4 Dew Point Heater Combustion Fan	PWL (dB)	54	72	86	82	83	81	80	79	75	90								
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1									
		PWL (dBA)	15	46	70	73	80	81	81	80	74	**87**	No	0	1	60	60	60	2018 Acoustic Assessment Report	
NS4-10	CGT4 Duct Burner Valve Unit	PWL (dB)	—	73	—	63	74	84	93	98	92	100								
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1									
		PWL (dBA)	—	47	—	54	71	84	94	99	91	**101**	No	0	1	60	60	60	2018 Acoustic Assessment Report	
NS4-11	CGT4 Unlagged Pipe along W side of end	PWL (dB)	80	87	84	74	80	81	89	84	76	93								
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1									
		PWL (dBA)	41	61	68	65	77	81	90	85	75	**92**	No	0	1	60	60	60	2018 Acoustic Assessment Report	
NS4-12	CGT4 Air Processor	PWL (dB)	—	78	83	85	85	84	98	102	99	105								
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1									
		PWL (dBA)	—	52	67	76	82	84	99	103	98	**105**	No	0	1	60	60	60	2018 Acoustic Assessment Report	
NS4-13	HRSG4 Walls & Roof	PWL (dB)	100	104	99	94	89	87	90	89	97	107								
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1									
		PWL (dBA)	61	78	83	85	86	87	91	90	96	**99**	No	0	11	60	60	60	2018 Acoustic Assessment Report	
NS4-14	HRSG4 Superheated Steam Piping	PWL (dB)	97	88	77	—	81	91	107	111	111	115								
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1									
		PWL (dBA)	58	62	61	—	78	91	108	112	110	**115**	No	0	18	60	60	60	2018 Acoustic Assessment Report	
NS4-15	HRSG4 HP Blowdown Vents (sum of 2)	PWL (dB)	105	96	96	99	84	90	88	100	106	110								
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1									
		PWL (dBA)	66	70	80	90	81	90	89	101	105	**107**	No	0	27	60	60	60	2018 Acoustic Assessment Report	
NS4-16	HRSG4 Boiler Blowdown System Exhaust	PWL (dB)	100	95	90	93	88	—	71	74	58	103								
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1									
		PWL (dBA)	61	69	74	84	85	—	72	75	57	**88**	No	0	6	60	60	60	2018 Acoustic Assessment Report	
NS4-17	HRSG4 Pipe to LP Sky Vent	PWL (dB)	86	88	99	109	105	95	98	101	103	112								
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1									
		PWL (dBA)	47	62	83	100	102	95	99	102	102	**108**	No	0	2	60	60	60	2018 Acoustic Assessment Report	
NS4-18	CGT4 Exhaust Duct	PWL (dB)	95	109	94	90	—	79	88	94	88	110								
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1									
		PWL (dBA)	56	83	78	81	—	79	89	95	87	**97**	No	0	3	60	60	60	2018 Acoustic Assessment Report	
NS4-19	CGT4 Intake Duct	PWL (dB)	99	94	90	91	86	89	108	96	86	109								
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1									
		PWL (dBA)	60	68	74	82	83	89	109	97	85	**109**	No	0	10	60	60	60	2018 Acoustic Assessment Report	
NS4-20	HRSG4 Sound from Underside (thru gap)	PWL (dB)	98	101	93	89	81	78	87	79	72	104								
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1									
		PWL (dBA)	59	75	77	80	78	78	88	80	71	**90**	No	0	0	60	60	60	2018 Acoustic Assessment Report	
NS4-21	CGT4 Duct Burner Gas Piping	PWL (dB)	87	90	84	76	75	89	91	102	96	104								
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1									
		PWL (dBA)	48	64	68	67	72	89	92	103	95	**104**	No	0	4	60	60	60	2018 Acoustic Assessment Report	
NS4-22	HRSG4 Exhaust Stack Wall	PWL (dB)	—	98	99	94	80	81	80	70	60	102								
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1									

		PWL (dBA)	—	72	83	85	77	81	81	71	59	**89**	No	0	24	60	60	60	2018 Acoustic Assessment Report
FP-1	Diesel Firewater Emergency Pump (Exhaust)	PWL (dB)	95	98	99	94	92	87	83	82	70	104							
		A-weighted correction	-39	-26	-16	-9	-3	—	1	1	-1								
		PWL (dBA)	56	72	83	85	89	87	84	83	69	**94**	No	0	8	60	60	60	2018 Acoustic Assessment Report

Appendix C

Ambient Noise Monitoring Data, Instrumentation and Meteorological Data

Table C.1

Sound Level Measuremement Summary
R3
885 Petrolia Line, St. Clair Township, Ontario

Period	Address	Start Time	Measurement Time	Leq	LE	Lmax	Lmin	Ly	LN1	LN2	LN3	LN4	LN5
Daytime	1	4/25/2023 12:56	00d 01:00:00.0	62.7	98.3	79.5	46.3	-.-	69.6	65.7	52.6	49	48.3
Daytime	2	4/25/2023 13:56	00d 01:00:00.0	62.4	98	84.3	45	-.-	69.5	65.1	51.3	48	47.4
Daytime	3	4/25/2023 14:56	00d 01:00:00.0	64.9	100.5	81.4	45.7	-.-	71.9	69.5	53.8	49.3	48.4
Daytime	4	4/25/2023 15:56	00d 01:00:00.0	65	100.6	81.4	45.1	-.-	72.3	70	54.2	48.4	47.5
Daytime	5	4/25/2023 16:56	00d 01:00:00.0	64.3	99.9	83.3	43.8	-.-	71.4	69.1	52.3	47.4	46.6
Daytime	6	4/25/2023 17:56	00d 01:00:00.0	60.4	96	77.4	44.9	-.-	68.6	63.5	50.3	47.3	46.7
Evening	7	4/25/2023 18:56	00d 01:00:00.0	60.1	95.7	78.2	45.8	-.-	67.7	61	51.7	49.1	48.5
Evening	8	4/25/2023 19:56	00d 01:00:00.0	58.4	94	76.9	43.3	-.-	65	57.4	48.7	46.3	45.7
Evening	9	4/25/2023 20:56	00d 01:00:00.0	55.1	90.7	73.6	44.3	-.-	58.5	52.9	47.5	45.9	45.6
Evening	10	4/25/2023 21:56	00d 01:00:00.0	55.3	90.9	74.4	45.3	-.-	58.4	53.3	48.7	46.9	46.5
Nighttime	11	4/25/2023 22:56	00d 01:00:00.0	54.6	90.2	73	45.3	-.-	56.9	53.2	49.5	47.6	47.2
Nighttime	12	4/25/2023 23:56	00d 01:00:00.0	51.6	87.2	73.9	44.5	-.-	53.9	52.7	48.8	46.2	45.5
Nighttime	13	4/26/2023 0:56	00d 01:00:00.0	51.4	87	71.6	44.8	-.-	53.9	52.7	49.7	47.4	46.9
Nighttime	14	4/26/2023 1:56	00d 01:00:00.0	51.1	86.7	74.8	43.2	-.-	50.7	49.8	47	44.7	44.3
Nighttime	15	4/26/2023 2:56	00d 01:00:00.0	49.8	85.4	70.5	44.9	-.-	53	51.7	48.5	46.6	45.9
Nighttime	16	4/26/2023 3:56	00d 01:00:00.0	55.2	90.8	75.5	42.9	-.-	57.7	53.5	49.1	45.9	44.8
Nighttime	17	4/26/2023 4:56	00d 01:00:00.0	66.1	101.7	82.8	43.3	-.-	72.2	68.8	53.7	45.6	44.3
Nighttime	18	4/26/2023 5:56	00d 01:00:00.0	69.8	105.4	83.6	45.9	-.-	77.5	72.5	58.9	49.7	48.2
Daytime	19	4/26/2023 6:56	00d 01:00:00.0	65.4	101	80.3	43	-.-	72.2	70.5	55.3	48.3	47
Daytime	20	4/26/2023 7:56	00d 01:00:00.0	63.4	99	81.6	42.6	-.-	71	68	50.4	45.6	44.9
Daytime	21	4/26/2023 8:56	00d 01:00:00.0	62.7	98.3	79.7	38.3	-.-	70	66.9	49.1	42.8	41.2
Daytime	22	4/26/2023 9:56	00d 01:00:00.0	62.6	98.2	82.2	38.8	-.-	69.5	65.4	48.5	42.2	41.2
Daytime	23	4/26/2023 10:56	00d 01:00:00.0	62.2	97.8	79.8	38.6	-.-	69.8	65.8	47.9	41.8	40.8
Daytime	24	4/26/2023 11:56	00d 01:00:00.0	63.4	99	82.3	38.2	-.-	70.6	67.6	48.6	42.8	41.7
Daytime	25	4/26/2023 12:56	00d 01:00:00.0	63.3	98.9	82.9	40.3	-.-	70.5	66.9	48.8	43.4	42.6
Daytime	26	4/26/2023 13:56	00d 01:00:00.0	64	99.6	83.5	38.1	-.-	70.9	68.1	49.8	42.8	41.4
Daytime	27	4/26/2023 14:56	00d 01:00:00.0	65.9	101.5	82.3	39.3	-.-	72.8	70.7	54	44.1	42.6
Daytime	28	4/26/2023 15:56	00d 01:00:00.0	65.4	101	81.4	37.5	-.-	72.3	70.6	54.7	44.6	42.9
Daytime	29	4/26/2023 16:56	00d 01:00:00.0	64.7	100.3	81.8	37.4	-.-	71.9	69.9	54.7	42.7	41.1
Daytime	30	4/26/2023 17:56	00d 01:00:00.0	60.5	96.1	78.7	35.9	-.-	68.6	63.7	47.3	39.9	38.6
Evening	31	4/26/2023 18:56	00d 01:00:00.0	59.5	95.1	76	32.9	-.-	68	61.3	44.5	36.9	35.7
Evening	32	4/26/2023 19:56	00d 01:00:00.0	56.7	92.3	78.6	33	-.-	61.5	54.2	40.1	35.2	34.6
Evening	33	4/26/2023 20:56	00d 01:00:00.0	54.3	89.9	74.2	31.5	-.-	58.4	51.8	36.3	33.3	32.9
Evening	34	4/26/2023 21:56	00d 01:00:00.0	54.2	89.8	77.5	31.9	-.-	55.5	49	36	34.1	33.6
Nighttime	35	4/26/2023 22:56	00d 01:00:00.0	52.7	88.3	73.9	29.8	-.-	53.8	47.6	34.4	32.2	31.5
Nighttime	36	4/26/2023 23:56	00d 01:00:00.0	46.8	82.4	71.9	29.3	-.-	42.1	35	32	30.6	30.3
Nighttime	37	4/27/2023 0:56	00d 01:00:00.0	49	84.6	75.2	30	-.-	43.5	39.7	35.9	32.5	31.7
Nighttime	38	4/27/2023 1:56	00d 01:00:00.0	47.3	82.9	73	32.8	-.-	45.3	41.7	38.4	35.7	35
Nighttime	39	4/27/2023 2:56	00d 01:00:00.0	45.3	80.9	72.9	34.2	-.-	41	40.6	38.7	36.3	35.8
Nighttime	40	4/27/2023 3:56	00d 01:00:00.0	54.5	90.1	73.2	38.4	-.-	57.1	52.2	41.6	39.7	39.4
Nighttime	41	4/27/2023 4:56	00d 01:00:00.0	65.7	101.3	81.8	42.1	-.-	72.2	68	52.4	44.8	43.9
Nighttime	42	4/27/2023 5:56	00d 01:00:00.0	65.1	100.7	78.7	42.6	-.-	72.1	70.5	57.4	48.4	46.4
Daytime	43	4/27/2023 6:56	00d 01:00:00.0	66	101.6	82.6	44.1	-.-	72.5	70.7	57.2	48.4	47.3
Daytime	44	4/27/2023 7:56	00d 01:00:00.0	63.8	99.4	79.9	41.4	-.-	71.2	68.6	49.1	44.2	43.4
Daytime	45	4/27/2023 8:56	00d 01:00:00.0	62.9	98.5	82.7	40.7	-.-	69.8	66.1	48.6	43.4	42.5
Daytime	46	4/27/2023 9:56	00d 01:00:00.0	61.4	97	84.4	38.9	-.-	68	63.5	47.5	42.9	41.8
Daytime	47	4/27/2023 10:56	00d 01:00:00.0	61.8	97.4	81	41.3	-.-	68.7	64.7	47.8	43.8	43.2
Daytime	48	4/27/2023 11:56	00d 01:00:00.0	62.7	98.3	82.3	40.9	-.-	69.2	65.2	47.9	43.8	43.1
Daytime	49	4/27/2023 12:56	00d 00:45:41.7	62.2	96.6	84.2	40.7	-.-	68.5	63.9	47.8	43.9	43.3

Table C.2

Sound Level Measurememement Summary
R2
894 Petrolia Line, St. Clair Township, Ontario

Period	Address	Start Time	Measurement Time	Leq	LE	Lmax	Lmin	Ly	LN1	LN2	LN3	LN4	LN5
Daytime	1	4/25/2023 12:29	00d 01:00:00.0	56.9	92.5	69.8	46.1	-.-	61.6	60.5	54.9	50.8	49.9
Daytime	2	4/25/2023 13:29	00d 01:00:00.0	56.8	92.4	71.9	47.3	-.-	61.2	59.7	55.2	51.2	50.3
Daytime	3	4/25/2023 14:29	00d 01:00:00.0	59.1	94.7	75.3	46.9	-.-	63.8	62.7	57.3	52.7	51.8
Daytime	4	4/25/2023 15:29	00d 01:00:00.0	60.1	95.7	72.1	49	-.-	63.3	62.4	59.4	56.1	55
Daytime	5	4/25/2023 16:29	00d 01:00:00.0	57	92.6	65.7	47.1	-.-	60.8	59.9	56	51.8	50.5
Daytime	6	4/25/2023 17:29	00d 01:00:00.0	57	92.6	67.4	46.9	-.-	61	60	55.8	51.3	50.2
Daytime	7	4/25/2023 18:29	00d 01:00:00.0	55.1	90.7	62.2	46.9	-.-	58.6	57.6	54.5	50.8	49.9
Evening	8	4/25/2023 19:29	00d 01:00:00.0	52.9	88.5	60.3	46.1	-.-	56.8	56	51.5	47.8	47.3
Evening	9	4/25/2023 20:29	00d 01:00:00.0	50.2	85.8	59.3	46	-.-	54.1	52.4	49.1	47.5	47.2
Evening	10	4/25/2023 21:29	00d 01:00:00.0	49.7	85.3	59.7	45.2	-.-	53.6	51.8	48.5	47.1	46.7
Evening	11	4/25/2023 22:29	00d 01:00:00.0	49.9	85.5	58.9	45.7	-.-	53.1	51.9	49.2	47.5	47.2
Nighttime	12	4/25/2023 23:29	00d 01:00:00.0	50.1	85.7	57.9	45	-.-	53.9	52.7	49.2	46.7	46.1
Nighttime	13	4/26/2023 0:29	00d 01:00:00.0	49.7	85.3	58.8	45.4	-.-	53.7	52.2	48.6	46.9	46.6
Nighttime	14	4/26/2023 1:29	00d 01:00:00.0	48.6	84.2	60.7	43	-.-	52.4	50.2	47.6	45.6	45
Nighttime	15	4/26/2023 2:29	00d 01:00:00.0	46.5	82.1	60.4	41.9	-.-	48.8	47.7	45.6	43.7	43.4
Nighttime	16	4/26/2023 3:29	00d 01:00:00.0	51.1	86.7	60.5	45.9	-.-	55	53.7	50.1	47.5	47.2
Nighttime	17	4/26/2023 4:29	00d 01:00:00.0	51.7	87.3	70.5	39	-.-	57	55.1	47.8	42.9	42.4
Nighttime	18	4/26/2023 5:29	00d 01:00:00.0	50.8	86.4	61.6	41.4	-.-	55.1	53.7	49.4	45	43.8
Nighttime	19	4/26/2023 6:29	00d 01:00:00.0	58.1	93.7	81.1	46.1	-.-	65.2	59.7	54.3	50.8	50
Daytime	20	4/26/2023 7:29	00d 01:00:00.0	56.7	92.3	83.6	44.5	-.-	56.7	55.7	52.1	48.7	47.8
Daytime	21	4/26/2023 8:29	00d 01:00:00.0	58.7	94.3	78.9	37.6	-.-	65.6	61.3	48.1	41.4	39.9
Daytime	22	4/26/2023 9:29	00d 01:00:00.0	49.2	84.8	64.2	37.8	-.-	54.1	52.7	47	41.3	40.3
Daytime	23	4/26/2023 10:29	00d 01:00:00.0	49.1	84.7	63.5	35.4	-.-	53.8	52.3	46.4	40.7	39.5
Daytime	24	4/26/2023 11:29	00d 01:00:00.0	56.3	91.9	62.4	40.8	-.-	59.9	59.1	55.8	51.2	49.6
Daytime	25	4/26/2023 12:29	00d 01:00:00.0	54.1	89.7	75.9	38.5	-.-	58	56.6	50.5	45.4	43.8
Daytime	26	4/26/2023 13:29	00d 01:00:00.0	57.2	92.8	70.6	42.2	-.-	61.5	60.5	55.7	49.3	47.4
Daytime	27	4/26/2023 14:29	00d 01:00:00.0	49	84.6	62.4	38.3	-.-	53.4	52	47.2	42.7	41.6
Daytime	28	4/26/2023 15:29	00d 01:00:00.0	59.9	95.5	78.7	42.7	-.-	61.5	60.2	56.1	51.2	49.8
Daytime	29	4/26/2023 16:29	00d 01:00:00.0	53	88.6	64	38.1	-.-	58.5	57.4	49.4	43.6	42.4
Daytime	30	4/26/2023 17:29	00d 01:00:00.0	52.9	88.5	66.3	36.6	-.-	58.3	56.8	50.3	44.6	43.3
Daytime	31	4/26/2023 18:29	00d 01:00:00.0	50.3	85.9	62.9	37.2	-.-	55.7	54.3	47.7	41.3	40.2
Evening	32	4/26/2023 19:29	00d 01:00:00.0	40.2	75.8	54.2	30.9	-.-	45.3	43.4	37.3	33.3	32.8
Evening	33	4/26/2023 20:29	00d 01:00:00.0	38	73.6	53.5	28.5	-.-	43.4	41.2	34.8	31.6	30.8
Evening	34	4/26/2023 21:29	00d 01:00:00.0	37.3	72.9	53.1	29	-.-	43.2	40	33	30.9	30.5
Evening	35	4/26/2023 22:29	00d 01:00:00.0	37.4	73	53.3	28.7	-.-	44	41	32.3	30.4	30.1
Nighttime	36	4/26/2023 23:29	00d 01:00:00.0	33.7	69.3	48.8	27.1	-.-	39.4	35.2	30	28.7	28.3
Nighttime	37	4/27/2023 0:29	00d 01:00:00.0	34.8	70.4	52.8	27.6	-.-	38.3	35.3	32	29.8	29.4
Nighttime	38	4/27/2023 1:29	00d 01:00:00.0	36.7	72.3	48.9	32.5	-.-	39.4	38.6	35.7	34	33.7
Nighttime	39	4/27/2023 2:29	00d 01:00:00.0	36.8	72.4	49.9	33.1	-.-	38.5	37.8	36.2	34.9	34.6
Nighttime	40	4/27/2023 3:29	00d 01:00:00.0	39.1	74.7	53.5	34.6	-.-	40.9	39.5	37.7	36.3	35.9
Nighttime	41	4/27/2023 4:29	00d 01:00:00.0	48.8	84.4	64.1	37.8	-.-	54.7	52.7	44.1	39.6	38.6
Nighttime	42	4/27/2023 5:29	00d 01:00:00.0	53.8	89.4	63.9	41.5	-.-	59.1	57.9	51.4	43.9	43.2
Nighttime	43	4/27/2023 6:29	00d 01:00:00.0	56.1	91.7	64.9	46.7	-.-	60.1	58.8	55.1	51.2	49.7
Daytime	44	4/27/2023 7:29	00d 01:00:00.0	52.1	87.7	65.5	45.4	-.-	55.8	54.7	50.7	47.6	47
Daytime	45	4/27/2023 8:29	00d 01:00:00.0	54.8	90.4	78.5	43.2	-.-	58.7	56.9	51.8	48.9	48
Daytime	46	4/27/2023 9:29	00d 01:00:00.0	51.1	86.7	68	40.7	-.-	55.5	53.6	48.3	43.8	42.7
Daytime	47	4/27/2023 10:29	00d 01:00:00.0	53.1	88.7	69.7	40.9	-.-	57.7	55.9	50	45.5	44.4
Daytime	48	4/27/2023 11:29	00d 01:00:00.0	55.7	91.3	74.9	42.9	-.-	60.2	59	52.8	48.2	46.9
Daytime	49	4/27/2023 12:29	00d 01:00:00.0	55.4	91	66.2	42.8	-.-	60	58.8	53.7	48	46.6
Daytime	50	4/27/2023 13:29	00d 00:00:58.7	52.5	70.2	56.5	46.3	-.-	56.7	56.1	52.2	47.4	46.5

Table C.1

Sound Level Measuremement Summary
R3
885 Petrolia Line, St. Clair Township, Ontario

Period	Address	Start Time	Measurement Time	Leq	LE	Lmax	Lmin	Ly	LN1	LN2	LN3	LN4	LN5
Daytime	1	4/25/2023 12:56	00d 01:00:00.0	62.7	98.3	79.5	46.3	-.-	69.6	65.7	52.6	49	48.3
Daytime	2	4/25/2023 13:56	00d 01:00:00.0	62.4	98	84.3	45	-.-	69.5	65.1	51.3	48	47.4
Daytime	3	4/25/2023 14:56	00d 01:00:00.0	64.9	100.5	81.4	45.7	-.-	71.9	69.5	53.8	49.3	48.4
Daytime	4	4/25/2023 15:56	00d 01:00:00.0	65	100.6	81.4	45.1	-.-	72.3	70	54.2	48.4	47.5
Daytime	5	4/25/2023 16:56	00d 01:00:00.0	64.3	99.9	83.3	43.8	-.-	71.4	69.1	52.3	47.4	46.6
Daytime	6	4/25/2023 17:56	00d 01:00:00.0	60.4	96	77.4	44.9	-.-	68.6	63.5	50.3	47.3	46.7
Evening	7	4/25/2023 18:56	00d 01:00:00.0	60.1	95.7	78.2	45.8	-.-	67.7	61	51.7	49.1	48.5
Evening	8	4/25/2023 19:56	00d 01:00:00.0	58.4	94	76.9	43.3	-.-	65	57.4	48.7	46.3	45.7
Evening	9	4/25/2023 20:56	00d 01:00:00.0	55.1	90.7	73.6	44.3	-.-	58.5	52.9	47.5	45.9	45.6
Evening	10	4/25/2023 21:56	00d 01:00:00.0	55.3	90.9	74.4	45.3	-.-	58.4	53.3	48.7	46.9	46.5
Nighttime	11	4/25/2023 22:56	00d 01:00:00.0	54.6	90.2	73	45.3	-.-	56.9	53.2	49.5	47.6	47.2
Nighttime	12	4/25/2023 23:56	00d 01:00:00.0	51.6	87.2	73.9	44.5	-.-	53.9	52.7	48.8	46.2	45.5
Nighttime	13	4/26/2023 0:56	00d 01:00:00.0	51.4	87	71.6	44.8	-.-	53.9	52.7	49.7	47.4	46.9
Nighttime	14	4/26/2023 1:56	00d 01:00:00.0	51.1	86.7	74.8	43.2	-.-	50.7	49.8	47	44.7	44.3
Nighttime	15	4/26/2023 2:56	00d 01:00:00.0	49.8	85.4	70.5	44.9	-.-	53	51.7	48.5	46.6	45.9
Nighttime	16	4/26/2023 3:56	00d 01:00:00.0	55.2	90.8	75.5	42.9	-.-	57.7	53.5	49.1	45.9	44.8
Nighttime	17	4/26/2023 4:56	00d 01:00:00.0	66.1	101.7	82.8	43.3	-.-	72.2	68.8	53.7	45.6	44.3
Nighttime	18	4/26/2023 5:56	00d 01:00:00.0	69.8	105.4	83.6	45.9	-.-	77.5	72.5	58.9	49.7	48.2
Daytime	19	4/26/2023 6:56	00d 01:00:00.0	65.4	101	80.3	43	-.-	72.2	70.5	55.3	48.3	47
Daytime	20	4/26/2023 7:56	00d 01:00:00.0	63.4	99	81.6	42.6	-.-	71	68	50.4	45.6	44.9
Daytime	21	4/26/2023 8:56	00d 01:00:00.0	62.7	98.3	79.7	38.3	-.-	70	66.9	49.1	42.8	41.2
Daytime	22	4/26/2023 9:56	00d 01:00:00.0	62.6	98.2	82.2	38.8	-.-	69.5	65.4	48.5	42.2	41.2
Daytime	23	4/26/2023 10:56	00d 01:00:00.0	62.2	97.8	79.8	38.6	-.-	69.8	65.8	47.9	41.8	40.8
Daytime	24	4/26/2023 11:56	00d 01:00:00.0	63.4	99	82.3	38.2	-.-	70.6	67.6	48.6	42.8	41.7
Daytime	25	4/26/2023 12:56	00d 01:00:00.0	63.3	98.9	82.9	40.3	-.-	70.5	66.9	48.8	43.4	42.6
Daytime	26	4/26/2023 13:56	00d 01:00:00.0	64	99.6	83.5	38.1	-.-	70.9	68.1	49.8	42.8	41.4
Daytime	27	4/26/2023 14:56	00d 01:00:00.0	65.9	101.5	82.3	39.3	-.-	72.8	70.7	54	44.1	42.6
Daytime	28	4/26/2023 15:56	00d 01:00:00.0	65.4	101	81.4	37.5	-.-	72.3	70.6	54.7	44.6	42.9
Daytime	29	4/26/2023 16:56	00d 01:00:00.0	64.7	100.3	81.8	37.4	-.-	71.9	69.9	54.7	42.7	41.1
Daytime	30	4/26/2023 17:56	00d 01:00:00.0	60.5	96.1	78.7	35.9	-.-	68.6	63.7	47.3	39.9	38.6
Evening	31	4/26/2023 18:56	00d 01:00:00.0	59.5	95.1	76	32.9	-.-	68	61.3	44.5	36.9	35.7
Evening	32	4/26/2023 19:56	00d 01:00:00.0	56.7	92.3	78.6	33	-.-	61.5	54.2	40.1	35.2	34.6
Evening	33	4/26/2023 20:56	00d 01:00:00.0	54.3	89.9	74.2	31.5	-.-	58.4	51.8	36.3	33.3	32.9
Evening	34	4/26/2023 21:56	00d 01:00:00.0	54.2	89.8	77.5	31.9	-.-	55.5	49	36	34.1	33.6
Nighttime	35	4/26/2023 22:56	00d 01:00:00.0	52.7	88.3	73.9	29.8	-.-	53.8	47.6	34.4	32.2	31.5
Nighttime	36	4/26/2023 23:56	00d 01:00:00.0	46.8	82.4	71.9	29.3	-.-	42.1	35	32	30.6	30.3
Nighttime	37	4/27/2023 0:56	00d 01:00:00.0	49	84.6	75.2	30	-.-	43.5	39.7	35.9	32.5	31.7
Nighttime	38	4/27/2023 1:56	00d 01:00:00.0	47.3	82.9	73	32.8	-.-	45.3	41.7	38.4	35.7	35
Nighttime	39	4/27/2023 2:56	00d 01:00:00.0	45.3	80.9	72.9	34.2	-.-	41	40.6	38.7	36.3	35.8
Nighttime	40	4/27/2023 3:56	00d 01:00:00.0	54.5	90.1	73.2	38.4	-.-	57.1	52.2	41.6	39.7	39.4
Nighttime	41	4/27/2023 4:56	00d 01:00:00.0	65.7	101.3	81.8	42.1	-.-	72.2	68	52.4	44.8	43.9
Nighttime	42	4/27/2023 5:56	00d 01:00:00.0	65.1	100.7	78.7	42.6	-.-	72.1	70.5	57.4	48.4	46.4
Daytime	43	4/27/2023 6:56	00d 01:00:00.0	66	101.6	82.6	44.1	-.-	72.5	70.7	57.2	48.4	47.3
Daytime	44	4/27/2023 7:56	00d 01:00:00.0	63.8	99.4	79.9	41.4	-.-	71.2	68.6	49.1	44.2	43.4
Daytime	45	4/27/2023 8:56	00d 01:00:00.0	62.9	98.5	82.7	40.7	-.-	69.8	66.1	48.6	43.4	42.5
Daytime	46	4/27/2023 9:56	00d 01:00:00.0	61.4	97	84.4	38.9	-.-	68	63.5	47.5	42.9	41.8
Daytime	47	4/27/2023 10:56	00d 01:00:00.0	61.8	97.4	81	41.3	-.-	68.7	64.7	47.8	43.8	43.2
Daytime	48	4/27/2023 11:56	00d 01:00:00.0	62.7	98.3	82.3	40.9	-.-	69.2	65.2	47.9	43.8	43.1
Daytime	49	4/27/2023 12:56	00d 00:45:41.7	62.2	96.6	84.2	40.7	-.-	68.5	63.9	47.8	43.9	43.3

Table C.2

Sound Level Measurememement Summary
R2
894 Petrolia Line, St. Clair Township, Ontario

Period	Address	Start Time	Measurement Time	Leq	LE	Lmax	Lmin	Ly	LN1	LN2	LN3	LN4	LN5
Daytime	1	4/25/2023 12:29	00d 01:00:00.0	56.9	92.5	69.8	46.1	-.-	61.6	60.5	54.9	50.8	49.9
Daytime	2	4/25/2023 13:29	00d 01:00:00.0	56.8	92.4	71.9	47.3	-.-	61.2	59.7	55.2	51.2	50.3
Daytime	3	4/25/2023 14:29	00d 01:00:00.0	59.1	94.7	75.3	46.9	-.-	63.8	62.7	57.3	52.7	51.8
Daytime	4	4/25/2023 15:29	00d 01:00:00.0	60.1	95.7	72.1	49	-.-	63.3	62.4	59.4	56.1	55
Daytime	5	4/25/2023 16:29	00d 01:00:00.0	57	92.6	65.7	47.1	-.-	60.8	59.9	56	51.8	50.5
Daytime	6	4/25/2023 17:29	00d 01:00:00.0	57	92.6	67.4	46.9	-.-	61	60	55.8	51.3	50.2
Daytime	7	4/25/2023 18:29	00d 01:00:00.0	55.1	90.7	62.2	46.9	-.-	58.6	57.6	54.5	50.8	49.9
Evening	8	4/25/2023 19:29	00d 01:00:00.0	52.9	88.5	60.3	46.1	-.-	56.8	56	51.5	47.8	47.3
Evening	9	4/25/2023 20:29	00d 01:00:00.0	50.2	85.8	59.3	46	-.-	54.1	52.4	49.1	47.5	47.2
Evening	10	4/25/2023 21:29	00d 01:00:00.0	49.7	85.3	59.7	45.2	-.-	53.6	51.8	48.5	47.1	46.7
Evening	11	4/25/2023 22:29	00d 01:00:00.0	49.9	85.5	58.9	45.7	-.-	53.1	51.9	49.2	47.5	47.2
Nighttime	12	4/25/2023 23:29	00d 01:00:00.0	50.1	85.7	57.9	45	-.-	53.9	52.7	49.2	46.7	46.1
Nighttime	13	4/26/2023 0:29	00d 01:00:00.0	49.7	85.3	58.8	45.4	-.-	53.7	52.2	48.6	46.9	46.6
Nighttime	14	4/26/2023 1:29	00d 01:00:00.0	48.6	84.2	60.7	43	-.-	52.4	50.2	47.6	45.6	45
Nighttime	15	4/26/2023 2:29	00d 01:00:00.0	46.5	82.1	60.4	41.9	-.-	48.8	47.7	45.6	43.7	43.4
Nighttime	16	4/26/2023 3:29	00d 01:00:00.0	51.1	86.7	60.5	45.9	-.-	55	53.7	50.1	47.5	47.2
Nighttime	17	4/26/2023 4:29	00d 01:00:00.0	51.7	87.3	70.5	39	-.-	57	55.1	47.8	42.9	42.4
Nighttime	18	4/26/2023 5:29	00d 01:00:00.0	50.8	86.4	61.6	41.4	-.-	55.1	53.7	49.4	45	43.8
Nighttime	19	4/26/2023 6:29	00d 01:00:00.0	58.1	93.7	81.1	46.1	-.-	65.2	59.7	54.3	50.8	50
Daytime	20	4/26/2023 7:29	00d 01:00:00.0	56.7	92.3	83.6	44.5	-.-	56.7	55.7	52.1	48.7	47.8
Daytime	21	4/26/2023 8:29	00d 01:00:00.0	58.7	94.3	78.9	37.6	-.-	65.6	61.3	48.1	41.4	39.9
Daytime	22	4/26/2023 9:29	00d 01:00:00.0	49.2	84.8	64.2	37.8	-.-	54.1	52.7	47	41.3	40.3
Daytime	23	4/26/2023 10:29	00d 01:00:00.0	49.1	84.7	63.5	35.4	-.-	53.8	52.3	46.4	40.7	39.5
Daytime	24	4/26/2023 11:29	00d 01:00:00.0	56.3	91.9	62.4	40.8	-.-	59.9	59.1	55.8	51.2	49.6
Daytime	25	4/26/2023 12:29	00d 01:00:00.0	54.1	89.7	75.9	38.5	-.-	58	56.6	50.5	45.4	43.8
Daytime	26	4/26/2023 13:29	00d 01:00:00.0	57.2	92.8	70.6	42.2	-.-	61.5	60.5	55.7	49.3	47.4
Daytime	27	4/26/2023 14:29	00d 01:00:00.0	49	84.6	62.4	38.3	-.-	53.4	52	47.2	42.7	41.6
Daytime	28	4/26/2023 15:29	00d 01:00:00.0	59.9	95.5	78.7	42.7	-.-	61.5	60.2	56.1	51.2	49.8
Daytime	29	4/26/2023 16:29	00d 01:00:00.0	53	88.6	64	38.1	-.-	58.5	57.4	49.4	43.6	42.4
Daytime	30	4/26/2023 17:29	00d 01:00:00.0	52.9	88.5	66.3	36.6	-.-	58.3	56.8	50.3	44.6	43.3
Daytime	31	4/26/2023 18:29	00d 01:00:00.0	50.3	85.9	62.9	37.2	-.-	55.7	54.3	47.7	41.3	40.2
Evening	32	4/26/2023 19:29	00d 01:00:00.0	40.2	75.8	54.2	30.9	-.-	45.3	43.4	37.3	33.3	32.8
Evening	33	4/26/2023 20:29	00d 01:00:00.0	38	73.6	53.5	28.5	-.-	43.4	41.2	34.8	31.6	30.8
Evening	34	4/26/2023 21:29	00d 01:00:00.0	37.3	72.9	53.1	29	-.-	43.2	40	33	30.9	30.5
Evening	35	4/26/2023 22:29	00d 01:00:00.0	37.4	73	53.3	28.7	-.-	44	41	32.3	30.4	30.1
Nighttime	36	4/26/2023 23:29	00d 01:00:00.0	33.7	69.3	48.8	27.1	-.-	39.4	35.2	30	28.7	28.3
Nighttime	37	4/27/2023 0:29	00d 01:00:00.0	34.8	70.4	52.8	27.6	-.-	38.3	35.3	32	29.8	29.4
Nighttime	38	4/27/2023 1:29	00d 01:00:00.0	36.7	72.3	48.9	32.5	-.-	39.4	38.6	35.7	34	33.7
Nighttime	39	4/27/2023 2:29	00d 01:00:00.0	36.8	72.4	49.9	33.1	-.-	38.5	37.8	36.2	34.9	34.6
Nighttime	40	4/27/2023 3:29	00d 01:00:00.0	39.1	74.7	53.5	34.6	-.-	40.9	39.5	37.7	36.3	35.9
Nighttime	41	4/27/2023 4:29	00d 01:00:00.0	48.8	84.4	64.1	37.8	-.-	54.7	52.7	44.1	39.6	38.6
Nighttime	42	4/27/2023 5:29	00d 01:00:00.0	53.8	89.4	63.9	41.5	-.-	59.1	57.9	51.4	43.9	43.2
Nighttime	43	4/27/2023 6:29	00d 01:00:00.0	56.1	91.7	64.9	46.7	-.-	60.1	58.8	55.1	51.2	49.7
Daytime	44	4/27/2023 7:29	00d 01:00:00.0	52.1	87.7	65.5	45.4	-.-	55.8	54.7	50.7	47.6	47
Daytime	45	4/27/2023 8:29	00d 01:00:00.0	54.8	90.4	78.5	43.2	-.-	58.7	56.9	51.8	48.9	48
Daytime	46	4/27/2023 9:29	00d 01:00:00.0	51.1	86.7	68	40.7	-.-	55.5	53.6	48.3	43.8	42.7
Daytime	47	4/27/2023 10:29	00d 01:00:00.0	53.1	88.7	69.7	40.9	-.-	57.7	55.9	50	45.5	44.4
Daytime	48	4/27/2023 11:29	00d 01:00:00.0	55.7	91.3	74.9	42.9	-.-	60.2	59	52.8	48.2	46.9
Daytime	49	4/27/2023 12:29	00d 01:00:00.0	55.4	91	66.2	42.8	-.-	60	58.8	53.7	48	46.6
Daytime	50	4/27/2023 13:29	00d 00:00:58.7	52.5	70.2	56.5	46.3	-.-	56.7	56.1	52.2	47.4	46.5

CERTIFICATE of CALIBRATION

Make :	RION Co. Ltd	Reference # :	170094
Model :	NL-52	Customer :	Dillon Consulting Limited Oakville, ON
Descr. :	Sound Level Meter Type 1		
Serial # :	00219972	P. Order :	Visa
Asset # :	NAN		

Cal. status : Received in spec's, minor adjustment made.
Level adj.

Navair Technologies certifies that the above listed instrument was calibrated on date noted and was released from this laboratory performing in accordance with the specifications set forth by the manufacturer.

Unless otherwise noted in the calibration report a 4:1 accuracy ratio was maintained for this calibration.

Our calibration system complies with the requirements of ISO-9001-2015 and is registered under certificate CA96/269, working standards used for calibration are certified by or traceable to the National Research Council of Canada or the National Institute of Standards and Technology.

Calibrated : Mar 18, 2022 By :

Cal. Due : Mar 18, 2024 T. Beilin

Temperature : 23 °C ± 2 °C Relative Humidity : 30% to 70%

Standards used : J-216 J-303 J-512

Navair Technologies

REPAIR AND CALIBRATION TRACEABLE TO NRC AND NIST

6375 Dixie Rd. Mississauga, ON, L5T 2E7 http: // www.navair.com
Phone : 800-668-7440 Fax: 905 565 8325 e-Mail: service @ navair.com

CERTIFICATE of CALIBRATION

Make :	RION Co. Ltd	Reference # :	170093
Model :	NL-52	Customer :	Dillon Consulting Limited Oakville, ON
Descr. :	Sound Level Meter Type 1		
Serial # :	00219971	P. Order :	Visa
Asset # :	NAN		

Cal. status : Received in spec's, no adjustment made.

Navair Technologies certifies that the above listed instrument was calibrated on date noted and was released from this laboratory performing in accordance with the specifications set forth by the manufacturer.

Unless otherwise noted in the calibration report a 4:1 accuracy ratio was maintained for this calibration.

Our calibration system complies with the requirements of ISO-9001-2015 and is registered under certificate CA96/269, working standards used for calibration are certified by or traceable to the National Research Council of Canada or the National Institute of Standards and Technology.

Calibrated : Mar 18, 2022 By :

Cal. Due : Mar 18, 2024 T. Beilin

Temperature : 23 °C ± 2 °C Relative Humidity : 30% to 70%

Standards used : J-216 J-303 J-512

Navair Technologies

REPAIR AND CALIBRATION TRACEABLE TO NRC AND NIST

6375 Dixie Rd. Mississauga, ON, L5T 2E7 http: // www.navair.com

Phone : 800-668-7440 Fax: 905 565 8325 e-Mail: service @ navair.com

Station Name	**SARNIA**
Province	**ONTARIO**
Latitude	**43**
Longitude	**-82.31**
Elevation	**181.40 m**
Climate Idenifier	**6127510**
TC Identifier	**YZR**

All times are specified in Local Standard Time (LST). Add 1 hour to adjust for Daylight Saving Time where and when it is observed.

Date/Time	Temp (°C)	Dew Point Temp (°C)	Rel Hum (%)	Wind Dir (10s deg)	Wind Spd (km/h)	Stn Press (kPa)
4/25/2023 0:00	3.5	-0.5	75	21	8	99.9
4/25/2023 1:00	2.9	-0.6	78	21	8	99.88
4/25/2023 2:00	2.9	-0.4	79	21	8	99.87
4/25/2023 3:00	2.5	-0.8	79	26	4	99.88
4/25/2023 4:00	0.8	-1.4	85	0	4	99.91
4/25/2023 5:00	1.9	-2.6	72	28	8	99.92
4/25/2023 6:00	0.8	-2.4	79	24	4	99.95
4/25/2023 7:00	3	-1.2	74	27	5	99.99
4/25/2023 8:00	4.7	-0.2	70	32	13	100.01
4/25/2023 9:00	5.4	-1	63	34	9	100.01
4/25/2023 10:00	7.3	-0.5	58	36	8	100.01
4/25/2023 11:00	6.2	-1.4	58	3	13	99.99
4/25/2023 12:00	7.1	-1.2	56	4	8	99.98
4/25/2023 13:00	6.5	-1.3	57	0	5	99.98
4/25/2023 14:00	6.1	1.8	74	20	11	99.97
4/25/2023 15:00	5.7	1.9	76	20	15	99.97
4/25/2023 16:00	6.3	1.8	73	20	15	99.97
4/25/2023 17:00	6.7	1.8	71	22	13	99.96
4/25/2023 18:00	5.7	1.8	76	21	13	99.96
4/25/2023 19:00	5	2	81	20	13	99.96
4/25/2023 20:00	4.4	1.9	84	17	11	99.97
4/25/2023 21:00	3.3	1.5	88	21	9	100.01
4/25/2023 22:00	2.2	1	92	21	9	100.02
4/25/2023 23:00	2.2	0.9	91	24	4	100.02
4/26/2023 0:00	0.8	0.1	95	0	0	100.03
4/26/2023 1:00	0.2	-0.3	97	0	4	100.03
4/26/2023 2:00	-0.9	-1.3	97	1	5	100.03
4/26/2023 3:00	-0.6	-1	97	19	8	100.04
4/26/2023 4:00	-1	-1.4	97	0	0	100.05
4/26/2023 5:00	-0.8	-1.2	97	0	4	100.09
4/26/2023 6:00	-0.7	-1.1	97	13	8	100.13
4/26/2023 7:00	0.3	0	98	13	5	100.18
4/26/2023 8:00	2.1	1.7	97	0	0	100.2
4/26/2023 9:00	5	2.1	82	2	18	100.21
4/26/2023 10:00	5.4	2.4	81	3	13	100.22
4/26/2023 11:00	5.8	0.9	71	36	15	100.24
4/26/2023 12:00	7	1.8	70	1	17	100.2
4/26/2023 13:00	6.8	2.1	72	4	18	100.17
4/26/2023 14:00	7.9	1.7	65	3	15	100.16
4/26/2023 15:00	6.7	1	67	4	15	100.15
4/26/2023 16:00	7.7	0.9	62	4	17	100.13
4/26/2023 17:00	6.3	1.1	69	4	21	100.11
4/26/2023 18:00	4.7	1.2	78	4	21	100.1
4/26/2023 19:00	4.4	0.7	77	4	21	100.12
4/26/2023 20:00	4.8	1.2	78	5	13	100.13
4/26/2023 21:00	4.9	1	76	5	11	100.15
4/26/2023 22:00	4.6	0.2	73	7	8	100.16
4/26/2023 23:00	3.9	0.4	78	6	5	100.13
4/27/2023 0:00	3.3	0.1	80	14	5	100.1
4/27/2023 1:00	3.1	0.3	82	0	0	100.09
4/27/2023 2:00	2.3	1	91	0	0	100.09
4/27/2023 3:00	2.1	0.5	89	0	0	100.06
4/27/2023 4:00	1.6	0.2	90	0	0	100.09
4/27/2023 5:00	0.2	-0.5	95	0	0	100.12
4/27/2023 6:00	0.4	-0.4	94	16	5	100.12
4/27/2023 7:00	3.4	0	78	14	9	100.09
4/27/2023 8:00	6.7	-0.2	61	16	13	100.07
4/27/2023 9:00	9.1	-0.5	51	15	18	100
4/27/2023 10:00	10.8	0.6	49	17	15	99.96

Station Name	**SARNIA**
Province	**ONTARIO**
Latitude	**43**
Longitude	**-82.31**
Elevation	**181.40 m**
Climate Idenifier	**6127510**
TC Identifier	**YZR**

All times are specified in Local Standard Time (LST). Add 1 hour to adjust for Daylight Saving Time where and when it is observed.

Date/Time	Temp (°C)	Dew Point Temp (°C)	Rel Hum (%)	Wind Dir (10s deg)	Wind Spd (km/h)	Stn Press (kPa)
4/27/2023 11:00	11.8	0.7	46	16	22	99.93
4/27/2023 12:00	12.7	1.7	47	15	21	99.87
4/27/2023 13:00	13.1	1.6	45	17	17	99.82
4/27/2023 14:00	13.2	1.3	44	15	17	99.75
4/27/2023 15:00	13.7	0.7	41	17	17	99.67
4/27/2023 16:00	13.9	-1.2	35	14	18	99.62
4/27/2023 17:00	13.8	-1.2	36	14	17	99.56
4/27/2023 18:00	13.2	-1.5	36	14	15	99.51
4/27/2023 19:00	11.4	-2.2	39	13	13	99.48
4/27/2023 20:00	9.6	-2.4	43	9	8	99.48
4/27/2023 21:00	8.1	-2.5	47	10	8	99.45
4/27/2023 22:00	7.4	-3.2	47	13	5	99.44
4/27/2023 23:00	5.7	-2.7	55	10	11	99.41

Appendix D

Sample CADNA Output File

Receiver
Name: Residence - 894 Petrolia Line
ID: R2
X: 386258.00 m
Y: 4749330.00 m
Z: 4.50 m

Point Source, ISO 9613, Name: "HRSG3 Superheated Steam Piping ", ID: "NS3-14"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
1	385879.67	4750363.47	18.40	0	DEN	500	78.0	0.0	0.0	0.0	0.0	71.8	2.1	-1.3	0.0	0.0	0.0	0.0	0.0	5.4
1	385879.67	4750363.47	18.40	0	DEN	1000	91.0	0.0	0.0	0.0	0.0	71.8	4.0	-1.3	0.0	0.0	0.0	0.0	0.0	16.5
1	385879.67	4750363.47	18.40	0	DEN	2000	108.0	0.0	0.0	0.0	0.0	71.8	10.6	-1.3	0.0	0.0	0.0	0.0	0.0	26.8
1	385879.67	4750363.47	18.40	0	DEN	4000	112.0	0.0	0.0	0.0	0.0	71.8	36.1	-1.3	0.0	0.0	0.0	0.0	0.0	5.4

Point Source, ISO 9613, Name: "HRSG4 Superheated Steam Piping ", ID: "NS4-14"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
3	385801.98	4750366.92	18.40	0	DEN	500	78.0	0.0	0.0	0.0	0.0	72.1	2.2	-1.5	0.0	0.0	0.0	0.0	0.0	5.2
3	385801.98	4750366.92	18.40	0	DEN	1000	91.0	0.0	0.0	0.0	0.0	72.1	4.1	-1.5	0.0	0.0	0.0	0.0	0.0	16.3
3	385801.98	4750366.92	18.40	0	DEN	2000	108.0	0.0	0.0	0.0	0.0	72.1	10.9	-1.5	0.0	0.0	0.0	0.0	0.0	26.5
3	385801.98	4750366.92	18.40	0	DEN	4000	112.0	0.0	0.0	0.0	0.0	72.1	37.1	-1.5	0.0	0.0	0.0	0.0	0.0	4.3

Point Source, ISO 9613, Name: "CGT3 Enclosure Ventilation Intake Unit ", ID: "NS3-05<T>"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
5	385880.20	4750384.94	8.70	0	DEN	63	84.0	0.0	0.0	0.0	0.0	72.0	0.1	-4.9	0.0	0.0	0.0	0.0	0.0	16.9
5	385880.20	4750384.94	8.70	0	DEN	125	91.0	0.0	0.0	0.0	0.0	72.0	0.5	1.4	0.0	0.0	0.0	0.0	0.0	17.2
5	385880.20	4750384.94	8.70	0	DEN	250	95.0	0.0	0.0	0.0	0.0	72.0	1.2	-0.6	0.0	0.0	0.0	0.0	0.0	22.5
5	385880.20	4750384.94	8.70	0	DEN	500	109.0	0.0	0.0	0.0	0.0	72.0	2.2	-1.6	0.0	0.0	0.0	0.0	0.0	36.5
5	385880.20	4750384.94	8.70	0	DEN	1000	99.0	0.0	0.0	0.0	0.0	72.0	4.1	-1.6	0.0	0.0	0.0	0.0	0.0	24.6
5	385880.20	4750384.94	8.70	0	DEN	2000	97.0	0.0	0.0	0.0	0.0	72.0	10.8	-1.6	0.0	0.0	0.0	0.0	0.0	15.8

Point Source, ISO 9613, Name: "CGT4 Enclosure Ventilation Intake Unit ", ID: "NS4-05"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
7	385802.13	4750388.36	8.70	0	DEN	63	84.0	0.0	0.0	0.0	0.0	72.2	0.1	-5.0	0.0	0.0	4.8	0.0	0.0	11.8
7	385802.13	4750388.36	8.70	0	DEN	125	91.0	0.0	0.0	0.0	0.0	72.2	0.5	1.0	0.0	0.0	3.8	0.0	0.0	13.5
7	385802.13	4750388.36	8.70	0	DEN	250	95.0	0.0	0.0	0.0	0.0	72.2	1.2	-1.0	0.0	0.0	4.9	0.0	0.0	17.6
7	385802.13	4750388.36	8.70	0	DEN	500	109.0	0.0	0.0	0.0	0.0	72.2	2.2	-1.9	0.0	0.0	5.1	0.0	0.0	31.3
7	385802.13	4750388.36	8.70	0	DEN	1000	99.0	0.0	0.0	0.0	0.0	72.2	4.2	-1.9	0.0	0.0	5.6	0.0	0.0	18.9
7	385802.13	4750388.36	8.70	0	DEN	2000	97.0	0.0	0.0	0.0	0.0	72.2	11.1	-1.9	0.0	0.0	6.3	0.0	0.0	9.3

vert. Area Source, ISO 9613, Name: "East Cooling Tower Side Inlet", ID: "NS-17"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
9	385845.73	4750267.25	2.50	0	DEN	500	70.5	15.8	0.0	3.0	0.0	71.2	2.0	-1.9	0.0	0.0	5.3	0.0	0.0	12.7
9	385845.73	4750267.25	2.50	0	DEN	1000	75.5	15.8	0.0	3.0	0.0	71.2	3.7	-2.2	0.0	0.0	5.8	0.0	0.0	15.7
9	385845.73	4750267.25	2.50	0	DEN	2000	76.5	15.8	0.0	3.0	0.0	71.2	9.9	-2.2	0.0	0.0	6.7	0.0	0.0	9.7
11	385842.27	4750193.25	2.50	0	DEN	125	51.5	20.4	0.0	3.0	0.0	70.6	0.4	2.9	0.0	0.0	0.0	0.0	0.0	1.0
11	385842.27	4750193.25	2.50	0	DEN	250	57.5	20.4	0.0	3.0	0.0	70.6	1.0	1.5	0.0	0.0	0.0	0.0	0.0	7.8
11	385842.27	4750193.25	2.50	0	DEN	500	70.5	20.4	0.0	3.0	0.0	70.6	1.8	-1.5	0.0	0.0	0.0	0.0	0.0	23.0
11	385842.27	4750193.25	2.50	0	DEN	1000	75.5	20.4	0.0	3.0	0.0	70.6	3.5	-1.9	0.0	0.0	0.0	0.0	0.0	26.7
11	385842.27	4750193.25	2.50	0	DEN	2000	76.5	20.4	0.0	3.0	0.0	70.6	9.3	-1.9	0.0	0.0	0.0	0.0	0.0	22.0
11	385842.27	4750193.25	2.50	0	DEN	4000	78.5	20.4	0.0	3.0	0.0	70.6	31.4	-1.9	0.0	0.0	0.0	0.0	0.0	1.8
13	385841.66	4750180.11	2.50	1	DEN	1000	75.5	3.6	0.0	3.0	0.0	71.9	4.1	-2.0	0.0	0.0	4.8	0.0	1.0	2.4
15	385839.89	4750142.25	2.50	1	DEN	2000	76.5	9.2	0.0	3.0	0.0	72.2	11.1	-2.1	0.0	0.0	4.9	0.0	1.0	1.6
17	385840.92	4750164.27	2.50	1	DEN	500	70.5	1.9	0.0	3.0	0.0	71.1	1.9	-1.6	0.0	0.0	0.0	0.0	1.0	3.0
17	385840.92	4750164.27	2.50	1	DEN	1000	75.5	1.9	0.0	3.0	0.0	71.1	3.7	-2.0	0.0	0.0	0.0	0.0	1.0	6.7
17	385840.92	4750164.27	2.50	1	DEN	2000	76.5	1.9	0.0	3.0	0.0	71.1	9.7	-2.0	0.0	0.0	0.0	0.0	1.0	1.6
19	385840.41	4750153.42	2.50	1	DEN	1000	75.5	13.0	0.0	3.0	0.0	71.2	3.7	-2.0	0.0	0.0	0.0	0.0	1.0	17.6
19	385840.41	4750153.42	2.50	1	DEN	2000	76.5	13.0	0.0	3.0	0.0	71.2	9.8	-2.0	0.0	0.0	0.0	0.0	1.0	12.5
21	385839.82	4750140.72	2.50	1	DEN	1000	75.5	7.2	0.0	3.0	0.0	71.3	3.8	-2.0	0.0	0.0	0.0	0.0	1.0	11.7

vert. Area Source, ISO 9613, Name: "East Cooling Tower Side Inlet", ID: "NS-17"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
21	385839.82	4750140.72	2.50	1	DEN	2000	76.5	7.2	0.0	3.0	0.0	71.3	9.9	-2.0	0.0	0.0	0.0	0.0	1.0	6.5
23	385840.79	4750161.54	2.50	1	DEN	2000	76.5	12.3	0.0	3.0	0.0	71.8	10.6	-2.2	0.0	0.0	5.9	0.0	1.0	4.7
24	385840.05	4750145.61	2.50	1	DEN	2000	76.5	11.8	0.0	3.0	0.0	71.9	10.8	-2.1	0.0	0.0	4.9	0.0	1.0	4.7
29	385845.73	4750267.25	0.50	0	DEN	500	70.5	15.8	0.0	3.0	0.0	71.2	2.0	4.2	0.0	0.0	2.9	0.0	0.0	9.0
29	385845.73	4750267.25	0.50	0	DEN	1000	75.5	15.8	0.0	3.0	0.0	71.2	3.7	-0.1	0.0	0.0	8.7	0.0	0.0	10.7
29	385845.73	4750267.25	0.50	0	DEN	2000	76.5	15.8	0.0	3.0	0.0	71.2	9.9	-2.1	0.0	0.0	10.8	0.0	0.0	5.5
31	385842.27	4750193.25	0.50	0	DEN	125	51.5	20.4	0.0	3.0	0.0	70.6	0.4	3.3	0.0	0.0	0.0	0.0	0.0	0.6
31	385842.27	4750193.25	0.50	0	DEN	250	57.5	20.4	0.0	3.0	0.0	70.6	1.0	3.2	0.0	0.0	0.0	0.0	0.0	6.2
31	385842.27	4750193.25	0.50	0	DEN	500	70.5	20.4	0.0	3.0	0.0	70.6	1.8	4.2	0.0	0.0	0.0	0.0	0.0	17.2
31	385842.27	4750193.25	0.50	0	DEN	1000	75.5	20.4	0.0	3.0	0.0	70.6	3.5	-0.0	0.0	0.0	0.0	0.0	0.0	24.8
31	385842.27	4750193.25	0.50	0	DEN	2000	76.5	20.4	0.0	3.0	0.0	70.6	9.3	-2.0	0.0	0.0	0.0	0.0	0.0	22.1
31	385842.27	4750193.25	0.50	0	DEN	4000	78.5	20.4	0.0	3.0	0.0	70.6	31.4	-2.0	0.0	0.0	0.0	0.0	0.0	1.9
32	385841.66	4750180.11	0.50	1	DEN	1000	75.5	3.6	0.0	3.0	0.0	71.9	4.1	-0.1	0.0	0.0	4.8	0.0	1.0	0.4
35	385839.89	4750142.25	0.50	1	DEN	2000	76.5	9.2	0.0	3.0	0.0	72.2	11.1	-2.1	0.0	0.0	5.9	0.0	1.0	0.6
37	385840.92	4750164.27	0.50	1	DEN	1000	75.5	1.9	0.0	3.0	0.0	71.1	3.7	-0.1	0.0	0.0	0.0	0.0	1.0	4.8
37	385840.92	4750164.27	0.50	1	DEN	2000	76.5	1.9	0.0	3.0	0.0	71.1	9.7	-2.1	0.0	0.0	0.0	0.0	1.0	1.7
40	385840.41	4750153.42	0.50	1	DEN	1000	75.5	13.0	0.0	3.0	0.0	71.2	3.7	-0.1	0.0	0.0	0.0	0.0	1.0	15.7
40	385840.41	4750153.42	0.50	1	DEN	2000	76.5	13.0	0.0	3.0	0.0	71.2	9.8	-2.1	0.0	0.0	0.0	0.0	1.0	12.6
43	385839.82	4750140.72	0.50	1	DEN	1000	75.5	7.2	0.0	3.0	0.0	71.3	3.8	-0.1	0.0	0.0	0.0	0.0	1.0	9.8
43	385839.82	4750140.72	0.50	1	DEN	2000	76.5	7.2	0.0	3.0	0.0	71.3	9.9	-2.1	0.0	0.0	0.0	0.0	1.0	6.6
46	385840.79	4750161.54	0.50	1	DEN	2000	76.5	12.3	0.0	3.0	0.0	71.8	10.6	-2.1	0.0	0.0	9.3	0.0	1.0	1.2
49	385840.05	4750145.61	0.50	1	DEN	2000	76.5	11.8	0.0	3.0	0.0	71.9	10.8	-2.1	0.0	0.0	6.2	0.0	1.0	3.5
59	385845.73	4750267.25	1.50	0	DEN	500	70.5	15.8	0.0	3.0	0.0	71.2	2.0	0.4	0.0	0.0	5.6	0.0	0.0	10.1
59	385845.73	4750267.25	1.50	0	DEN	1000	75.5	15.8	0.0	3.0	0.0	71.2	3.7	-1.7	0.0	0.0	7.1	0.0	0.0	14.0
59	385845.73	4750267.25	1.50	0	DEN	2000	76.5	15.8	0.0	3.0	0.0	71.2	9.9	-2.0	0.0	0.0	8.6	0.0	0.0	7.6
62	385842.27	4750193.25	1.50	0	DEN	125	51.5	20.4	0.0	3.0	0.0	70.6	0.4	3.2	0.0	0.0	0.0	0.0	0.0	0.8
62	385842.27	4750193.25	1.50	0	DEN	250	57.5	20.4	0.0	3.0	0.0	70.6	1.0	2.5	0.0	0.0	0.0	0.0	0.0	6.8
62	385842.27	4750193.25	1.50	0	DEN	500	70.5	20.4	0.0	3.0	0.0	70.6	1.8	0.5	0.0	0.0	0.0	0.0	0.0	21.0
62	385842.27	4750193.25	1.50	0	DEN	1000	75.5	20.4	0.0	3.0	0.0	70.6	3.5	-1.6	0.0	0.0	0.0	0.0	0.0	26.5
62	385842.27	4750193.25	1.50	0	DEN	2000	76.5	20.4	0.0	3.0	0.0	70.6	9.3	-2.0	0.0	0.0	0.0	0.0	0.0	22.0
62	385842.27	4750193.25	1.50	0	DEN	4000	78.5	20.4	0.0	3.0	0.0	70.6	31.4	-2.0	0.0	0.0	0.0	0.0	0.0	1.9
64	385841.66	4750180.11	1.50	1	DEN	1000	75.5	3.6	0.0	3.0	0.0	71.9	4.1	-1.7	0.0	0.0	4.8	0.0	1.0	2.1
66	385839.89	4750142.25	1.50	1	DEN	2000	76.5	9.2	0.0	3.0	0.0	72.2	11.1	-2.1	0.0	0.0	5.2	0.0	1.0	1.3
69	385840.92	4750164.27	1.50	1	DEN	500	70.5	1.9	0.0	3.0	0.0	71.1	1.9	0.5	0.0	0.0	0.0	0.0	1.0	1.0
69	385840.92	4750164.27	1.50	1	DEN	1000	75.5	1.9	0.0	3.0	0.0	71.1	3.7	-1.7	0.0	0.0	0.0	0.0	1.0	6.4
69	385840.92	4750164.27	1.50	1	DEN	2000	76.5	1.9	0.0	3.0	0.0	71.1	9.7	-2.0	0.0	0.0	0.0	0.0	1.0	1.7
72	385840.41	4750153.42	1.50	1	DEN	1000	75.5	13.0	0.0	3.0	0.0	71.2	3.7	-1.7	0.0	0.0	0.0	0.0	1.0	17.4
72	385840.41	4750153.42	1.50	1	DEN	2000	76.5	13.0	0.0	3.0	0.0	71.2	9.8	-2.0	0.0	0.0	0.0	0.0	1.0	12.6
75	385839.82	4750140.72	1.50	1	DEN	1000	75.5	7.2	0.0	3.0	0.0	71.3	3.8	-1.7	0.0	0.0	0.0	0.0	1.0	11.4
75	385839.82	4750140.72	1.50	1	DEN	2000	76.5	7.2	0.0	3.0	0.0	71.3	9.9	-2.0	0.0	0.0	0.0	0.0	1.0	6.6
79	385840.79	4750161.54	1.50	1	DEN	2000	76.5	12.3	0.0	3.0	0.0	71.8	10.6	-2.1	0.0	0.0	7.3	0.0	1.0	3.0
82	385840.05	4750145.61	1.50	1	DEN	2000	76.5	11.8	0.0	3.0	0.0	71.9	10.8	-2.1	0.0	0.0	5.4	0.0	1.0	4.3

Point Source, ISO 9613, Name: "CGT3 Intake Duct ", ID: "NS3-19"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
88	385881.14	4750391.95	9.70	0	DEN	63	68.0	0.0	0.0	0.0	0.0	72.0	0.1	-4.9	0.0	0.0	0.0	0.0	0.0	0.7
88	385881.14	4750391.95	9.70	0	DEN	125	74.0	0.0	0.0	0.0	0.0	72.0	0.5	1.2	0.0	0.0	0.0	0.0	0.0	0.3
88	385881.14	4750391.95	9.70	0	DEN	250	82.0	0.0	0.0	0.0	0.0	72.0	1.2	-0.6	0.0	0.0	0.0	0.0	0.0	9.4
88	385881.14	4750391.95	9.70	0	DEN	500	83.0	0.0	0.0	0.0	0.0	72.0	2.2	-1.6	0.0	0.0	0.0	0.0	0.0	10.4
88	385881.14	4750391.95	9.70	0	DEN	1000	89.0	0.0	0.0	0.0	0.0	72.0	4.1	-1.6	0.0	0.0	0.0	0.0	0.0	14.4
88	385881.14	4750391.95	9.70	0	DEN	2000	109.0	0.0	0.0	0.0	0.0	72.0	10.9	-1.6	0.0	0.0	0.0	0.0	0.0	27.6

vert. Area Source, ISO 9613, Name: "West Cooling Tower Side Inlet", ID: "NS-16"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
134	385821.08	4750145.82	1.50	0	DEN	1000	75.5	11.4	0.0	3.0	0.0	70.3	3.4	-1.8	0.0	0.0	17.0	0.0	0.0	1.0
141	385827.15	4750275.71	1.50	1	DEN	500	70.5	10.8	0.0	3.0	0.0	71.5	2.0	0.4	0.0	0.0	6.1	0.0	1.0	3.3
141	385827.15	4750275.71	1.50	1	DEN	1000	75.5	10.8	0.0	3.0	0.0	71.5	3.9	-1.8	0.0	0.0	8.0	0.0	1.0	6.7
147	385826.36	4750258.83	1.50	1	DEN	500	70.5	12.1	0.0	3.0	0.0	71.4	2.0	0.4	0.0	0.0	6.2	0.0	1.0	4.6
147	385826.36	4750258.83	1.50	1	DEN	1000	75.5	12.1	0.0	3.0	0.0	71.4	3.8	-1.7	0.0	0.0	8.2	0.0	1.0	8.0
147	385826.36	4750258.83	1.50	1	DEN	2000	76.5	12.1	0.0	3.0	0.0	71.4	10.1	-2.1	0.0	0.0	10.2	0.0	1.0	1.0
150	385825.89	4750248.73	1.50	1	DEN	1000	75.5	6.0	0.0	3.0	0.0	71.3	3.8	-1.7	0.0	0.0	9.1	0.0	1.0	1.0

vert. Area Source, ISO 9613, Name: "West Cooling Tower Side Inlet", ID: "NS-16"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
153	385825.49	4750240.09	1.50	1	DEN	500	70.5	11.2	0.0	3.0	0.0	71.2	2.0	0.4	0.0	0.0	6.4	0.0	1.0	3.7
153	385825.49	4750240.09	1.50	1	DEN	1000	75.5	11.2	0.0	3.0	0.0	71.2	3.8	-1.7	0.0	0.0	8.6	0.0	1.0	6.9
224	385821.08	4750145.82	0.50	0	DEN	1000	75.5	11.4	0.0	3.0	0.0	70.3	3.4	-1.4	0.0	0.0	17.0	0.0	0.0	0.6
231	385827.15	4750275.71	0.50	1	DEN	500	70.5	10.8	0.0	3.0	0.0	71.5	2.0	4.1	0.0	0.0	3.0	0.0	1.0	2.7
231	385827.15	4750275.71	0.50	1	DEN	1000	75.5	10.8	0.0	3.0	0.0	71.5	3.9	-0.1	0.0	0.0	9.0	0.0	1.0	4.1
237	385826.36	4750258.83	0.50	1	DEN	500	70.5	12.1	0.0	3.0	0.0	71.4	2.0	4.1	0.0	0.0	3.1	0.0	1.0	4.0
237	385826.36	4750258.83	0.50	1	DEN	1000	75.5	12.1	0.0	3.0	0.0	71.4	3.8	-0.1	0.0	0.0	9.1	0.0	1.0	5.4
244	385825.49	4750240.09	0.50	1	DEN	500	70.5	11.2	0.0	3.0	0.0	71.2	2.0	4.1	0.0	0.0	3.4	0.0	1.0	3.0
244	385825.49	4750240.09	0.50	1	DEN	1000	75.5	11.2	0.0	3.0	0.0	71.2	3.8	-0.1	0.0	0.0	9.6	0.0	1.0	4.3
315	385821.08	4750145.82	2.50	0	DEN	1000	75.5	11.4	0.0	3.0	0.0	70.3	3.4	-1.9	0.0	0.0	17.0	0.0	0.0	1.0
322	385827.15	4750275.71	2.50	1	DEN	500	70.5	10.8	0.0	3.0	0.0	71.5	2.0	-1.6	0.0	0.0	6.0	0.0	1.0	5.5
322	385827.15	4750275.71	2.50	1	DEN	1000	75.5	10.8	0.0	3.0	0.0	71.5	3.9	-2.0	0.0	0.0	7.2	0.0	1.0	7.8
322	385827.15	4750275.71	2.50	1	DEN	2000	76.5	10.8	0.0	3.0	0.0	71.5	10.2	-2.0	0.0	0.0	8.8	0.0	1.0	0.8
325	385826.81	4750268.31	2.50	1	DEN	1000	75.5	4.4	0.0	3.0	0.0	71.5	3.9	-2.0	0.0	0.0	7.7	0.0	1.0	0.9
328	385826.36	4750258.83	2.50	1	DEN	500	70.5	12.1	0.0	3.0	0.0	71.4	2.0	-1.6	0.0	0.0	6.1	0.0	1.0	6.8
328	385826.36	4750258.83	2.50	1	DEN	1000	75.5	12.1	0.0	3.0	0.0	71.4	3.8	-2.0	0.0	0.0	7.3	0.0	1.0	9.1
328	385826.36	4750258.83	2.50	1	DEN	2000	76.5	12.1	0.0	3.0	0.0	71.4	10.1	-2.0	0.0	0.0	9.0	0.0	1.0	2.2
331	385825.89	4750248.73	2.50	1	DEN	500	70.5	6.0	0.0	3.0	0.0	71.3	2.0	-1.6	0.0	0.0	6.7	0.0	1.0	0.2
331	385825.89	4750248.73	2.50	1	DEN	1000	75.5	6.0	0.0	3.0	0.0	71.3	3.8	-2.0	0.0	0.0	8.1	0.0	1.0	2.3
334	385825.49	4750240.09	2.50	1	DEN	500	70.5	11.2	0.0	3.0	0.0	71.2	2.0	-1.6	0.0	0.0	6.3	0.0	1.0	5.9
334	385825.49	4750240.09	2.50	1	DEN	1000	75.5	11.2	0.0	3.0	0.0	71.2	3.8	-2.0	0.0	0.0	7.7	0.0	1.0	8.1
334	385825.49	4750240.09	2.50	1	DEN	2000	76.5	11.2	0.0	3.0	0.0	71.2	9.9	-2.0	0.0	0.0	9.5	0.0	1.0	1.0

Point Source, ISO 9613, Name: "CGT4 Intake Duct ", ID: "NS4-19"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
355	385803.08	4750394.37	9.70	0	DEN	250	82.0	0.0	0.0	0.0	0.0	72.3	1.2	-0.9	0.0	0.0	4.8	0.0	0.0	4.6
355	385803.08	4750394.37	9.70	0	DEN	500	83.0	0.0	0.0	0.0	0.0	72.3	2.2	-1.9	0.0	0.0	4.9	0.0	0.0	5.5
355	385803.08	4750394.37	9.70	0	DEN	1000	89.0	0.0	0.0	0.0	0.0	72.3	4.2	-1.9	0.0	0.0	5.0	0.0	0.0	9.3
355	385803.08	4750394.37	9.70	0	DEN	2000	109.0	0.0	0.0	0.0	0.0	72.3	11.2	-1.9	0.0	0.0	5.3	0.0	0.0	22.1

Point Source, ISO 9613, Name: "HRSG3 Pipe to LP Sky Vent ", ID: "NS3-17"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
358	385874.82	4750343.92	1.50	0	DEN	250	100.0	0.0	0.0	0.0	0.0	71.7	1.1	1.7	0.0	0.0	23.3	0.0	0.0	2.2
358	385874.82	4750343.92	1.50	0	DEN	500	102.0	0.0	0.0	0.0	0.0	71.7	2.1	-0.1	0.0	0.0	25.0	0.0	0.0	3.3

Point Source, ISO 9613, Name: "East Transformer ", ID: "NS-01<T>"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
360	385862.90	4750427.06	2.50	0	DEN	63	77.0	0.0	0.0	0.0	0.0	72.3	0.1	-5.5	0.0	0.0	4.8	0.0	0.0	5.2
360	385862.90	4750427.06	2.50	0	DEN	125	96.0	0.0	0.0	0.0	0.0	72.3	0.5	2.9	0.0	0.0	1.9	0.0	0.0	18.4
360	385862.90	4750427.06	2.50	0	DEN	250	102.0	0.0	0.0	0.0	0.0	72.3	1.2	1.3	0.0	0.0	3.5	0.0	0.0	23.6
360	385862.90	4750427.06	2.50	0	DEN	500	107.0	0.0	0.0	0.0	0.0	72.3	2.2	-1.6	0.0	0.0	4.8	0.0	0.0	29.2
360	385862.90	4750427.06	2.50	0	DEN	1000	99.0	0.0	0.0	0.0	0.0	72.3	4.3	-2.0	0.0	0.0	4.8	0.0	0.0	19.6
360	385862.90	4750427.06	2.50	0	DEN	2000	93.0	0.0	0.0	0.0	0.0	72.3	11.3	-2.0	0.0	0.0	4.8	0.0	0.0	6.6

Point Source, ISO 9613, Name: "West Transformer", ID: "NS-02<T>"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
363	385829.20	4750429.35	2.50	0	DEN	63	77.0	0.0	0.0	0.0	0.0	72.4	0.1	-5.5	0.0	0.0	5.4	0.0	0.0	4.4
363	385829.20	4750429.35	2.50	0	DEN	125	96.0	0.0	0.0	0.0	0.0	72.4	0.5	2.2	0.0	0.0	4.1	0.0	0.0	16.7
363	385829.20	4750429.35	2.50	0	DEN	250	102.0	0.0	0.0	0.0	0.0	72.4	1.2	0.6	0.0	0.0	7.1	0.0	0.0	20.6
363	385829.20	4750429.35	2.50	0	DEN	500	107.0	0.0	0.0	0.0	0.0	72.4	2.3	-1.9	0.0	0.0	9.5	0.0	0.0	24.6
363	385829.20	4750429.35	2.50	0	DEN	1000	99.0	0.0	0.0	0.0	0.0	72.4	4.3	-2.2	0.0	0.0	11.8	0.0	0.0	12.7

Point Source, ISO 9613, Name: "HRSG4 Pipe to LP Sky Vent ", ID: "NS4-17"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
366	385805.92	4750346.39	1.50	0	DEN	125	83.0	0.0	0.0	0.0	0.0	71.9	0.5	2.7	0.0	0.0	6.3	0.0	0.0	1.7
366	385805.92	4750346.39	1.50	0	DEN	250	100.0	0.0	0.0	0.0	0.0	71.9	1.2	1.8	0.0	0.0	9.6	0.0	0.0	15.5
366	385805.92	4750346.39	1.50	0	DEN	500	102.0	0.0	0.0	0.0	0.0	71.9	2.1	-0.1	0.0	0.0	14.0	0.0	0.0	14.0
366	385805.92	4750346.39	1.50	0	DEN	1000	95.0	0.0	0.0	0.0	0.0	71.9	4.1	-2.0	0.0	0.0	16.8	0.0	0.0	4.2

Point Source, ISO 9613, Name: "HRSG3 HP Blowdown Vents (sum of 2) ", ID: "NS3-15"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
368	385881.29	4750351.00	26.70	0	DEN	63	70.0	0.0	0.0	0.0	0.0	71.7	0.1	-3.4	0.0	0.0	0.0	0.0	0.0	1.6
368	385881.29	4750351.00	26.70	0	DEN	125	80.0	0.0	0.0	0.0	0.0	71.7	0.4	1.6	0.0	0.0	0.0	0.0	0.0	6.2
368	385881.29	4750351.00	26.70	0	DEN	250	90.0	0.0	0.0	0.0	0.0	71.7	1.1	-0.1	0.0	0.0	0.0	0.0	0.0	17.2
368	385881.29	4750351.00	26.70	0	DEN	500	81.0	0.0	0.0	0.0	0.0	71.7	2.1	-1.1	0.0	0.0	0.0	0.0	0.0	8.2
368	385881.29	4750351.00	26.70	0	DEN	1000	90.0	0.0	0.0	0.0	0.0	71.7	4.0	-1.1	0.0	0.0	0.0	0.0	0.0	15.4
368	385881.29	4750351.00	26.70	0	DEN	2000	89.0	0.0	0.0	0.0	0.0	71.7	10.5	-1.1	0.0	0.0	0.0	0.0	0.0	7.8

Point Source, ISO 9613, Name: "HRSG4 HP Blowdown Vents (sum of 2) ", ID: "NS4-15"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
371	385800.77	4750352.75	26.70	0	DEN	63	70.0	0.0	0.0	0.0	0.0	72.0	0.1	-3.5	0.0	0.0	0.0	0.0	0.0	1.4
371	385800.77	4750352.75	26.70	0	DEN	125	80.0	0.0	0.0	0.0	0.0	72.0	0.5	1.4	0.0	0.0	0.0	0.0	0.0	6.1
371	385800.77	4750352.75	26.70	0	DEN	250	90.0	0.0	0.0	0.0	0.0	72.0	1.2	-0.2	0.0	0.0	0.0	0.0	0.0	17.1
371	385800.77	4750352.75	26.70	0	DEN	500	81.0	0.0	0.0	0.0	0.0	72.0	2.2	-1.2	0.0	0.0	0.0	0.0	0.0	8.1
371	385800.77	4750352.75	26.70	0	DEN	1000	90.0	0.0	0.0	0.0	0.0	72.0	4.1	-1.2	0.0	0.0	0.0	0.0	0.0	15.1
371	385800.77	4750352.75	26.70	0	DEN	2000	89.0	0.0	0.0	0.0	0.0	72.0	10.8	-1.2	0.0	0.0	0.0	0.0	0.0	7.4

Point Source, ISO 9613, Name: "Steam Turbine Building Condenser Vac Pump Outlet ", ID: "NS-06<T>"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
374	385841.14	4750336.10	6.00	0	DEN	32	73.1	0.0	0.0	3.0	0.0	71.7	0.0	-5.1	0.0	0.0	4.8	0.0	0.0	4.7
374	385841.14	4750336.10	6.00	0	DEN	63	75.1	0.0	0.0	3.0	0.0	71.7	0.1	-5.1	0.0	0.0	4.8	0.0	0.0	6.6
374	385841.14	4750336.10	6.00	0	DEN	250	99.1	0.0	0.0	3.0	0.0	71.7	1.1	-0.8	0.0	0.0	4.8	0.0	0.0	25.3
374	385841.14	4750336.10	6.00	0	DEN	500	91.1	0.0	0.0	3.0	0.0	71.7	2.1	-1.9	0.0	0.0	4.8	0.0	0.0	17.4
374	385841.14	4750336.10	6.00	0	DEN	1000	94.1	0.0	0.0	3.0	0.0	71.7	4.0	-1.9	0.0	0.0	4.8	0.0	0.0	18.6
374	385841.14	4750336.10	6.00	0	DEN	2000	94.1	0.0	0.0	3.0	0.0	71.7	10.5	-1.9	0.0	0.0	4.8	0.0	0.0	12.0
377	385841.14	4750336.10	6.00	1	DEN	500	91.1	0.0	0.0	3.0	0.0	71.9	2.1	-2.1	0.0	0.0	6.5	0.0	1.0	14.8
377	385841.14	4750336.10	6.00	1	DEN	1000	94.1	0.0	0.0	3.0	0.0	71.9	4.0	-2.1	0.0	0.0	8.0	0.0	1.0	14.3
377	385841.14	4750336.10	6.00	1	DEN	2000	94.1	0.0	0.0	3.0	0.0	71.9	10.7	-2.1	0.0	0.0	10.0	0.0	1.0	5.7

Point Source, ISO 9613, Name: "CGT3 Air Processor ", ID: "NS3-12"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
380	385871.54	4750387.61	1.00	0	DEN	2000	99.0	0.0	0.0	0.0	0.0	72.0	10.9	-2.4	0.0	0.0	13.0	0.0	0.0	5.5

Point Source, ISO 9613, Name: "CGT3 Generator (Enclosure Walls) ", ID: "NS3-06<T>"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
387	385881.13	4750392.95	2.60	0	DEN	63	75.0	0.0	0.0	0.0	0.0	72.0	0.1	-5.4	0.0	0.0	0.0	0.0	0.0	8.2
387	385881.13	4750392.95	2.60	0	DEN	125	91.0	0.0	0.0	0.0	0.0	72.0	0.5	3.0	0.0	0.0	0.0	0.0	0.0	15.5
387	385881.13	4750392.95	2.60	0	DEN	250	89.0	0.0	0.0	0.0	0.0	72.0	1.2	1.4	0.0	0.0	0.0	0.0	0.0	14.4
387	385881.13	4750392.95	2.60	0	DEN	500	100.0	0.0	0.0	0.0	0.0	72.0	2.2	-1.6	0.0	0.0	0.0	0.0	0.0	27.4
387	385881.13	4750392.95	2.60	0	DEN	1000	100.0	0.0	0.0	0.0	0.0	72.0	4.1	-1.9	0.0	0.0	0.0	0.0	0.0	25.8
387	385881.13	4750392.95	2.60	0	DEN	2000	99.0	0.0	0.0	0.0	0.0	72.0	10.9	-1.9	0.0	0.0	0.0	0.0	0.0	18.0

Point Source, ISO 9613, Name: "CGT4 Generator (Enclosure Walls) ", ID: "NS4-06"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
389	385803.06	4750396.37	2.60	0	DEN	63	75.0	0.0	0.0	0.0	0.0	72.3	0.1	-5.4	0.0	0.0	5.8	0.0	0.0	2.2
389	385803.06	4750396.37	2.60	0	DEN	125	91.0	0.0	0.0	0.0	0.0	72.3	0.5	2.1	0.0	0.0	5.1	0.0	0.0	11.1
389	385803.06	4750396.37	2.60	0	DEN	250	89.0	0.0	0.0	0.0	0.0	72.3	1.2	0.4	0.0	0.0	9.1	0.0	0.0	6.0
389	385803.06	4750396.37	2.60	0	DEN	500	100.0	0.0	0.0	0.0	0.0	72.3	2.2	-2.0	0.0	0.0	12.2	0.0	0.0	15.3
389	385803.06	4750396.37	2.60	0	DEN	1000	100.0	0.0	0.0	0.0	0.0	72.3	4.2	-2.3	0.0	0.0	14.9	0.0	0.0	10.8
389	385803.06	4750396.37	2.60	0	DEN	2000	99.0	0.0	0.0	0.0	0.0	72.3	11.2	-2.3	0.0	0.0	17.8	0.0	0.0	0.0

Point Source, ISO 9613, Name: "Steam Turbine Building South Mid OH Door ", ID: "NS-10<T>"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
392	385841.14	4750336.10	2.00	0	DEN	63	81.0	0.0	0.0	3.0	0.0	71.7	0.1	-5.5	0.0	0.0	4.8	0.0	0.0	12.8
392	385841.14	4750336.10	2.00	0	DEN	125	84.0	0.0	0.0	3.0	0.0	71.7	0.4	3.0	0.0	0.0	1.7	0.0	0.0	10.0
392	385841.14	4750336.10	2.00	0	DEN	250	87.0	0.0	0.0	3.0	0.0	71.7	1.1	1.9	0.0	0.0	2.8	0.0	0.0	12.3
392	385841.14	4750336.10	2.00	0	DEN	500	91.0	0.0	0.0	3.0	0.0	71.7	2.1	-0.9	0.0	0.0	4.8	0.0	0.0	16.3
392	385841.14	4750336.10	2.00	0	DEN	1000	93.0	0.0	0.0	3.0	0.0	71.7	4.0	-2.0	0.0	0.0	4.8	0.0	0.0	17.4
392	385841.14	4750336.10	2.00	0	DEN	2000	98.0	0.0	0.0	3.0	0.0	71.7	10.5	-2.0	0.0	0.0	4.8	0.0	0.0	16.0

Point Source, ISO 9613, Name: "Steam Turbine Building South Mid OH Door ", ID: "NS-10<T>"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
396	385841.14	4750336.10	2.00	1	DEN	500	91.0	0.0	0.0	3.0	0.0	71.9	2.1	-1.5	0.0	0.0	10.4	0.0	1.0	10.1
396	385841.14	4750336.10	2.00	1	DEN	1000	93.0	0.0	0.0	3.0	0.0	71.9	4.0	-2.3	0.0	0.0	13.3	0.0	1.0	8.0
396	385841.14	4750336.10	2.00	1	DEN	2000	98.0	0.0	0.0	3.0	0.0	71.9	10.7	-2.3	0.0	0.0	16.2	0.0	1.0	3.6

Point Source, ISO 9613, Name: "CGT3 Duct Burner Gas Piping ", ID: "NS3-21"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
399	385884.09	4750351.04	5.10	0	DEN	1000	89.0	0.0	0.0	0.0	0.0	71.7	4.0	-1.7	0.0	0.0	0.0	0.0	0.0	15.0
399	385884.09	4750351.04	5.10	0	DEN	2000	92.0	0.0	0.0	0.0	0.0	71.7	10.5	-1.7	0.0	0.0	0.0	0.0	0.0	11.5
402	385884.09	4750351.04	5.10	1	DEN	1000	89.0	0.0	0.0	0.0	0.0	72.0	4.1	-2.1	0.0	0.0	4.8	0.0	1.0	9.3
402	385884.09	4750351.04	5.10	1	DEN	2000	92.0	0.0	0.0	0.0	0.0	72.0	10.8	-2.1	0.0	0.0	4.8	0.0	1.0	5.6

Point Source, ISO 9613, Name: "CGT3 Enclosure Exhaust Fans (Sum of 2) ", ID: "NS3-04"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
405	385880.23	4750381.94	9.60	0	DEN	63	78.0	0.0	0.0	0.0	0.0	72.0	0.1	-4.9	0.0	0.0	0.0	0.0	0.0	10.8
405	385880.23	4750381.94	9.60	0	DEN	125	92.0	0.0	0.0	0.0	0.0	72.0	0.5	1.2	0.0	0.0	0.0	0.0	0.0	18.3
405	385880.23	4750381.94	9.60	0	DEN	250	99.0	0.0	0.0	0.0	0.0	72.0	1.2	-0.6	0.0	0.0	0.0	0.0	0.0	26.5
405	385880.23	4750381.94	9.60	0	DEN	500	98.0	0.0	0.0	0.0	0.0	72.0	2.2	-1.6	0.0	0.0	0.0	0.0	0.0	25.4
405	385880.23	4750381.94	9.60	0	DEN	1000	99.0	0.0	0.0	0.0	0.0	72.0	4.1	-1.6	0.0	0.0	0.0	0.0	0.0	24.5
405	385880.23	4750381.94	9.60	0	DEN	2000	91.0	0.0	0.0	0.0	0.0	72.0	10.8	-1.6	0.0	0.0	0.0	0.0	0.0	9.8
407	385880.23	4750381.94	9.60	1	DEN	125	92.0	0.0	0.0	0.0	0.0	72.0	0.5	1.2	0.0	0.0	0.0	0.0	1.0	17.3
407	385880.23	4750381.94	9.60	1	DEN	250	99.0	0.0	0.0	0.0	0.0	72.0	1.2	-0.7	0.0	0.0	0.0	0.0	1.0	25.5
407	385880.23	4750381.94	9.60	1	DEN	500	98.0	0.0	0.0	0.0	0.0	72.0	2.2	-1.6	0.0	0.0	0.0	0.0	1.0	24.4
407	385880.23	4750381.94	9.60	1	DEN	1000	99.0	0.0	0.0	0.0	0.0	72.0	4.1	-1.7	0.0	0.0	0.0	0.0	1.0	23.5
407	385880.23	4750381.94	9.60	1	DEN	2000	91.0	0.0	0.0	0.0	0.0	72.0	10.9	-1.7	0.0	0.0	0.0	0.0	1.0	8.7

Point Source, ISO 9613, Name: "CGT4 Enclosure Exhaust Fans (Sum of 2) ", ID: "NS4-04"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
413	385802.16	4750385.36	9.60	0	DEN	63	78.0	0.0	0.0	0.0	0.0	72.2	0.1	-4.9	0.0	0.0	4.8	0.0	0.0	5.8
413	385802.16	4750385.36	9.60	0	DEN	125	92.0	0.0	0.0	0.0	0.0	72.2	0.5	0.9	0.0	0.0	3.9	0.0	0.0	14.5
413	385802.16	4750385.36	9.60	0	DEN	250	99.0	0.0	0.0	0.0	0.0	72.2	1.2	-0.9	0.0	0.0	4.8	0.0	0.0	21.7
413	385802.16	4750385.36	9.60	0	DEN	500	98.0	0.0	0.0	0.0	0.0	72.2	2.2	-1.9	0.0	0.0	4.9	0.0	0.0	20.6
413	385802.16	4750385.36	9.60	0	DEN	1000	99.0	0.0	0.0	0.0	0.0	72.2	4.2	-1.9	0.0	0.0	5.0	0.0	0.0	19.4
413	385802.16	4750385.36	9.60	0	DEN	2000	91.0	0.0	0.0	0.0	0.0	72.2	11.1	-1.9	0.0	0.0	5.3	0.0	0.0	4.2

Point Source, ISO 9613, Name: "Chiller Cooler 1", ID: "CCT1"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
417	385892.07	4750257.99	2.00	0	D	32	69.0	0.0	0.0	0.0	0.0	71.0	0.0	-5.4	0.0	0.0	0.0	0.0	0.0	3.4
417	385892.07	4750257.99	2.00	0	D	63	86.0	0.0	0.0	0.0	0.0	71.0	0.1	-5.4	0.0	0.0	0.0	0.0	0.0	20.3
417	385892.07	4750257.99	2.00	0	D	125	89.0	0.0	0.0	0.0	0.0	71.0	0.4	3.0	0.0	0.0	0.0	0.0	0.0	14.6
417	385892.07	4750257.99	2.00	0	D	250	98.0	0.0	0.0	0.0	0.0	71.0	1.0	1.9	0.0	0.0	0.0	0.0	0.0	24.1
417	385892.07	4750257.99	2.00	0	D	500	100.0	0.0	0.0	0.0	0.0	71.0	1.9	-0.9	0.0	0.0	0.0	0.0	0.0	28.0
417	385892.07	4750257.99	2.00	0	D	1000	95.0	0.0	0.0	0.0	0.0	71.0	3.6	-1.9	0.0	0.0	0.0	0.0	0.0	22.3
417	385892.07	4750257.99	2.00	0	D	2000	84.0	0.0	0.0	0.0	0.0	71.0	9.6	-2.0	0.0	0.0	0.0	0.0	0.0	5.3
417	385892.07	4750257.99	2.00	0	N	63	81.0	0.0	0.0	0.0	0.0	71.0	0.1	-5.4	0.0	0.0	0.0	0.0	0.0	15.3
417	385892.07	4750257.99	2.00	0	N	125	84.0	0.0	0.0	0.0	0.0	71.0	0.4	3.0	0.0	0.0	0.0	0.0	0.0	9.6
417	385892.07	4750257.99	2.00	0	N	250	93.0	0.0	0.0	0.0	0.0	71.0	1.0	1.9	0.0	0.0	0.0	0.0	0.0	19.1
417	385892.07	4750257.99	2.00	0	N	500	95.0	0.0	0.0	0.0	0.0	71.0	1.9	-0.9	0.0	0.0	0.0	0.0	0.0	23.0
417	385892.07	4750257.99	2.00	0	N	1000	90.0	0.0	0.0	0.0	0.0	71.0	3.6	-1.9	0.0	0.0	0.0	0.0	0.0	17.3
417	385892.07	4750257.99	2.00	0	N	2000	79.0	0.0	0.0	0.0	0.0	71.0	9.6	-2.0	0.0	0.0	0.0	0.0	0.0	0.3
417	385892.07	4750257.99	2.00	0	E	32	69.0	0.0	0.0	0.0	0.0	71.0	0.0	-5.4	0.0	0.0	0.0	0.0	0.0	3.4
417	385892.07	4750257.99	2.00	0	E	63	86.0	0.0	0.0	0.0	0.0	71.0	0.1	-5.4	0.0	0.0	0.0	0.0	0.0	20.3
417	385892.07	4750257.99	2.00	0	E	125	89.0	0.0	0.0	0.0	0.0	71.0	0.4	3.0	0.0	0.0	0.0	0.0	0.0	14.6
417	385892.07	4750257.99	2.00	0	E	250	98.0	0.0	0.0	0.0	0.0	71.0	1.0	1.9	0.0	0.0	0.0	0.0	0.0	24.1
417	385892.07	4750257.99	2.00	0	E	500	100.0	0.0	0.0	0.0	0.0	71.0	1.9	-0.9	0.0	0.0	0.0	0.0	0.0	28.0
417	385892.07	4750257.99	2.00	0	E	1000	95.0	0.0	0.0	0.0	0.0	71.0	3.6	-1.9	0.0	0.0	0.0	0.0	0.0	22.3
417	385892.07	4750257.99	2.00	0	E	2000	84.0	0.0	0.0	0.0	0.0	71.0	9.6	-2.0	0.0	0.0	0.0	0.0	0.0	5.3
420	385892.07	4750257.99	2.00	1	D	500	100.0	0.0	0.0	0.0	0.0	71.3	2.0	-1.6	0.0	0.0	7.2	0.0	1.0	20.1
420	385892.07	4750257.99	2.00	1	D	1000	95.0	0.0	0.0	0.0	0.0	71.3	3.8	-2.2	0.0	0.0	8.9	0.0	1.0	12.2
420	385892.07	4750257.99	2.00	1	N	500	95.0	0.0	0.0	0.0	0.0	71.3	2.0	-1.6	0.0	0.0	7.2	0.0	1.0	15.1

Point Source, ISO 9613, Name: "Chiller Cooler 1", ID: "CCT1"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
420	385892.07	4750257.99	2.00	1	N	1000	90.0	0.0	0.0	0.0	0.0	71.3	3.8	-2.2	0.0	0.0	8.9	0.0	1.0	7.2
420	385892.07	4750257.99	2.00	1	E	500	100.0	0.0	0.0	0.0	0.0	71.3	2.0	-1.6	0.0	0.0	7.2	0.0	1.0	20.1
420	385892.07	4750257.99	2.00	1	E	1000	95.0	0.0	0.0	0.0	0.0	71.3	3.8	-2.2	0.0	0.0	8.9	0.0	1.0	12.2
422	385892.07	4750257.99	2.00	1	D	250	98.0	0.0	0.0	0.0	0.0	71.2	1.1	1.9	0.0	0.0	0.0	0.0	1.0	22.9
422	385892.07	4750257.99	2.00	1	D	500	100.0	0.0	0.0	0.0	0.0	71.2	2.0	-0.9	0.0	0.0	0.0	0.0	1.0	26.7
422	385892.07	4750257.99	2.00	1	D	1000	95.0	0.0	0.0	0.0	0.0	71.2	3.7	-1.9	0.0	0.0	0.0	0.0	1.0	21.0
422	385892.07	4750257.99	2.00	1	D	2000	84.0	0.0	0.0	0.0	0.0	71.2	9.9	-2.0	0.0	0.0	0.0	0.0	1.0	3.9
422	385892.07	4750257.99	2.00	1	N	250	93.0	0.0	0.0	0.0	0.0	71.2	1.1	1.9	0.0	0.0	0.0	0.0	1.0	17.9
422	385892.07	4750257.99	2.00	1	N	500	95.0	0.0	0.0	0.0	0.0	71.2	2.0	-0.9	0.0	0.0	0.0	0.0	1.0	21.7
422	385892.07	4750257.99	2.00	1	N	1000	90.0	0.0	0.0	0.0	0.0	71.2	3.7	-1.9	0.0	0.0	0.0	0.0	1.0	16.0
422	385892.07	4750257.99	2.00	1	E	250	98.0	0.0	0.0	0.0	0.0	71.2	1.1	1.9	0.0	0.0	0.0	0.0	1.0	22.9
422	385892.07	4750257.99	2.00	1	E	500	100.0	0.0	0.0	0.0	0.0	71.2	2.0	-0.9	0.0	0.0	0.0	0.0	1.0	26.7
422	385892.07	4750257.99	2.00	1	E	1000	95.0	0.0	0.0	0.0	0.0	71.2	3.7	-1.9	0.0	0.0	0.0	0.0	1.0	21.0
422	385892.07	4750257.99	2.00	1	E	2000	84.0	0.0	0.0	0.0	0.0	71.2	9.9	-2.0	0.0	0.0	0.0	0.0	1.0	3.9

Point Source, ISO 9613, Name: "Chiller Cooler 2", ID: "CCT2"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
425	385893.85	4750275.07	2.00	0	D	63	86.0	0.0	0.0	0.0	0.0	71.1	0.1	-5.4	0.0	0.0	6.2	0.0	0.0	14.0
425	385893.85	4750275.07	2.00	0	D	125	89.0	0.0	0.0	0.0	0.0	71.1	0.4	2.8	0.0	0.0	4.6	0.0	0.0	10.1
425	385893.85	4750275.07	2.00	0	D	250	98.0	0.0	0.0	0.0	0.0	71.1	1.1	1.7	0.0	0.0	7.8	0.0	0.0	16.4
425	385893.85	4750275.07	2.00	0	D	500	100.0	0.0	0.0	0.0	0.0	71.1	2.0	-1.0	0.0	0.0	12.8	0.0	0.0	15.1
425	385893.85	4750275.07	2.00	0	D	1000	95.0	0.0	0.0	0.0	0.0	71.1	3.7	-1.9	0.0	0.0	16.8	0.0	0.0	5.3
425	385893.85	4750275.07	2.00	0	N	63	81.0	0.0	0.0	0.0	0.0	71.1	0.1	-5.4	0.0	0.0	6.2	0.0	0.0	9.0
425	385893.85	4750275.07	2.00	0	N	125	84.0	0.0	0.0	0.0	0.0	71.1	0.4	2.8	0.0	0.0	4.6	0.0	0.0	5.1
425	385893.85	4750275.07	2.00	0	N	250	93.0	0.0	0.0	0.0	0.0	71.1	1.1	1.7	0.0	0.0	7.8	0.0	0.0	11.4
425	385893.85	4750275.07	2.00	0	N	500	95.0	0.0	0.0	0.0	0.0	71.1	2.0	-1.0	0.0	0.0	12.8	0.0	0.0	10.1
425	385893.85	4750275.07	2.00	0	N	1000	90.0	0.0	0.0	0.0	0.0	71.1	3.7	-1.9	0.0	0.0	16.8	0.0	0.0	0.3
425	385893.85	4750275.07	2.00	0	E	63	86.0	0.0	0.0	0.0	0.0	71.1	0.1	-5.4	0.0	0.0	6.2	0.0	0.0	14.0
425	385893.85	4750275.07	2.00	0	E	125	89.0	0.0	0.0	0.0	0.0	71.1	0.4	2.8	0.0	0.0	4.6	0.0	0.0	10.1
425	385893.85	4750275.07	2.00	0	E	250	98.0	0.0	0.0	0.0	0.0	71.1	1.1	1.7	0.0	0.0	7.8	0.0	0.0	16.4
425	385893.85	4750275.07	2.00	0	E	500	100.0	0.0	0.0	0.0	0.0	71.1	2.0	-1.0	0.0	0.0	12.8	0.0	0.0	15.1
425	385893.85	4750275.07	2.00	0	E	1000	95.0	0.0	0.0	0.0	0.0	71.1	3.7	-1.9	0.0	0.0	16.8	0.0	0.0	5.3
428	385893.85	4750275.07	2.00	1	D	500	100.0	0.0	0.0	0.0	0.0	71.5	2.0	-1.2	0.0	0.0	14.4	0.0	1.0	12.3
428	385893.85	4750275.07	2.00	1	D	1000	95.0	0.0	0.0	0.0	0.0	71.5	3.9	-2.1	0.0	0.0	17.3	0.0	1.0	3.5
428	385893.85	4750275.07	2.00	1	N	500	95.0	0.0	0.0	0.0	0.0	71.5	2.0	-1.2	0.0	0.0	14.4	0.0	1.0	7.3
428	385893.85	4750275.07	2.00	1	E	500	100.0	0.0	0.0	0.0	0.0	71.5	2.0	-1.2	0.0	0.0	14.4	0.0	1.0	12.3
428	385893.85	4750275.07	2.00	1	E	1000	95.0	0.0	0.0	0.0	0.0	71.5	3.9	-2.1	0.0	0.0	17.3	0.0	1.0	3.5

Point Source, ISO 9613, Name: "HRSG Mobile Heater", ID: "HRSG3_Heater "																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
430	385888.88	4750349.89	1.50	0	DEN	250	90.0	0.0	0.0	0.0	0.0	71.7	1.1	2.5	0.0	0.0	0.0	0.0	0.0	14.6
430	385888.88	4750349.89	1.50	0	DEN	500	97.0	0.0	0.0	0.0	0.0	71.7	2.1	0.5	0.0	0.0	0.0	0.0	0.0	22.7
430	385888.88	4750349.89	1.50	0	DEN	1000	99.0	0.0	0.0	0.0	0.0	71.7	4.0	-1.6	0.0	0.0	0.0	0.0	0.0	25.0
430	385888.88	4750349.89	1.50	0	DEN	2000	95.0	0.0	0.0	0.0	0.0	71.7	10.5	-2.0	0.0	0.0	0.0	0.0	0.0	14.8
433	385888.88	4750349.89	1.50	1	DEN	500	97.0	0.0	0.0	0.0	0.0	71.7	2.1	0.5	0.0	0.0	0.0	0.0	1.0	21.7
433	385888.88	4750349.89	1.50	1	DEN	1000	99.0	0.0	0.0	0.0	0.0	71.7	4.0	-1.7	0.0	0.0	0.0	0.0	1.0	23.9
433	385888.88	4750349.89	1.50	1	DEN	2000	95.0	0.0	0.0	0.0	0.0	71.7	10.5	-2.0	0.0	0.0	0.0	0.0	1.0	13.7

Point Source, ISO 9613, Name: "CGT3 Duct Burner Valve Unit ", ID: "NS3-10"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
440	385888.45	4750350.97	1.00	0	DEN	1000	84.0	0.0	0.0	0.0	0.0	71.7	4.0	-1.0	0.0	0.0	0.0	0.0	0.0	9.3
440	385888.45	4750350.97	1.00	0	DEN	2000	94.0	0.0	0.0	0.0	0.0	71.7	10.5	-2.0	0.0	0.0	0.0	0.0	0.0	13.8
443	385888.45	4750350.97	1.00	1	DEN	1000	84.0	0.0	0.0	0.0	0.0	71.7	4.0	-1.0	0.0	0.0	0.0	0.0	1.0	8.3
443	385888.45	4750350.97	1.00	1	DEN	2000	94.0	0.0	0.0	0.0	0.0	71.7	10.5	-2.0	0.0	0.0	0.0	0.0	1.0	12.7

Point Source, ISO 9613, Name: "CGT3 Enclosure ", ID: "NS3-03"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
448	385880.22	4750382.94	4.00	0	DEN	125	79.0	0.0	0.0	0.0	0.0	72.0	0.5	2.9	0.0	0.0	1.9	0.0	0.0	1.8
448	385880.22	4750382.94	4.00	0	DEN	250	80.0	0.0	0.0	0.0	0.0	72.0	1.2	0.2	0.0	0.0	4.6	0.0	0.0	2.1

Point Source, ISO 9613, Name: "CGT3 Enclosure ", ID: "NS3-03"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
448	385880.22	4750382.94	4.00	0	DEN	500	79.0	0.0	0.0	0.0	0.0	72.0	2.2	-1.9	0.0	0.0	4.8	0.0	0.0	1.9
448	385880.22	4750382.94	4.00	0	DEN	1000	81.0	0.0	0.0	0.0	0.0	72.0	4.1	-1.9	0.0	0.0	4.8	0.0	0.0	2.0
448	385880.22	4750382.94	4.00	0	DEN	2000	95.0	0.0	0.0	0.0	0.0	72.0	10.8	-1.9	0.0	0.0	4.9	0.0	0.0	9.2
451	385880.22	4750382.94	4.00	1	DEN	125	79.0	0.0	0.0	0.0	0.0	72.0	0.5	2.6	0.0	0.0	2.4	0.0	1.0	0.5
451	385880.22	4750382.94	4.00	1	DEN	250	80.0	0.0	0.0	0.0	0.0	72.0	1.2	-0.0	0.0	0.0	5.2	0.0	1.0	0.6
451	385880.22	4750382.94	4.00	1	DEN	500	79.0	0.0	0.0	0.0	0.0	72.0	2.2	-2.0	0.0	0.0	5.7	0.0	1.0	0.1
451	385880.22	4750382.94	4.00	1	DEN	2000	95.0	0.0	0.0	0.0	0.0	72.0	10.9	-2.0	0.0	0.0	7.6	0.0	1.0	5.4
455	385880.22	4750382.94	4.00	1	DEN	1000	81.0	0.0	0.0	0.0	0.0	72.0	4.1	-2.0	0.0	0.0	4.8	0.0	2.0	0.1
455	385880.22	4750382.94	4.00	1	DEN	2000	95.0	0.0	0.0	0.0	0.0	72.0	10.8	-2.0	0.0	0.0	4.8	0.0	2.0	7.4

Point Source, ISO 9613, Name: "CGT4 Enclosure ", ID: "NS4-03"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
458	385802.15	4750386.36	4.00	0	DEN	125	79.0	0.0	0.0	0.0	0.0	72.2	0.5	2.1	0.0	0.0	3.7	0.0	0.0	0.5
460	385802.15	4750386.36	4.00	1	DEN	2000	95.0	0.0	0.0	0.0	0.0	72.2	11.1	-2.2	0.0	0.0	11.5	0.0	2.0	0.4

Point Source, ISO 9613, Name: "Steam Turbine Building South Wall Louvres (sum of 4) ", ID: "NS-07<T>"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
463	385841.14	4750336.10	1.50	0	DEN	63	80.0	0.0	0.0	3.0	0.0	71.7	0.1	-5.5	0.0	0.0	4.8	0.0	0.0	11.8
463	385841.14	4750336.10	1.50	0	DEN	125	79.0	0.0	0.0	3.0	0.0	71.7	0.4	3.2	0.0	0.0	1.6	0.0	0.0	5.0
463	385841.14	4750336.10	1.50	0	DEN	250	83.0	0.0	0.0	3.0	0.0	71.7	1.1	2.4	0.0	0.0	2.3	0.0	0.0	8.3
463	385841.14	4750336.10	1.50	0	DEN	500	86.0	0.0	0.0	3.0	0.0	71.7	2.1	0.4	0.0	0.0	4.3	0.0	0.0	10.4
463	385841.14	4750336.10	1.50	0	DEN	1000	90.0	0.0	0.0	3.0	0.0	71.7	4.0	-1.7	0.0	0.0	4.8	0.0	0.0	14.2
463	385841.14	4750336.10	1.50	0	DEN	2000	92.0	0.0	0.0	3.0	0.0	71.7	10.5	-2.1	0.0	0.0	4.8	0.0	0.0	10.0
466	385841.14	4750336.10	1.50	1	DEN	500	86.0	0.0	0.0	3.0	0.0	71.9	2.1	-0.3	0.0	0.0	11.0	0.0	1.0	3.3
466	385841.14	4750336.10	1.50	1	DEN	1000	90.0	0.0	0.0	3.0	0.0	71.9	4.0	-2.0	0.0	0.0	13.9	0.0	1.0	4.2

Point Source, ISO 9613, Name: "HRSG3 Walls & Roof ", ID: "NS3-13"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
468	385879.30	4750348.99	11.40	0	DEN	63	78.0	0.0	0.0	0.0	0.0	71.7	0.1	-4.7	0.0	0.0	0.0	0.0	0.0	10.8
468	385879.30	4750348.99	11.40	0	DEN	125	83.0	0.0	0.0	0.0	0.0	71.7	0.4	1.2	0.0	0.0	0.0	0.0	0.0	9.7
468	385879.30	4750348.99	11.40	0	DEN	250	85.0	0.0	0.0	0.0	0.0	71.7	1.1	-0.5	0.0	0.0	0.0	0.0	0.0	12.7
468	385879.30	4750348.99	11.40	0	DEN	500	86.0	0.0	0.0	0.0	0.0	71.7	2.1	-1.5	0.0	0.0	0.0	0.0	0.0	13.7
468	385879.30	4750348.99	11.40	0	DEN	1000	87.0	0.0	0.0	0.0	0.0	71.7	4.0	-1.5	0.0	0.0	0.0	0.0	0.0	12.8
468	385879.30	4750348.99	11.40	0	DEN	2000	91.0	0.0	0.0	0.0	0.0	71.7	10.5	-1.5	0.0	0.0	0.0	0.0	0.0	10.3

Point Source, ISO 9613, Name: "HRSG4 Walls & Roof ", ID: "NS4-13"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
470	385801.32	4750351.64	11.40	0	DEN	63	78.0	0.0	0.0	0.0	0.0	72.0	0.1	-4.7	0.0	0.0	4.8	0.0	0.0	5.8
470	385801.32	4750351.64	11.40	0	DEN	125	83.0	0.0	0.0	0.0	0.0	72.0	0.5	0.9	0.0	0.0	3.9	0.0	0.0	5.8
470	385801.32	4750351.64	11.40	0	DEN	250	85.0	0.0	0.0	0.0	0.0	72.0	1.2	-0.8	0.0	0.0	4.8	0.0	0.0	7.9
470	385801.32	4750351.64	11.40	0	DEN	500	86.0	0.0	0.0	0.0	0.0	72.0	2.2	-1.8	0.0	0.0	4.8	0.0	0.0	8.9
470	385801.32	4750351.64	11.40	0	DEN	1000	87.0	0.0	0.0	0.0	0.0	72.0	4.1	-1.8	0.0	0.0	4.8	0.0	0.0	8.0
470	385801.32	4750351.64	11.40	0	DEN	2000	91.0	0.0	0.0	0.0	0.0	72.0	10.8	-1.8	0.0	0.0	4.8	0.0	0.0	5.2

Point Source, ISO 9613, Name: "Steam Turbing Building NE Overhead Door ", ID: "NS-12<T>"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
473	385866.51	4750374.56	2.00	0	DEN	63	86.0	0.0	0.0	3.0	0.0	71.9	0.1	-5.5	0.0	0.0	15.2	0.0	0.0	7.2

Point Source, ISO 9613, Name: "Steam Turbing Building NW Overhead Door ", ID: "NS-13<T>"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
475	385822.25	4750376.91	2.00	0	DEN	63	86.0	0.0	0.0	3.0	0.0	72.1	0.1	-5.5	0.0	0.0	17.9	0.0	0.0	4.4

Point Source, ISO 9613, Name: "Circ Pump Building Rooftop Exhaust Fans (sum of 2) ", ID: "NS-04"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
481	385836.33	4750298.32	8.60	0	DEN	63	75.0	0.0	0.0	0.0	0.0	71.5	0.1	-4.9	0.0	0.0	5.1	0.0	0.0	3.1
481	385836.33	4750298.32	8.60	0	DEN	125	85.0	0.0	0.0	0.0	0.0	71.5	0.4	1.2	0.0	0.0	4.5	0.0	0.0	7.5
481	385836.33	4750298.32	8.60	0	DEN	250	88.0	0.0	0.0	0.0	0.0	71.5	1.1	-0.8	0.0	0.0	6.9	0.0	0.0	9.4

Point Source, ISO 9613, Name: "Circ Pump Building Rooftop Exhaust Fans (sum of 2) ", ID: "NS-04"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
481	385836.33	4750298.32	8.60	0	DEN	500	92.0	0.0	0.0	0.0	0.0	71.5	2.0	-1.8	0.0	0.0	8.9	0.0	0.0	11.3
481	385836.33	4750298.32	8.60	0	DEN	1000	91.0	0.0	0.0	0.0	0.0	71.5	3.9	-1.8	0.0	0.0	11.4	0.0	0.0	6.1
484	385836.33	4750298.32	8.60	1	DEN	250	88.0	0.0	0.0	0.0	0.0	72.0	1.2	-0.8	0.0	0.0	0.0	0.0	1.0	14.6
484	385836.33	4750298.32	8.60	1	DEN	500	92.0	0.0	0.0	0.0	0.0	72.0	2.2	-1.8	0.0	0.0	0.0	0.0	1.0	18.6
484	385836.33	4750298.32	8.60	1	DEN	1000	91.0	0.0	0.0	0.0	0.0	72.0	4.1	-1.8	0.0	0.0	0.0	0.0	1.0	15.6
484	385836.33	4750298.32	8.60	1	DEN	2000	87.0	0.0	0.0	0.0	0.0	72.0	10.9	-1.8	0.0	0.0	0.0	0.0	1.0	4.9

Point Source, ISO 9613, Name: "CGT3 Exhaust Duct ", ID: "NS3-18"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
487	385880.07	4750377.64	3.00	0	DEN	63	83.0	0.0	0.0	0.0	0.0	71.9	0.1	-5.4	0.0	0.0	5.1	0.0	0.0	11.2
487	385880.07	4750377.64	3.00	0	DEN	125	78.0	0.0	0.0	0.0	0.0	71.9	0.5	2.7	0.0	0.0	2.8	0.0	0.0	0.1
487	385880.07	4750377.64	3.00	0	DEN	250	81.0	0.0	0.0	0.0	0.0	71.9	1.2	0.8	0.0	0.0	5.6	0.0	0.0	1.5

Point Source, ISO 9613, Name: "CGT4 Exhaust Duct ", ID: "NS4-18"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
492	385802.11	4750381.35	3.00	0	DEN	63	83.0	0.0	0.0	0.0	0.0	72.2	0.1	-5.4	0.0	0.0	8.6	0.0	0.0	7.5

Point Source, ISO 9613, Name: "CGT3 Inlet ", ID: "NS3-07<T>"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
495	385882.99	4750408.96	10.00	0	DEN	63	84.0	0.0	0.0	3.0	0.0	72.2	0.1	-4.9	0.0	0.0	11.4	0.0	0.0	8.2

Point Source, ISO 9613, Name: "CGT4 Inlet ", ID: "NS4-07"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
498	385804.92	4750412.38	10.00	0	DEN	63	84.0	0.0	0.0	3.0	0.0	72.4	0.1	-4.9	0.0	0.0	11.6	0.0	0.0	7.8

Point Source, ISO 9613, Name: "Steam Turbing Building SE Overhead Door ", ID: "NS-09"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
501	385865.21	4750334.83	2.00	0	DEN	500	79.0	0.0	0.0	3.0	0.0	71.7	2.1	-0.9	0.0	0.0	5.0	0.0	0.0	4.2
501	385865.21	4750334.83	2.00	0	DEN	1000	83.0	0.0	0.0	3.0	0.0	71.7	3.9	-1.9	0.0	0.0	5.2	0.0	0.0	7.1
501	385865.21	4750334.83	2.00	0	DEN	2000	88.0	0.0	0.0	3.0	0.0	71.7	10.4	-2.0	0.0	0.0	5.6	0.0	0.0	5.3

Point Source, ISO 9613, Name: "Steam Turbing Building SW Overhead Door ", ID: "NS-08"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
503	385819.96	4750337.23	2.00	0	DEN	500	79.0	0.0	0.0	3.0	0.0	71.8	2.1	-1.5	0.0	0.0	8.2	0.0	0.0	1.4
503	385819.96	4750337.23	2.00	0	DEN	1000	83.0	0.0	0.0	3.0	0.0	71.8	4.0	-2.2	0.0	0.0	10.5	0.0	0.0	1.9
506	385819.96	4750337.23	2.00	1	DEN	500	79.0	0.0	0.0	3.0	0.0	72.0	2.2	-1.0	0.0	0.0	5.5	0.0	1.0	2.4
506	385819.96	4750337.23	2.00	1	DEN	1000	83.0	0.0	0.0	3.0	0.0	72.0	4.1	-2.0	0.0	0.0	6.3	0.0	1.0	4.7
506	385819.96	4750337.23	2.00	1	DEN	2000	88.0	0.0	0.0	3.0	0.0	72.0	10.8	-2.1	0.0	0.0	7.5	0.0	1.0	1.9

Point Source, ISO 9613, Name: "Steam Turbine Building North Wall Louvres (sum of 3) ", ID: "NS-11<T>"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
509	385843.80	4750375.76	1.50	0	DEN	63	83.0	0.0	0.0	3.0	0.0	72.0	0.1	-5.5	0.0	0.0	18.0	0.0	0.0	1.4

vert. Area Source, ISO 9613, Name: "*Steam Turbing Building East Wall Louvres (sum of 5) ", ID: "NS-15"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
512	385867.60	4750372.54	1.50	0	DEN	63	63.3	5.7	0.0	3.0	0.0	71.9	0.1	-5.5	0.0	0.0	4.8	0.0	0.0	0.6
524	385866.61	4750353.85	1.50	0	DEN	63	63.3	7.3	0.0	3.0	0.0	71.8	0.1	-5.5	0.0	0.0	4.8	0.0	0.0	2.4
529	385866.05	4750343.20	1.50	0	DEN	63	63.3	12.0	0.0	3.0	0.0	71.7	0.1	-5.5	0.0	0.0	4.8	0.0	0.0	7.2
529	385866.05	4750343.20	1.50	0	DEN	250	63.3	12.0	0.0	3.0	0.0	71.7	1.1	2.5	0.0	0.0	2.4	0.0	0.0	0.6
529	385866.05	4750343.20	1.50	0	DEN	500	66.3	12.0	0.0	3.0	0.0	71.7	2.1	0.5	0.0	0.0	4.5	0.0	0.0	2.6
529	385866.05	4750343.20	1.50	0	DEN	1000	65.3	12.0	0.0	3.0	0.0	71.7	4.0	-1.7	0.0	0.0	5.1	0.0	0.0	1.3
535	385867.60	4750372.54	0.50	0	DEN	63	63.3	5.7	0.0	3.0	0.0	71.9	0.1	-5.6	0.0	0.0	5.0	0.0	0.0	0.5
549	385866.61	4750353.85	0.50	0	DEN	63	63.3	7.3	0.0	3.0	0.0	71.8	0.1	-5.6	0.0	0.0	4.8	0.0	0.0	2.4
552	385866.05	4750343.20	0.50	0	DEN	63	63.3	12.0	0.0	3.0	0.0	71.7	0.1	-5.6	0.0	0.0	4.8	0.0	0.0	7.3
552	385866.05	4750343.20	0.50	0	DEN	250	63.3	12.0	0.0	3.0	0.0	71.7	1.1	3.1	0.0	0.0	1.8	0.0	0.0	0.5
552	385866.05	4750343.20	0.50	0	DEN	500	66.3	12.0	0.0	3.0	0.0	71.7	2.1	4.2	0.0	0.0	1.0	0.0	0.0	2.4

vert. Area Source, ISO 9613, Name: '"*Steam Turbing Building East Wall Louvres (sum of 5) ", ID: "NS-15"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
559	385867.60	4750372.54	2.50	0	DEN	63	63.3	5.7	0.0	3.0	0.0	71.9	0.1	-5.4	0.0	0.0	4.8	0.0	0.0	0.5
573	385866.61	4750353.85	2.50	0	DEN	63	63.3	7.3	0.0	3.0	0.0	71.8	0.1	-5.4	0.0	0.0	4.8	0.0	0.0	2.3
576	385866.05	4750343.20	2.50	0	DEN	63	63.3	12.0	0.0	3.0	0.0	71.7	0.1	-5.4	0.0	0.0	4.8	0.0	0.0	7.1
576	385866.05	4750343.20	2.50	0	DEN	250	63.3	12.0	0.0	3.0	0.0	71.7	1.1	1.2	0.0	0.0	3.6	0.0	0.0	0.7
576	385866.05	4750343.20	2.50	0	DEN	500	66.3	12.0	0.0	3.0	0.0	71.7	2.1	-1.7	0.0	0.0	4.8	0.0	0.0	4.4
576	385866.05	4750343.20	2.50	0	DEN	1000	65.3	12.0	0.0	3.0	0.0	71.7	4.0	-2.0	0.0	0.0	4.9	0.0	0.0	1.8
576	385866.05	4750343.20	2.50	0	DEN	2000	70.3	12.0	0.0	3.0	0.0	71.7	10.5	-2.0	0.0	0.0	4.9	0.0	0.0	0.2

Point Source, ISO 9613, Name: "HRSG3 Sound from Underside (thru gap) ", ID: "NS3-20"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
611	385884.05	4750349.51	0.30	0	DEN	63	75.0	0.0	0.0	3.0	0.0	71.7	0.1	-5.6	0.0	0.0	0.0	0.0	0.0	11.8
611	385884.05	4750349.51	0.30	0	DEN	125	77.0	0.0	0.0	3.0	0.0	71.7	0.4	3.5	0.0	0.0	0.0	0.0	0.0	4.4
611	385884.05	4750349.51	0.30	0	DEN	250	80.0	0.0	0.0	3.0	0.0	71.7	1.1	3.2	0.0	0.0	0.0	0.0	0.0	6.9
611	385884.05	4750349.51	0.30	0	DEN	500	78.0	0.0	0.0	3.0	0.0	71.7	2.1	4.7	0.0	0.0	0.0	0.0	0.0	2.5
611	385884.05	4750349.51	0.30	0	DEN	1000	78.0	0.0	0.0	3.0	0.0	71.7	4.0	0.3	0.0	0.0	0.0	0.0	0.0	5.0
611	385884.05	4750349.51	0.30	0	DEN	2000	88.0	0.0	0.0	3.0	0.0	71.7	10.5	-2.0	0.0	0.0	0.0	0.0	0.0	10.8

Point Source, ISO 9613, Name: "CT Fan", ID: "CT9"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
617	385830.33	4750146.37	15.10	0	DEN	63	74.0	0.0	0.0	0.0	0.0	70.3	0.1	-4.1	0.0	0.0	0.0	0.0	0.0	7.7
617	385830.33	4750146.37	15.10	0	DEN	125	80.0	0.0	0.0	0.0	0.0	70.3	0.4	1.4	0.0	0.0	0.0	0.0	0.0	8.0
617	385830.33	4750146.37	15.10	0	DEN	250	81.0	0.0	0.0	0.0	0.0	70.3	1.0	-0.3	0.0	0.0	0.0	0.0	0.0	10.0
617	385830.33	4750146.37	15.10	0	DEN	500	87.0	0.0	0.0	0.0	0.0	70.3	1.8	-1.3	0.0	0.0	0.0	0.0	0.0	16.2
617	385830.33	4750146.37	15.10	0	DEN	1000	87.0	0.0	0.0	0.0	0.0	70.3	3.4	-1.3	0.0	0.0	0.0	0.0	0.0	14.6
617	385830.33	4750146.37	15.10	0	DEN	2000	81.0	0.0	0.0	0.0	0.0	70.3	8.9	-1.3	0.0	0.0	0.0	0.0	0.0	3.1

Point Source, ISO 9613, Name: "CT Fan", ID: "CT8"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
619	385831.60	4750162.26	15.10	0	DEN	63	74.0	0.0	0.0	0.0	0.0	70.4	0.1	-4.1	0.0	0.0	0.0	0.0	0.0	7.6
619	385831.60	4750162.26	15.10	0	DEN	125	80.0	0.0	0.0	0.0	0.0	70.4	0.4	1.3	0.0	0.0	0.0	0.0	0.0	7.9
619	385831.60	4750162.26	15.10	0	DEN	250	81.0	0.0	0.0	0.0	0.0	70.4	1.0	-0.3	0.0	0.0	0.0	0.0	0.0	9.9
619	385831.60	4750162.26	15.10	0	DEN	500	87.0	0.0	0.0	0.0	0.0	70.4	1.8	-1.3	0.0	0.0	0.0	0.0	0.0	16.1
619	385831.60	4750162.26	15.10	0	DEN	1000	87.0	0.0	0.0	0.0	0.0	70.4	3.4	-1.3	0.0	0.0	0.0	0.0	0.0	14.5
619	385831.60	4750162.26	15.10	0	DEN	2000	81.0	0.0	0.0	0.0	0.0	70.4	9.0	-1.3	0.0	0.0	0.0	0.0	0.0	2.9

Point Source, ISO 9613, Name: "CT Fan", ID: "CT7"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
621	385832.52	4750179.44	15.10	0	DEN	63	74.0	0.0	0.0	0.0	0.0	70.6	0.1	-4.1	0.0	0.0	0.0	0.0	0.0	7.5
621	385832.52	4750179.44	15.10	0	DEN	125	80.0	0.0	0.0	0.0	0.0	70.6	0.4	1.3	0.0	0.0	0.0	0.0	0.0	7.8
621	385832.52	4750179.44	15.10	0	DEN	250	81.0	0.0	0.0	0.0	0.0	70.6	1.0	-0.4	0.0	0.0	0.0	0.0	0.0	9.8
621	385832.52	4750179.44	15.10	0	DEN	500	87.0	0.0	0.0	0.0	0.0	70.6	1.8	-1.3	0.0	0.0	0.0	0.0	0.0	15.9
621	385832.52	4750179.44	15.10	0	DEN	1000	87.0	0.0	0.0	0.0	0.0	70.6	3.5	-1.3	0.0	0.0	0.0	0.0	0.0	14.3
621	385832.52	4750179.44	15.10	0	DEN	2000	81.0	0.0	0.0	0.0	0.0	70.6	9.2	-1.3	0.0	0.0	0.0	0.0	0.0	2.6

Point Source, ISO 9613, Name: "CT Fan", ID: "CT6"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
622	385832.94	4750195.06	15.10	0	DEN	63	74.0	0.0	0.0	0.0	0.0	70.7	0.1	-4.2	0.0	0.0	0.0	0.0	0.0	7.4
622	385832.94	4750195.06	15.10	0	DEN	125	80.0	0.0	0.0	0.0	0.0	70.7	0.4	1.3	0.0	0.0	0.0	0.0	0.0	7.6
622	385832.94	4750195.06	15.10	0	DEN	250	81.0	0.0	0.0	0.0	0.0	70.7	1.0	-0.4	0.0	0.0	0.0	0.0	0.0	9.7
622	385832.94	4750195.06	15.10	0	DEN	500	87.0	0.0	0.0	0.0	0.0	70.7	1.9	-1.3	0.0	0.0	0.0	0.0	0.0	15.8
622	385832.94	4750195.06	15.10	0	DEN	1000	87.0	0.0	0.0	0.0	0.0	70.7	3.5	-1.3	0.0	0.0	0.0	0.0	0.0	14.1
622	385832.94	4750195.06	15.10	0	DEN	2000	81.0	0.0	0.0	0.0	0.0	70.7	9.3	-1.3	0.0	0.0	0.0	0.0	0.0	2.4

Point Source, ISO 9613, Name: "CT Fan", ID: "CT5"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
623	385833.92	4750212.48	15.10	0	DEN	63	74.0	0.0	0.0	0.0	0.0	70.8	0.1	-4.2	0.0	0.0	0.0	0.0	0.0	7.3
623	385833.92	4750212.48	15.10	0	DEN	125	80.0	0.0	0.0	0.0	0.0	70.8	0.4	1.3	0.0	0.0	0.0	0.0	0.0	7.5
623	385833.92	4750212.48	15.10	0	DEN	250	81.0	0.0	0.0	0.0	0.0	70.8	1.0	-0.4	0.0	0.0	0.0	0.0	0.0	9.6

Point Source, ISO 9613, Name: "CT Fan", ID: "CT5"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
623	385833.92	4750212.48	15.10	0	DEN	500	87.0	0.0	0.0	0.0	0.0	70.8	1.9	-1.4	0.0	0.0	0.0	0.0	0.0	15.7
623	385833.92	4750212.48	15.10	0	DEN	1000	87.0	0.0	0.0	0.0	0.0	70.8	3.6	-1.4	0.0	0.0	0.0	0.0	0.0	14.0
623	385833.92	4750212.48	15.10	0	DEN	2000	81.0	0.0	0.0	0.0	0.0	70.8	9.5	-1.4	0.0	0.0	0.0	0.0	0.0	2.1

Point Source, ISO 9613, Name: "CT Fan", ID: "CT4"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
624	385834.73	4750228.51	15.10	0	DEN	63	74.0	0.0	0.0	0.0	0.0	70.9	0.1	-4.2	0.0	0.0	0.0	0.0	0.0	7.2
624	385834.73	4750228.51	15.10	0	DEN	125	80.0	0.0	0.0	0.0	0.0	70.9	0.4	1.3	0.0	0.0	0.0	0.0	0.0	7.4
624	385834.73	4750228.51	15.10	0	DEN	250	81.0	0.0	0.0	0.0	0.0	70.9	1.0	-0.4	0.0	0.0	0.0	0.0	0.0	9.4
624	385834.73	4750228.51	15.10	0	DEN	500	87.0	0.0	0.0	0.0	0.0	70.9	1.9	-1.4	0.0	0.0	0.0	0.0	0.0	15.5
624	385834.73	4750228.51	15.10	0	DEN	1000	87.0	0.0	0.0	0.0	0.0	70.9	3.6	-1.4	0.0	0.0	0.0	0.0	0.0	13.8
624	385834.73	4750228.51	15.10	0	DEN	2000	81.0	0.0	0.0	0.0	0.0	70.9	9.6	-1.4	0.0	0.0	0.0	0.0	0.0	1.9

Point Source, ISO 9613, Name: "CT Fan", ID: "CT3"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
625	385835.55	4750244.27	15.10	0	DEN	63	74.0	0.0	0.0	0.0	0.0	71.1	0.1	-4.2	0.0	0.0	0.0	0.0	0.0	7.1
625	385835.55	4750244.27	15.10	0	DEN	125	80.0	0.0	0.0	0.0	0.0	71.1	0.4	1.2	0.0	0.0	0.0	0.0	0.0	7.3
625	385835.55	4750244.27	15.10	0	DEN	250	81.0	0.0	0.0	0.0	0.0	71.1	1.1	-0.4	0.0	0.0	0.0	0.0	0.0	9.3
625	385835.55	4750244.27	15.10	0	DEN	500	87.0	0.0	0.0	0.0	0.0	71.1	1.9	-1.4	0.0	0.0	0.0	0.0	0.0	15.4
625	385835.55	4750244.27	15.10	0	DEN	1000	87.0	0.0	0.0	0.0	0.0	71.1	3.7	-1.4	0.0	0.0	0.0	0.0	0.0	13.7
625	385835.55	4750244.27	15.10	0	DEN	2000	81.0	0.0	0.0	0.0	0.0	71.1	9.7	-1.4	0.0	0.0	0.0	0.0	0.0	1.6

Point Source, ISO 9613, Name: "CT Fan", ID: "CT2"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
626	385836.12	4750260.55	15.10	0	DEN	63	74.0	0.0	0.0	0.0	0.0	71.2	0.1	-4.3	0.0	0.0	0.0	0.0	0.0	7.0
626	385836.12	4750260.55	15.10	0	DEN	125	80.0	0.0	0.0	0.0	0.0	71.2	0.4	1.2	0.0	0.0	0.0	0.0	0.0	7.2
626	385836.12	4750260.55	15.10	0	DEN	250	81.0	0.0	0.0	0.0	0.0	71.2	1.1	-0.5	0.0	0.0	0.0	0.0	0.0	9.2
626	385836.12	4750260.55	15.10	0	DEN	500	87.0	0.0	0.0	0.0	0.0	71.2	2.0	-1.4	0.0	0.0	0.0	0.0	0.0	15.3
626	385836.12	4750260.55	15.10	0	DEN	1000	87.0	0.0	0.0	0.0	0.0	71.2	3.7	-1.4	0.0	0.0	0.0	0.0	0.0	13.5
626	385836.12	4750260.55	15.10	0	DEN	2000	81.0	0.0	0.0	0.0	0.0	71.2	9.9	-1.4	0.0	0.0	0.0	0.0	0.0	1.4

Point Source, ISO 9613, Name: "CGT3 Dew Point Heater Exhaust Stack", ID: "DPH-3 "																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
627	385898.13	4750418.19	3.00	0	DEN	32	76.0	0.0	0.0	0.0	0.0	72.2	0.0	-5.4	0.0	0.0	0.0	0.0	0.0	9.2
627	385898.13	4750418.19	3.00	0	DEN	63	84.0	0.0	0.0	0.0	0.0	72.2	0.1	-5.4	0.0	0.0	0.0	0.0	0.0	17.1
627	385898.13	4750418.19	3.00	0	DEN	125	86.0	0.0	0.0	0.0	0.0	72.2	0.5	3.2	0.0	0.0	0.0	0.0	0.0	10.2
627	385898.13	4750418.19	3.00	0	DEN	250	85.0	0.0	0.0	0.0	0.0	72.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0	10.4
627	385898.13	4750418.19	3.00	0	DEN	500	87.0	0.0	0.0	0.0	0.0	72.2	2.2	-1.7	0.0	0.0	0.0	0.0	0.0	14.3
627	385898.13	4750418.19	3.00	0	DEN	1000	82.0	0.0	0.0	0.0	0.0	72.2	4.2	-1.8	0.0	0.0	0.0	0.0	0.0	7.5
628	385898.13	4750418.19	3.00	1	DEN	250	85.0	0.0	0.0	0.0	0.0	72.3	1.2	0.9	0.0	0.0	3.9	0.0	1.0	5.7
628	385898.13	4750418.19	3.00	1	DEN	500	87.0	0.0	0.0	0.0	0.0	72.3	2.3	-1.9	0.0	0.0	4.8	0.0	1.0	8.5
628	385898.13	4750418.19	3.00	1	DEN	1000	82.0	0.0	0.0	0.0	0.0	72.3	4.3	-2.0	0.0	0.0	4.8	0.0	1.0	1.6

Point Source, ISO 9613, Name: "CT Fan", ID: "CT1"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
630	385837.05	4750277.24	15.10	0	DEN	63	74.0	0.0	0.0	0.0	0.0	71.3	0.1	-4.3	0.0	0.0	0.0	0.0	0.0	6.9
630	385837.05	4750277.24	15.10	0	DEN	125	80.0	0.0	0.0	0.0	0.0	71.3	0.4	1.2	0.0	0.0	0.0	0.0	0.0	7.1
630	385837.05	4750277.24	15.10	0	DEN	250	81.0	0.0	0.0	0.0	0.0	71.3	1.1	-0.5	0.0	0.0	0.0	0.0	0.0	9.1
630	385837.05	4750277.24	15.10	0	DEN	500	87.0	0.0	0.0	0.0	0.0	71.3	2.0	-1.5	0.0	0.0	0.0	0.0	0.0	15.1
630	385837.05	4750277.24	15.10	0	DEN	1000	87.0	0.0	0.0	0.0	0.0	71.3	3.8	-1.5	0.0	0.0	0.0	0.0	0.0	13.4
630	385837.05	4750277.24	15.10	0	DEN	2000	81.0	0.0	0.0	0.0	0.0	71.3	10.0	-1.5	0.0	0.0	0.0	0.0	0.0	1.1

Point Source, ISO 9613, Name: "CGT4 Dew Point Heater Exhaust Stack", ID: "DPH-4"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
632	385779.45	4750425.04	3.00	0	DEN	32	76.0	0.0	0.0	0.0	0.0	72.5	0.0	-5.4	0.0	0.0	4.8	0.0	0.0	4.1
632	385779.45	4750425.04	3.00	0	DEN	63	84.0	0.0	0.0	0.0	0.0	72.5	0.1	-5.4	0.0	0.0	4.8	0.0	0.0	12.0
632	385779.45	4750425.04	3.00	0	DEN	125	86.0	0.0	0.0	0.0	0.0	72.5	0.5	2.3	0.0	0.0	2.5	0.0	0.0	8.2
632	385779.45	4750425.04	3.00	0	DEN	250	85.0	0.0	0.0	0.0	0.0	72.5	1.2	0.4	0.0	0.0	4.4	0.0	0.0	6.4

Point Source, ISO 9613, Name: "CGT4 Dew Point Heater Exhaust Stack", ID: "DPH-4"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
632	385779.45	4750425.04	3.00	0	DEN	500	87.0	0.0	0.0	0.0	0.0	72.5	2.3	-2.1	0.0	0.0	4.8	0.0	0.0	9.5
632	385779.45	4750425.04	3.00	0	DEN	1000	82.0	0.0	0.0	0.0	0.0	72.5	4.4	-2.2	0.0	0.0	4.8	0.0	0.0	2.5

Point Source, ISO 9613, Name: "CGT3 HRSG Stack Outlet ", ID: "CTG-3 "																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
634	385879.14	4750333.01	48.70	0	DEN	63	80.0	0.0	0.0	0.0	0.0	71.6	0.1	-3.0	0.0	0.0	4.8	0.0	0.0	6.5
634	385879.14	4750333.01	48.70	0	DEN	125	84.0	0.0	0.0	0.0	0.0	71.6	0.4	1.7	0.0	0.0	3.0	0.0	0.0	7.2
634	385879.14	4750333.01	48.70	0	DEN	250	83.0	0.0	0.0	0.0	0.0	71.6	1.1	0.0	0.0	0.0	4.7	0.0	0.0	5.5
634	385879.14	4750333.01	48.70	0	DEN	500	85.0	0.0	0.0	0.0	0.0	71.6	2.1	-0.9	0.0	0.0	4.8	0.0	0.0	7.5
634	385879.14	4750333.01	48.70	0	DEN	1000	82.0	0.0	0.0	0.0	0.0	71.6	3.9	-0.9	0.0	0.0	4.8	0.0	0.0	2.6

Point Source, ISO 9613, Name: "CGT4 HRSG Stack Outlet ", ID: "CTG-4"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
635	385801.33	4750336.18	48.70	0	DEN	32	71.0	0.0	0.0	0.0	0.0	71.9	0.0	-3.0	0.0	0.0	0.0	0.0	0.0	2.1
635	385801.33	4750336.18	48.70	0	DEN	63	80.0	0.0	0.0	0.0	0.0	71.9	0.1	-3.0	0.0	0.0	0.0	0.0	0.0	11.0
635	385801.33	4750336.18	48.70	0	DEN	125	84.0	0.0	0.0	0.0	0.0	71.9	0.5	1.7	0.0	0.0	0.0	0.0	0.0	10.0
635	385801.33	4750336.18	48.70	0	DEN	250	83.0	0.0	0.0	0.0	0.0	71.9	1.2	-0.0	0.0	0.0	0.0	0.0	0.0	10.0
635	385801.33	4750336.18	48.70	0	DEN	500	85.0	0.0	0.0	0.0	0.0	71.9	2.1	-1.0	0.0	0.0	0.0	0.0	0.0	12.0
635	385801.33	4750336.18	48.70	0	DEN	1000	82.0	0.0	0.0	0.0	0.0	71.9	4.0	-1.0	0.0	0.0	0.0	0.0	0.0	7.1
635	385801.33	4750336.18	48.70	0	DEN	2000	83.0	0.0	0.0	0.0	0.0	71.9	10.7	-1.0	0.0	0.0	0.0	0.0	0.0	1.5

Point Source, ISO 9613, Name: "Circ Pump Building North OH Door ", ID: "NS-05"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
638	385829.70	4750305.12	1.90	1	DEN	500	80.0	0.0	0.0	3.0	0.0	72.0	2.2	-0.7	0.0	0.0	4.8	0.0	1.0	3.8
638	385829.70	4750305.12	1.90	1	DEN	1000	83.0	0.0	0.0	3.0	0.0	72.0	4.1	-1.9	0.0	0.0	4.8	0.0	1.0	6.1

Point Source, ISO 9613, Name: "HRSG3 Exhaust Stack Wall ", ID: "NS3-22"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
639	385879.14	4750333.01	24.30	0	DEN	63	72.0	0.0	0.0	0.0	0.0	71.6	0.1	-3.6	0.0	0.0	0.0	0.0	0.0	3.8
639	385879.14	4750333.01	24.30	0	DEN	125	83.0	0.0	0.0	0.0	0.0	71.6	0.4	1.5	0.0	0.0	0.0	0.0	0.0	9.4
639	385879.14	4750333.01	24.30	0	DEN	250	85.0	0.0	0.0	0.0	0.0	71.6	1.1	-0.1	0.0	0.0	0.0	0.0	0.0	12.4
639	385879.14	4750333.01	24.30	0	DEN	500	77.0	0.0	0.0	0.0	0.0	71.6	2.1	-1.1	0.0	0.0	0.0	0.0	0.0	4.4
639	385879.14	4750333.01	24.30	0	DEN	1000	81.0	0.0	0.0	0.0	0.0	71.6	3.9	-1.1	0.0	0.0	0.0	0.0	0.0	6.6
639	385879.14	4750333.01	24.30	0	DEN	2000	81.0	0.0	0.0	0.0	0.0	71.6	10.4	-1.1	0.0	0.0	0.0	0.0	0.0	0.2

Point Source, ISO 9613, Name: "HRSG4 Exhaust Stack Wall ", ID: "NS4-22"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
640	385801.33	4750336.18	24.30	0	DEN	63	72.0	0.0	0.0	0.0	0.0	71.9	0.1	-3.7	0.0	0.0	0.0	0.0	0.0	3.7
640	385801.33	4750336.18	24.30	0	DEN	125	83.0	0.0	0.0	0.0	0.0	71.9	0.5	1.4	0.0	0.0	0.0	0.0	0.0	9.3
640	385801.33	4750336.18	24.30	0	DEN	250	85.0	0.0	0.0	0.0	0.0	71.9	1.2	-0.3	0.0	0.0	0.0	0.0	0.0	12.3
640	385801.33	4750336.18	24.30	0	DEN	500	77.0	0.0	0.0	0.0	0.0	71.9	2.1	-1.3	0.0	0.0	0.0	0.0	0.0	4.3
640	385801.33	4750336.18	24.30	0	DEN	1000	81.0	0.0	0.0	0.0	0.0	71.9	4.0	-1.3	0.0	0.0	0.0	0.0	0.0	6.4

Point Source, ISO 9613, Name: "HRSG3 Boiler Blowdown System Exhaust ", ID: "NS3-16"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
641	385874.12	4750334.97	6.00	0	DEN	250	84.0	0.0	0.0	0.0	0.0	71.6	1.1	-0.6	0.0	0.0	4.8	0.0	0.0	7.1
641	385874.12	4750334.97	6.00	0	DEN	500	85.0	0.0	0.0	0.0	0.0	71.6	2.1	-1.8	0.0	0.0	4.8	0.0	0.0	8.3
642	385874.12	4750334.97	6.00	1	DEN	500	85.0	0.0	0.0	0.0	0.0	71.8	2.1	-2.0	0.0	0.0	4.8	0.0	1.0	7.3

Point Source, ISO 9613, Name: "HRSG4 Boiler Blowdown System Exhaust", ID: "NS4-16"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
643	385805.17	4750335.85	6.00	0	DEN	250	84.0	0.0	0.0	0.0	0.0	71.9	1.2	-1.1	0.0	0.0	8.8	0.0	0.0	3.2
643	385805.17	4750335.85	6.00	0	DEN	500	85.0	0.0	0.0	0.0	0.0	71.9	2.1	-2.1	0.0	0.0	10.9	0.0	0.0	2.2

Point Source, ISO 9613, Name: "CGT3 Dew Point Heater Combustion Fan", ID: "NS3-09"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
644	385898.05	4750423.90	0.80	0	DEN	500	80.0	0.0	0.0	0.0	0.0	72.2	2.2	3.2	0.0	0.0	0.0	0.0	0.0	2.3
644	385898.05	4750423.90	0.80	0	DEN	1000	81.0	0.0	0.0	0.0	0.0	72.2	4.2	-0.6	0.0	0.0	0.0	0.0	0.0	5.2

Point Source, ISO 9613, Name: "CGT3 Exhaust Duct East Barrier Wall ", ID: "NS3-01"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
647	385883.46	4750377.57	3.30	0	DEN	63	70.0	0.0	0.0	3.0	0.0	71.9	0.1	-5.4	0.0	0.0	0.0	0.0	0.0	6.3
647	385883.46	4750377.57	3.30	0	DEN	250	72.0	0.0	0.0	3.0	0.0	71.9	1.2	0.7	0.0	0.0	0.0	0.0	0.0	1.2
647	385883.46	4750377.57	3.30	0	DEN	500	71.0	0.0	0.0	3.0	0.0	71.9	2.1	-1.9	0.0	0.0	0.0	0.0	0.0	1.8

Point Source, ISO 9613, Name: "CGT4 Exhaust Duct East Barrier Wall ", ID: "NS4-01"																				
Nr.	X	Y	Z	Refl.	DEN	Freq.	Lw	l/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	dB(A)
652	385805.45	4750381.37	3.30	0	DEN	63	70.0	0.0	0.0	3.0	0.0	72.2	0.1	-5.4	0.0	0.0	5.9	0.0	0.0	0.2

Appendix E

Manufacturer Letter – Upgrade Noise Impact

GE Gas Power

Richard Loud
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June 5, 2023

Ron Kraayenbrink
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Invenergy Services Canada ULC
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Corunna, Ontario N0N1G0

Invenergy St Clair Energy Centre AGP Tech & High Output R0/S0 Uprate Noise

Dear Ron:

We have reviewed proposed changes to the gas turbines and have concluded that the Advanced Gas Path Tech and High Output R0/S0 Upgrades to the turbine generators are not expected to increase noise levels from the Facility. This conclusion is based on the following aspects of the upgrade.

- The inlet guide vanes will be opened slightly increasing the airflow by 1% resulting in an immeasurable increase in the inlet noise of 0.04 dB*.
- Changes to the combustor will improve efficiency but do not affect noise. Combustion noise is internal to the gas turbine and generally does not come out through the casing or turbine/exhaust. In addition, the combustion system is located within the gas turbine enclosure which mitigates noise from the gas turbine and its combustion system.
- The exhaust gas flow will increase by less than 1% resulting in an immeasurable increase in the exhaust noise of 0.04 dB*.

* For IEC 61672-1 Class 1 sound level meters, acceptance limits are generally +/- 1.0 dB.

In its experience installing the Advanced Gas Path Tech and High Output R0/S0 upgrades on the 7F fleet, GE is not aware of any instance in which the upgrades resulted in a material increase in noise emissions from a facility. GE has no evidence indicating that the upgrades resulted in extra turbulence in the exhaust that could result in damage to the stack silencer.

Sincerely,

Richard Loud
Consulting Engineer - Acoustics