

Limits are provided for two main types of noise sources:

- Non-impulsive, "continuous" noise sources such as ventilation fans, mechanical equipment, and vehicles while moving within the property boundary of an industry. Continuous noise is measured using 1-hour average sound exposures (Leq (1-hr) values), in dBA.
- Impulsive noise, which is a "banging" type noise characterized by rapid sound level rise time and decay. Impulsive noise is measured using a logarithmic mean (average) level (LLM) of the impulses in a one-hour period, in dBAI.

The guideline requires an assessment at, and provides separate guideline limits for:

- Outdoor points of reception (e.g., back yards, communal outdoor amenity areas).
- Façade points of reception such as the plane of windows on the outdoor façade which connect onto noise sensitive spaces, such as living rooms, dens, eat-in kitchens, dining rooms and bedrooms.

### Acoustical Area Classification

Under the MECP Publication NPC-300 guidelines, noise sensitive receptors are defined using receptor area classifications. The receptor areas are classified as either:

- Class 1 – Urban areas
- Class 2 – Suburban / semi-rural areas
- Class 3 – Rural areas
- Class 4 – Infill areas (Subject to Municipal Planning Approval for New Developments)

Depending on the receptor area classification, different guideline limits apply. Classes 1, 2, and 3 were included in the predecessor guidelines to Publication NPC-300. The Class 4 area, intended to allow for infill and redevelopment, whilst still protecting residences from undue noise.

Tables 5.1 and 5.2 below summarizes the MECP's minimum exclusionary sound level limits for based on the Acoustical Class of the project area, which are expressed in terms of 1-hour equivalent sound levels (1-hour Leq):

Table 5.1 MECP Minimum Exclusionary Sound Level Limits for Steady Sound

Time of Day	Class 1 Sound Level Limits (dBA)		Class 2 Sound Level Limits (dBA)		Class 3 Sound Level Limits (dBA)		Class 4 Sound Level Limits (dBA)	
	Plane of Window	Outdoor POR						
07:00 – 19:00 (Day)	50	50	50	50	45	45	60	55
19:00 – 23:00 (Even)	50	50	50	45	40	40	60	55
23:00 – 07:00 (Night)	45	NA	45	NA	40	NA	55	NA

Class 3 noise limits appropriate for this project have been shaded for reference.

Table 5.2 Applicable Minimum MECP Sound Level Limits for Steady State Sound

POR ID	POR Description	Sound Level Limits (dBA)		
		Day (7am – 7pm)	Evening (7pm – 11pm)	Night (11pm – 7am)
POR-01	Worst-case plane of window on east façade, 2 <sup>nd</sup> floor (4.5 m AG)	45	40	40
POR-02	Worst-case plane of window on east façade, 2 <sup>nd</sup> floor (4.5 m AG)	45	40	40
POR-03	Worst-case plane of window on south façade, 2 <sup>nd</sup> floor (4.5 m AG)	45	40	40
POR-04	Worst-case plane of window on south façade, 1 <sup>st</sup> floor (1.5 m AG)	45	40	40

POR ID	POR Description	Sound Level Limits (dBA)		
		Day (7am – 7pm)	Evening (7pm – 11pm)	Night (11pm – 7am)
POR-04_O	Outdoor receptor at western property line of POR4 (1.5 m AG)	45	40	NA
POR-05	Worst-case plane of window on north façade, 2 <sup>nd</sup> floor (4.5 m AG)	45	40	40
POR-06	Worst-case plane of window on east façade, 1 <sup>st</sup> floor (1.5 m AG)	45	40	40
POR-06_O	Outdoor receptor at eastern property line of POR6 (1.5 m AG)	45	40	NA

The lowest sound levels generally occur at the ground floor level (1.5 m AG) and increase with height due to increased line of sight exposure to the roadways. GHD has presented the lowest noise limit relative to the worst-case Facility noise impact based on line-of-sight and exposure to the applicable receptor.

## 5.1.2 Sound Level Limits for Emergency Equipment

In accordance with NPC-300 the sound level limits for emergency equipment operating in non-emergency situations, such as testing or maintenance of such equipment, are 5 dB greater than the sound level limits otherwise applicable to stationary sources. The sound level limits for emergency equipment were evaluated separately from the continuous stationary noise sources to reflect this difference.

Emergency equipment noise from maintenance activities is expected to occur approximately once a week for up to an hour during the daytime.

## 5.2 Impact Assessment

### 5.2.1 Steady State Sound Levels

The worst-case assessment of steady-state noise sources at the selected points-of-reception was based on measured sound pressure levels. Cadna A Acoustical Modelling Software (Cadna A), version 2021, was used to model the potential impacts of the significant noise sources. Cadna A calculates sound level emissions based on the ISO 9613-2 standard "Acoustics – Attenuation of Sound during Propagation Outdoors".

A sample calculation for the worst-case POR is provided in Appendix E.

The worst-case cumulative Facility-wide attenuated sound levels estimated at the receptors included attenuation affects due to geometric divergence, atmospheric attenuation, barriers/berms, ground absorption and directivity, as applicable for all significant noise sources. Off-site buildings were input as intervening structures.

CadnaA modelling assumptions used in this AAR included:

- **Noise Sources:** All sources were modelled using the 1/1 octave band data
- **Reflection Order:** A maximum reflection order of 2 was used to evaluate indirect noise impact from one reflecting surface
- **Ground Absorption:** Ground absorption coefficients of 0.25 for asphalt and 1.0 for grass were used to model ground absorption around the Site and adjacent properties
- **Time-Weighted Adjustment:** Time-weighted adjustments for sources that do not operate continuously are summarized in Table C.1
- **Receptor Elevation:** POR receptor heights were modelled appropriately to represent the worst-case elevation as detailed in Section 4
- **Tonality:** A +5 dBA adjustment was applied for tonal sources if applicable

- **Building Surfaces:** The buildings are modelled as reflective surfaces
- **Terrain:** The surrounding area was modelled based on site specific topography
- **Foliage:** No attenuation due to foliage was included to be conservative

The unattenuated steady state sound levels estimated at the PORs is summarized in Table 2a. Since the unattenuated sound levels estimated at some of the PORs do not meet the limits for steady state noise sources, an appropriate noise control program must be specified to mitigate the Facility's significant noise sources to appropriate levels.

The existing and mitigated sound levels estimated at the PORs are summarized in Table 3 and graphically in Figure 3.

## 5.2.2 Emergency Equipment Sound Levels

The worst-case assessment of the emergency equipment operating for maintenance and testing purposes at the selected PORs were estimated based on the emergency generator operating continuously during a daytime hour.

The emergency equipment noise impacts at the PORs are summarized in Table 3.

## 5.2.3 Noise Abatement Action Plan

Due to the complex nature of this Facility, with numerous environmental noise sources near residential dwellings, the potentially significant noise source list may not be exhaustive as presented in this AAR. GHD has identified the existing dominant noise sources, however these dominant noise sources can "mask" other significant noise sources that are uncovered after the dominant noise sources have been abated. GHD expects that follow-up site visit(s) following the installation of noise controls will be necessary to confirm noise control performance and off-site noise reduction and that other significant environmental noise sources may be identified based on this analysis.

## 5.2.4 Proposed Noise Abatement Required for Compliance

The steady-state sound levels (attenuated 1-hour Leqs) estimated at the PORs after installation of noise controls, was based on the following noise abatement plan.

### 5.2.4.1 Existing Physical Noise Abatement Measures

There are currently no onsite noise abatement measures in place on any existing equipment.

### 5.2.4.2 Existing Operational Noise Controls

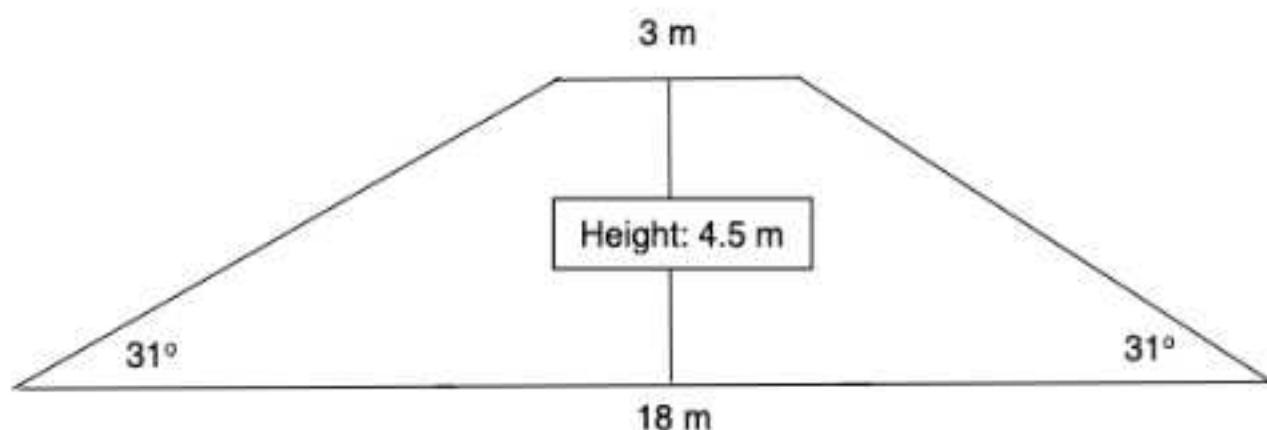
There are currently no operational or administrative controls undertaken by Escarpment in the operation of the Facility with the expressed purpose of reducing noise impacts.

### 5.2.4.3 Required Physical Noise Abatement Measures

#### *Development of a New Earthen Berm/Embankment (Berm #1)*

The berm will be located on the eastern side of the Facility to mitigate noise mainly from the RNG upgrading facility in the direction of POR4. The base of the berm must be 95 m long by roughly 18 m wide, reaching to a height of 4.5 m. It must maintain a width of at least 3 m at 4.5 m high. Note that the required width could be lower in the event that the sidewalls of the berm can be constructed at a steeper angle to achieve the necessary height and top width. The

following sketch (not to scale) provides an approximate cross-section profile of the proposed berm. The location footprint and dimensions are shown in Figure 4.



#### 5.2.4.4 Required Operational Noise Controls

GHD's evaluation indicates that the implementation of any operational or administrative controls will not be required to demonstrate compliance during operation of the Facility.

#### 5.2.5 Noise Abatement Implementation Schedule

Escarpment Renewables will implement the noise abatement prior to the commencement of the RNG upgrading facility operations. After this phase of noise abatement is completed, Escarpment Renewables will reassess the Facility's noise levels and update the AAR.

## 6. Conclusions

The Facility-wide noise levels estimated at the points-of-reception after the implementation of the noise abatement program are below the minimum MECP sound level limits, as summarized in Table 3.

GHD recommends that the Facility ensures that any future equipment contribute less than 30 dBA at the applicable point(s)-of-reception.

This is based on accepted standard engineering practices where sound levels that are a minimum of 15 dBA lower than another sound level will not have an impact on the overall noise level. Therefore, based on the MECP exclusionary sound level limit of 45 dBA a source contributing 30 dBA or less would be considered insignificant.



Source: Google Satellite



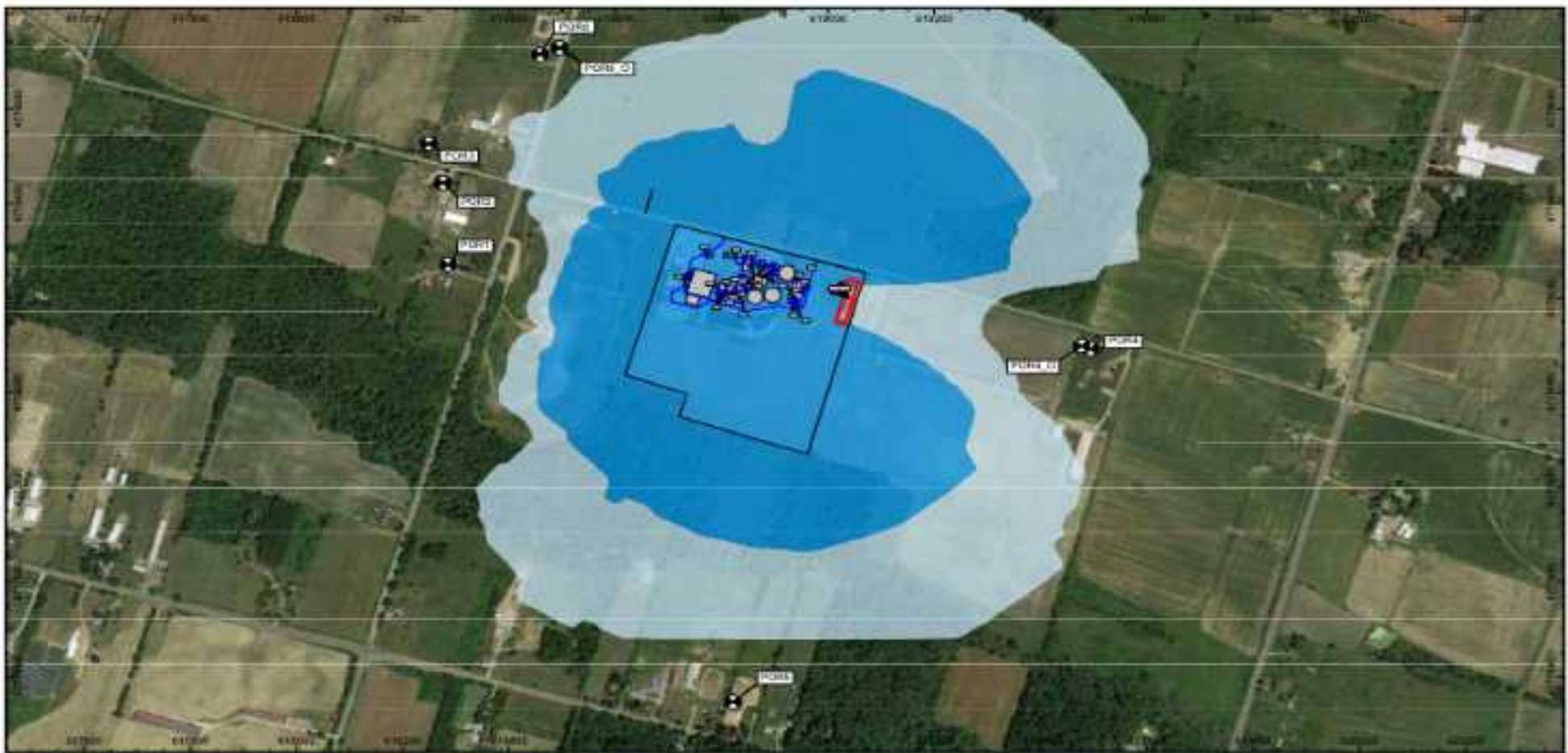


Source: Google Satellite



ACOUSTIC ASSESSMENT REPORT  
ESCARPMENT RENEWABLES  
424 SOBYE ROAD, GRIMSBY, ONTARIO

#### POINT OF RECEPION LOCATION PLAN



Source: Google Satellite



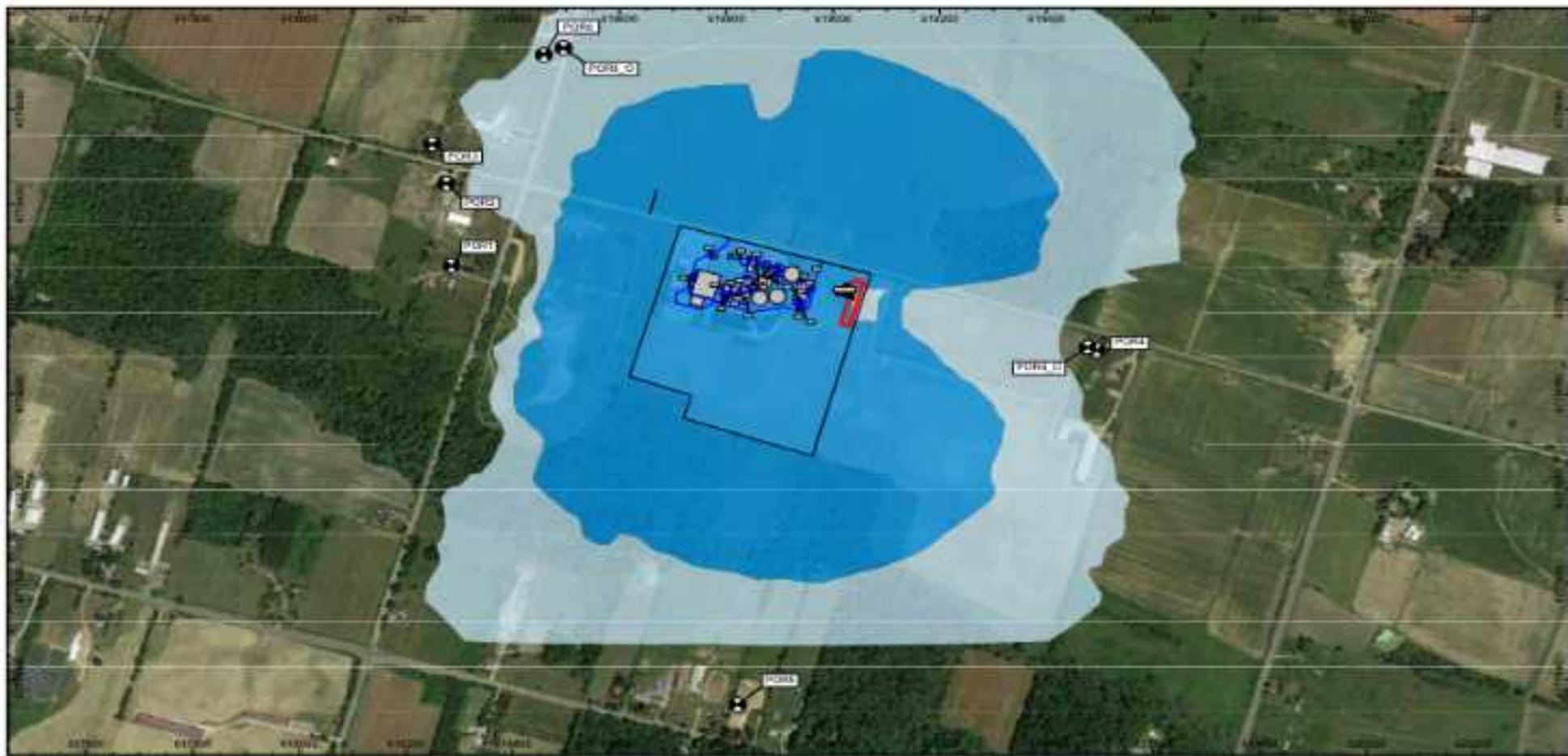
ACOUSTIC ASSESSMENT REPORT  
ESCARPMENT RENEWABLES  
424 SOBYE ROAD, GRIMSBY, ONTARIO

NOISE CONTOUR PLOT (Steady State Mitigated, Night, 1.5 m A.G.)

Contract File: 112296032 / Project ID: 112296032 / rev 12/2022 PAIR Update / 11/2023 / Created by AG / 11/22/2023 11:45

112296032  
02.11.2023

FIGURE 3A



Sources: Chicago Board of Trade



### Legend

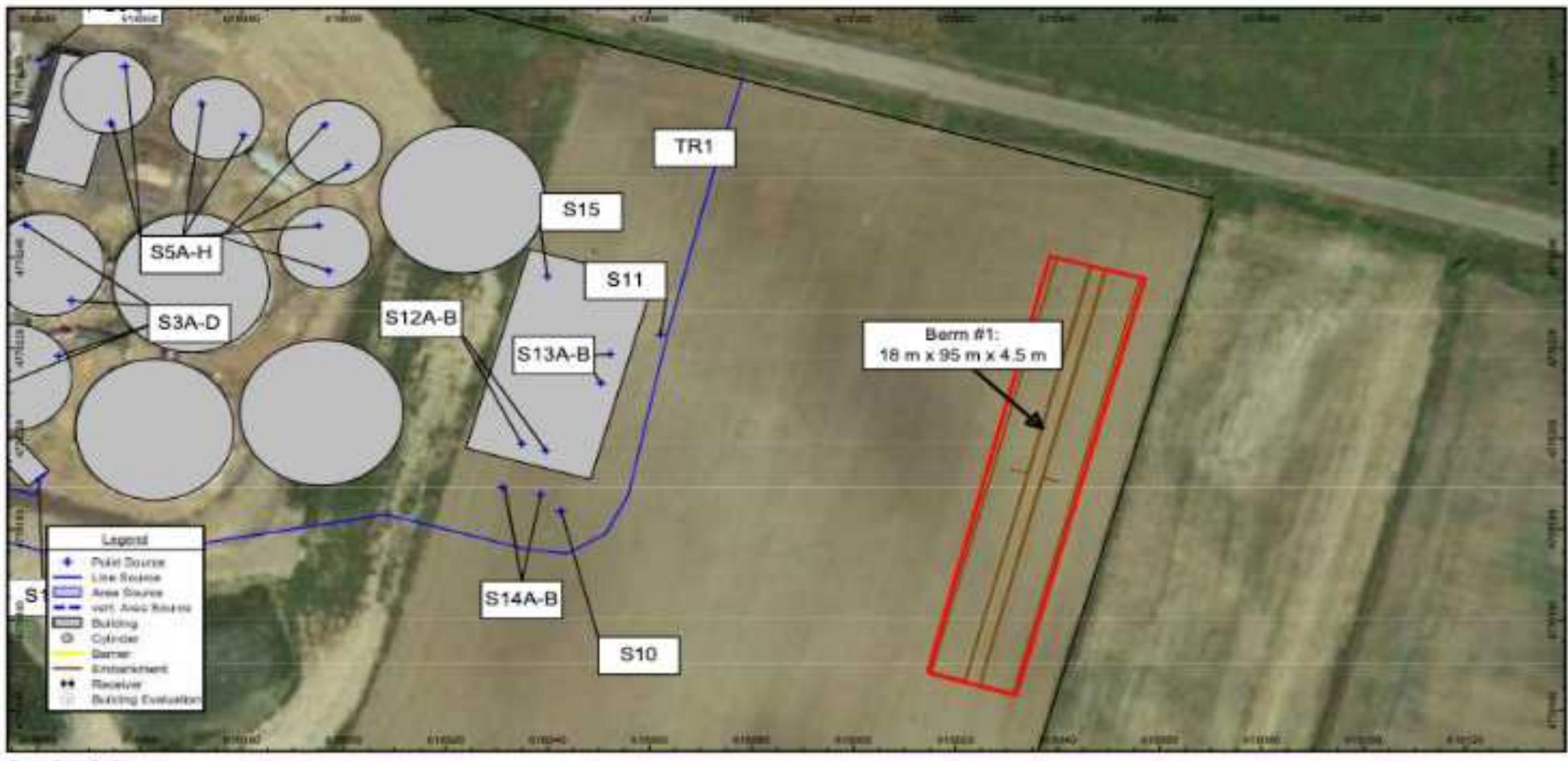
GHD

ACOUSTIC ASSESSMENT REPORT  
ESCARPMENT RENEWABLES  
424 SOBYE ROAD, GRIFFIN ONTARIO

### NOISE CONTOUR PLOT (Steady State Mitigated, Night, 4.5 m A.G.)

112/6013  
08.11.2013

FIGURE 3B



Source: Google Satellite



ACOUSTIC ASSESSMENT REPORT  
ESCARPMENT RENEWABLES  
424 SOBYE ROAD, GRIMSBY, ONTARIO

NOISE MITIGATION BERM LOCATION PLAN

Table 1

**Noise Source Summary**  
**Escarpment Renewables**  
**424 Scbie Road, Beamsville, Ontario**

Cadna A ID	Source Description	Sound Power Level <sup>1</sup>	Source Characteristics <sup>2</sup>	Source Location <sup>3</sup>	Noise Control Measures <sup>4</sup>	Source Type
		(dBA)				
<b>Steady State Sources</b>						
FR1	Fork Lift Route	109.5	S	O	U	Line
S01	Ventilation Exhaust	97.3	S	O	U	Point
S03A	Digester Tank Axial Agitator	84.6	S	O	U	Point
S03B	Digester Tank Axial Agitator	84.6	S	O	U	Point
S03C	Digester Tank Axial Agitator	84.6	S	O	U	Point
S03D	Digester Tank Axial Agitator	84.6	S	O	U	Point
S04A	Agitator Motor (High Pitch)	96.4	S	O	U	Point
S04B	Agitator Motor (High Pitch)	96.4	S	O	U	Point
S04C	Agitator Motor (High Pitch)	96.4	S	O	U	Point
S04D	Agitator Motor (High Pitch)	96.4	S	O	U	Point
S05A	Digester Tank Axial Agitator	84.6	S	O	U	Point
S05B	Digester Tank Axial Agitator	84.6	S	O	U	Point
S05C	Digester Tank Axial Agitator	84.6	S	O	U	Point
S05D	Digester Tank Axial Agitator	84.6	S	O	U	Point
S05E	Digester Tank Axial Agitator	84.6	S	O	U	Point
S05F	Digester Tank Axial Agitator	84.6	S	O	U	Point
S05G	Digester Tank Axial Agitator	84.6	S	O	U	Point
S05H	Digester Tank Axial Agitator	84.6	S	O	U	Point
S06A	Side Wall Ventilation Fan	91.0	S	O	U	Point
S06B	Side Wall Ventilation Fan	91.0	S	O	U	Point
S07	CHP Unit	103.2	S	O	U	Point
S08	Side Wall Ventilation Fan	89.4	S	O	U	Point
S09	Truck Idle on Weight Scale	99.5	S	O	U	Point
S10	Flare	99.0	S	O	U	Point
S11	Truck Idle on Weight Scale	99.5	S	O	U	Point
S12A	RNG Facility Compressor Outlet	105.5	S	O	B	Point
S12B	RNG Facility Compressor Outlet	105.5	S	O	B	Point
S13A	Chiller	91.6	S	O	B	Point
S13B	Chiller	91.6	S	O	B	Point
S14A	RNG Compressor Truck Idling	99.5	S	O	U	Point
S14B	RNG Compressor Truck Idling	99.5	S	O	U	Point
S15	RNG Facility Compressor Inlet	108.6	S	O	B	Point
S16A	Organic Processing Building Bay Door (Open)	98.2	S	O	U	Vertical Area
S16B	Organic Processing Building Bay Door (Open)	98.2	S	O	U	Vertical Area
S16C	Organic Processing Building Bay Door (Open)	98.2	S	O	U	Vertical Area
S16D	Organic Processing Building Bay Door (Open)	98.2	S	O	U	Vertical Area
S16E	Organic Processing Building Bay Door (Open)	98.2	S	O	U	Vertical Area
S16F	Organic Processing Building Bay Door (Open)	98.2	S	O	U	Vertical Area
S17A	Pump Building Bay Door (Open)	76.0	S	O	U	Vertical Area
S17B	Pump Building Bay Door (Open)	76.0	S	O	U	Vertical Area
S18	Pump Building Bay Door (Open)	71.4	S	O	U	Vertical Area
S19	Skimmer Building Bay Door (Open)	71.4	S	O	U	Vertical Area
TR1	Truck Route	109.9	S	O	U	Line

**Emergency Sources**

Emg_1	Emergency Generator (200 kW)	112.6	S	O	U	Point
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Notes:

<sup>1</sup> Sound Power Level (PWL) in dBA, excludes +5 dBA total penalty if applicable.<sup>2</sup> Sound characteristics:

- S – Steady
- Q – Quasi-steady impulsive
- I – Impulsive
- B – Buzzing
- T – Tonal
- C – Cyclic

<sup>3</sup> Source location:

- O – Outside of building
- I – Inside of building

<sup>4</sup> Noise control measures:

- S – Silencer, acoustic louvre, muffler
- A – Acoustic lining, plenum
- B – Barrier, berm, screening
- L – Lagging
- E – Acoustic enclosure
- O – Other
- U – Uncontrolled
- AC – Administrative control



4. Environment & Management

4.1.1.1. Environment & Management

4.1.1.2. Environment & Management

4.1.1.3. Environment & Management

4.1.1.4. Environment & Management

4.1.1.5. Environment & Management

4.1.1.6. Environment & Management

4.1.1.7. Environment & Management

4.1.1.8. Environment & Management

4.1.1.9. Environment & Management

4.1.1.10. Environment & Management

4.1.1.11. Environment & Management

4.1.1.12. Environment & Management

4.1.1.13. Environment & Management

4.1.1.14. Environment & Management

4.1.1.15. Environment & Management

4.1.1.16. Environment & Management

4.1.1.17. Environment & Management

4.1.1.18. Environment & Management

4.1.1.19. Environment & Management

4.1.1.20. Environment & Management

4.1.1.21. Environment & Management

4.1.1.22. Environment & Management

4.1.1.23. Environment & Management

4.1.1.24. Environment & Management

4.1.1.25. Environment & Management

4.1.1.26. Environment & Management

1.0	1.0	1.0
1.1	1.1	1.1
1.2	1.2	1.2
1.3	1.3	1.3
1.4	1.4	1.4
1.5	1.5	1.5
1.6	1.6	1.6
1.7	1.7	1.7
1.8	1.8	1.8
1.9	1.9	1.9
2.0	2.0	2.0
2.1	2.1	2.1
2.2	2.2	2.2
2.3	2.3	2.3
2.4	2.4	2.4
2.5	2.5	2.5
2.6	2.6	2.6
2.7	2.7	2.7
2.8	2.8	2.8
2.9	2.9	2.9
3.0	3.0	3.0
3.1	3.1	3.1
3.2	3.2	3.2
3.3	3.3	3.3
3.4	3.4	3.4
3.5	3.5	3.5
3.6	3.6	3.6
3.7	3.7	3.7
3.8	3.8	3.8
3.9	3.9	3.9
4.0	4.0	4.0
4.1	4.1	4.1
4.2	4.2	4.2
4.3	4.3	4.3
4.4	4.4	4.4
4.5	4.5	4.5
4.6	4.6	4.6
4.7	4.7	4.7
4.8	4.8	4.8
4.9	4.9	4.9
5.0	5.0	5.0
5.1	5.1	5.1
5.2	5.2	5.2
5.3	5.3	5.3
5.4	5.4	5.4
5.5	5.5	5.5
5.6	5.6	5.6
5.7	5.7	5.7
5.8	5.8	5.8
5.9	5.9	5.9
6.0	6.0	6.0
6.1	6.1	6.1
6.2	6.2	6.2
6.3	6.3	6.3
6.4	6.4	6.4
6.5	6.5	6.5
6.6	6.6	6.6
6.7	6.7	6.7
6.8	6.8	6.8
6.9	6.9	6.9
7.0	7.0	7.0
7.1	7.1	7.1
7.2	7.2	7.2
7.3	7.3	7.3
7.4	7.4	7.4
7.5	7.5	7.5
7.6	7.6	7.6
7.7	7.7	7.7
7.8	7.8	7.8
7.9	7.9	7.9
8.0	8.0	8.0
8.1	8.1	8.1
8.2	8.2	8.2
8.3	8.3	8.3
8.4	8.4	8.4
8.5	8.5	8.5
8.6	8.6	8.6
8.7	8.7	8.7
8.8	8.8	8.8
8.9	8.9	8.9
9.0	9.0	9.0
9.1	9.1	9.1
9.2	9.2	9.2
9.3	9.3	9.3
9.4	9.4	9.4
9.5	9.5	9.5
9.6	9.6	9.6
9.7	9.7	9.7
9.8	9.8	9.8
9.9	9.9	9.9
10.0	10.0	10.0
10.1	10.1	10.1
10.2	10.2	10.2
10.3	10.3	10.3
10.4	10.4	10.4
10.5	10.5	10.5
10.6	10.6	10.6
10.7	10.7	10.7
10.8	10.8	10.8
10.9	10.9	10.9
11.0	11.0	11.0
11.1	11.1	11.1
11.2	11.2	11.2
11.3	11.3	11.3
11.4	11.4	11.4
11.5	11.5	11.5
11.6	11.6	11.6
11.7	11.7	11.7
11.8	11.8	11.8
11.9	11.9	11.9
12.0	12.0	12.0
12.1	12.1	12.1
12.2	12.2	12.2
12.3	12.3	12.3
12.4	12.4	12.4
12.5	12.5	12.5
12.6	12.6	12.6
12.7	12.7	12.7
12.8	12.8	12.8
12.9	12.9	12.9
13.0	13.0	13.0
13.1	13.1	13.1
13.2	13.2	13.2
13.3	13.3	13.3
13.4	13.4	13.4
13.5	13.5	13.5
13.6	13.6	13.6
13.7	13.7	13.7
13.8	13.8	13.8
13.9	13.9	13.9
14.0	14.0	14.0

Table 3

**Acoustic Assessment Summary**  
**Escarpment Renovations**  
**424 Sable Road, Beamsville, Ontario**

Point of Reception ID	Point of Reception Description	Time of Day	Unmitigated Sound Levels (L <sub>10</sub> )	Mitigated Sound Levels (L <sub>10</sub> )	Performance Limit <sup>1</sup> (L <sub>10</sub> )	Compliance with Performance Limit	Class Number	Verified by Acoustic Audit
			(dB)	(dB)	(dB)	(Yes/No)		
<b>Steady State Noise Impact</b>								
POR1	Park Road Two-Storey Residential Facade	07:00-19:00	39	39	40	Yes	Class 3	No
		19:00-23:00	39	39	40	Yes	Class 3	No
		23:00-07:00	39	39	40	Yes	Class 3	No
POR2	Sable Road Two-Storey Residential Facade	07:00-19:00	40	40	40	Yes	Class 3	No
		19:00-23:00	39	39	40	Yes	Class 3	No
		23:00-07:00	39	39	40	Yes	Class 3	No
POR3	Sable Road Two-Storey Residential Facade	07:00-19:00	39	39	40	Yes	Class 3	No
		19:00-23:00	39	39	40	Yes	Class 3	No
		23:00-07:00	39	39	40	Yes	Class 3	No
POR4	Sable Road One-Storey Residential Facade	07:00-19:00	44	39	40	Yes	Class 3	No
		19:00-23:00	43	39	40	Yes	Class 3	No
		23:00-07:00	43	39	40	Yes	Class 3	No
POR4_O	Outdoor Sable Road One-Storey Residential	07:00-19:00	45	39	40	Yes	Class 3	No
		19:00-23:00	48	39	40	Yes	Class 3	No
POR5	Mud Street Two-Storey Residential Facade	07:00-19:00	22	22	25	Yes	Class 3	No
		19:00-23:00	21	21	20	Yes	Class 3	No
		23:00-07:00	21	21	20	Yes	Class 3	No
POR6	Park Road One-Storey Residential Facade	07:00-19:00	39	39	40	Yes	Class 3	No
		19:00-23:00	38	38	40	Yes	Class 3	No
		23:00-07:00	38	38	40	Yes	Class 3	No
POR6_O	Outdoor Park Road One-Storey Residential	07:00-19:00	40	40	40	Yes	Class 3	No
		19:00-23:00	39	39	40	Yes	Class 3	No
<b>Emergency Noise Impact</b>								
POR1	Park Road Two-Storey Residential Facade	07:00-19:00	42	42	50	Yes	Class 3	No
POR2	Sable Road Two-Storey Residential Facade	07:00-19:00	42	42	50	Yes	Class 3	No
POR3	Sable Road Two-Storey Residential Facade	07:00-19:00	43	43	50	Yes	Class 3	No
POR4	Sable Road One-Storey Residential Facade	07:00-19:00	34	34	50	Yes	Class 3	No
POR4_O	Outdoor Sable Road One-Storey Residential	07:00-19:00	34	34	50	Yes	Class 3	No
POR5	Mud Street Two-Storey Residential Facade	07:00-19:00	18	18	50	Yes	Class 3	No
POR6	Park Road One-Storey Residential Facade	07:00-19:00	43	43	50	Yes	Class 3	No
POR6_O	Outdoor Park Road One-Storey Residential	07:00-19:00	43	43	50	Yes	Class 3	No

Note:

<sup>1</sup> Minimum MECP sound level limits as defined in NPM-300.

# **Appendices**

# **Appendix A**

## **Land Use Zoning Plan**



# **Appendix B**

## **Summary of Insignificant Noise Sources**

**Table B.1**

**Insignificant Noise Source Summary**  
**Escarpmment Renewables**  
**424 Sobie Road, Beamsville, Ontario**

<b>Source ID</b>	<b>Source Description</b>	<b>Comments</b>
S20	Submersive Agitators on Storage Tanks	Observed to be inaudible
S21	Rooftop HVAC Units	Estimated to be < 25 dBA at the nearest POR
S22	Pumps in basement of pastuerization building	

# **Appendix C**

## **Noise Source Sound Level Summary**

**Table 11**  
**Market Research & Social Media Marketing**  
**Strategic Plan Performance**  
**2023 Q4 - Final Measurements**

Metric ID	Metric Name & Description	Q4 Actual Data & Index										Last Period Total	Last Period Average	Target	Actual	Improvement	Impact	Overall	Last Period Impact	
		Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4									
M1	Brand Awareness	98.5	110.5	105.5	95.5	100.5	95.5	100.5	105.5	95.5	100.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
	Average Click-through Rate	0.5%	0.6%	0.5%	0.4%	0.5%	0.4%	0.5%	0.6%	0.5%	0.4%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	
M2	Website Conversion Rate	10.5%	12.5%	11.5%	10.5%	11.5%	10.5%	11.5%	12.5%	10.5%	11.5%	11.5%	11.5%	11.5%	11.5%	11.5%	11.5%	11.5%	11.5%	
	Avg. Session Duration	4.5	5.5	4.5	3.5	4.5	3.5	4.5	5.5	4.5	3.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	
M3	Engaged User Growth	100.0	110.0	105.0	95.0	100.0	95.0	100.0	110.0	95.0	100.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0	
	Avg. User Engagement Score	8.5	9.5	8.5	7.5	8.5	7.5	8.5	9.5	8.5	7.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	
M4	Engaged User Growth	98.0	105.0	100.0	90.0	100.0	90.0	100.0	105.0	90.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
	Avg. User Engagement Score	8.0	8.5	8.0	7.0	8.0	7.0	8.0	8.5	8.0	7.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	
M5	Engaged User Growth	95.0	100.0	95.0	85.0	100.0	85.0	100.0	100.0	85.0	100.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0
	Avg. User Engagement Score	7.5	8.0	7.5	6.5	7.5	6.5	7.5	8.0	7.5	6.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	
M6	Engaged User Growth	92.0	98.0	95.0	88.0	98.0	88.0	98.0	100.0	88.0	98.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0
	Avg. User Engagement Score	7.0	7.5	7.0	6.0	7.0	6.0	7.0	7.5	7.0	6.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	
M7	Engaged User Growth	90.0	95.0	90.0	85.0	95.0	85.0	95.0	100.0	85.0	95.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0
	Avg. User Engagement Score	6.5	7.0	6.5	5.5	6.5	5.5	6.5	7.0	6.5	5.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	
M8	Engaged User Growth	88.0	92.0	90.0	85.0	92.0	85.0	92.0	100.0	85.0	92.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0
	Avg. User Engagement Score	6.0	6.5	6.0	5.0	6.0	5.0	6.0	6.5	6.0	5.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	
M9	Engaged User Growth	85.0	88.0	85.0	80.0	88.0	80.0	88.0	95.0	80.0	88.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0
	Avg. User Engagement Score	5.5	6.0	5.5	4.5	5.5	4.5	5.5	6.0	5.5	4.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
M10	Engaged User Growth	82.0	85.0	82.0	75.0	85.0	75.0	85.0	90.0	75.0	85.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0
	Avg. User Engagement Score	5.0	5.5	5.0	4.0	5.0	4.0	5.0	5.5	5.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
M11	Engaged User Growth	80.0	82.0	80.0	70.0	82.0	70.0	82.0	85.0	70.0	82.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0
	Avg. User Engagement Score	4.5	5.0	4.5	3.5	4.5	3.5	4.5	5.0	4.5	3.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
M12	Engaged User Growth	78.0	80.0	78.0	68.0	80.0	68.0	80.0	82.0	68.0	80.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0
	Avg. User Engagement Score	4.0	4.5	4.0	3.0	4.0	3.0	4.0	4.5	4.0	3.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
M13	Engaged User Growth	75.0	77.0	75.0	65.0	77.0	65.0	77.0	80.0	65.0	77.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
	Avg. User Engagement Score	3.5	4.0	3.5	2.5	3.5	2.5	3.5	4.0	3.5	2.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
M14	Engaged User Growth	72.0	74.0	72.0	62.0	74.0	62.0	74.0	76.0	62.0	74.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0
	Avg. User Engagement Score	3.0	3.5	3.0	2.0	3.0	2.0	3.0	3.5	3.0	2.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
M15	Engaged User Growth	70.0	72.0	70.0	60.0	72.0	60.0	72.0	74.0	60.0	72.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
	Avg. User Engagement Score	2.5	3.0	2.5	1.5	2.5	1.5	2.5	3.0	2.5	1.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
M16	Engaged User Growth	68.0	70.0	68.0	58.0	70.0	58.0	70.0	72.0	58.0	70.0	68.0	68.0	68.0	68.0	68.0	68.0	68.0	68.0	68.0
	Avg. User Engagement Score	2.0	2.5	2.0	1.0	2.0	1.0	2.0	2.5	2.0	1.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
M17	Engaged User Growth	65.0	67.0	65.0	55.0	67.0	55.0	67.0	69.0	55.0	67.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0
	Avg. User Engagement Score	1.5	2.0	1.5	0.5	1.5	0.5	1.5	2.0	1.5	0.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
M18	Engaged User Growth	62.0	64.0	62.0	52.0	64.0	52.0	64.0	66.0	52.0	64.0	62.0	62.0	62.0	62.0	62.0	62.0	62.0	62.0	62.0
	Avg. User Engagement Score	1.0	1.5	1.0	0.0	1.0	0.0	1.0	1.5	1.0	0.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
M19	Engaged User Growth	60.0	62.0	60.0	50.0	62.0	50.0	62.0	64.0	50.0	62.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0
	Avg. User Engagement Score	0.5	1.0	0.5	0.0	0.5	0.0	0.5	1.0	0.5	0.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
M20	Engaged User Growth	58.0	60.0	58.0	48.0	60.0	48.0	60.0	62.0	48.0	60.0	58.0	58.0	58.0	58.0	58.0	58.0	58.0	58.0	58.0
	Avg. User Engagement Score	0.0	0.5	0.0	-0.5	0.0	-0.5	0.0	0.5	0.0	-0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

#### **REFERENCES**

# **Appendix D**

## **Manufacturer Specifications and Preliminary Drawings**

## Carol Bravo

---

**From:** Sam East  
**Sent:** Thursday, November 25, 2021 12:48 PM  
**To:** Sam East  
**Subject:** RE: ComTech Energy - Escarpment Renewables

---

**From:** Guy Couturier <[guy.couturier@comtechenergy.ca](mailto:guy.couturier@comtechenergy.ca)>  
**Sent:** Friday, September 17, 2021 4:13 PM  
**To:** Daniel Turner <[Daniel.Turner@ghd.com](mailto:Daniel.Turner@ghd.com)>  
**Cc:** Jon Taylor <[jon.taylor@comtechenergy.ca](mailto:jon.taylor@comtechenergy.ca)>; James Ro @ ComTech <[james.ro@comtechenergy.ca](mailto:james.ro@comtechenergy.ca)>; Marie-Geneviève Poitras <[mg.poitras@comtechenergy.ca](mailto:mg.poitras@comtechenergy.ca)>  
**Subject:** RE: ComTech Energy - Escarpment Renewables

Hello Daniel,

The high pressure CNG compressors we are looking at for this application typically have a sound rating of 80-85 dBA @ 10 feet. If this is too high for your requirements we can look into sound attenuation dampers as an option. We have just this week also provided Sam and Andrew some pricing for the transportation costs and proposed a call the week of the 27<sup>th</sup> to get everyone back on the same page and see where they are at and how we can help them move forward. Hopefully they will agree and we will all get the chance to catch up.

Let us know if you have any questions or need any additional information.

Thanks,

Guy

Guy Couturier  
Senior Sales Specialist Renewable & Alternative Energy  
**ComTech Energy**  
C: (514) 777-9544

Visit the NEW [www.comtechenergy.ca](http://www.comtechenergy.ca) to learn more about us and why we are the right partner for you!



**S13**
**motivair™**  
 COOLING SOLUTIONS

OFFER REFERENCE: QT20-12855 / OP20-12093  
 CUSTOMER: GHD  
 CONTACT: Scott Dunbar  
 PROJECT: Humber Plant Wide Upgrades - Gas Chilling  
 DATE: 2020 September 17<sup>th</sup>

CREATED BY  
 NAME: Ahmed El Nady  
 PHONE: 416-819-0151  
 EMAIL: aelnady@trane.com



<i>Free Cooling chiller with scroll compressors</i>		<b>MPC-FC-5000-SP</b>	
Refrigerant	R	410A	
Electrical	V/ph/Hz	460/3/60	
Electrical cabinet	NEMA	3R	
Cooling capacity	TONS	26.09	
Cooling capacity	BTU/h	313,095	
Inlet fluid temperature	°F	41.0	
Outlet fluid temperature	°F	35.6	
Fluid type	Type	Propylene glycol	
Glycol percentage	%	50%	
Design ambient temperature	°F	95	
Elevation	ft	0	
INTEGRATED FREE COOLING DATA			
Cooling capacity	TONS	26.09	
Cooling capacity	BTU/h	313,095	
Ambient temperature for 100% Free Cooling	°F	20.3	
Inlet fluid temperature	°F	41.0	
Outlet fluid temperature	°F	35.6	
Free Cooling pressure drops (Free Cooling coil + evaporator + valves + piping)	ftH2O	127.2	
COMPRESSOR DATA			
Compressor number and type	N°xType	4 x scroll	
Number of circuits	N°	2	
Total compressors running current RLA	A	60.4	
Chiller capacity steps	N°	4	

EVAPORATOR DATA		
Number of evaporators	N°	2
Type of evaporator	Type	plate
Approval	/	CRN
Nominal flow rate	gpm	130.8
Minimum flow rate	gpm	70.4
Mechanical cooling pressure drops (evaporator + valves + piping)	ftH2O	68.8
Hydraulic connections	ANSI	2.5"
AIR AXIAL FANS AND CONDENSER DATA		
Number of fans	N°	4.0
Total air flow	cfm	42,380
Minimum ambient temperature	°F	-40.0
Maximum ambient temperature	°F	105
PUMP AND TANK DATA		
Pump motor size	HP	15
Available external pressure	ftH2O	77.3
Buffer tank material	Type	Stainless steel
Buffer tank volume	gal	132
TOTAL ELECTRICAL DATA (standard configuration)		
Full load amps (FLA)	A	98
Minimum circuit ampacity (MCA)	A	102
Maximum overcurrent protection (MOP)	A	118
Short circuit current rating (SCCR)	kA	6
NOISE DATA ACCORDING ISO3744		
Sound pressure level at 33ft	dBA	63
DIMENSIONS		
Length	in	171
Width	in	44
Height	in	86
WEIGHT		
Empty	lb	4,860

BUDGET PRICING (CAD\$)	
Qty. One (1) Motivair MPC-FC-5000-SP Chiller as described above:	\$119,500.00
***Freight Estimate:	\$5,500.00
<b>Available Options:</b>	
Adder: Stainless Steel Tank:	INCLUDED.
Adder: P5 High Pressure Pumps (Required):	INCLUDED.
Adder: Condenser Coil Coating:	\$17,650.00
Adder: Communication Interface Card:	\$3,200.0.
Adder: Duplex Pumps w/ Automatic Changeover:	\$10,590.00
Adder: Scroll Compressor Wraps (Low Noise):	\$3,662.00
Adder: Evaporator Heat Trace:	\$2,948.00
Adder: Compressor Service Valves:	\$3,942.00
Adder: 2nd-5th year extended compressor parts only warranty (No Labor):	\$8,311.00
<u>Note: extended compressor parts only warranty is only available with verification that start-up has been performed by a factory authorized representative.</u>	
NOTES	
All data subject to change.	
See Motivair Engineering Bulletin for installation details.	
<b>For 575V chillers, specify region to have CRN approval.</b>	
Customer is responsible for ensuring there is an adequate amount of system volume. Motivair requires 3 to 5 times the amount of flow through the chiller at a minimum. Example: 300GPM x 5 minutes = 1,500 Gallons. The recommended system volume must be maintained during all modes of operation including when a system bypass is active.	
Correct glycol percentage required for design winter ambient. Motivair warranty does not cover damage due to freezing.	
SHIPMENT	
Approximate shipment is 12 - 14 weeks, A.R.O. pending all approvals.	

**S13**

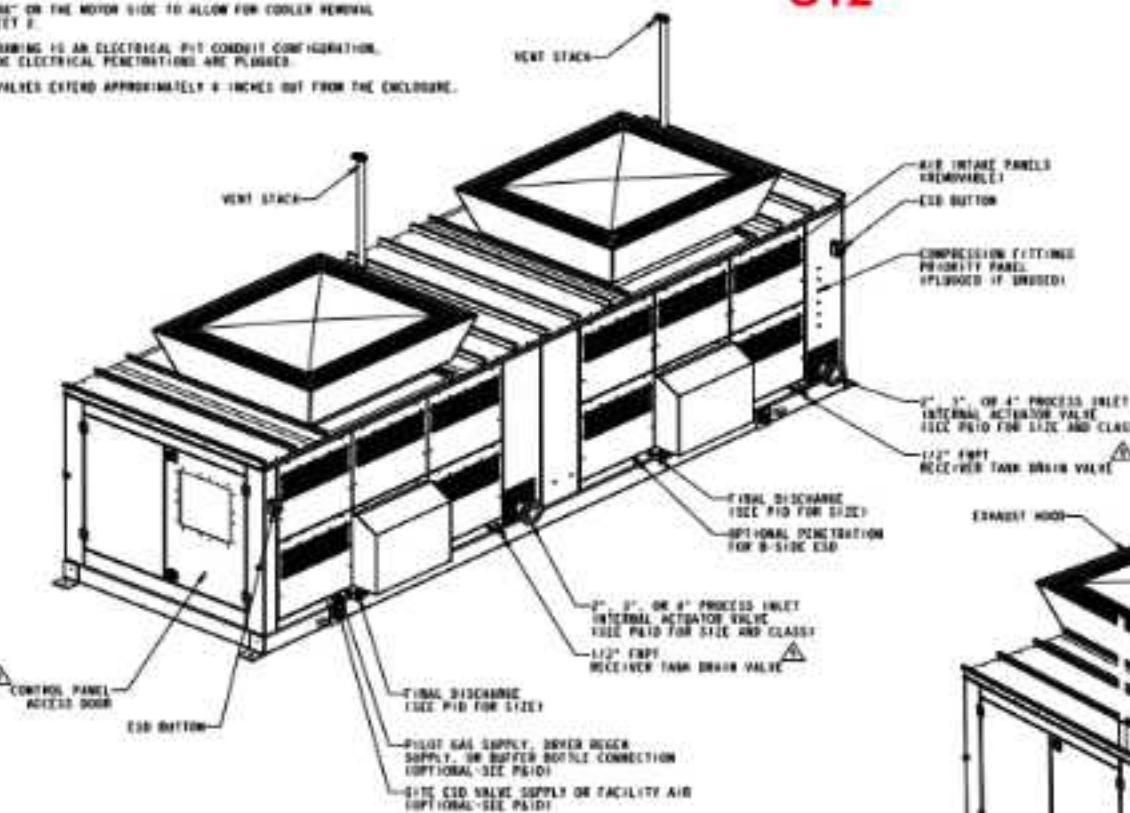
**motivair™**

\*\*\*Freight is an estimate only and is subject to change based on current day charges.

NOTES:

1. DIMENSIONS AND TOLERANCES IN ACCORDANCE WITH ASME Y14.5M-2009.
2. ALL HINGED DOORS SWING OUT 90° FROM THE ENCLOSURE.
3. ALLOW ACT. OR THE MOTOR SIDE TO ALLOW FOR COOLER REMOVAL.  
NET SHEET F.
4. THIS DRAWING IS AN ELECTRICAL PTF CONDUIT CONFIGURATION.  
ALL SIDE ELECTRICAL PENETRATION ARE PLUGGED.
5. DRAIN VALVES EXTEND APPROXIMATELY 6-INCHES OUT FROM THE ENCLOSURE.

S12



## COMPRESSOR DATA

WEIGHT: 38,000 LBS (APPROXIMATE).

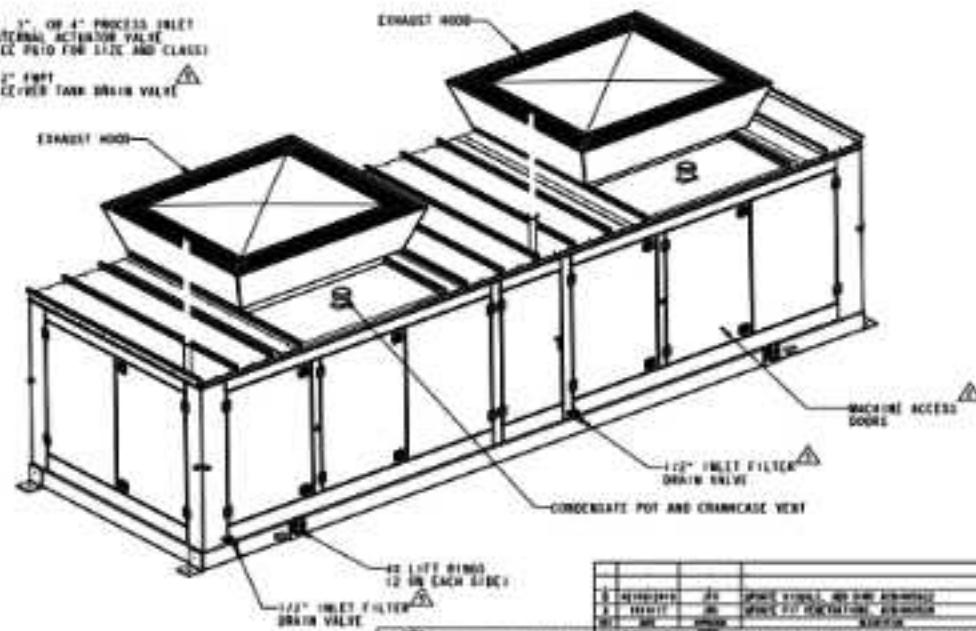
TYPE: ARIEL RECIPROCATING COMPRESSOR.

CLEARANCE: ALLOW 36" MINIMUM ON ALL SIDES FOR ACCESS UNLESS OTHERWISE INDICATED.

MOUNTING: REQUIRES EIGHT 1&amp;#034; 1&amp;#034; DIAMETER ANCHOR BOLTS (NOT PROVIDED). GROUTING THE COMPRESSOR TO THE CONCRETE PAD IS NOT RECOMMENDED.

LIFTING: FOR SPREADER BAR SIZING, SEE A05-13-HG300E-DUPLEX

SHIPPING: VENT STACK, VALVE, DRAIN VALVES, AND 1/4" ACTUATOR TUBING ARE REMOVED FOR SHIPPING.



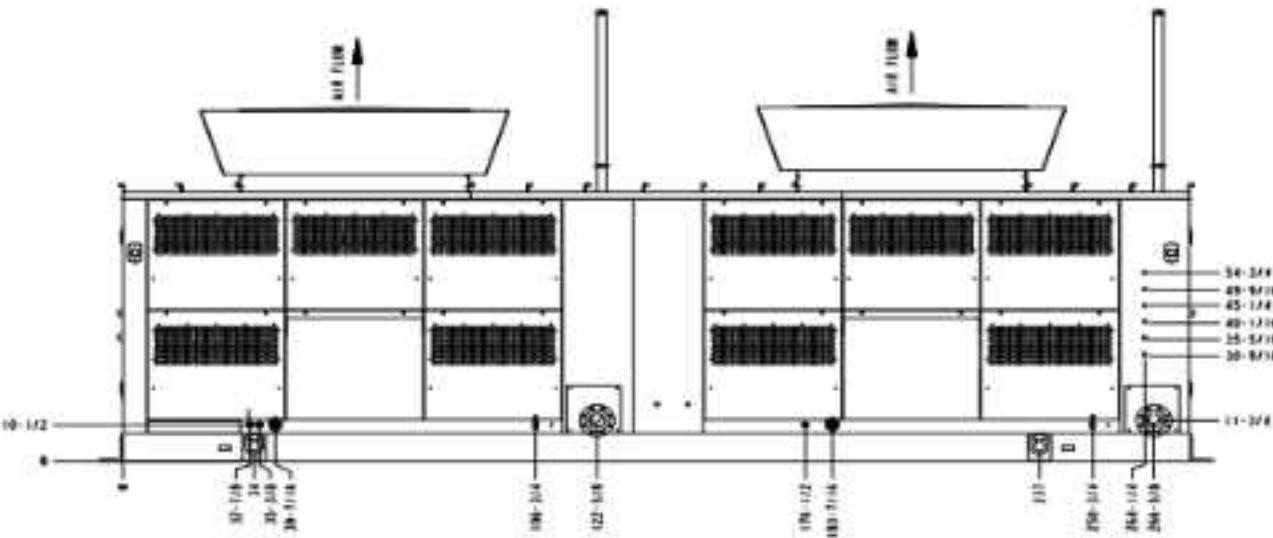
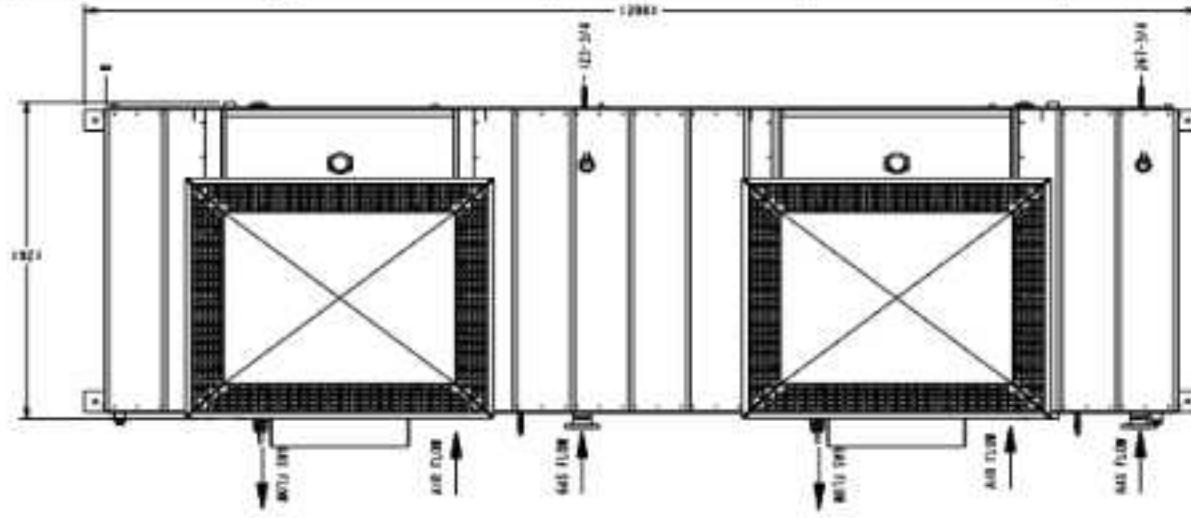
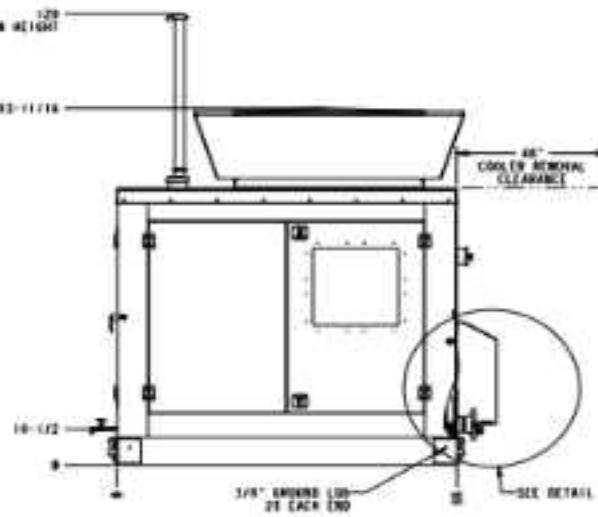
1. NUMBER	2. DATE	3. APPROVED
405-10-03-CB-P1	4-2014	4. SIGNATURE
405-10-03-CB-P1	4-2014	5. SIGNATURE
405-10-03-CB-P1	4-2014	6. SIGNATURE
405-10-03-CB-P1	4-2014	7. SIGNATURE

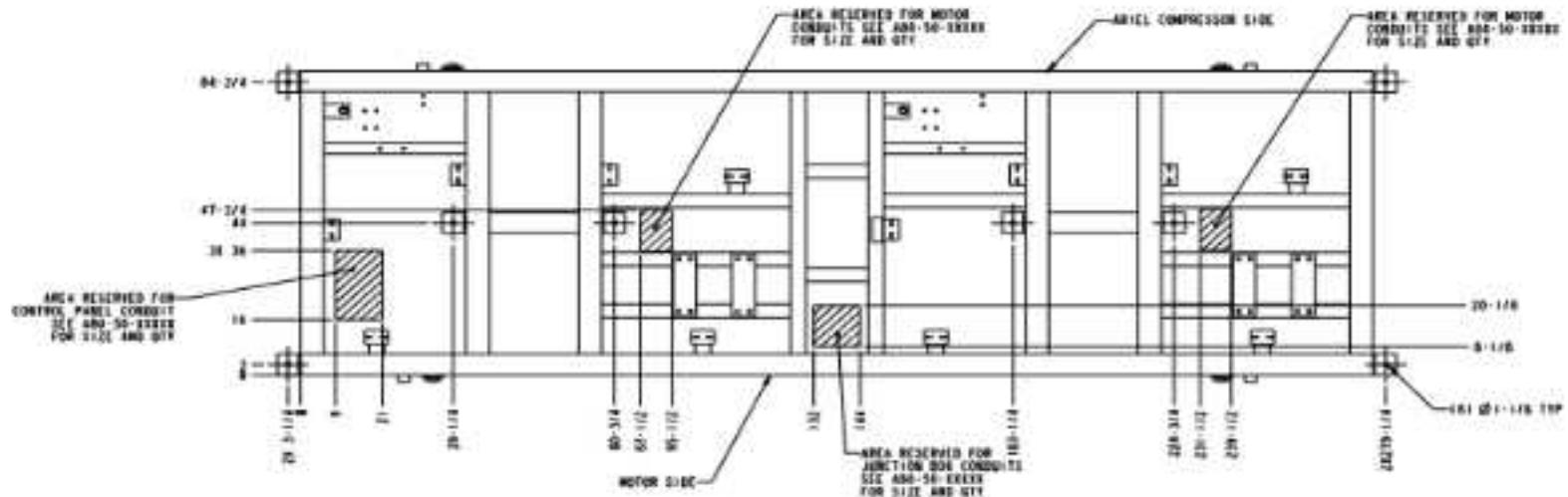


ENCLOSURE BUMP OUT WIDTH - SEE SITE FIG. 10 FOR DETERMINING DIM "A"		
ENGINE HP	BUMP OUT STYLE	DIM "A"
150 HP	C1	5.00
175 HP	C1	5.00
190 HP	C1	5.00
200 HP	C2	5.10
250 HP	C2	5.10
300 HP	C3	10.30

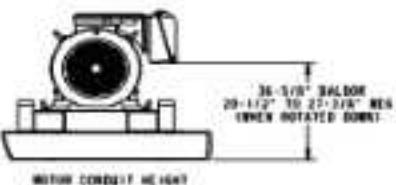
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SCIENT. NO. 12

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ANCHOR BOLT LOCATIONS  
AND CONDUIT PENETRATION LOCATIONS





EQUIPMENT: SCOTT EQUIPMENT COMPANY  
SUBJECT: TURBO SEPARATOR  
SOUND RATINGS

Please find a specification for our normalized, expected dB output when processing organic waste in our Turbo Separator models (T16, T20, T30, T42, THOR, and Mega THOR).

5'	10'	20'	50'
90dB*	80-85dB	70-75dB	<70dB

A sound level meter is the instrument normally used to measure noise levels on the decibel scale. Several factors affect the noise level reading:

- The distance between the meter and the source of the sound
- The direction the noise source is facing, relative to the meter
- Whether the measurement is taken outdoors (where noise can dissipate) or indoors (where noise can reverberate)

\*when processing metal cans only, dB rating increases by >5%

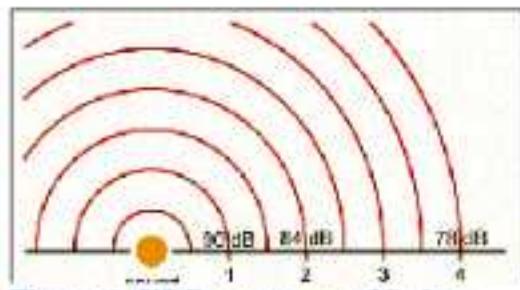


Figure 1: US Department of Labor

Should you have any additional questions, please do not hesitate to contact Scott Test Lab directly at 952.758.0418.

Sincerely,

A handwritten signature in black ink, appearing to read "Kevin Pedretti".

Kevin Pedretti  
Scott Equipment Company

# **Appendix E**

## **CadnaA Sample Calculation**

## Receiver

Name: Sobie Road One-Storey Residential Facade  
 ID: POR4  
 X: 619494.26 m  
 Y: 4778092.25 m  
 Z: 191.57 m

Point Source, ISO 9613, Name: "RNG Facility Compressor Inlet", ID: "I07IS15"

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)						
109	618939.98	4778235.69	192.50	0	DEN	A	108.6	0.0	0.0	0.0	0.0	66.2	4.7	-0.3	0.0	0.0	6.9	0.0	0.0	31.1
119	618939.98	4778235.69	192.50	1	DEN	A	108.6	0.0	0.0	0.0	0.0	67.9	5.4	-0.6	0.0	0.0	24.0	0.0	13.5	-1.6
123	618939.98	4778235.69	192.50	1	DEN	A	108.6	0.0	0.0	0.0	0.0	67.3	5.2	-0.5	0.0	0.0	24.0	0.0	11.9	0.7
130	618939.98	4778235.69	192.50	1	DEN	A	108.6	0.0	0.0	0.0	0.0	66.4	4.8	-0.3	0.0	0.0	6.1	0.0	5.1	26.5
134	618939.98	4778235.69	192.50	1	DEN	A	108.6	0.0	0.0	0.0	0.0	67.0	5.1	-0.4	0.0	0.0	4.8	0.0	9.8	22.4
141	618939.98	4778235.69	192.50	1	DEN	A	108.6	0.0	0.0	0.0	0.0	68.4	5.6	-0.6	0.0	0.0	23.9	0.0	14.7	-3.5
144	618939.98	4778235.69	192.50	1	DEN	A	108.6	0.0	0.0	0.0	0.0	67.2	5.1	-0.5	0.0	0.0	23.5	0.0	11.2	2.1

Point Source, ISO 9613, Name: "RNG Facility Compressor Outlet", ID: "I07IS12B"

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)						
153	618939.62	4778197.30	194.35	0	DEN	A	105.5	0.0	0.0	0.0	0.0	66.0	4.7	-0.2	0.0	0.0	5.7	0.0	0.0	29.3
157	618939.62	4778197.30	194.35	1	DEN	A	105.5	0.0	0.0	0.0	0.0	68.2	5.5	-0.6	0.0	0.0	15.7	0.0	15.0	1.6
160	618939.62	4778197.30	194.35	1	DEN	A	105.5	0.0	0.0	0.0	0.0	67.7	5.3	-0.5	0.0	0.0	12.2	0.0	13.8	6.9
169	618939.62	4778197.30	194.35	1	DEN	A	105.5	0.0	0.0	0.0	0.0	66.9	5.0	-0.4	0.0	0.0	4.5	0.0	10.4	19.0
172	618939.62	4778197.30	194.35	1	DEN	A	105.5	0.0	0.0	0.0	0.0	66.9	5.0	-0.4	0.0	0.0	4.5	0.0	8.4	21.1
175	618939.62	4778197.30	194.35	1	DEN	A	105.5	0.0	0.0	0.0	0.0	67.4	5.2	-0.5	0.0	0.0	4.4	0.0	12.8	16.2

Point Source, ISO 9613, Name: "RNG Facility Compressor Outlet", ID: "I07IS12A"

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)						
179	618934.96	4778198.83	194.35	0	DEN	A	105.5	0.0	0.0	0.0	0.0	66.1	4.7	-0.2	0.0	0.0	5.5	0.0	0.0	29.4
183	618934.96	4778198.83	194.35	1	DEN	A	105.5	0.0	0.0	0.0	0.0	68.2	5.5	-0.6	0.0	0.0	16.5	0.0	14.9	1.0
185	618934.96	4778198.83	194.35	1	DEN	A	105.5	0.0	0.0	0.0	0.0	67.6	5.3	-0.5	0.0	0.0	12.6	0.0	13.7	6.8
192	618934.96	4778198.83	194.35	1	DEN	A	105.5	0.0	0.0	0.0	0.0	66.9	5.0	-0.4	0.0	0.0	4.5	0.0	10.4	19.1
196	618934.96	4778198.83	194.35	1	DEN	A	105.5	0.0	0.0	0.0	0.0	66.8	5.0	-0.4	0.0	0.0	4.6	0.0	7.8	21.7
202	618934.96	4778198.83	194.35	1	DEN	A	105.5	0.0	0.0	0.0	0.0	67.4	5.2	-0.5	0.0	0.0	4.4	0.0	12.5	16.5

Point Source, ISO 9613, Name: "CHP Unit", ID: "I03IS07"

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)						
208	618826.17	4778286.11	198.09	0	DEN	A	103.2	0.0	0.0	0.0	0.0	67.8	2.7	2.1	0.0	0.0	12.7	0.0	0.0	17.8
214	618826.17	4778286.11	198.09	1	DEN	A	103.2	0.0	0.0	0.0	0.0	68.0	2.7	2.1	0.0	0.0	2.7	0.0	22.1	5.5

Point Source, ISO 9613, Name: "RNG Compressor Truck Idling", ID: "I07IS14A"

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)						
220	618938.71	4778187.69	193.00</td																	

## Point Source, ISO 9613, Name: "Flare", ID: "I07IS10"

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(A))						
276	618942.63	4778184.06	207.00	0	D	A	98.9	0.0	-3.0	0.0	0.0	66.0	1.6	3.0	0.0	0.0	0.0	0.0	0.0	25.3
276	618942.63	4778184.06	207.00	0	N	A	98.9	0.0	-3.0	0.0	0.0	66.0	1.6	3.0	0.0	0.0	0.0	0.0	0.0	25.3
276	618942.63	4778184.06	207.00	0	E	A	98.9	0.0	-3.0	0.0	0.0	66.0	1.6	3.0	0.0	0.0	0.0	0.0	0.0	25.3

## Point Source, ISO 9613, Name: "Ventilation Exhaust", ID: "I03IS01"

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(A))						
283	618840.43	4778283.40	192.64	0	DEN	A	97.3	0.0	0.0	0.0	0.0	67.7	2.1	1.6	0.0	0.0	21.7	0.0	0.0	4.3
289	618840.43	4778283.40	192.64	1	DEN	A	97.3	0.0	0.0	0.0	0.0	68.5	2.3	1.5	0.0	0.0	10.5	0.0	19.7	-5.2

## Line Source, ISO 9613, Name: "Fork Lift Route", ID: "I03IFR1"

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(A))						
300	618748.05	4778206.75	192.93	0	DEN	A	77.7	15.6	0.0	0.0	0.0	68.6	1.5	3.7	0.0	0.0	12.5	0.0	0.0	7.1
305	618748.05	4778206.75	192.93	1	DEN	A	77.7	15.6	0.0	0.0	0.0	68.9	1.5	3.6	0.0	0.0	19.7	0.0	0.0	102.3
310	618766.80	4778200.96	192.86	0	DEN	A	77.7	4.7	0.0	0.0	0.0	68.3	1.4	3.7	0.0	0.0	2.4	0.0	0.0	6.6
315	618766.80	4778200.96	192.86	1	DEN	A	77.7	4.7	0.0	0.0	0.0	68.8	1.5	3.6	0.0	0.0	19.6	0.0	0.0	112.0
319	618770.54	4778199.81	192.85	0	DEN	A	77.7	6.9	0.0	0.0	0.0	68.3	1.4	3.7	0.0	0.0	2.6	0.0	0.0	8.5
323	618770.54	4778199.81	192.85	1	DEN	A	77.7	6.9	0.0	0.0	0.0	68.7	1.5	3.6	0.0	0.0	19.5	0.0	0.0	96.3
327	618779.01	4778197.19	192.81	0	DEN	A	77.7	11.1	0.0	0.0	0.0	68.2	1.4	3.8	0.0	0.0	0.8	0.0	0.0	14.7
334	618779.01	4778197.19	192.81	1	DEN	A	77.7	11.1	0.0	0.0	0.0	68.7	1.5	3.7	0.0	0.0	9.9	0.0	0.0	97.6
1337	618821.57	4778192.70	192.85	0	DEN	A	77.7	2.9	0.0	0.0	0.0	67.7	1.3	3.9	0.0	0.0	11.0	0.0	0.0	-3.2
1341	618821.57	4778192.70	192.85	1	DEN	A	77.7	2.9	0.0	0.0	0.0	68.2	1.4	3.7	0.0	0.0	4.6	0.0	0.0	96.5
1345	618821.57	4778192.70	192.85	1	DEN	A	77.7	2.9	0.0	0.0	0.0	68.1	1.4	3.8	0.0	0.0	6.0	0.0	0.0	98.0
1350	618821.57	4778192.70	192.85	1	DEN	A	77.7	2.9	0.0	0.0	0.0	67.9	1.3	3.8	0.0	0.0	15.5	0.0	0.0	97.1
1354	618821.57	4778192.70	192.85	1	DEN	A	77.7	2.9	0.0	0.0	0.0	68.4	1.4	3.7	0.0	0.0	6.5	0.0	0.0	15.9
1359	618821.57	4778192.70	192.85	1	DEN	A	77.7	2.9	0.0	0.0	0.0	67.9	1.3	3.8	0.0	0.0	14.7	0.0	0.0	111.8
1364	618824.99	4778191.72	192.85	0	DEN	A	77.7	7.1	0.0	0.0	0.0	67.6	1.3	3.9	0.0	0.0	11.7	0.0	0.0	0.4
1368	618824.99	4778191.72	192.85	1	DEN	A	77.7	7.1	0.0	0.0	0.0	68.2	1.4	3.7	0.0	0.0	4.8	0.0	0.0	96.3
1372	618824.99	4778191.72	192.85	1	DEN	A	77.7	7.1	0.0	0.0	0.0	68.1	1.4	3.8	0.0	0.0	17.3	0.0	0.0	102.7
1374	618824.99	4778191.72	192.85	1	DEN	A	77.7	7.1	0.0	0.0	0.0	67.9	1.3	3.8	0.0	0.0	16.6	0.0	0.0	101.4
1380	618824.99	4778191.72	192.85	1	DEN	A	77.7	7.1	0.0	0.0	0.0	68.4	1.4	3.7	0.0	0.0	6.5	0.0	0.0	15.8
1383	618824.99	4778191.72	192.85	1	DEN	A	77.7	7.1	0.0	0.0	0.0	67.9	1.3	3.8	0.0	0.0	16.7	0.0	0.0	107.9
1390	618833.55	4778189.26	192.86	0	DEN	A	77.7	11.0	0.0	0.0	0.0	67.5	1.3	3.9	0.0	0.0	0.7	0.0	0.0	15.4
1395	618833.55	4778189.26	192.86	1	DEN	A	77.7	11.0	0.0	0.0	0.0	68.2	1.4	3.7	0.0	0.0	20.0	0.0	0.0	16.2
1442	618833.55	4778189.26	192.86	1	DEN	A	77.7	11.0	0.0	0.0	0.0	68.0	1.4	3.8	0.0	0.0	20.2	0.0	0.0	98.9
1444	618833.55	4778189.26	192.86	1	DEN	A	77.7	11.0	0.0	0.0	0.0	67.8	1.3	3.8	0.0	0.0	19.9	0.0	0.0	98.0
1450	618833.55	4778189.26	192.86	1	DEN	A	77.7	11.0	0.0	0.0	0.0	67.5	1.3	3.9	0.0	0.0	0.9	0.0	0.0	160.8
1454	618833.55	4778189.26	192.86	1	DEN	A	77.7	11.0	0.0	0.0	0.0	68.4	1.4	3.7						

## Line Source, ISO 9613, Name: "Fork Lift Route", ID: "103IFR1"

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(A))						
1865	618793.68	4778196.37	192.81	0	DEN	A	77.7	4.2	0.0	0.0	0.0	68.0	1.4	3.8	0.0	0.0	5.3	0.0	0.0	3.5
1871	618793.68	4778196.37	192.81	1	DEN	A	77.7	4.2	0.0	0.0	0.0	68.5	1.4	3.7	0.0	0.0	10.3	0.0	97.9	-99.8
1878	618793.68	4778196.37	192.81	1	DEN	A	77.7	4.2	0.0	0.0	0.0	68.6	1.5	3.7	0.0	0.0	11.2	0.0	97.0	-99.9
1888	618793.68	4778196.37	192.81	1	DEN	A	77.7	4.2	0.0	0.0	0.0	68.2	1.4	3.7	0.0	0.0	1.0	0.0	17.7	-110.1
1895	618798.07	4778196.92	192.82	0	DEN	A	77.7	7.9	0.0	0.0	0.0	68.0	1.4	3.8	0.0	0.0	6.2	0.0	0.0	6.4
1901	618798.07	4778196.92	192.82	1	DEN	A	77.7	7.9	0.0	0.0	0.0	68.4	1.4	3.7	0.0	0.0	10.9	0.0	97.7	-96.5
1923	618798.07	4778196.92	192.82	1	DEN	A	77.7	7.9	0.0	0.0	0.0	68.5	1.5	3.7	0.0	0.0	11.8	0.0	96.8	-96.6
1929	618798.07	4778196.92	192.82	1	DEN	A	77.7	7.9	0.0	0.0	0.0	68.1	1.4	3.8	0.0	0.0	1.0	0.0	17.4	-106.0
1936	618793.56	4778196.35	192.81	1	DEN	A	77.7	11.8	0.0	0.0	0.0	68.4	1.4	3.7	0.0	0.0	2.5	0.0	1.0	12.5
2252	618839.87	4778188.33	192.87	0	DEN	A	77.7	2.3	0.0	0.0	0.0	67.4	1.3	3.9	0.0	0.0	0.7	0.0	0.0	6.7
2258	618839.87	4778188.33	192.87	1	DEN	A	77.7	2.3	0.0	0.0	0.0	68.2	1.4	3.7	0.0	0.0	5.6	0.0	16.0	-14.9
2264	618839.87	4778188.33	192.87	1	DEN	A	77.7	2.3	0.0	0.0	0.0	68.0	1.4	3.8	0.0	0.0	8.7	0.0	96.8	-98.6
2271	618839.87	4778188.33	192.87	1	DEN	A	77.7	2.3	0.0	0.0	0.0	67.7	1.3	3.8	0.0	0.0	8.6	0.0	95.8	-97.2
2277	618839.87	4778188.33	192.87	1	DEN	A	77.7	2.3	0.0	0.0	0.0	67.4	1.3	3.9	0.0	0.0	0.9	0.0	16.3	-109.8
2284	618839.87	4778188.33	192.87	1	DEN	A	77.7	2.3	0.0	0.0	0.0	68.4	1.4	3.7	0.0	0.0	20.4	0.0	15.4	-29.3
2289	618839.87	4778188.33	192.87	1	DEN	A	77.7	2.3	0.0	0.0	0.0	67.7	1.3	3.8	0.0	0.0	1.0	0.0	93.2	-87.1
2294	618840.28	4778189.69	192.87	0	DEN	A	77.7	0.6	0.0	0.0	0.0	67.4	1.3	3.9	0.0	0.0	0.7	0.0	0.0	5.1
2301	618840.28	4778189.69	192.87	1	DEN	A	77.7	0.6	0.0	0.0	0.0	68.2	1.4	3.8	0.0	0.0	20.4	0.0	15.9	-31.2
2306	618840.28	4778189.69	192.87	1	DEN	A	77.7	0.6	0.0	0.0	0.0	68.0	1.4	3.8	0.0	0.0	8.8	0.0	96.8	-100.3
2312	618840.28	4778189.69	192.87	1	DEN	A	77.7	0.6	0.0	0.0	0.0	67.7	1.3	3.8	0.0	0.0	8.6	0.0	95.8	-98.9
2318	618840.28	4778189.69	192.87	1	DEN	A	77.7	0.6	0.0	0.0	0.0	67.4	1.3	3.9	0.0	0.0	0.9	0.0	75.2	-170.3
2323	618840.28	4778189.69	192.87	1	DEN	A	77.7	0.6	0.0	0.0	0.0	68.4	1.4	3.7	0.0	0.0	21.3	0.0	15.3	-31.7
2329	618840.28	4778189.69	192.87	1	DEN	A	77.7	0.6	0.0	0.0	0.0	67.7	1.3	3.8	0.0	0.0	1.0	0.0	93.2	-88.7
2336	618840.03	4778188.88	192.87	1	DEN	A	77.7	4.5	0.0	0.0	0.0	67.4	1.3	3.9	0.0	0.0	0.9	0.0	1.0	7.8
2341	618839.79	4778188.09	192.87	1	DEN	A	77.7	0.7	0.0	0.0	0.0	69.0	1.5	3.6	0.0	0.0	1.3	0.0	82.4	-79.3
2541	618840.28	4778190.58	192.88	0	DEN	A	77.7	-1.2	0.0	0.0	0.0	67.4	1.3	3.9	0.0	0.0	0.8	0.0	0.0	3.2
2548	618840.28	4778190.58	192.88	1	DEN	A	77.7	-1.2	0.0	0.0	0.0	68.1	1.4	3.8	0.0	0.0	21.2	0.0	15.9	-33.9
2554	618840.28	4778190.58	192.88	1	DEN	A	77.7	-1.2	0.0	0.0	0.0	68.0	1.4	3.8	0.0	0.0	8.9	0.0	96.8	-102.3
2580	618840.28	4778190.58	192.88	1	DEN	A	77.7	-1.2	0.0	0.0	0.0	67.7	1.3	3.8	0.0	0.0	8.5	0.0	95.8	-100.7
2585	618840.28	4778190.58	192.88	1	DEN	A	77.7	-1.2	0.0	0.0	0.0	67.4	1.3	3.9	0.0	0.0	0.9	0.0	75.6	-172.6
2571	618840.28	4778190.58	192.88	1	DEN	A	77.7	-1.2	0.0	0.0	0.0	68.4	1.4	3.7	0.0	0.0	21.3	0.0	15.3	-33.6
2577	618840.28	4778190.58	192.88	1	DEN	A	77.7	-1.2	0.0	0.0	0.0	67.7	1.3	3.8	0.0	0.0	1.0	0.0	93.2	-90.5
2584	618840.28	4778190.58	192.88	1	DEN	A	77.7	-1.2	0.0	0.0	0.0	67.4	1.3	3.9	0.0	0.0	0.9	0.0	1.0	2.0
2592	618820.80	4778192.94	192.85	0	DEN	A	77.7	-4.8	0.0	0.0	0.0	67.7	1.3	3.9	0.0	0.0	10.9	0.0	0.0	-10.8
2598	618820.80	4778192.94	192.85	1	DEN	A	77.7	-4.8	0.0	0.0	0.0	68.3	1.4	3.7	0.0	0.0	4.5	0.0	96.5	-101.5
2603	618820.80	4778192.94	192.85	1	DEN	A	77.7	-4.8	0.0	0.0	0.0	68.1	1.4	3.8	0.0	0.0	5.8	0.0	98.0	-104.2
2608	618820.80	4778192.94	192.85	1	DEN	A	77.7	-4.8	0.0	0.0	0.0	68.4	1.4	3.7	0.0	0.0	6.4	0.0	15.9	-23.0
2647	618820.80	4778192.94	192.85	1	DEN	A	77.7	-4.8	0.0	0.0	0.0	67.9	1.3	3.8	0.0	0.0	13.5	0.0	0.0	47.8
2653	618820.80	4778192.94	192.85	1	DEN	A	77.7	-4.8	0.0	0.0	0.0	68.7	1.5	3.7	0.0	0.0	1.4	0.0	77.7	-80.0

Line Source, ISO 9613, Name: "Truck Route", ID: "I03!TR1"																				
Nr.	X (m)	Y (m)	Z (m)	RefL	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
480	618813.56	4778183.31	192.80	1	E	A	72.9	18.7	0.0	0.0	0.0	68.0	3.4	0.6	0.0	0.0	12.5	0.0	33.4	-26.2
463	618831.14	4778178.08	192.81	1	D	A	78.2	15.7	0.0	0.0	0.0	68.9	3.6	0.5	0.0	0.0	3.8	0.0	4.5	12.5
463	618831.14	4778178.08	192.81	1	N	A	72.9	15.7	0.0	0.0	0.0	68.9	3.6	0.5	0.0	0.0	3.8	0.0	4.5	7.3
463	618831.14	4778178.08	192.81	1	E	A	72.9	15.7	0.0	0.0	0.0	68.9	3.6	0.5	0.0	0.0	3.8	0.0	4.5	7.3
471	618836.54	4778176.47	192.82	2	D	A	78.2	0.8	0.0	0.0	0.0	69.1	3.7	0.5	0.0	0.0	4.8	0.0	12.5	-11.5
471	618836.54	4778176.47	192.82	2	N	A	72.9	0.8	0.0	0.0	0.0	69.1	3.7	0.5	0.0	0.0	4.8	0.0	12.5	-16.7
471	618836.54	4778176.47	192.82	2	E	A	72.9	0.8	0.0	0.0	0.0	69.1	3.7	0.5	0.0	0.0	4.8	0.0	12.5	-16.7
475	618839.18	4778175.69	192.82	2	D	A	78.2	6.3	0.0	0.0	0.0	69.1	3.7	0.5	0.0	0.0	3.7	0.0	10.9	-3.3
475	618839.18	4778175.69	192.82	2	N	A	72.9	6.3	0.0	0.0	0.0	69.1	3.7	0.5	0.0	0.0	3.7	0.0	10.9	-8.6
475	618839.18	4778175.69	192.82	2	E	A	72.9	6.3	0.0	0.0	0.0	69.1	3.7	0.5	0.0	0.0	3.7	0.0	10.9	-8.6
483	618841.32	4778175.05	192.82	2	D	A	78.2	-7.7	0.0	0.0	0.0	69.1	3.7	0.5	0.0	0.0	3.6	0.0	10.9	-17.3
483	618841.32	4778175.05	192.82	2	N	A	72.9	-7.7	0.0	0.0	0.0	69.1	3.7	0.5	0.0	0.0	3.6	0.0	10.9	-22.5
483	618841.32	4778175.05	192.82	2	E	A	72.9	-7.7	0.0	0.0	0.0	69.1	3.7	0.5	0.0	0.0	3.6	0.0	10.9	-22.5
493	618839.85	4778175.49	192.82	1	D	A	78.2	6.3	0.0	0.0	0.0	67.6	3.3	0.6	0.0	0.0	3.5	0.0	4.2	5.3
493	618839.85	4778175.49	192.82	1	N	A	72.9	6.3	0.0	0.0	0.0	67.6	3.3	0.6	0.0	0.0	3.5	0.0	4.2	0.0
493	618839.85	4778175.49	192.82	1	E	A	72.9	6.3	0.0	0.0	0.0	67.6	3.3	0.6	0.0	0.0	3.5	0.0	4.2	0.0
498	618780.45	4778193.15	192.77	1	D	A	78.2	6.6	0.0	0.0	0.0	68.7	3.5	0.5	0.0	0.0	4.2	0.0	10.4	-2.5
498	618780.45	4778193.15	192.77	1	N	A	72.9	6.6	0.0	0.0	0.0	68.7	3.5	0.5	0.0	0.0	4.2	0.0	10.4	-7.8
498	618780.45	4778193.15	192.77	1	E	A	72.9	6.6	0.0	0.0	0.0	68.7	3.5	0.5	0.0	0.0	4.2	0.0	10.4	-7.8
502	618785.55	4778191.64	192.78	1	D	A	78.2	7.8	0.0	0.0	0.0	68.7	3.6	0.5	0.0	0.0	4.0	0.0	10.3	-1.2
502	618785.55	4778191.64	192.78	1	N	A	72.9	7.8	0.0	0.0	0.0	68.7	3.6	0.5	0.0	0.0	4.0	0.0	10.3	-6.4
502	618785.55	4778191.64	192.78	1	E	A	72.9	7.8	0.0	0.0	0.0	68.7	3.6	0.5	0.0	0.0	4.0	0.0	10.3	-6.4
508	618878.60	4778178.02	192.91	0	D	A	78.2	17.8	0.0	0.0	0.0	66.9	3.1	0.7	0.0	0.0	3.3	0.0	0.0	22.0
508	618878.60	4778178.02	192.91	0	N	A	72.9	17.8	0.0	0.0	0.0	66.9	3.1	0.7	0.0	0.0	3.3	0.0	0.0	16.8
508	618878.60	4778178.02	192.91	0	E	A	72.9	17.8	0.0	0.0	0.0	66.9	3.1	0.7	0.0	0.0	3.3	0.0	0.0	16.8
515	618878.60	4778178.02	192.91	1	D	A	78.2	17.8	0.0	0.0	0.0	68.2	3.4	0.5	0.0	0.0	8.2	0.0	17.9	-2.3
515	618878.60	4778178.02	192.91	1	N	A	72.9	17.8	0.0	0.0	0.0	68.2	3.4	0.5	0.0	0.0	8.2	0.0	17.9	-7.5
515	618878.60	4778178.02	192.91	1	E	A	72.9	17.8	0.0	0.0	0.0	68.2	3.4	0.5	0.0	0.0	8.2	0.0	17.9	-7.5
519	618878.60	4778178.02	192.91	1	D	A	78.2	17.8	0.0	0.0	0.0	67.9	3.3	0.6	0.0	0.0	16.4	0.0	20.0	-12.2
519	618878.60	4778178.02	192.91	1	N	A	72.9	17.8	0.0	0.0	0.0	67.9	3.3	0.6	0.0	0.0	16.4	0.0	20.0	-17.4
519	618878.60	4778178.02	192.91	1	E	A	72.9	17.8	0.0	0.0	0.0	67.9	3.3	0.6	0.0	0.0	16.4	0.0	20.0	-17.4
531	618878.60	4778178.02	192.91	1	D	A	78.2	17.8	0.0	0.0	0.0	67.4	3.2	0.6	0.0	0.0	16.9	0.0	18.2	-10.4
531	618878.60	4778178.02	192.91	1	N	A	72.9	17.8	0.0	0.0	0.0	67.4	3.2	0.6	0.0	0.0	16.9	0.0	18.2	-15.6
531	618878.60	4778178.02	192.91	1	E	A	72.9	17.8	0.0	0.0	0.0	67.4	3.2	0.6	0.0	0.0	16.9	0.0	18.2	-15.6
535	618878.60	4778178.02	192.91	1	D	A	78.2	17.8	0.0	0.0	0.0	66.9	3.1	0.7	0.0	0.0	3.7	0.0	12.3	9.3
535	618878.60	4778178.02	192.91	1	N	A	72.9	17.8	0.0	0.0	0.0	66.9	3.1	0.7	0.0	0.0	3.7	0.0	12.3	4.0
535	618878.60	4778178.02	192.91	1	E	A	72.9	17.8	0.0	0.0	0.0	66.9	3.1	0.7	0.0	0.0	3.7	0.0	12.3	4.0
539	618878.60	4778178.02	192.91	1	D	A	78.2	17.8	0.0	0.0	0.0	68.5	3.5	0.5	0.0	0.0	8.1	0.0	17.7	-2.3
539	618878.60	4778178.02	192.91	1	N	A	72.9	17.8	0.0	0.0	0.0	68.5	3.5	0.5	0.0	0.0	8.1	0.0	17.7	-7.6
539	618878.60	4778178.02	192.9																	

Line Source, ISO 9613, Name: "Truck Route", ID: "I03!TR1"																				
Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
672	618959.74	4778205.62	193.00	0	E	A	72.9	15.8	0.0	0.0	0.0	65.8	2.8	0.8	0.0	0.0	6.0	0.0	0.0	13.3
676	618959.74	4778205.62	193.00	1	D	A	78.2	15.8	0.0	0.0	0.0	68.3	3.4	0.5	0.0	0.0	11.0	0.0	18.1	-7.5
676	618959.74	4778205.62	193.00	1	N	A	72.9	15.8	0.0	0.0	0.0	68.3	3.4	0.5	0.0	0.0	11.0	0.0	18.1	-12.7
676	618959.74	4778205.62	193.00	1	E	A	72.9	15.8	0.0	0.0	0.0	68.3	3.4	0.5	0.0	0.0	11.0	0.0	18.1	-12.7
679	618959.74	4778205.62	193.00	1	D	A	78.2	15.8	0.0	0.0	0.0	67.8	3.3	0.6	0.0	0.0	10.8	0.0	16.1	-4.6
679	618959.74	4778205.62	193.00	1	N	A	72.9	15.8	0.0	0.0	0.0	67.8	3.3	0.6	0.0	0.0	10.8	0.0	16.1	-9.8
679	618959.74	4778205.62	193.00	1	E	A	72.9	15.8	0.0	0.0	0.0	67.8	3.3	0.6	0.0	0.0	10.8	0.0	16.1	-9.8
682	618959.74	4778205.62	193.00	1	D	A	78.2	15.8	0.0	0.0	0.0	66.9	3.1	0.7	0.0	0.0	3.8	0.0	10.9	8.6
682	618959.74	4778205.62	193.00	1	N	A	72.9	15.8	0.0	0.0	0.0	66.9	3.1	0.7	0.0	0.0	3.8	0.0	10.9	3.4
682	618959.74	4778205.62	193.00	1	E	A	72.9	15.8	0.0	0.0	0.0	66.9	3.1	0.7	0.0	0.0	3.8	0.0	10.9	3.4
688	618959.74	4778205.62	193.00	1	D	A	78.2	15.8	0.0	0.0	0.0	67.1	3.1	0.6	0.0	0.0	3.6	0.0	10.9	8.4
688	618959.74	4778205.62	193.00	1	N	A	72.9	15.8	0.0	0.0	0.0	67.1	3.1	0.6	0.0	0.0	3.6	0.0	10.9	3.2
688	618959.74	4778205.62	193.00	1	E	A	72.9	15.8	0.0	0.0	0.0	67.1	3.1	0.6	0.0	0.0	3.6	0.0	10.9	3.2
693	618959.74	4778205.62	193.00	1	D	A	78.2	15.8	0.0	0.0	0.0	67.5	3.2	0.6	0.0	0.0	3.5	0.0	13.9	5.1
693	618959.74	4778205.62	193.00	1	N	A	72.9	15.8	0.0	0.0	0.0	67.5	3.2	0.6	0.0	0.0	3.5	0.0	13.9	-0.1
693	618959.74	4778205.62	193.00	1	E	A	72.9	15.8	0.0	0.0	0.0	67.5	3.2	0.6	0.0	0.0	3.5	0.0	13.9	-0.1
698	618968.01	4778240.91	193.00	0	D	A	78.2	15.4	0.0	0.0	0.0	65.8	2.8	0.8	0.0	0.0	6.0	0.0	0.0	18.2
698	618968.01	4778240.91	193.00	0	N	A	72.9	15.4	0.0	0.0	0.0	65.8	2.8	0.8	0.0	0.0	6.0	0.0	0.0	13.0
698	618968.01	4778240.91	193.00	0	E	A	72.9	15.4	0.0	0.0	0.0	65.8	2.8	0.8	0.0	0.0	6.0	0.0	0.0	13.0
703	618968.01	4778240.91	193.00	1	D	A	78.2	15.4	0.0	0.0	0.0	68.2	3.4	0.5	0.0	0.0	13.8	0.0	18.4	-10.7
703	618968.01	4778240.91	193.00	1	N	A	72.9	15.4	0.0	0.0	0.0	68.2	3.4	0.5	0.0	0.0	13.8	0.0	18.4	-15.9
703	618968.01	4778240.91	193.00	1	E	A	72.9	15.4	0.0	0.0	0.0	68.2	3.4	0.5	0.0	0.0	13.8	0.0	18.4	-15.9
708	618968.01	4778240.91	193.00	1	D	A	78.2	15.4	0.0	0.0	0.0	67.6	3.3	0.6	0.0	0.0	13.3	0.0	15.9	-7.1
708	618968.01	4778240.91	193.00	1	N	A	72.9	15.4	0.0	0.0	0.0	67.6	3.3	0.6	0.0	0.0	13.3	0.0	15.9	-12.3
708	618968.01	4778240.91	193.00	1	E	A	72.9	15.4	0.0	0.0	0.0	67.6	3.3	0.6	0.0	0.0	13.3	0.0	15.9	-12.3
712	618968.01	4778240.91	193.00	1	D	A	78.2	15.4	0.0	0.0	0.0	66.7	3.0	0.7	0.0	0.0	3.9	0.0	9.2	10.1
712	618968.01	4778240.91	193.00	1	N	A	72.9	15.4	0.0	0.0	0.0	66.7	3.0	0.7	0.0	0.0	3.9	0.0	9.2	4.8
712	618968.01	4778240.91	193.00	1	E	A	72.9	15.4	0.0	0.0	0.0	66.7	3.0	0.7	0.0	0.0	3.9	0.0	9.2	4.8
715	618968.01	4778240.91	193.00	1	D	A	78.2	15.4	0.0	0.0	0.0	67.4	3.2	0.6	0.0	0.0	3.6	0.0	12.2	6.7
715	618968.01	4778240.91	193.00	1	N	A	72.9	15.4	0.0	0.0	0.0	67.4	3.2	0.6	0.0	0.0	3.6	0.0	12.2	1.4
715	618968.01	4778240.91	193.00	1	E	A	72.9	15.4	0.0	0.0	0.0	67.4	3.2	0.6	0.0	0.0	3.6	0.0	12.2	1.4
719	618968.01	4778240.91	193.00	1	D	A	78.2	15.4	0.0	0.0	0.0	67.5	3.2	0.6	0.0	0.0	12.7	0.0	15.9	-6.3
719	618968.01	4778240.91	193.00	1	N	A	72.9	15.4	0.0	0.0	0.0	67.5	3.2	0.6	0.0	0.0	12.7	0.0	15.9	-11.6
719	618968.01	4778240.91	193.00	1	E	A	72.9	15.4	0.0	0.0	0.0	67.5	3.2	0.6	0.0	0.0	12.7	0.0	15.9	-11.6
730	618742.88	4778277.75	193.00	0	D	A	78.2	8.9	0.0	0.0	0.0	68.8	3.6	0.5	0.0	0.0	5.3	0.0	0.0	8.9
730	618742.88	4778277.75	193.00	0	N	A	72.9	8.9	0.0	0.0	0.0	68.8	3.6	0.5	0.0	0.0	5.3	0.0	0.0	3.6
730	618742.88	4778277.75	193.00	0	E	A	72.9	8.9	0.0	0.0	0.0	68.8	3.6	0.5	0.0	0.0	5.3	0.0	0.0	3.6
737	618741.10	4778271.88	193.00	0	D	A	78.2	6.6	0.0	0.0	0.0	68.8	3.6	0.5	0.0	0.0	5.1	0.0	0.0	6.8
737	618741.10	4778271.88	193.00	0	N	A	72.9	6.6	0.0	0.0	0.0	68.8	3.6	0.5	0.0	0.0	5.1	0.0	0.0	1.5
737	618741.10	47782																		

Line Source, ISO 9613, Name: "Truck Route", ID: "I03!TR1"																				
Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
776	618726.88	4778225.18	193.00	0	E	A	72.9	4.1	0.0	0.0	0.0	68.8	3.6	0.5	0.0	0.0	13.7	0.0	0.0	-9.6
780	618739.46	4778266.50	193.00	1	D	A	78.2	4.4	0.0	0.0	0.0	68.8	3.6	0.5	0.0	0.0	3.5	0.0	30.7	-24.4
780	618739.46	4778266.50	193.00	1	N	A	72.9	4.4	0.0	0.0	0.0	68.8	3.6	0.5	0.0	0.0	3.5	0.0	30.7	-29.7
780	618739.46	4778266.50	193.00	1	E	A	72.9	4.4	0.0	0.0	0.0	68.8	3.6	0.5	0.0	0.0	3.5	0.0	30.7	-29.7
796	618922.33	4778179.36	193.00	0	D	A	78.2	14.6	0.0	0.0	0.0	66.2	2.9	0.8	0.0	0.0	4.4	0.0	0.0	18.5
796	618922.33	4778179.36	193.00	0	N	A	72.9	14.6	0.0	0.0	0.0	66.2	2.9	0.8	0.0	0.0	4.4	0.0	0.0	13.2
796	618922.33	4778179.36	193.00	0	E	A	72.9	14.6	0.0	0.0	0.0	66.2	2.9	0.8	0.0	0.0	4.4	0.0	0.0	13.2
800	618922.33	4778179.36	193.00	1	D	A	78.2	14.6	0.0	0.0	0.0	68.3	3.4	0.5	0.0	0.0	14.6	0.0	19.1	-13.2
800	618922.33	4778179.36	193.00	1	N	A	72.9	14.6	0.0	0.0	0.0	68.3	3.4	0.5	0.0	0.0	14.6	0.0	19.1	-18.4
800	618922.33	4778179.36	193.00	1	E	A	72.9	14.6	0.0	0.0	0.0	68.3	3.4	0.5	0.0	0.0	14.6	0.0	19.1	-18.4
803	618922.33	4778179.36	193.00	1	D	A	78.2	14.6	0.0	0.0	0.0	67.8	3.3	0.6	0.0	0.0	6.5	0.0	15.7	-1.1
803	618922.33	4778179.36	193.00	1	N	A	72.9	14.6	0.0	0.0	0.0	67.8	3.3	0.6	0.0	0.0	6.5	0.0	15.7	-6.4
803	618922.33	4778179.36	193.00	1	E	A	72.9	14.6	0.0	0.0	0.0	67.8	3.3	0.6	0.0	0.0	6.5	0.0	15.7	-6.4
818	618922.33	4778179.36	193.00	1	D	A	78.2	14.6	0.0	0.0	0.0	67.1	3.1	0.6	0.0	0.0	3.6	0.0	12.8	5.5
818	618922.33	4778179.36	193.00	1	N	A	72.9	14.6	0.0	0.0	0.0	67.1	3.1	0.6	0.0	0.0	3.6	0.0	12.8	0.2
818	618922.33	4778179.36	193.00	1	E	A	72.9	14.6	0.0	0.0	0.0	67.1	3.1	0.6	0.0	0.0	3.6	0.0	12.8	0.2
824	618922.33	4778179.36	193.00	1	D	A	78.2	14.6	0.0	0.0	0.0	66.8	3.1	0.7	0.0	0.0	3.8	0.0	8.5	9.9
824	618922.33	4778179.36	193.00	1	N	A	72.9	14.6	0.0	0.0	0.0	66.8	3.1	0.7	0.0	0.0	3.8	0.0	8.5	4.7
824	618922.33	4778179.36	193.00	1	E	A	72.9	14.6	0.0	0.0	0.0	66.8	3.1	0.7	0.0	0.0	3.8	0.0	8.5	4.7
835	618922.33	4778179.36	193.00	1	D	A	78.2	14.6	0.0	0.0	0.0	68.7	3.6	0.5	0.0	0.0	14.9	0.0	19.5	-14.3
835	618922.33	4778179.36	193.00	1	N	A	72.9	14.6	0.0	0.0	0.0	68.7	3.6	0.5	0.0	0.0	14.9	0.0	19.5	-19.5
835	618922.33	4778179.36	193.00	1	E	A	72.9	14.6	0.0	0.0	0.0	68.7	3.6	0.5	0.0	0.0	14.9	0.0	19.5	-19.5
838	618922.33	4778179.36	193.00	1	D	A	78.2	14.6	0.0	0.0	0.0	67.5	3.2	0.6	0.0	0.0	3.5	0.0	14.1	3.8
838	618922.33	4778179.36	193.00	1	N	A	72.9	14.6	0.0	0.0	0.0	67.5	3.2	0.6	0.0	0.0	3.5	0.0	14.1	-1.5
838	618922.33	4778179.36	193.00	1	E	A	72.9	14.6	0.0	0.0	0.0	67.5	3.2	0.6	0.0	0.0	3.5	0.0	14.1	-1.5
844	618711.41	4778190.08	192.95	0	D	A	78.2	11.2	0.0	0.0	0.0	68.9	3.6	0.5	0.0	0.0	3.5	0.0	0.0	12.9
844	618711.41	4778190.08	192.95	0	N	A	72.9	11.2	0.0	0.0	0.0	68.9	3.6	0.5	0.0	0.0	3.5	0.0	0.0	7.6
844	618711.41	4778190.08	192.95	0	E	A	72.9	11.2	0.0	0.0	0.0	68.9	3.6	0.5	0.0	0.0	3.5	0.0	0.0	7.6
884	618735.24	4778183.12	192.82	0	D	A	78.2	15.6	0.0	0.0	0.0	68.7	3.5	0.4	0.0	0.0	1.7	0.0	0.0	19.5
884	618735.24	4778183.12	192.82	0	N	A	72.9	15.6	0.0	0.0	0.0	68.7	3.5	0.4	0.0	0.0	1.7	0.0	0.0	14.3
884	618735.24	4778183.12	192.82	0	E	A	72.9	15.6	0.0	0.0	0.0	68.7	3.5	0.4	0.0	0.0	1.7	0.0	0.0	14.3
890	618785.95	4778303.57	193.22	0	D	A	78.2	2.2	0.0	0.0	0.0	68.4	3.5	0.5	0.0	0.0	11.0	0.0	0.0	-3.0
890	618785.95	4778303.57	193.22	0	N	A	72.9	2.2	0.0	0.0	0.0	68.4	3.5	0.5	0.0	0.0	11.0	0.0	0.0	-8.2
890	618785.95	4778303.57	193.22	0	E	A	72.9	2.2	0.0	0.0	0.0	68.4	3.5	0.5	0.0	0.0	11.0	0.0	0.0	-8.2
897	618778.96	4778299.88	193.19	0	D	A	78.2	11.5	0.0	0.0	0.0	68.4	3.5	0.5	0.0	0.0	10.7	0.0	0.0	6.6
897	618778.96	4778299.88	193.19	0	N	A	72.9	11.5	0.0	0.0	0.0	68.4	3.5	0.5	0.0	0.0	10.7	0.0	0.0	1.3
897	618778.96	4778299.88	193.19	0	E	A	72.9	11.5	0.0	0.0	0.0	68.4	3.5	0.5	0.0	0.0	10.7	0.0	0.0	1.3
904	618771.97	4778296.20	193.15	0	D	A	78.2	2.1	0.0	0.0	0.0	68.5	3.5	0.5	0.0	0.0	14.6	0.0	0.0	-6.9
904	618771.97	4778296.20	193.15	0	N	A	72.9	2.1	0.0	0.0	0.0	68.5	3.5	0.5	0.0	0.0	14.6	0.0	0.0	-12.1
904	618771.97	4778296.20																		

Line Source, ISO 9613, Name: "Truck Route", ID: "I03!TR1"																				
Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
960	618756.28	4778287.92	193.07	0	E	A	72.9	4.0	0.0	0.0	0.0	68.7	3.5	0.5	0.0	0.0	11.0	0.0	0.0	-6.8
964	618749.92	4778284.57	193.03	0	D	A	78.2	10.8	0.0	0.0	0.0	68.7	3.6	0.5	0.0	0.0	5.5	0.0	0.0	10.7
964	618749.92	4778284.57	193.03	0	N	A	72.9	10.8	0.0	0.0	0.0	68.7	3.6	0.5	0.0	0.0	5.5	0.0	0.0	5.5
964	618749.92	4778284.57	193.03	0	E	A	72.9	10.8	0.0	0.0	0.0	68.7	3.6	0.5	0.0	0.0	5.5	0.0	0.0	5.5
974	618744.34	4778281.62	193.00	0	D	A	78.2	-1.3	0.0	0.0	0.0	68.8	3.6	0.5	0.0	0.0	5.3	0.0	0.0	-1.3
974	618744.34	4778281.62	193.00	0	N	A	72.9	-1.3	0.0	0.0	0.0	68.8	3.6	0.5	0.0	0.0	5.3	0.0	0.0	-6.5
974	618744.34	4778281.62	193.00	0	E	A	72.9	-1.3	0.0	0.0	0.0	68.8	3.6	0.5	0.0	0.0	5.3	0.0	0.0	-6.5
976	618785.46	4778303.31	193.22	1	D	A	78.2	3.3	0.0	0.0	0.0	68.5	3.5	0.5	0.0	0.0	9.8	0.0	8.0	-9.0
976	618785.46	4778303.31	193.22	1	N	A	72.9	3.3	0.0	0.0	0.0	68.5	3.5	0.5	0.0	0.0	9.8	0.0	8.0	-14.2
976	618785.46	4778303.31	193.22	1	E	A	72.9	3.3	0.0	0.0	0.0	68.5	3.5	0.5	0.0	0.0	9.8	0.0	8.0	-14.2
977	618783.73	4778302.40	193.21	1	D	A	78.2	2.5	0.0	0.0	0.0	68.5	3.5	0.5	0.0	0.0	10.0	0.0	4.2	-6.1
977	618783.73	4778302.40	193.21	1	N	A	72.9	2.5	0.0	0.0	0.0	68.5	3.5	0.5	0.0	0.0	10.0	0.0	4.2	-11.3
977	618783.73	4778302.40	193.21	1	E	A	72.9	2.5	0.0	0.0	0.0	68.5	3.5	0.5	0.0	0.0	10.0	0.0	4.2	-11.3
983	618782.38	4778301.69	193.20	1	D	A	78.2	1.0	0.0	0.0	0.0	68.5	3.5	0.5	0.0	0.0	10.2	0.0	4.3	-7.8
983	618782.38	4778301.69	193.20	1	N	A	72.9	1.0	0.0	0.0	0.0	68.5	3.5	0.5	0.0	0.0	10.2	0.0	4.3	-13.0
983	618782.38	4778301.69	193.20	1	E	A	72.9	1.0	0.0	0.0	0.0	68.5	3.5	0.5	0.0	0.0	10.2	0.0	4.3	-13.0
1628	618972.82	4778259.80	193.01	0	D	A	78.2	6.1	0.0	0.0	0.0	65.8	2.8	0.8	0.0	0.0	5.9	0.0	0.0	8.9
1628	618972.82	4778259.80	193.01	0	N	A	72.9	6.1	0.0	0.0	0.0	65.8	2.8	0.8	0.0	0.0	5.9	0.0	0.0	3.7
1628	618972.82	4778259.80	193.01	0	E	A	72.9	6.1	0.0	0.0	0.0	65.8	2.8	0.8	0.0	0.0	5.9	0.0	0.0	3.7
1632	618972.82	4778259.80	193.01	1	D	A	78.2	6.1	0.0	0.0	0.0	68.2	3.4	0.5	0.0	0.0	12.7	0.0	18.2	-18.8
1632	618972.82	4778259.80	193.01	1	N	A	72.9	6.1	0.0	0.0	0.0	68.2	3.4	0.5	0.0	0.0	12.7	0.0	18.2	-24.1
1632	618972.82	4778259.80	193.01	1	E	A	72.9	6.1	0.0	0.0	0.0	68.2	3.4	0.5	0.0	0.0	12.7	0.0	18.2	-24.1
1634	618972.82	4778259.80	193.01	1	D	A	78.2	6.1	0.0	0.0	0.0	67.6	3.3	0.6	0.0	0.0	12.1	0.0	15.8	-15.1
1634	618972.82	4778259.80	193.01	1	N	A	72.9	6.1	0.0	0.0	0.0	67.6	3.3	0.6	0.0	0.0	12.1	0.0	15.8	-20.3
1634	618972.82	4778259.80	193.01	1	E	A	72.9	6.1	0.0	0.0	0.0	67.6	3.3	0.6	0.0	0.0	12.1	0.0	15.8	-20.3
1639	618972.82	4778259.80	193.01	1	D	A	78.2	6.1	0.0	0.0	0.0	66.7	3.0	0.7	0.0	0.0	3.9	0.0	9.7	0.2
1639	618972.82	4778259.80	193.01	1	N	A	72.9	6.1	0.0	0.0	0.0	66.7	3.0	0.7	0.0	0.0	3.9	0.0	9.7	-5.0
1639	618972.82	4778259.80	193.01	1	E	A	72.9	6.1	0.0	0.0	0.0	66.7	3.0	0.7	0.0	0.0	3.9	0.0	9.7	-5.0
1643	618972.82	4778259.80	193.01	1	D	A	78.2	6.1	0.0	0.0	0.0	67.6	3.3	0.6	0.0	0.0	3.5	0.0	12.9	-3.6
1643	618972.82	4778259.80	193.01	1	N	A	72.9	6.1	0.0	0.0	0.0	67.6	3.3	0.6	0.0	0.0	3.5	0.0	12.9	-8.8
1643	618972.82	4778259.80	193.01	1	E	A	72.9	6.1	0.0	0.0	0.0	67.6	3.3	0.6	0.0	0.0	3.5	0.0	12.9	-8.8
1645	618972.82	4778259.80	193.01	1	D	A	78.2	6.1	0.0	0.0	0.0	67.6	3.3	0.6	0.0	0.0	12.4	0.0	16.3	-15.9
1645	618972.82	4778259.80	193.01	1	N	A	72.9	6.1	0.0	0.0	0.0	67.6	3.3	0.6	0.0	0.0	12.4	0.0	16.3	-21.1
1645	618972.82	4778259.80	193.01	1	E	A	72.9	6.1	0.0	0.0	0.0	67.6	3.3	0.6	0.0	0.0	12.4	0.0	16.3	-21.1
1650	618973.61	4778262.69	193.02	0	D	A	78.2	2.8	0.0	0.0	0.0	65.8	2.8	0.8	0.0	0.0	0.0	0.0	0.0	11.6
1650	618973.61	4778262.69	193.02	0	N	A	72.9	2.8	0.0	0.0	0.0	65.8	2.8	0.8	0.0	0.0	0.0	0.0	0.0	6.3
1650	618973.61	4778262.69	193.02	0	E	A	72.9	2.8	0.0	0.0	0.0	65.8	2.8	0.8	0.0	0.0	0.0	0.0	0.0	6.3
1655	618973.61	4778262.69	193.02	1	D	A	78.2	2.8	0.0	0.0	0.0	68.2	3.4	0.5	0.0	0.0	12.4	0.0	18.2	-21.8
1655	618973.61	4778262.69	193.02	1	N	A	72.9	2.8	0.0	0.0	0.0	68.2	3.4	0.5	0.0	0.0	12.4	0.0	18.2	-27.0
1655	618973.61	4778262.69	19																	

Line Source, ISO 9613, Name: "Truck Route", ID: "I03!TR1"																				
Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
1692	618976.07	4778271.68	193.04	1	E	A	72.9	12.2	0.0	0.0	0.0	66.8	3.1	0.7	0.0	0.0	3.8	0.0	10.6	0.2
1697	618976.07	4778271.68	193.04	1	D	A	78.2	12.2	0.0	0.0	0.0	67.7	3.3	0.6	0.0	0.0	3.5	0.0	15.6	-0.3
1697	618976.07	4778271.68	193.04	1	N	A	72.9	12.2	0.0	0.0	0.0	67.7	3.3	0.6	0.0	0.0	3.5	0.0	15.6	-5.5
1697	618976.07	4778271.68	193.04	1	E	A	72.9	12.2	0.0	0.0	0.0	67.7	3.3	0.6	0.0	0.0	3.5	0.0	15.6	-5.5
1703	618976.07	4778271.68	193.04	1	D	A	78.2	12.2	0.0	0.0	0.0	67.7	3.3	0.6	0.0	0.0	11.4	0.0	16.4	-9.0
1703	618976.07	4778271.68	193.04	1	N	A	72.9	12.2	0.0	0.0	0.0	67.7	3.3	0.6	0.0	0.0	11.4	0.0	16.4	-14.2
1703	618976.07	4778271.68	193.04	1	E	A	72.9	12.2	0.0	0.0	0.0	67.7	3.3	0.6	0.0	0.0	11.4	0.0	16.4	-14.2
1942	618765.46	4778185.91	192.75	0	D	A	78.2	14.8	0.0	0.0	0.0	68.3	3.4	0.6	0.0	0.0	2.5	0.0	0.0	18.1
1942	618765.46	4778185.91	192.75	0	N	A	72.9	14.8	0.0	0.0	0.0	68.3	3.4	0.6	0.0	0.0	2.5	0.0	0.0	12.9
1942	618765.46	4778185.91	192.75	0	E	A	72.9	14.8	0.0	0.0	0.0	68.3	3.4	0.6	0.0	0.0	2.5	0.0	0.0	12.9
1948	618768.35	4778187.70	192.76	1	D	A	78.2	13.5	0.0	0.0	0.0	68.6	3.5	0.5	0.0	0.0	3.5	0.0	4.2	11.3
1948	618768.35	4778187.70	192.76	1	N	A	72.9	13.5	0.0	0.0	0.0	68.6	3.5	0.5	0.0	0.0	3.5	0.0	4.2	6.1
1948	618768.35	4778187.70	192.76	1	E	A	72.9	13.5	0.0	0.0	0.0	68.6	3.5	0.5	0.0	0.0	3.5	0.0	4.2	6.1
1953	618778.08	4778193.71	192.77	1	D	A	78.2	-4.3	0.0	0.0	0.0	68.7	3.5	0.5	0.0	0.0	4.2	0.0	10.5	-13.6
1953	618778.08	4778193.71	192.77	1	N	A	72.9	-4.3	0.0	0.0	0.0	68.7	3.5	0.5	0.0	0.0	4.2	0.0	10.5	-18.8
1953	618778.08	4778193.71	192.77	1	E	A	72.9	-4.3	0.0	0.0	0.0	68.7	3.5	0.5	0.0	0.0	4.2	0.0	10.5	-18.8
2004	618725.74	4778223.53	193.00	0	D	A	78.2	2.4	0.0	0.0	0.0	68.8	3.6	0.5	0.0	0.0	13.3	0.0	0.0	-5.7
2004	618725.74	4778223.53	193.00	0	N	A	72.9	2.4	0.0	0.0	0.0	68.8	3.6	0.5	0.0	0.0	13.3	0.0	0.0	-10.9
2004	618725.74	4778223.53	193.00	0	E	A	72.9	2.4	0.0	0.0	0.0	68.8	3.6	0.5	0.0	0.0	13.3	0.0	0.0	-10.9
2011	618722.75	4778221.90	193.00	0	D	A	78.2	7.1	0.0	0.0	0.0	68.9	3.6	0.5	0.0	0.0	12.2	0.0	0.0	0.1
2011	618722.75	4778221.90	193.00	0	N	A	72.9	7.1	0.0	0.0	0.0	68.9	3.6	0.5	0.0	0.0	12.2	0.0	0.0	-5.1
2011	618722.75	4778221.90	193.00	0	E	A	72.9	7.1	0.0	0.0	0.0	68.9	3.6	0.5	0.0	0.0	12.2	0.0	0.0	-5.1
2030	618719.93	4778220.36	193.00	0	D	A	78.2	1.2	0.0	0.0	0.0	68.9	3.6	0.5	0.0	0.0	11.2	0.0	0.0	-4.8
2030	618719.93	4778220.36	193.00	0	N	A	72.9	1.2	0.0	0.0	0.0	68.9	3.6	0.5	0.0	0.0	11.2	0.0	0.0	-10.1
2030	618719.93	4778220.36	193.00	0	E	A	72.9	1.2	0.0	0.0	0.0	68.9	3.6	0.5	0.0	0.0	11.2	0.0	0.0	-10.1
2037	618718.10	4778219.37	193.00	0	D	A	78.2	4.5	0.0	0.0	0.0	68.9	3.6	0.5	0.0	0.0	10.7	0.0	0.0	-1.0
2037	618718.10	4778219.37	193.00	0	N	A	72.9	4.5	0.0	0.0	0.0	68.9	3.6	0.5	0.0	0.0	10.7	0.0	0.0	-6.2
2037	618718.10	4778219.37	193.00	0	E	A	72.9	4.5	0.0	0.0	0.0	68.9	3.6	0.5	0.0	0.0	10.7	0.0	0.0	-6.2
2044	618711.74	4778215.91	193.00	0	D	A	78.2	10.7	0.0	0.0	0.0	69.0	3.6	0.5	0.0	0.0	8.8	0.0	0.0	6.9
2044	618711.74	4778215.91	193.00	0	N	A	72.9	10.7	0.0	0.0	0.0	69.0	3.6	0.5	0.0	0.0	8.8	0.0	0.0	1.7
2044	618711.74	4778215.91	193.00	0	E	A	72.9	10.7	0.0	0.0	0.0	69.0	3.6	0.5	0.0	0.0	8.8	0.0	0.0	1.7
2050	618705.97	4778212.77	193.00	0	D	A	78.2	1.7	0.0	0.0	0.0	69.0	3.6	0.5	0.0	0.0	4.9	0.0	0.0	1.8
2050	618705.97	4778212.77	193.00	0	N	A	72.9	1.7	0.0	0.0	0.0	69.0	3.6	0.5	0.0	0.0	4.9	0.0	0.0	-3.5
2050	618705.97	4778212.77	193.00	0	E	A	72.9	1.7	0.0	0.0	0.0	69.0	3.6	0.5	0.0	0.0	4.9	0.0	0.0	-3.5
2057	618705.31	4778211.41	193.00	0	D	A	78.2	3.1	0.0	0.0	0.0	69.0	3.6	0.5	0.0	0.0	4.4	0.0	0.0	3.6
2057	618705.31	4778211.41	193.00	0	N	A	72.9	3.1	0.0	0.0	0.0	69.0	3.6	0.5	0.0	0.0	4.4	0.0	0.0	-1.6
2057	618705.31	4778211.41	193.00	0	E	A	72.9	3.1	0.0	0.0	0.0	69.0	3.6	0.5	0.0	0.0	4.4	0.0	0.0	-1.6
2062	618705.29	4778209.75	193.00	0	D	A	78.2	1.1	0.0	0.0	0.0	69.0	3.6	0.5	0.0	0.0	5.4	0.0	0.0	0.7
2062	618705.29	4778209.75	193.00	0	N	A	72.9	1.1	0.0	0.0	0.0	69.0	3.6	0.5	0.0	0.0	5.4	0.0	0.0	-4.5
2062	618705.29	4																		

## Line Source, ISO 9613, Name: "Truck Route", ID: "I03!TR1"

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))
2113	618803.48	4778324.22	193.52	1	E	A	72.9	9.3	0.0	0.0	0.0	68.3	3.4	0.5	0.0	0.0	8.9	0.0	33.2	-132.1
2119	618801.78	4778319.21	193.40	0	D	A	78.2	3.1	0.0	0.0	0.0	68.3	3.4	0.5	0.0	0.0	0.0	0.0	0.0	9.0
2119	618801.78	4778319.21	193.40	0	N	A	72.9	3.1	0.0	0.0	0.0	68.3	3.4	0.5	0.0	0.0	0.0	0.0	0.0	3.8
2119	618801.78	4778319.21	193.40	0	E	A	72.9	3.1	0.0	0.0	0.0	68.3	3.4	0.5	0.0	0.0	0.0	0.0	0.0	3.8
2126	618801.78	4778319.21	193.40	1	D	A	78.2	3.1	0.0	0.0	0.0	68.3	3.4	0.5	0.0	0.0	9.1	0.0	34.2	-134.3
2126	618801.78	4778319.21	193.40	1	N	A	72.9	3.1	0.0	0.0	0.0	68.3	3.4	0.5	0.0	0.0	9.1	0.0	34.2	-139.5
2126	618801.78	4778319.21	193.40	1	E	A	72.9	3.1	0.0	0.0	0.0	68.3	3.4	0.5	0.0	0.0	9.1	0.0	34.2	-139.5
2132	618800.50	4778315.47	193.31	0	D	A	78.2	7.7	0.0	0.0	0.0	68.3	3.4	0.5	0.0	0.0	3.5	0.0	0.0	10.2
2132	618800.50	4778315.47	193.31	0	N	A	72.9	7.7	0.0	0.0	0.0	68.3	3.4	0.5	0.0	0.0	3.5	0.0	0.0	4.9
2132	618800.50	4778315.47	193.31	0	E	A	72.9	7.7	0.0	0.0	0.0	68.3	3.4	0.5	0.0	0.0	3.5	0.0	0.0	4.9
2140	618797.17	4778311.06	193.25	0	D	A	78.2	7.6	0.0	0.0	0.0	68.3	3.4	0.5	0.0	0.0	3.5	0.0	0.0	10.0
2140	618797.17	4778311.06	193.25	0	N	A	72.9	7.6	0.0	0.0	0.0	68.3	3.4	0.5	0.0	0.0	3.5	0.0	0.0	4.8
2140	618797.17	4778311.06	193.25	0	E	A	72.9	7.6	0.0	0.0	0.0	68.3	3.4	0.5	0.0	0.0	3.5	0.0	0.0	4.8
2160	618793.36	4778308.48	193.24	0	D	A	78.2	5.4	0.0	0.0	0.0	68.3	3.4	0.5	0.0	0.0	4.1	0.0	0.0	7.1
2160	618793.36	4778308.48	193.24	0	N	A	72.9	5.4	0.0	0.0	0.0	68.3	3.4	0.5	0.0	0.0	4.1	0.0	0.0	1.9
2160	618793.36	4778308.48	193.24	0	E	A	72.9	5.4	0.0	0.0	0.0	68.3	3.4	0.5	0.0	0.0	4.1	0.0	0.0	1.9
2169	618790.73	4778306.70	193.23	0	D	A	78.2	4.6	0.0	0.0	0.0	68.3	3.5	0.5	0.0	0.0	6.8	0.0	0.0	3.7
2169	618790.73	4778306.70	193.23	0	N	A	72.9	4.6	0.0	0.0	0.0	68.3	3.5	0.5	0.0	0.0	6.8	0.0	0.0	-1.6
2169	618790.73	4778306.70	193.23	0	E	A	72.9	4.6	0.0	0.0	0.0	68.3	3.5	0.5	0.0	0.0	6.8	0.0	0.0	-1.6
2176	618788.51	4778305.20	193.23	0	D	A	78.2	4.0	0.0	0.0	0.0	68.4	3.5	0.5	0.0	0.0	10.7	0.0	0.0	-0.9
2176	618788.51	4778305.20	193.23	0	N	A	72.9	4.0	0.0	0.0	0.0	68.4	3.5	0.5	0.0	0.0	10.7	0.0	0.0	-6.2
2176	618788.51	4778305.20	193.23	0	E	A	72.9	4.0	0.0	0.0	0.0	68.4	3.5	0.5	0.0	0.0	10.7	0.0	0.0	-6.2
2183	618787.08	4778304.23	193.23	0	D	A	78.2	-0.1	0.0	0.0	0.0	68.4	3.5	0.5	0.0	0.0	10.9	0.0	0.0	-5.2
2183	618787.08	4778304.23	193.23	0	N	A	72.9	-0.1	0.0	0.0	0.0	68.4	3.5	0.5	0.0	0.0	10.9	0.0	0.0	-10.4
2183	618787.08	4778304.23	193.23	0	E	A	72.9	-0.1	0.0	0.0	0.0	68.4	3.5	0.5	0.0	0.0	10.9	0.0	0.0	-10.4
2193	618947.70	4778176.84	193.00	0	D	A	78.2	9.4	0.0	0.0	0.0	65.9	2.8	0.8	0.0	0.0	5.5	0.0	0.0	12.5
2193	618947.70	4778176.84	193.00	0	N	A	72.9	9.4	0.0	0.0	0.0	65.9	2.8	0.8	0.0	0.0	5.5	0.0	0.0	7.3
2193	618947.70	4778176.84	193.00	0	E	A	72.9	9.4	0.0	0.0	0.0	65.9	2.8	0.8	0.0	0.0	5.5	0.0	0.0	7.3
2200	618947.70	4778176.84	193.00	1	D	A	78.2	9.4	0.0	0.0	0.0	68.0	3.4	0.6	0.0	0.0	7.7	0.0	16.9	-8.9
2200	618947.70	4778176.84	193.00	1	N	A	72.9	9.4	0.0	0.0	0.0	68.0	3.4	0.6	0.0	0.0	7.7	0.0	16.9	-14.2
2200	618947.70	4778176.84	193.00	1	E	A	72.9	9.4	0.0	0.0	0.0	68.0	3.4	0.6	0.0	0.0	7.7	0.0	16.9	-14.2
2204	618947.70	4778176.84	193.00	1	D	A	78.2	9.4	0.0	0.0	0.0	67.2	3.2	0.6	0.0	0.0	3.6	0.0	12.5	0.5
2204	618947.70	4778176.84	193.00	1	N	A	72.9	9.4	0.0	0.0	0.0	67.2	3.2	0.6	0.0	0.0	3.6	0.0	12.5	-4.8
2204	618947.70	4778176.84	193.00	1	E	A	72.9	9.4	0.0	0.0	0.0	67.2	3.2	0.6	0.0	0.0	3.6	0.0	12.5	-4.8
2208	618947.70	4778176.84	193.00	1	D	A	78.2	9.4	0.0	0.0	0.0	67.1	3.1	0.7	0.0	0.0	3.7	0.0	10.7	2.3
2208	618947.70	4778176.84	193.00	1	N	A	72.9	9.4	0.0	0.0	0.0	67.1	3.1	0.7	0.0	0.0	3.7	0.0	10.7	-2.9
2208	618947.70	4778176.84	193.00	1	E	A	72.9	9.4	0.0	0.0	0.0	67.1	3.1	0.7	0.0	0.0	3.7	0.0	10.7	-2.9
2215	618947.70	4778176.84	193.00	1	D	A	78.2	9.4	0.0	0.0	0.0	67.7	3.3	0.6	0.0	0.0	3.5	0.0	14.6	-2.2
2215	618947.70	4778176.84	193.00	1	N	A	72.9	9.4	0.0	0.0	0.0	67.7	3.3	0.6	0.0	0.0	3.5	0.0	14.6	-7.4
2215	618947.70	4778176.84	193.00	1	E	A	72.9	9.4	0.0	0.0	0.0	67.7</td								

## Point Source, ISO 9613, Name: "Chiller", ID: "I07IS13B"

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(A))						
619	618952.30	4778218.63	193.50	1	DEN	A	91.6	0.0	0.0	0.0	0.0	67.1	1.7	1.3	0.0	0.0	3.2	0.0	12.1	6.2
622	618952.30	4778218.63	193.50	1	DEN	A	91.6	0.0	0.0	0.0	0.0	67.4	1.8	1.2	0.0	0.0	3.2	0.0	13.9	4.1

## Point Source, ISO 9613, Name: "Chiller", ID: "I07IS13A"

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(A))						
626	618950.45	4778212.20	193.50	0	DEN	A	91.6	0.0	0.0	0.0	0.0	65.9	1.6	1.4	0.0	0.0	4.0	0.0	0.0	18.6
628	618950.45	4778212.20	193.50	1	DEN	A	91.6	0.0	0.0	0.0	0.0	68.2	1.9	1.2	0.0	0.0	9.7	0.0	21.1	-10.5
631	618950.45	4778212.20	193.50	1	DEN	A	91.6	0.0	0.0	0.0	0.0	67.6	1.8	1.2	0.0	0.0	9.7	0.0	16.9	-5.7
632	618950.45	4778212.20	193.50	1	DEN	A	91.6	0.0	0.0	0.0	0.0	66.7	1.7	1.3	0.0	0.0	3.3	0.0	10.6	7.9
637	618950.45	4778212.20	193.50	1	DEN	A	91.6	0.0	0.0	0.0	0.0	67.0	1.7	1.3	0.0	0.0	3.2	0.0	11.8	6.5
640	618950.45	4778212.20	193.50	1	DEN	A	91.6	0.0	0.0	0.0	0.0	67.4	1.8	1.2	0.0	0.0	3.2	0.0	14.0	4.0

## Point Source, ISO 9613, Name: "Truck Idle on Weight Scale", ID: "I07IS11"

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(A))						
644	618962.11	4778222.96	193.00	0	D	A	99.5	0.0	-3.0	0.0	0.0	65.8	2.6	0.4	0.0	0.0	7.1	0.0	0.0	20.6
644	618962.11	4778222.96	193.00	0	N	A	99.5	0.0	-188.0	0.0	0.0	65.8	2.6	0.4	0.0	0.0	7.1	0.0	0.0	-164.4
644	618962.11	4778222.96	193.00	0	E	A	99.5	0.0	-188.0	0.0	0.0	65.8	2.6	0.4	0.0	0.0	7.1	0.0	0.0	-164.4
650	618962.11	4778222.96	193.00	1	D	A	99.5	0.0	-3.0	0.0	0.0	68.2	3.3	0.0	0.0	0.0	16.5	0.0	15.0	-6.5
650	618962.11	4778222.96	193.00	1	N	A	99.5	0.0	-188.0	0.0	0.0	68.2	3.3	0.0	0.0	0.0	16.5	0.0	15.0	-191.5
650	618962.11	4778222.96	193.00	1	E	A	99.5	0.0	-188.0	0.0	0.0	68.2	3.3	0.0	0.0	0.0	16.5	0.0	15.0	-191.5
654	618962.11	4778222.96	193.00	1	D	A	99.5	0.0	-3.0	0.0	0.0	67.6	3.1	0.1	0.0	0.0	15.9	0.0	13.5	-3.7
654	618962.11	4778222.96	193.00	1	N	A	99.5	0.0	-188.0	0.0	0.0	67.6	3.1	0.1	0.0	0.0	15.9	0.0	13.5	-188.7
654	618962.11	4778222.96	193.00	1	E	A	99.5	0.0	-188.0	0.0	0.0	67.6	3.1	0.1	0.0	0.0	15.9	0.0	13.5	-188.7
656	618962.11	4778222.96	193.00	1	D	A	99.5	0.0	-3.0	0.0	0.0	66.7	2.8	0.2	0.0	0.0	4.4	0.0	8.9	13.3
656	618962.11	4778222.96	193.00	1	N	A	99.5	0.0	-188.0	0.0	0.0	66.7	2.8	0.2	0.0	0.0	4.4	0.0	8.9	-171.6
656	618962.11	4778222.96	193.00	1	E	A	99.5	0.0	-188.0	0.0	0.0	66.7	2.8	0.2	0.0	0.0	4.4	0.0	8.9	-171.6
664	618962.11	4778222.96	193.00	1	D	A	99.5	0.0	-3.0	0.0	0.0	67.2	3.0	0.2	0.0	0.0	4.1	0.0	10.6	11.4
664	618962.11	4778222.96	193.00	1	N	A	99.5	0.0	-188.0	0.0	0.0	67.2	3.0	0.2	0.0	0.0	4.1	0.0	10.6	-173.6
664	618962.11	4778222.96	193.00	1	E	A	99.5	0.0	-188.0	0.0	0.0	67.2	3.0	0.2	0.0	0.0	4.1	0.0	10.6	-173.6
667	618962.11	4778222.96	193.00	1	D	A	99.5	0.0	-3.0	0.0	0.0	67.5	3.1	0.1	0.0	0.0	4.1	0.0	13.0	8.8
667	618962.11	4778222.96	193.00	1	N	A	99.5	0.0	-188.0	0.0	0.0	67.5	3.1	0.1	0.0	0.0	4.1	0.0	13.0	-176.2
667	618962.11	4778222.96	193.00	1	E	A	99.5	0.0	-188.0	0.0	0.0	67.5	3.1	0.1	0.0	0.0	4.1	0.0	13.0	-176.2

## vert. Area Source, ISO 9613, Name: "Organic Processing Building Bay Door (Open)", ID: "I07IS16F"

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(A))						
1017	618746.09	4778258.72	194.50																	

## vert. Area Source, ISO 9613, Name: "Organic Processing Building Bay Door (Open)", ID: "I07IS16D"

Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
1159	618741.90	4778244.20	192.50	0	DEN	A	86.2	1.9	0.0	0.0	0.0	68.7	1.9	3.1	0.0	0.0	21.4	0.0	0.0	-7.0
1170	618742.45	4778246.12	191.50	0	DEN	A	86.2	3.8	0.0	0.0	0.0	68.7	1.9	4.4	0.0	0.0	20.3	0.0	0.0	-5.2
1178	618741.90	4778244.20	191.50	0	DEN	A	86.2	1.9	0.0	0.0	0.0	68.7	1.9	4.4	0.0	0.0	20.3	0.0	0.0	-7.2

## vert. Area Source, ISO 9613, Name: "Organic Processing Building Bay Door (Open)", ID: "I07IS16C"

Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
1189	618740.28	4778238.59	193.50	0	DEN	A	86.2	6.0	0.0	0.0	0.0	68.7	1.9	2.4	0.0	0.0	21.3	0.0	0.0	-2.1
1205	618740.28	4778238.59	192.50	0	DEN	A	86.2	6.0	0.0	0.0	0.0	68.7	1.9	3.1	0.0	0.0	21.4	0.0	0.0	-2.9
1218	618740.28	4778238.59	194.50	0	DEN	A	86.2	6.0	0.0	0.0	0.0	68.7	1.9	2.4	0.0	0.0	20.3	0.0	0.0	-1.1
1231	618740.28	4778238.59	191.50	0	DEN	A	86.2	6.0	0.0	0.0	0.0	68.7	1.9	4.4	0.0	0.0	20.3	0.0	0.0	-3.1

## vert. Area Source, ISO 9613, Name: "Organic Processing Building Bay Door (Open)", ID: "I07IS16B"

Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
1245	618735.64	4778222.55	191.50	0	DEN	A	86.1	6.1	0.0	0.0	0.0	68.7	1.9	4.4	0.0	0.0	20.1	0.0	0.0	-2.9
1251	618735.64	4778222.55	193.50	0	DEN	A	86.1	6.1	0.0	0.0	0.0	68.7	1.9	2.4	0.0	0.0	21.1	0.0	0.0	-1.9
1262	618735.64	4778222.55	194.50	0	DEN	A	86.1	6.1	0.0	0.0	0.0	68.7	1.9	2.4	0.0	0.0	20.0	0.0	0.0	-0.8
1276	618735.64	4778222.55	192.50	0	DEN	A	86.1	6.1	0.0	0.0	0.0	68.7	1.9	3.1	0.0	0.0	21.2	0.0	0.0	-2.7

## vert. Area Source, ISO 9613, Name: "Organic Processing Building Bay Door (Open)", ID: "I07IS16A"

Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
1283	618733.39	4778214.73	194.50	0	DEN	A	86.2	4.0	0.0	0.0	0.0	68.7	1.9	2.4	0.0	0.0	19.2	0.0	0.0	-2.1
1290	618733.94	4778216.65	194.50	0	DEN	A	86.2	1.7	0.0	0.0	0.0	68.7	1.9	2.4	0.0	0.0	19.6	0.0	0.0	-4.8
1297	618733.39	4778214.73	193.50	0	DEN	A	86.2	4.0	0.0	0.0	0.0	68.7	1.9	2.4	0.0	0.0	20.2	0.0	0.0	-3.0
1301	618733.94	4778216.65	193.50	0	DEN	A	86.2	1.7	0.0	0.0	0.0	68.7	1.9	2.4	0.0	0.0	20.6	0.0	0.0	-5.8
1310	618733.39	4778214.73	192.50	0	DEN	A	86.2	4.0	0.0	0.0	0.0	68.7	1.9	3.1	0.0	0.0	20.3	0.0	0.0	-3.8
1317	618733.94	4778216.65	192.50	0	DEN	A	86.2	1.7	0.0	0.0	0.0	68.7	1.9	3.1	0.0	0.0	20.7	0.0	0.0	-6.6
1322	618733.39	4778214.73	191.50	0	DEN	A	86.2	4.0	0.0	0.0	0.0	68.7	1.9	4.4	0.0	0.0	19.4	0.0	0.0	-4.3
1330	618733.94	4778216.65	191.50	0	DEN	A	86.2	1.7	0.0	0.0	0.0	68.7	1.9	4.4	0.0	0.0	19.8	0.0	0.0	-6.9

## Point Source, ISO 9613, Name: "Side Wall Ventilation Fan", ID: "I03IS06B"

Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
1565	618809.24	4778213.67	193.91	0	DEN	A	91.0	0.0	0.0	0.0	0.0	67.8	2.0	2.3	0.0	0.0	17.4	0.0	0.0	1.4
1570	618809.24	4778213.67	193.91	1	DEN	A	91.0	0.0	0.0	0.0	0.0	68.2	2.1	2.3	0.0	0.0	20.5	0.0	24.5	-26.6
1581	618809.24	4778213.67	193.91	1	DEN	A	91.0	0.0	0.0	0.0	0.0	68.1	2.1	2.3	0.0	0.0	20.5	0.0	33.8	-35.7
1586	618809.24	4778213.67	193.91	1	DEN	A	91.0	0.0	0.0	0.0	0.0	68.3	2.1	2.3	0.0	0.0	20.6	0.0	20.0	-22.3
1591	618809.24	4778213.67	193.91	1	DEN	A	91.0	0.0	0.0	0.0	0.0	67.9	2.0	2.3	0.0	0.0	20.4	0.0	55.2	-56.9

## Point Source, ISO 9613, Name: "Side Wall Ventilation Fan", ID: "I03IS06A"

Nr.	X (m)	Y (m)	Z (m)	Refl.</th

## Point Source, ISO 9613, Name: "Agitator Motor (High Pitch)", ID: "I03!S04A"

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(A))						
1721	618808.31	4778210.97	192.40	1	N		A	96.4	0.0	-6.0	0.0	0.0	68.2	6.0	-0.6	0.0	0.0	24.3	0.0	18.5
1721	618808.31	4778210.97	192.40	1	E		A	96.4	0.0	-6.0	0.0	0.0	68.2	6.0	-0.6	0.0	0.0	24.3	0.0	18.5
1726	618808.31	4778210.97	192.40	1	D		A	96.4	0.0	-6.0	0.0	0.0	68.1	5.9	-0.5	0.0	0.0	24.1	0.0	27.3
1726	618808.31	4778210.97	192.40	1	N		A	96.4	0.0	-6.0	0.0	0.0	68.1	5.9	-0.5	0.0	0.0	24.1	0.0	27.3
1726	618808.31	4778210.97	192.40	1	E		A	96.4	0.0	-6.0	0.0	0.0	68.1	5.9	-0.5	0.0	0.0	24.1	0.0	27.3
1731	618808.31	4778210.97	192.40	1	D		A	96.4	0.0	-6.0	0.0	0.0	68.3	6.0	-0.6	0.0	0.0	24.3	0.0	16.3
1731	618808.31	4778210.97	192.40	1	N		A	96.4	0.0	-6.0	0.0	0.0	68.3	6.0	-0.6	0.0	0.0	24.3	0.0	16.3
1731	618808.31	4778210.97	192.40	1	E		A	96.4	0.0	-6.0	0.0	0.0	68.3	6.0	-0.6	0.0	0.0	24.3	0.0	16.3
1736	618808.31	4778210.97	192.40	1	D		A	96.4	0.0	-6.0	0.0	0.0	68.0	5.9	-0.5	0.0	0.0	23.5	0.0	41.1
1736	618808.31	4778210.97	192.40	1	N		A	96.4	0.0	-6.0	0.0	0.0	68.0	5.9	-0.5	0.0	0.0	23.5	0.0	41.1
1736	618808.31	4778210.97	192.40	1	E		A	96.4	0.0	-6.0	0.0	0.0	68.0	5.9	-0.5	0.0	0.0	23.5	0.0	41.1
1739	618808.31	4778210.97	192.40	1	D		A	96.4	0.0	-6.0	0.0	0.0	67.9	5.8	-0.5	0.0	0.0	10.4	0.0	1.0
1739	618808.31	4778210.97	192.40	1	N		A	96.4	0.0	-6.0	0.0	0.0	67.9	5.8	-0.5	0.0	0.0	10.4	0.0	1.0
1739	618808.31	4778210.97	192.40	1	E		A	96.4	0.0	-6.0	0.0	0.0	67.9	5.8	-0.5	0.0	0.0	10.4	0.0	1.0

## Point Source, ISO 9613, Name: "Agitator Motor (High Pitch)", ID: "I03!S04B"

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(A))						
1744	618803.04	4778208.23	192.38	0	D		A	96.4	0.0	-6.0	0.0	0.0	67.9	5.9	-0.5	0.0	0.0	9.6	0.0	0.0
1744	618803.04	4778208.23	192.38	0	N		A	96.4	0.0	-6.0	0.0	0.0	67.9	5.9	-0.5	0.0	0.0	9.6	0.0	0.0
1744	618803.04	4778208.23	192.38	0	E		A	96.4	0.0	-6.0	0.0	0.0	67.9	5.9	-0.5	0.0	0.0	9.6	0.0	0.0
1748	618803.04	4778208.23	192.38	1	D		A	96.4	0.0	-6.0	0.0	0.0	68.3	6.0	-0.6	0.0	0.0	24.0	0.0	19.0
1748	618803.04	4778208.23	192.38	1	N		A	96.4	0.0	-6.0	0.0	0.0	68.3	6.0	-0.6	0.0	0.0	24.0	0.0	19.0
1748	618803.04	4778208.23	192.38	1	E		A	96.4	0.0	-6.0	0.0	0.0	68.3	6.0	-0.6	0.0	0.0	24.0	0.0	19.0
1753	618803.04	4778208.23	192.38	1	D		A	96.4	0.0	-6.0	0.0	0.0	68.4	6.0	-0.6	0.0	0.0	24.1	0.0	17.7
1753	618803.04	4778208.23	192.38	1	N		A	96.4	0.0	-6.0	0.0	0.0	68.4	6.0	-0.6	0.0	0.0	24.1	0.0	17.7
1753	618803.04	4778208.23	192.38	1	E		A	96.4	0.0	-6.0	0.0	0.0	68.4	6.0	-0.6	0.0	0.0	24.1	0.0	17.7
1758	618803.04	4778208.23	192.38	1	D		A	96.4	0.0	-6.0	0.0	0.0	68.0	5.9	-0.5	0.0	0.0	19.5	0.0	45.4
1758	618803.04	4778208.23	192.38	1	N		A	96.4	0.0	-6.0	0.0	0.0	68.0	5.9	-0.5	0.0	0.0	19.5	0.0	45.4
1758	618803.04	4778208.23	192.38	1	E		A	96.4	0.0	-6.0	0.0	0.0	68.0	5.9	-0.5	0.0	0.0	19.5	0.0	45.4
1764	618803.04	4778208.23	192.38	1	D		A	96.4	0.0	-6.0	0.0	0.0	68.5	6.1	-0.6	0.0	0.0	10.8	0.0	1.1
1764	618803.04	4778208.23	192.38	1	N		A	96.4	0.0	-6.0	0.0	0.0	68.5	6.1	-0.6	0.0	0.0	10.8	0.0	1.1
1764	618803.04	4778208.23	192.38	1	E		A	96.4	0.0	-6.0	0.0	0.0	68.5	6.1	-0.6	0.0	0.0	10.8	0.0	1.1

## Point Source, ISO 9613, Name: "Agitator Motor (High Pitch)", ID: "I03!S04C"

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(A))						
1769	618798.09	4778209.34	192.37	0	D		A	96.4	0.0	-6.0	0.0	0.0	68.0	5.9	-0.5	0.0	0.0	9.1	0.0	0.0
1769	618798.09	4778209.34	192.37	0	N		A	96.4	0.0	-6.0	0.0	0.0	68.0	5.9	-0.5	0.0	0.0	9.1	0.0	0.0
1769	618798.09	4778209.34	192.																	

## Point Source, ISO 9613, Name: "Agitator Motor (High Pitch)", ID: "I03!S04D"

Nr.	X (m)	Y (m)	Z (m)	RefL	DEN	Freq. (Hz)	Lw dB(A)	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr dB(A)	
1805	618792.79	4778210.92	192.37	1	N		A	96.4	0.0	-6.0	0.0	0.0	68.5	6.0	-0.6	0.0	0.0	24.0	0.0	18.4	-26.0
1805	618792.79	4778210.92	192.37	1	E		A	96.4	0.0	-6.0	0.0	0.0	68.5	6.0	-0.6	0.0	0.0	24.0	0.0	18.4	-26.0
1811	618792.79	4778210.92	192.37	1	D		A	96.4	0.0	-6.0	0.0	0.0	68.1	5.9	-0.5	0.0	0.0	21.9	0.0	44.0	-49.0
1811	618792.79	4778210.92	192.37	1	N		A	96.4	0.0	-6.0	0.0	0.0	68.1	5.9	-0.5	0.0	0.0	21.9	0.0	44.0	-49.0
1811	618792.79	4778210.92	192.37	1	E		A	96.4	0.0	-6.0	0.0	0.0	68.1	5.9	-0.5	0.0	0.0	21.9	0.0	44.0	-49.0
1817	618792.79	4778210.92	192.37	1	D		A	96.4	0.0	-6.0	0.0	0.0	68.4	6.0	-0.6	0.0	0.0	13.2	0.0	1.0	2.4
1817	618792.79	4778210.92	192.37	1	N		A	96.4	0.0	-6.0	0.0	0.0	68.4	6.0	-0.6	0.0	0.0	13.2	0.0	1.0	2.4
1817	618792.79	4778210.92	192.37	1	E		A	96.4	0.0	-6.0	0.0	0.0	68.4	6.0	-0.6	0.0	0.0	13.2	0.0	1.0	2.4

## Point Source, ISO 9613, Name: "Side Wall Ventilation Fan", ID: "I03!S08"

Nr.	X (m)	Y (m)	Z (m)	RefL	DEN	Freq. (Hz)	Lw dB(A)	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr dB(A)	
1965	618826.46	4778215.44	193.95	0	DEN		A	89.4	0.0	0.0	0.0	0.0	67.6	2.4	1.5	0.0	0.0	7.7	0.0	0.0	10.1
1972	618826.46	4778215.44	193.95	1	DEN		A	89.4	0.0	0.0	0.0	0.0	68.0	2.4	1.4	0.0	0.0	6.9	0.0	23.3	-12.8
1979	618826.46	4778215.44	193.95	1	DEN		A	89.4	0.0	0.0	0.0	0.0	67.9	2.4	1.5	0.0	0.0	4.8	0.0	31.1	-18.3
1984	618826.46	4778215.44	193.95	1	DEN		A	89.4	0.0	0.0	0.0	0.0	67.8	2.4	1.5	0.0	0.0	3.2	0.0	28.9	-14.3
1990	618826.46	4778215.44	193.95	1	DEN		A	89.4	0.0	0.0	0.0	0.0	68.2	2.5	1.4	0.0	0.0	9.5	0.0	18.3	-10.5
1997	618826.46	4778215.44	193.95	1	DEN		A	89.4	0.0	0.0	0.0	0.0	67.7	2.4	1.5	0.0	0.0	3.2	0.0	50.7	-36.2

## Point Source, ISO 9613, Name: "Digester Tank Axial Agitator", ID: "I07!S05G"

Nr.	X (m)	Y (m)	Z (m)	RefL	DEN	Freq. (Hz)	Lw dB(A)	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr dB(A)	
2346	618897.15	4778236.95	207.00	0	D		A	84.7	0.0	-7.8	0.0	0.0	66.8	5.4	0.7	0.0	0.0	0.0	0.0	0.0	4.0
2346	618897.15	4778236.95	207.00	0	N		A	84.7	0.0	-7.8	0.0	0.0	66.8	5.4	0.7	0.0	0.0	0.0	0.0	0.0	4.0
2346	618897.15	4778236.95	207.00	0	E		A	84.7	0.0	-7.8	0.0	0.0	66.8	5.4	0.7	0.0	0.0	0.0	0.0	0.0	4.0

## Point Source, ISO 9613, Name: "Digester Tank Axial Agitator", ID: "I07!S05D"

Nr.	X (m)	Y (m)	Z (m)	RefL	DEN	Freq. (Hz)	Lw dB(A)	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr dB(A)	
2352	618900.92	4778260.30	207.03	0	D		A	84.7	0.0	-7.8	0.0	0.0	66.8	5.5	0.7	0.0	0.0	0.0	0.0	0.0	3.9
2352	618900.92	4778260.30	207.03	0	N		A	84.7	0.0	-7.8	0.0	0.0	66.8	5.5	0.7	0.0	0.0	0.0	0.0	0.0	3.9
2352	618900.92	4778260.30	207.03	0	E		A	84.7	0.0	-7.8	0.0	0.0	66.8	5.5	0.7	0.0	0.0	0.0	0.0	0.0	3.9

## Point Source, ISO 9613, Name: "Digester Tank Axial Agitator", ID: "I07!S05H"

Nr.	X (m)	Y (m)	Z (m)	RefL	DEN	Freq. (Hz)	Lw dB(A)	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr dB(A)	
2357	618895.08	4778246.97	207.00	0	D		A	84.7	0.0	-7.8	0.0	0.0	66.8	5.5	0.7	0.0	0.0	0.0	0.0	0.0	3.9
2357	618895.08	4778246.97	207.00	0	N		A	84.7	0.0	-7.8	0.0	0.0	66.8	5.5	0.7	0.0	0.0	0.0	0.0	0.0	3.9
2357	618895.08	4778246.97	207.00	0	E		A	84.7	0.0	-7.8	0.0	0.0	66.8	5.5	0.7	0.0	0.0	0.0	0.0	0.0	3.9

## Point Source, ISO 9613, Name: "Digester Tank Axial Agitator", ID: "I07!S05C"

Nr.	X (m)	Y (m)	Z (m)	RefL	DEN	Freq. (Hz)	Lw dB(A)	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afol	Ahous	Abar	Cmet	RL	Lr dB(A)	
2362	618896.35	4778269.17	207.11	0	D		A	84.7	0.0	-7.8	0.0	0.0	66.9	5.5	0.7	0.0	0.0	0.0	0.0	0.0	3.8
2362	618																				

## Point Source, ISO 9613, Name: "Digester Tank Axial Agitator", ID: "103!S03C"

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(A))						
2382	618846.56	4778230.40	193.00	0	D	A	84.7	0.0	-7.8	0.0	0.0	67.4	5.6	-0.4	0.0	0.0	13.4	0.0	0.0	-9.1
2382	618846.56	4778230.40	193.00	0	N	A	84.7	0.0	-7.8	0.0	0.0	67.4	5.6	-0.4	0.0	0.0	13.4	0.0	0.0	-9.1
2382	618846.56	4778230.40	193.00	0	E	A	84.7	0.0	-7.8	0.0	0.0	67.4	5.6	-0.4	0.0	0.0	13.4	0.0	0.0	-9.1
2388	618846.56	4778230.40	193.00	1	D	A	84.7	0.0	-7.8	0.0	0.0	67.7	5.7	-0.5	0.0	0.0	13.9	0.0	17.1	-27.0
2388	618846.56	4778230.40	193.00	1	N	A	84.7	0.0	-7.8	0.0	0.0	67.7	5.7	-0.5	0.0	0.0	13.9	0.0	17.1	-27.0
2388	618846.56	4778230.40	193.00	1	E	A	84.7	0.0	-7.8	0.0	0.0	67.7	5.7	-0.5	0.0	0.0	13.9	0.0	17.1	-27.0
2393	618846.56	4778230.40	193.00	1	D	A	84.7	0.0	-7.8	0.0	0.0	67.6	5.7	-0.5	0.0	0.0	10.3	0.0	18.8	-25.0
2393	618846.56	4778230.40	193.00	1	N	A	84.7	0.0	-7.8	0.0	0.0	67.6	5.7	-0.5	0.0	0.0	10.3	0.0	18.8	-25.0
2393	618846.56	4778230.40	193.00	1	E	A	84.7	0.0	-7.8	0.0	0.0	67.6	5.7	-0.5	0.0	0.0	10.3	0.0	18.8	-25.0
2399	618846.56	4778230.40	193.00	1	D	A	84.7	0.0	-7.8	0.0	0.0	67.9	5.8	-0.5	0.0	0.0	16.6	0.0	14.3	-27.2
2399	618846.56	4778230.40	193.00	1	N	A	84.7	0.0	-7.8	0.0	0.0	67.9	5.8	-0.5	0.0	0.0	16.6	0.0	14.3	-27.2
2399	618846.56	4778230.40	193.00	1	E	A	84.7	0.0	-7.8	0.0	0.0	67.9	5.8	-0.5	0.0	0.0	16.6	0.0	14.3	-27.2
2403	618846.56	4778230.40	193.00	1	D	A	84.7	0.0	-7.8	0.0	0.0	67.4	5.6	-0.4	0.0	0.0	4.5	0.0	13.7	-113.9
2403	618846.56	4778230.40	193.00	1	N	A	84.7	0.0	-7.8	0.0	0.0	67.4	5.6	-0.4	0.0	0.0	4.5	0.0	13.7	-113.9
2403	618846.56	4778230.40	193.00	1	E	A	84.7	0.0	-7.8	0.0	0.0	67.4	5.6	-0.4	0.0	0.0	4.5	0.0	13.7	-113.9

## Point Source, ISO 9613, Name: "Digester Tank Axial Agitator", ID: "103!S03B"

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(A))						
2409	618844.00	4778218.20	192.98	0	D	A	84.7	0.0	-7.8	0.0	0.0	67.4	5.6	-0.4	0.0	0.0	14.8	0.0	0.0	-10.5
2409	618844.00	4778218.20	192.98	0	N	A	84.7	0.0	-7.8	0.0	0.0	67.4	5.6	-0.4	0.0	0.0	14.8	0.0	0.0	-10.5
2409	618844.00	4778218.20	192.98	0	E	A	84.7	0.0	-7.8	0.0	0.0	67.4	5.6	-0.4	0.0	0.0	14.8	0.0	0.0	-10.5
2415	618844.00	4778218.20	192.98	1	D	A	84.7	0.0	-7.8	0.0	0.0	67.8	5.8	-0.5	0.0	0.0	12.9	0.0	17.2	-26.3
2415	618844.00	4778218.20	192.98	1	N	A	84.7	0.0	-7.8	0.0	0.0	67.8	5.8	-0.5	0.0	0.0	12.9	0.0	17.2	-26.3
2415	618844.00	4778218.20	192.98	1	E	A	84.7	0.0	-7.8	0.0	0.0	67.8	5.8	-0.5	0.0	0.0	12.9	0.0	17.2	-26.3
2420	618844.00	4778218.20	192.98	1	D	A	84.7	0.0	-7.8	0.0	0.0	67.7	5.7	-0.5	0.0	0.0	9.3	0.0	18.4	-23.7
2420	618844.00	4778218.20	192.98	1	N	A	84.7	0.0	-7.8	0.0	0.0	67.7	5.7	-0.5	0.0	0.0	9.3	0.0	18.4	-23.7
2420	618844.00	4778218.20	192.98	1	E	A	84.7	0.0	-7.8	0.0	0.0	67.7	5.7	-0.5	0.0	0.0	9.3	0.0	18.4	-23.7
2425	618844.00	4778218.20	192.98	1	D	A	84.7	0.0	-7.8	0.0	0.0	67.5	5.7	-0.5	0.0	0.0	4.5	0.0	18.2	-18.5
2425	618844.00	4778218.20	192.98	1	N	A	84.7	0.0	-7.8	0.0	0.0	67.5	5.7	-0.5	0.0	0.0	4.5	0.0	18.2	-18.5
2425	618844.00	4778218.20	192.98	1	E	A	84.7	0.0	-7.8	0.0	0.0	67.5	5.7	-0.5	0.0	0.0	4.5	0.0	18.2	-18.5
2429	618844.00	4778218.20	192.98	1	D	A	84.7	0.0	-7.8	0.0	0.0	68.1	5.8	-0.5	0.0	0.0	14.8	0.0	15.0	-26.3
2429	618844.00	4778218.20	192.98	1	N	A	84.7	0.0	-7.8	0.0	0.0	68.1	5.8	-0.5	0.0	0.0	14.8	0.0	15.0	-26.3
2429	618844.00	4778218.20	192.98	1	E	A	84.7	0.0	-7.8	0.0	0.0	68.1	5.8	-0.5	0.0	0.0	14.8	0.0	15.0	-26.3
2435	618844.00	4778218.20	192.98	1	D	A	84.7	0.0	-7.8	0.0	0.0	67.5	5.7	-0.5	0.0	0.0	4.5	0.0	28.1	-28.5
2435	618844.00	4778218.20	192.98	1	N	A	84.7	0.0	-7.8	0.0	0.0	67.5	5.7	-0.5	0.0	0.0	4.5	0.0	28.1	-28.5
2435	618844.00	4778218.20	192.98	1	E	A	84.7	0.0	-7.8	0.0	0.0	67.5	5.7	-0.5	0.0	0.0	4.5	0.0	28.1	-28.5
2439	618844.00	4778218.20	192.98	1	D	A	84.7	0.0	-7.8	0.0	0.0	68.9	6.1	-0.6	0.0	0.0	4.8	0.0	12.1	-14.3
2439	618844.00	4778218.20	192.98	1	N	A	84.7	0.0	-7.8	0.0	0.0	68.9	6.1	-0.6	0.0	0.0	4.8</			

## Point Source, ISO 9613, Name: "Digester Tank Axial Agitator", ID: "I03!S03D"

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(A))						
2463	618837.58	4778247.16	193.00	1	E	A	84.7	0.0	-7.8	0.0	0.0	67.7	5.7	-0.5	0.0	0.0	9.5	0.0	18.0	-23.5
2469	618837.58	4778247.16	193.00	1	D	A	84.7	0.0	-7.8	0.0	0.0	67.6	5.7	-0.5	0.0	0.0	9.8	0.0	44.1	-49.8
2469	618837.58	4778247.16	193.00	1	N	A	84.7	0.0	-7.8	0.0	0.0	67.6	5.7	-0.5	0.0	0.0	9.8	0.0	44.1	-49.8
2469	618837.58	4778247.16	193.00	1	E	A	84.7	0.0	-7.8	0.0	0.0	67.6	5.7	-0.5	0.0	0.0	9.8	0.0	44.1	-49.8
2475	618837.58	4778247.16	193.00	1	D	A	84.7	0.0	-7.8	0.0	0.0	67.6	5.7	-0.5	0.0	0.0	4.5	0.0	15.5	-115.9
2475	618837.58	4778247.16	193.00	1	N	A	84.7	0.0	-7.8	0.0	0.0	67.6	5.7	-0.5	0.0	0.0	4.5	0.0	15.5	-115.9
2475	618837.58	4778247.16	193.00	1	E	A	84.7	0.0	-7.8	0.0	0.0	67.6	5.7	-0.5	0.0	0.0	4.5	0.0	15.5	-115.9
2482	618837.58	4778247.16	193.00	1	D	A	84.7	0.0	-7.8	0.0	0.0	67.8	5.8	-0.5	0.0	0.0	18.0	0.0	14.3	-28.5
2482	618837.58	4778247.16	193.00	1	N	A	84.7	0.0	-7.8	0.0	0.0	67.8	5.8	-0.5	0.0	0.0	18.0	0.0	14.3	-28.5
2482	618837.58	4778247.16	193.00	1	E	A	84.7	0.0	-7.8	0.0	0.0	67.8	5.8	-0.5	0.0	0.0	18.0	0.0	14.3	-28.5
2488	618837.58	4778247.16	193.00	1	D	A	84.7	0.0	-7.8	0.0	0.0	68.1	5.8	-0.5	0.0	0.0	4.4	0.0	1.7	-2.6
2488	618837.58	4778247.16	193.00	1	N	A	84.7	0.0	-7.8	0.0	0.0	68.1	5.8	-0.5	0.0	0.0	4.4	0.0	1.7	-2.6
2488	618837.58	4778247.16	193.00	1	E	A	84.7	0.0	-7.8	0.0	0.0	68.1	5.8	-0.5	0.0	0.0	4.4	0.0	1.7	-2.6
2494	618837.58	4778247.16	193.00	2	D	A	84.7	0.0	-7.8	0.0	0.0	68.3	5.9	-0.6	0.0	0.0	4.4	0.0	2.7	-3.9
2494	618837.58	4778247.16	193.00	2	N	A	84.7	0.0	-7.8	0.0	0.0	68.3	5.9	-0.6	0.0	0.0	4.4	0.0	2.7	-3.9
2494	618837.58	4778247.16	193.00	2	E	A	84.7	0.0	-7.8	0.0	0.0	68.3	5.9	-0.6	0.0	0.0	4.4	0.0	2.7	-3.9

## Point Source, ISO 9613, Name: "Digester Tank Axial Agitator", ID: "I03!S03A"

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(A))						
2501	618825.72	4778208.69	192.98	0	D	A	84.7	0.0	-7.8	0.0	0.0	67.6	5.7	-0.5	0.0	0.0	11.4	0.0	0.0	-7.3
2501	618825.72	4778208.69	192.98	0	N	A	84.7	0.0	-7.8	0.0	0.0	67.6	5.7	-0.5	0.0	0.0	11.4	0.0	0.0	-7.3
2501	618825.72	4778208.69	192.98	0	E	A	84.7	0.0	-7.8	0.0	0.0	67.6	5.7	-0.5	0.0	0.0	11.4	0.0	0.0	-7.3
2507	618825.72	4778208.69	192.98	1	D	A	84.7	0.0	-7.8	0.0	0.0	68.1	5.8	-0.5	0.0	0.0	10.6	0.0	18.8	-25.9
2507	618825.72	4778208.69	192.98	1	N	A	84.7	0.0	-7.8	0.0	0.0	68.1	5.8	-0.5	0.0	0.0	10.6	0.0	18.8	-25.9
2507	618825.72	4778208.69	192.98	1	E	A	84.7	0.0	-7.8	0.0	0.0	68.1	5.8	-0.5	0.0	0.0	10.6	0.0	18.8	-25.9
2513	618825.72	4778208.69	192.98	1	D	A	84.7	0.0	-7.8	0.0	0.0	68.0	5.8	-0.5	0.0	0.0	7.4	0.0	19.0	-22.7
2513	618825.72	4778208.69	192.98	1	N	A	84.7	0.0	-7.8	0.0	0.0	68.0	5.8	-0.5	0.0	0.0	7.4	0.0	19.0	-22.7
2513	618825.72	4778208.69	192.98	1	E	A	84.7	0.0	-7.8	0.0	0.0	68.0	5.8	-0.5	0.0	0.0	7.4	0.0	19.0	-22.7
2520	618825.72	4778208.69	192.98	1	D	A	84.7	0.0	-7.8	0.0	0.0	67.8	5.8	-0.5	0.0	0.0	4.5	0.0	18.5	-19.1
2520	618825.72	4778208.69	192.98	1	N	A	84.7	0.0	-7.8	0.0	0.0	67.8	5.8	-0.5	0.0	0.0	4.5	0.0	18.5	-19.1
2520	618825.72	4778208.69	192.98	1	E	A	84.7	0.0	-7.8	0.0	0.0	67.8	5.8	-0.5	0.0	0.0	4.5	0.0	18.5	-19.1
2526	618825.72	4778208.69	192.98	1	D	A	84.7	0.0	-7.8	0.0	0.0	68.2	5.9	-0.6	0.0	0.0	12.7	0.0	17.0	-26.4
2526	618825.72	4778208.69	192.98	1	N	A	84.7	0.0	-7.8	0.0	0.0	68.2	5.9	-0.6	0.0	0.0	12.7	0.0	17.0	-26.4
2526	618825.72	4778208.69	192.98	1	E	A	84.7	0.0	-7.8	0.0	0.0	68.2	5.9	-0.6	0.0	0.0	12.7	0.0	17.0	-26.4
2533	618825.72	4778208.69	192.98	1	D	A	84.7	0.0	-7.8	0.0	0.0	67.8	5.7	-0.5	0.0	0.0	4.5	0.0	29.0	-29.5
2533	618825.72	4778208.69	192.98	1	N	A	84.7	0.0	-7.8	0.0	0.0	67.8	5.7	-0.5	0.0	0.0	4.5	0.0	29.0	-29.5
2533	618825.72	4778208.69	192.98	1	E	A	84.7	0.0	-7.8	0.0	0.0	67.8	5.7	-0.5	0.0	0.0	4.5	0.0	29.0	-29.5

## vert. Area Source, ISO 9613, Name: "Pump Building Bay Door (Open)", ID: "I03!S17B"

Nr.	X	Y	Z	RefL	DEN	Freq.	Lw	I/a	Optime	K0</

## vert. Area Source, ISO 9613, Name: "Pump Building Bay Door (Open)", ID: "I03IS17A"

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(A))						
2744	618791.89	4778221.56	192.91	1	DEN	A	66.7	6.3	0.0	0.0	0.0	68.3	7.0	-0.2	0.0	0.0	23.9	0.0	25.2	-51.3
2749	618791.89	4778221.56	192.91	1	DEN	A	66.7	6.3	0.0	0.0	0.0	68.4	7.0	-0.2	0.0	0.0	23.9	0.0	18.9	-45.1
2754	618791.89	4778221.56	192.91	1	DEN	A	66.7	6.3	0.0	0.0	0.0	68.1	6.9	-0.2	0.0	0.0	23.9	0.0	06.1	-132.0
2761	618791.89	4778221.56	192.91	1	DEN	A	66.7	6.3	0.0	0.0	0.0	68.3	7.0	-0.2	0.0	0.0	15.5	0.0	1.1	-18.8
2768	618791.89	4778221.56	193.91	0	DEN	A	66.7	6.3	0.0	0.0	0.0	68.1	6.9	-0.1	0.0	0.0	23.3	0.0	0.0	-25.2
2774	618791.89	4778221.56	193.91	1	DEN	A	66.7	6.3	0.0	0.0	0.0	68.3	7.0	-0.2	0.0	0.0	23.7	0.0	25.4	-51.3
2781	618791.89	4778221.56	193.91	1	DEN	A	66.7	6.3	0.0	0.0	0.0	68.4	7.0	-0.2	0.0	0.0	23.8	0.0	19.1	-45.2
2787	618791.89	4778221.56	193.91	1	DEN	A	66.7	6.3	0.0	0.0	0.0	68.1	6.9	-0.2	0.0	0.0	23.7	0.0	06.4	-132.1
2794	618791.89	4778221.56	193.91	1	DEN	A	66.7	6.3	0.0	0.0	0.0	68.3	7.0	-0.2	0.0	0.0	13.5	0.0	1.1	-16.7
2801	618791.89	4778221.56	191.91	0	DEN	A	66.7	6.3	0.0	0.0	0.0	68.1	6.9	0.2	0.0	0.0	23.4	0.0	0.0	-25.6
2807	618791.89	4778221.56	191.91	1	DEN	A	66.7	6.3	0.0	0.0	0.0	68.3	7.0	0.1	0.0	0.0	23.9	0.0	24.8	-51.2
2813	618791.89	4778221.56	191.91	1	DEN	A	66.7	6.3	0.0	0.0	0.0	68.4	7.0	0.1	0.0	0.0	23.9	0.0	18.9	-45.3
2818	618791.89	4778221.56	191.91	1	DEN	A	66.7	6.3	0.0	0.0	0.0	68.1	6.9	0.1	0.0	0.0	23.9	0.0	05.8	-131.9
2825	618791.89	4778221.56	191.91	1	DEN	A	66.7	6.3	0.0	0.0	0.0	68.3	7.0	0.1	0.0	0.0	17.1	0.0	1.1	-20.7
2860	618791.89	4778221.56	191.16	0	DEN	A	66.7	3.3	0.0	0.0	0.0	68.1	6.9	0.5	0.0	0.0	23.3	0.0	0.0	-28.9
2865	618791.89	4778221.56	191.16	1	DEN	A	66.7	3.3	0.0	0.0	0.0	68.3	7.0	0.5	0.0	0.0	23.8	0.0	24.4	-54.1
2871	618791.89	4778221.56	191.16	1	DEN	A	66.7	3.3	0.0	0.0	0.0	68.4	7.0	0.5	0.0	0.0	23.8	0.0	18.9	-48.7
2877	618791.89	4778221.56	191.16	1	DEN	A	66.7	3.3	0.0	0.0	0.0	68.1	6.9	0.5	0.0	0.0	23.8	0.0	05.4	-134.8
2885	618791.89	4778221.56	191.16	1	DEN	A	66.7	3.3	0.0	0.0	0.0	68.3	7.0	0.5	0.0	0.0	18.0	0.0	1.1	-25.1

## vert. Area Source, ISO 9613, Name: "Pump Building Bay Door (Open)", ID: "I03IS18"

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(A))						
2892	618819.74	4778210.71	191.92	0	DEN	A	62.1	6.3	0.0	0.0	0.0	67.7	4.1	1.3	0.0	0.0	19.9	0.0	0.0	-24.7
2898	618819.74	4778210.71	191.92	1	DEN	A	62.1	6.3	0.0	0.0	0.0	68.1	4.2	1.3	0.0	0.0	22.8	0.0	20.0	-48.0
2905	618819.74	4778210.71	191.92	1	DEN	A	62.1	6.3	0.0	0.0	0.0	68.0	4.2	1.3	0.0	0.0	22.8	0.0	27.1	-55.1
2911	618819.74	4778210.71	191.92	1	DEN	A	62.1	6.3	0.0	0.0	0.0	67.8	4.2	1.3	0.0	0.0	22.8	0.0	21.3	-49.0
2918	618819.74	4778210.71	191.92	1	DEN	A	62.1	6.3	0.0	0.0	0.0	68.3	4.3	1.3	0.0	0.0	22.8	0.0	16.7	-44.9
2924	618819.74	4778210.71	191.92	1	DEN	A	62.1	6.3	0.0	0.0	0.0	67.8	4.2	1.3	0.0	0.0	22.8	0.0	43.3	-71.0
2933	618819.74	4778210.71	192.92	0	DEN	A	62.1	6.3	0.0	0.0	0.0	67.7	4.1	0.8	0.0	0.0	19.9	0.0	0.0	-24.3
2940	618819.74	4778210.71	192.92	1	DEN	A	62.1	6.3	0.0	0.0	0.0	68.1	4.2	0.8	0.0	0.0	23.0	0.0	20.0	-47.7
2946	618819.74	4778210.71	192.92	1	DEN	A	62.1	6.3	0.0	0.0	0.0	68.0	4.2	0.8	0.0	0.0	23.0	0.0	27.5	-55.2
2952	618819.74	4778210.71	192.92	1	DEN	A	62.1	6.3	0.0	0.0	0.0	67.8	4.2	0.8	0.0	0.0	23.0	0.0	21.3	-48.8
2957	618819.74	4778210.71	192.92	1	DEN	A	62.1	6.3	0.0	0.0	0.0	68.3	4.3	0.8	0.0	0.0	23.0	0.0	16.8	-44.7
2962	618819.74	4778210.71	192.92	1	DEN	A	62.1	6.3	0.0	0.0	0.0	67.8	4.2	0.8	0.0	0.0	23.0	0.0	43.7	-71.1
2971	618819.74	4778210.71	193.92	0	DEN	A	62.1	6.3	0.0	0.0	0.0	67.7	4.1	0.8	0.0	0.0	19.7	0.0	0.0	-24.0
2977	618819.74	4778210.71	193.92	1	DEN	A	62.1	6.3	0.0	0.0	0.0	68.1	4.2	0.8	0.0	0.0	22.8	0.0	20.3	-47.8
2984	618819.74	4778210.71	193.92	1	DEN	A	62.1	6.3	0.0	0.0	0.0	68.0	4.2	0.8	0.0	0.0	22.7	0.0	27.9	-55.3
2990	618819.74	4778210.71	193.92	1	DEN	A	62.1	6.3	0.0	0.0	0.0									

## vert. Area Source, ISO 9613, Name: "Skimmer Building Bay Door (Open)", ID: "I03!S19"

Nr.	X (m)	Y (m)	Z (m)	Refl.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime (dB)	K0 (dB)	Di (dB)	Adiv (dB)	Aatm (dB)	Agr (dB)	Afol (dB)	Ahous (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
3089	618840.14	4778191.09	191.38	1	DEN	A	62.9	4.8	0.0	0.0	0.0	68.4	3.8	1.0	0.0	0.0	23.4	0.0	16.0	-44.9
3095	618840.14	4778191.09	191.38	1	DEN	A	62.9	4.8	0.0	0.0	0.0	67.7	3.6	1.0	0.0	0.0	4.1	0.0	18.5	-27.3
3103	618840.14	4778191.09	193.38	0	DEN	A	62.9	4.8	0.0	0.0	0.0	67.4	3.6	0.2	0.0	0.0	3.8	0.0	0.0	-7.4
3110	618840.14	4778191.09	193.38	1	DEN	A	62.9	4.8	0.0	0.0	0.0	68.1	3.8	0.1	0.0	0.0	23.6	0.0	16.7	-44.8
3116	618840.14	4778191.09	193.38	1	DEN	A	62.9	4.8	0.0	0.0	0.0	68.0	3.7	0.2	0.0	0.0	23.6	0.0	19.0	-46.7
3122	618840.14	4778191.09	193.38	1	DEN	A	62.9	4.8	0.0	0.0	0.0	67.7	3.6	0.2	0.0	0.0	12.0	0.0	19.5	-35.4
3129	618840.14	4778191.09	193.38	1	DEN	A	62.9	4.8	0.0	0.0	0.0	67.4	3.6	0.2	0.0	0.0	4.0	0.0	11.5	-119.1
3136	618840.14	4778191.09	193.38	1	DEN	A	62.9	4.8	0.0	0.0	0.0	68.4	3.8	0.1	0.0	0.0	23.6	0.0	16.1	-44.4
3142	618840.14	4778191.09	193.38	1	DEN	A	62.9	4.8	0.0	0.0	0.0	67.7	3.6	0.2	0.0	0.0	4.0	0.0	18.7	-26.5
3150	618840.14	4778191.09	194.38	0	DEN	A	62.9	4.8	0.0	0.0	0.0	67.4	3.6	0.3	0.0	0.0	3.8	0.0	0.0	-7.4
3157	618840.14	4778191.09	194.38	1	DEN	A	62.9	4.8	0.0	0.0	0.0	68.1	3.8	0.2	0.0	0.0	23.5	0.0	16.9	-44.8
3164	618840.14	4778191.09	194.38	1	DEN	A	62.9	4.8	0.0	0.0	0.0	68.0	3.7	0.2	0.0	0.0	23.4	0.0	19.2	-46.8
3171	618840.14	4778191.09	194.38	1	DEN	A	62.9	4.8	0.0	0.0	0.0	67.7	3.6	0.3	0.0	0.0	10.4	0.0	19.3	-33.7
3178	618840.14	4778191.09	194.38	1	DEN	A	62.9	4.8	0.0	0.0	0.0	67.4	3.6	0.3	0.0	0.0	4.0	0.0	11.2	-118.8
3185	618840.14	4778191.09	194.38	1	DEN	A	62.9	4.8	0.0	0.0	0.0	68.4	3.8	0.2	0.0	0.0	23.5	0.0	16.2	-44.5
3192	618840.14	4778191.09	194.38	1	DEN	A	62.9	4.8	0.0	0.0	0.0	67.7	3.6	0.3	0.0	0.0	4.0	0.0	18.7	-26.6



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# **Appendix D**

## **Change Log**



# **Appendix E**

## **Financial Assurance**

# Technical Memorandum

November 10, 2023

To	Sam Huang, Escarpment Renewables	Tel	519-884-0510
From	Jason Wilson	Ref. No.	11226032
Subject	Financial Assurance Estimate - Grimsby Escarpment Renewables Anaerobic Digestion Facility		

## 1. Introduction

Financial Assurance (FA) for the Escarpments Renewables (Escarpmemt) Anaerobic Digestion (AD) Facility located at 424 Sobe Road, Grimsby Ontario (Site) has been calculated herein in accordance with Guideline F-15 (FA Guideline). Specifically, Section 6.5.5 Private Transfer Stations and Private Waste Processing Sites has been used to develop the required FA presented herein.

## 2. Financial Assurance Calculation

In accordance with the FA Guideline, total FA for a waste processing Site where the planning period is less than four years and there is no known future date for closure, cleanup or remediation is considered to be:

- The cost to remove and properly dispose of all material at licensed disposal facilities
- The cost of remediation, such as construction of a security fence if the site is abandoned
- Contingency costs 10 to 15 percent of the sum of costs for material disposal
- Project management fees 10% of the sum of costs for material disposal
- 13% GST on the cost for material disposal

The Site currently operates an AD facility, which is permitted to received 23,000 tonnes of source separated organics (SSO) and Industrial, Commercial and Institutional (ICI) organic materials per year. The AD facility will be expanded to received 159,000 tonnes per year.

The maximum amount of waste that will be stored on the Site following the AD facility expansion is shown in Table 2.1.

Table 2.1      Waste Storage Quantities

Storage Area	Quantity (m <sup>3</sup> )	Quantity (Tonnes)
<b>Solid Waste</b>		
Tip Floor	1,875	1,220
Residual Waste Trailers	95	76
Grit/Skimmings 1	5	4
Grit/Skimmings 2	9	7

Storage Area	Quantity (m <sup>3</sup> )	Quantity (Tonnes)
Grit/Skimmings 3	9	7
Waste Activated Carbon	6	12
<b>TOTAL</b>	<b>1,999</b>	<b>1326</b>
<b>Liquid Waste</b>		
Existing Receiving Tank 1	493	493
Existing Receiving Tank 2	493	493
Existing Receiving Tank 3	493	493
Existing Digester 1	2,166	2,166
Existing Digester 2	2,166	2,166
New Digester 1	3,435	3,435
New Digester 2	3,435	3,435
New Digester 3	3,435	3,435
New Digester 4	3,435	3,435
<b>TOTAL</b>	<b>19,551</b>	<b>19,551</b>
<b>Digestate</b>		
Existing Digestate Storage Tank 1	4,029	4,029
Existing Digestate Storage Tank 2	4,029	4,029
Digestate Storage Tank 3	8,000	8,000
Digestate Storage Tank 4	8,000	8,000
<b>TOTAL</b>	<b>24,058</b>	<b>24,058</b>

The loading, transportation, and disposal costs are provided in Table 2.2, below.

Table 2.2 Unit Costs

Material Type	Loading and Disposal Cost (\$/tonne)	Transportation Cost (\$/tonne)	Total (\$/tonne)
Solid Waste – Tip Floor	\$56	\$10.20	\$66.20
Solid Waste – Residual, Grit and Skimmings	\$100.00	\$12.28	\$112.28
Liquid Waste	\$10.00	\$14.20	\$24.20
Digestate	\$3.75	\$2.90	\$6.65

The costs for transportation and disposal in Table 2.2 are based on quotes provided in Attachment A. For the purpose of the calculation, the following is noted:

- Transportation costs per tonne for Liquid Waste and Solid Waste were calculated by first determining the number of trips required based on the information provided by Stormfisher and Advantage Waste Systems. Secondly the number of tonnes per trip was determined (~35 m<sup>3</sup> and 15 m<sup>3</sup> respectively) and finally the cost per tonne for transportation was determined.
- Solid Waste from the tip floor would require a front-end loader to load trucks for transport. The Ontario Provincial Standard Specification (OPSS) 127 rate for a 40kW front-end loader with a 1.5 m<sup>3</sup> bucket is \$48.25/hr. Including a labour rate of \$85/hr. for an operator and assuming the equipment can load the material in a 10-hour day, results in a loading cost of \$0.94/tonne.

## 2.1 Waste Management Costs

The resulting total cost to load, haul, and dispose of waste materials at the Site following the expansion is presented in Table 2.3.

Table 2.3 Total Waste Management Costs

Material Type	Quantity (tonnes)	Unit Cost (\$/tonne)	Total Cost (\$)
Solid Waste – Tip Floor	1,220	\$66.20	\$80,764.00
Solid Waste – Residual, Grit and Skimmings	106	\$112.28	\$11,901.68
Liquid Waste	19,551	\$24.20	\$473,134.20
Digestate	24,058	\$8.65	\$159,985.70
Project Management Fee (10%)			\$72,578.56
GST (13%)			\$94,352.13
<b>TOTAL</b>			<b>\$892,716.27</b>

The Site is equipped with a security fence. If operations are shut down, the stormwater ponds remain in operating conditions and there are no active sources of emissions. Therefore, there are no remediation costs associated with sudden closure of the Site.

The resulting FA estimate for the AD facility expansion is therefore \$892,716.27

Regards



**Jason Wilson**  
B.ENG, OLY

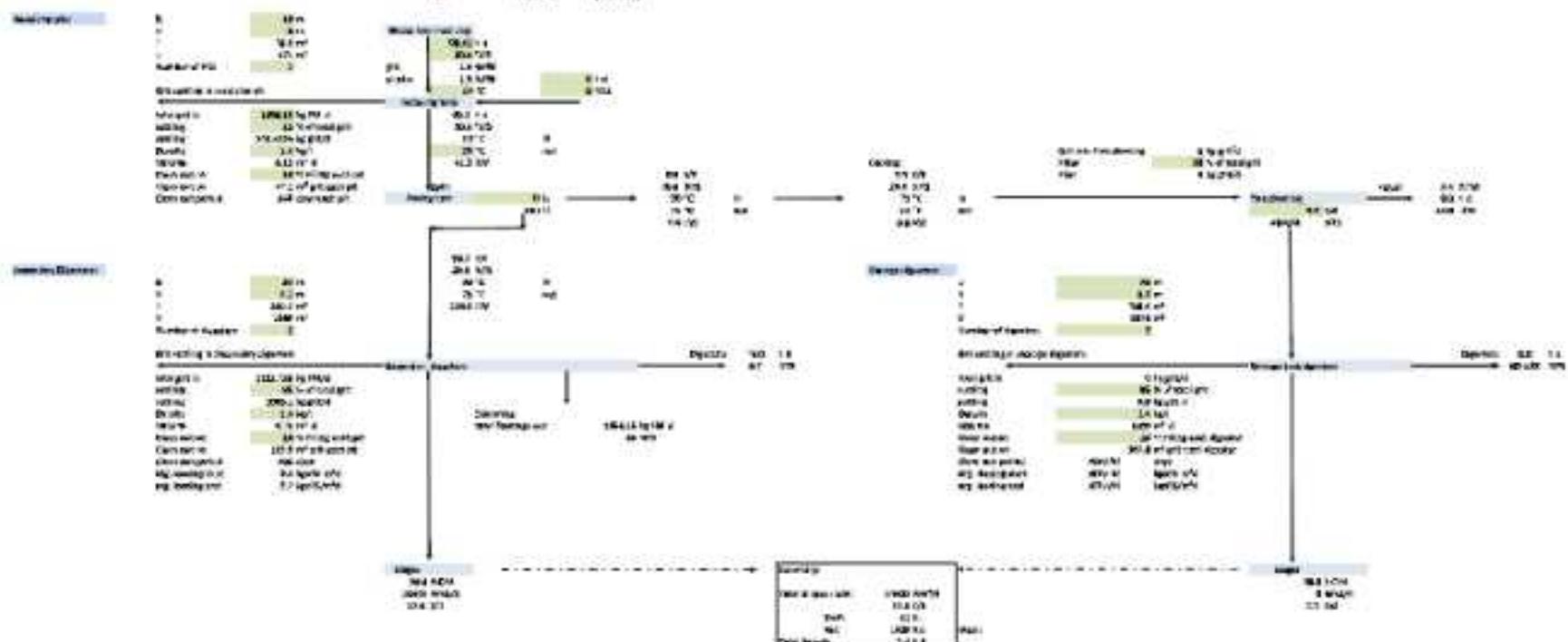
# **Appendix F**

## **Fitec Mass Balance**

## Mass Extinction Extentiveness:

[green] [blue]

Event Category	Max	Median	Min	Mean	N	SD	SE	95% CI
Extinction	2000	1000	0	1000	1000	1000	1000	1000 - 2000
Extinction Rate	0.0001	0.0001	0	0.0001	1000	0.0001	0.0001	0.0001 - 0.0001
Extinction Type	1000	1000	0	1000	1000	1000	1000	1000 - 1000
Extinction Level	1000	1000	0	1000	1000	1000	1000	1000 - 1000
Extinction Duration	1000	1000	0	1000	1000	1000	1000	1000 - 1000
Total Extinction Events	1000	1000	0	1000	1000	1000	1000	1000 - 1000



# **Appendix G**

## **Emergency Response Plan & Fire Safety Plan**



# EMERGENCY PREPAREDNESS & RESPONSE PLAN

POLICY NUMBER:  
PRO-SAF-006 Rev. 3

## SAFETY POLICIES AND PROCEDURES DISTRIBUTION: All Locations

PAGES: 16  
REVISION DATE:  
January 1, 2021

### LOCATION SPECIFIC INFORMATION

**METHOD OF COMMUNICATION:** Alarm Activated by Air Horn, Detection Systems, Radio, Voice

<b>Division:</b>	Escarpmont Renewables	<b>Manager on Site:</b>	James Thomson
<b>Site:</b>	Grimsby	<b>Address:</b>	424 Sobie Road Grimsby, Ontario
<b>Emergency Meeting Location:</b>	Outside Main Exit Gate		
<b>Incident Coordinator:</b>	James Thomson	<b>Contact Number:</b>	289-455-1115
<b>Secondary Incident Coordinator:</b>	Kyle Howes	<b>Contact Number:</b>	905-208-2492
<b>First Aiders on Site:</b>	Kyle Howes, James Thomson, Travis Terpstra		
<b>Nearest Hospital:</b>	West Lincoln Memorial Hospital – 169 Main Street 905-945-2253		
<b>Plan Created By:</b>	Jody Preston		<b>Date:</b> January 2020
<b>Plan Approved by the Following Personnel:</b>	Kyle Howes		
	Bill O'Meara		
	N/A		

### LOCATION OF EMERGENCY EQUIPMENT

<b>First Aid Kits:</b>	Office Area
<b>Fire Extinguishers:</b>	Various Areas Throughout the Facility – See Fire Safety Site Plan
<b>Eye Wash Stations:</b>	Office Area
<b>Spill Kits:</b>	Maintenance Area
<b>Specialized PPE (specify):</b>	4 Gas Detectors
<b>Emergency Phones/Radios:</b>	Land Lines in Office, All Workers have Smart Phones or Radios

Emergency Response Plan		
	Name of Individual:	Responsibility:
1	James Thomson	Incident Coordinator
2	James Thomson	Personnel who will contact the necessary emergency services and MOL, MOE etc.
	Kyle Howes	<i>Alternate if the above individual is unavailable.</i>
3	James Thomson	Personnel who will provide first aid treatment
	Kyle Howes, Travis Terpstra	<i>Alternate if the above individual is unavailable</i>
4	James Thomson	Personnel who will ensure that the injured worker is provided with adequate transportation to the hospital
	Kyle Howes	<i>Alternate if the above individual is unavailable</i>
5	James Thomson	Personnel who will meet and direct emergency service vehicles to the scene
	Kyle Howes, Travis Terpstra	<i>Alternate if the above individual is unavailable</i>
6	As assigned	Personnel who will provide emergency traffic control (if required)
	As assigned	<i>Alternate if the above individual is unavailable</i>
7	Bill O'Meara	Personnel who will contact MOL, MOE, or other government agencies (if required)
	Jody Preston	<i>Alternate if the above individual is unavailable</i>
8	James Thomson	Personnel who will document where the injured worker has been taken
	Kyle Howes	<i>Alternate if the above individual is unavailable</i>
9	Kyle Howes	Personnel who will supervise the site in the event that the supervisor has left to transport the injured worker to the hospital
	Travis Terpstra	<i>Competent worker who will fill in as supervisor if the above supervisor is unavailable</i>

## Purpose

To provide planning for the identification of potential for incidents and emergency situations as well as the mitigation of the environmental impacts that may be involved with incidents and emergency situations.

## Scope

This program applies to all divisions of Escarpment Renewables. Each workplace will have an individual emergency preparedness and response plan created specific to the location. All affected workers should be familiar with the plan and the procedures involved in dealing with various emergencies.

## Application

All emergency preparedness and response situations pertaining to this location's specific plan will be reviewed and implemented (e.g. information specific to communications systems, trained first aiders, fire response, evacuation plans, etc.). This document will be adjusted in coordination between the operations team and a health and safety representative if required. The location specific plan should be posted on the health and safety board in the workplace.

## **Roles and Responsibilities**

Managers, Supervisors and the Health and Safety Department are responsible for developing workplace and job site emergency plans in the event of an incident or a rescue is required.

Managers, Supervisors and Health & Safety Personnel must be notified of any incident as per the Incident Reporting Procedure PRO-SAF-001.

The **Incident Coordinator** is the person that serves as the main contact for the company in the case of an emergency. The Incident Coordinator is responsible for making decisions and following the steps described in this emergency response plan. The event of an emergency occurring within or affecting the worksite, the primary contact will serve as the Incident Coordinator. If the primary contact is unable to fulfill the Incident Coordinator duties, the secondary contact will take on this role. If needed, Senior Manager on site can also appoint or assume an Incident Coordinator role.

Managers and Supervisors must maintain a current set of Company personnel telephone numbers as well as contact telephone numbers to obtain equipment, material or expertise needed in the event of an emergency.

Managers and Supervisors are responsible for ensuring that Emergency Contact numbers are posted in conspicuous locations available to all staff and employees; generally these numbers are posted on the Safety Board. Workers must be trained as to the location of Emergency Contact numbers.

Managers and Supervisors must ensure adequate personnel are trained in first aid and CPR. Certificates shall be posted on the Safety Board. It is recommended that all supervisors receive training in First Aid and CPR.

Supervisors are responsible to ensure all workers (including temporary workers and sub-contractors) are aware of the basic emergency response procedures and who to contact in case of injury, illness or an accident

All employees must know the directions to the nearest hospital and the location of fire extinguishers, first aid kits and the emergency meeting location in the event of an evacuation.

Evacuation drills must be carried out at a minimum of once per year. In the case of workplaces that operate 24 hours or multiple shifts, evacuation drills should be held for each work shift. The Emergency Drill Report should be used to document all drills and evaualtions ensuring effectiveness and corrective action when required.

## **Planning and Awareness**

Before an emergency happens the following items must be included as part of the planning in order to effectively deal with potential problems.

- Have all hazards been analyzed?
- Are the right people assigned to the various tasks?
- Do we know the location and/or route to the nearest hospital?
- Are communication devices effective?
- Do fire, police and emergency medical services respond to 911 or do we use another telephone number?
- Do employees know the workplace address in case they are the person who must call for help?
- Who will be the competent person in charge if the Supervisor is not available or must leave the job?
- Who are the workers trained in first aid and CPR?
- Are there any workers knowledgeable in the use of rescue techniques (i.e. – suspended worker, worker trapped in a Confined Space)?
- Is there equipment available to affect a rescue?
- Are all employees aware of the Incident Reporting Procedure?

The plan must be communicated to all employees and posted on the Safety Board. In the case of Working at Height, Confined Space Entry and other high risk tasks, no worker shall participate or be asked to perform these tasks without training and certification from the Health and Safety Department.

## Procedure

The Incident Coordinator and delegates will have the overall administrative responsibility for any serious accident or emergency situation. Supervisors and operations personnel will usually be the first people to respond.

<b>The following are potential emergencies:</b>	<b>Page # in this Document</b>
Select the Potential Emergencies that apply to the specific site or location (review the emergency procedures and plans that apply to all workers)	
1. Building Evacuation	4
2. First Aid/Medical Aid/Critical Injury & 911 Procedures	5
3. Fire and/or Explosion	5
4. Severe Weather	6
5. Hazardous Material Spills	7
6. Transportation or Material Handling Incident	8
7. Violence in the Workplace	8
8. Bomb Threats	8
9. Utilities Outages	8
10. Unexpected Disaster, Event or Public Emergency	9
11. Animal Risks to Life or Health	9
12. Motor Vehicle Collision	9
13. Property Damage	9
14. Power Line Contact	10
15. Fall from Height	10
16. Confined/Restricted Spaces	11
17. Water Emergency & Rescue	11

### 1. Building Evacuation

All Offices, Facilities, Shops, etc. will have a posted copy of the building floor plan that will include (among other things) the location of emergency exits, fire extinguishers and the Emergency Meeting Area

All Employees Shall:

- Know the way out from their work area
- Know the location of the nearest fire extinguisher(s)
- Know the location of the Emergency Meeting Area
- Report to the supervisor in charge of the meeting area and ensure you are accounted for
- Do not return to your work area unless specifically told to do so when the area is safe and is given the all clear by Emergency Response Personnel and/or in Incident Coordinator or Supervisor
- Know and understand what areas of the building need to be evacuated and at what times.

The Incident Coordinator or Supervisor in charge of the meeting area will:

- Post and ensure employees are aware of the location of the building floor plan (See Fire Safety Site Plan sample at end of this document)
- Perform a head count to ensure all personnel are accounted for. When required, an attendance sheet, sign-in sheet, visitor log, etc. can be used
- Give permission to return to work area when safe to do so

## **2. First Aid/Medical Aid/Critical Injury & 911 Procedures**

If the person is conscious:

- Report injury to supervisor, notify if a first aider and/or 911 is required
- Supervisor and/or first aider to assess the level of injury. Supervisor will contact 911 if required
- If trained, perform first aid and reassess

If the person is unconscious:

- Report to supervisor, supervisor will call 911 for assistance
- Assess injury and provide first aid and/or CPR until Emergency Personnel arrive
- Provide Emergency Personnel with details relating to nature or cause of the worker losing consciousness

When calling 911, be prepared to provide the 911 Operator the following information:

- Nature of the call (i.e. – injury, fire, motor vehicle collision)
- Incident address and (if necessary) specific area of building
- Your name
- Telephone number where you can be reached in case of disconnection

When the Emergency Personnel Arrive:

- A responsible person should be assigned to guide arriving Emergency Personnel to the incident area
- A facility floor plan complete with drawings and / or descriptions of the building fire emergency fire systems, electrical panels and hazardous material should be available to fire department personnel

All First Aid/Medical Aid/Critical Injuries shall be documented and investigated according to Incident Reporting Procedure PRO-SAF-001

In the event of a Critical Injury, contact the Environmental, Health and Safety Manager who will contact all necessary government agencies.

## **3. Fire and/or Explosion Emergency**

If you discover a fire:

- Notify supervisor of the emergency as soon as safe to do so and leave the fire and/or explosion area
  - If in a building, close all doors behind you
  - Notify other affected personnel by activating the building fire alarm which may be a pull station, air horn, fire whistle, radio or paging system
  - Evacuate the area using the closest safe exit route and gather at designated meeting area

Supervisor to ensure the Fire Department has been called – Dial 911 (see Section 2 for more information)

If you hear the fire alarm/emergency notification:

- Leave the building using the closest safe exit – this includes Rolling Equipment and Operators
- Before opening any doors test the door and knob for heat
- If door or handle is hot **DO NOT OPEN** – move to a second exit; if handle and door are cool open door slightly and check for fire and smoke before proceeding

**\*Fight the fire ONLY if you have been trained and are confident that it may be controlled with the firefighting equipment available\***

For Vehicle Fire Response, see MWSI Waste Vehicle Fires Safe Job Procedure (SJP-SAF-017) for more information. If a fire is discovered inside a truck box or load, notify your supervisor and attempt to extinguish the fire using load-packing techniques. If this is not possible or ineffective, move the vehicle to a safe area and eject the load, move the vehicle away from the material and assist in traffic management (if required) until Emergency Services arrives.

#### **4. Severe Weather Emergency**

##### **If a severe thunderstorm/lightning/windstorm is imminent: Facilities**

Note: Mobile trailers offer little protection, even if secured or anchored down. In the event of a severe weather warning, leave these for a sturdy shelter or a permanent building before the storm approaches.

- Close all building doors
- Tune a radio to a local news/weather advisory channel
- Anyone working outside should move inside and stay inside (lightning & flying debris hazards)
- Move away from exterior walls and windows
- Site manager or supervisor is to account for whereabouts of all personnel

##### **If a severe thunderstorm/lightning/windstorm is imminent: Driving**

- Tune a radio to a local news/weather advisory channel
- Turn on your headlights (low beams) and slow down
- Do not drive unless necessary
- Pull safely onto the shoulder of the road away from any trees that could fall on the vehicle
- Stay in the vehicle and turn on the emergency flashers until the heavy rains and/or winds subside
- An automobile provides better insulation against lightning than being in an open area
- Avoid contact with any metal conducting surfaces either inside your car or in an outside open area
- Avoid flooded roadways, ditches and waterways
- Avoid downed power lines
- Check your windshield wipers and tires regularly to insure that they are ready for severe weather
- Approach intersections with caution
- Treat flashing or dark traffic lights at intersections as a four way stop

##### **If a tornado is imminent: Facilities**

Note: Mobile trailers offer little protection, even if secured or anchored down. In the event of a severe weather warning, leave these for a sturdy shelter or a permanent building before the storm approaches.

- Close all building doors
- Tune a radio to a local news/weather advisory channel
- Anyone working outside should move inside and remain until the warning is lifted
- Go to an inside location on the ground floor where you are away from exterior walls and windows and in a strong part of the building (inside rooms with cinder block walls offer the best protection)
- Avoid areas with wide span roofs (i.e. – tip floors, maintenance shops, etc.)
- Get under cover (a piece of furniture such as an office desk or table)
- Use arms to protect head and neck
- Site manager or supervisor is to account for whereabouts of all personnel

##### **If a tornado is imminent: Outside - unable to get to shelter**

- Lie flat in the nearest depression, ditch or ravine if there is no time to escape
- Avoid areas with trees and power lines, protect your head with your arms
- Move away from the path of the tornado at a right angle direction
- Stay out of the water

##### **If a tornado is imminent: Driving**

Do not drive during tornado conditions

- Never try to out-drive a tornado in a vehicle. Tornadoes can change direction quickly and can lift a car or truck and toss it through the air
- Get out of your vehicle immediately and seek shelter in a nearby building
- If there is no time to get indoors, or if there is no nearby shelter, get out of the car and lie in a ditch or low lying area away from the vehicle. Stay away from trees and power lines, protect your head with your arms

## **Earthquake: Facilities**

Generally, there is no warning for earthquakes. Depending on your location the best option is to remain where you are, lay flat on the ground and/or take shelter under the nearest available protection (i.e. – office desk or table). Stay away from windows, glass, outside doors & walls and anything that could tip over or fall. If outside during an earthquake seek an open area away from buildings, trees or power lines.

Earthquakes usually last anywhere from a few seconds to a few minutes and can often be followed by aftershocks that can be as severe as the initial shock - be prepared

- Tune a radio to a local news/weather advisory channel
- Stay where you are. Research has shown that many injuries occur when people attempt to enter or exit buildings or attempt to move to other areas
- Be aware that alarm systems and sprinklers could be triggered during an earthquake. Only attempt an emergency evacuation if directly told to do so by emergency personnel

## **Earthquake: Driving**

Depending on the severity of the earthquake, you may not even notice if one occurs. However, in the event you do experience an earthquake while driving

- Stop as quickly and safely as possible and remain in the vehicle. Avoid stopping near buildings, trees and power lines
- Tune the radio to a local news/weather advisory channel
- Proceed with caution once the earthquake has stopped, pay attention to any signs of aftershocks. Avoid bridges, overpasses, ramps or roads that may have been damaged by the quake

## **5. Hazardous Materials Spills Emergency**

Hazardous spills (leaks) of propane or a natural gas line rupture:

- If a leak is severe, evacuate the building using evacuation procedure and contact authorities
- If leak is minor, such as a lift truck or cutting torch propane tank, move the tank outside a minimum of 10 metres from the building
- MWSI Environmental, Health and Safety Manager will contact proper authorities as outlined in Emergency Contact Numbers

Hazardous spills of low or non-flammable liquids, lubricants/oils, etc.:

- Turn off PTO pump and/or shut down equipment (see MWSI Vehicle Environmental Spill Control Safe Job Procedure – SJP-SAF-018 for more information)
- If the spill is minor (i.e. – no impact to environment and handled "in-house") contain the spill using suitable spill kit or absorbent – notify supervisor who will report details of the spill to the MWSI Environmental, Health and Safety Manager
- If the spill is major (i.e. – negative impact to the environment and/or requires a spill clean-up company) notify supervisor who will report details of the spill to the MWSI Environmental, Health and Safety Manager. Attempt to contain the spill and/or evacuate the area if required
- MWSI Environmental, Health and Safety Manager will contact proper authorities as outlined in Emergency Contact Numbers

Hazardous spill of flammable liquids, gasoline or diesel fuel:

- Turn off pump immediately using the emergency stop
- Remove all ignition sources
- Wear appropriate PPE before entering spill area
- See above for Minor and Major Spill Response Procedures
- Secure the area and call supervisor immediately
- MWSI Environmental, Health and Safety Manager will contact proper authorities as outlined in Emergency Contact Numbers

## **6. Transportation or Material Handling Incident / Emergency**

In the event of a Motor Vehicle Collision involving one of our vehicles out on the road, supervisors and operators (CSR's) shall follow the Incident Reporting Procedure (PRO-SAF-001) and/or the MWSI – Motor Vehicle Incident Safe Job Procedure (SJP-SAF-015) - see Section 12 for more information.

In the event of an incident involving a material or waste spill, damage to property or equipment (this includes all mobile equipment, vehicles, processing equipment, conveyors, etc. – See Section 13 for more information)

- Assess the level of emergency and secure the area – notify supervisor as soon as possible
- Contain any fluids that may be hazardous to people or the environment – See Section 5 (above) for more information regarding spill response and containment
- If personnel are injured contact first aider on site and arrange for emergency medical assistance if required
- Complete the Incident Report Form

## **7. Violence in the Work Place Emergency**

Escarment Renewables has a comprehensive Policy and Procedures regarding Prevention of Violence and Harassment in the Workplace (POL-SAF-002) and What to do in Cases of Violence and Harassment (POL-SAF-005)

The potential for violence in the workplace may be indicated by warning signs such as – poor impulse control, disrespectful behaviour, making intimidating comments or threats, alluding to violence toward others, hostile attitude/blaming others for life's problems, belief they are being treated unjustly or unfairly, history of difficulty accepting others person authority, history of previous violence/substance abuse or mental health problems.

If you find yourself in a violent or a possible violent situation:

- Summon immediate assistance - contact your supervisor, the nearest person or call 911 if you feel your personal safety is being threatened
- Attempt to control the situation but do not endanger yourself, maintain personal space (arm's length)
- Talk calmly, be a good listener and use empathy
- If the situation continues to escalate, attempt to leave the area or ask the other person to leave
- After the situation is controlled notify Human Resources and cooperate in the investigation of the incident

## **8. Bomb Threat Emergency**

Bomb threats are not to be taken lightly. Persons responsible for such threats can be prosecuted. Angry or discontented customers or employees may make bomb threats. Procedures for bomb threats are as follows:

- Stay calm - do not alarm others. Immediately notify your supervisor who will report the threat
- Supervisor will contact 911 for instructions
- Decision to evacuate areas or buildings will be made by a Senior Manager with guidance from police
- Take a personal list with you if the building is evacuated and ensure all workers are accounted for

## **9. Utilities Outages**

This may be an outage of electrical power, natural gas, propane gas or water.

- Contact supervisor – report to the area Maintenance Manager or most senior manager onsite
- If an electrical outage, stay in a safe location and await instructions – this may include evacuation
- If the office area temperature drops below 18 degrees Celsius in the event of a power outage Management will advise the steps to be taken by all employees
- If the area is without the normal use of water or washroom facilities the management team at the location will advise the steps to be taken by all employees

## **10. Unexpected Disaster, Event or Public Emergency**

Provincial Emergency Management Organizations deal with public safety in the event of a major emergency:

- Communication of such events will be widely reported using media channels (television, radio, news apps), texts, email and social media feeds (Twitter, Facebook)
- If you are in close proximity to such events, follow the advice and direction of Emergency Services
- Events may be classified as Public Warnings, Advisories, Critical or Red Alerts

Some situations in which a Public Emergency Alert may be issued include:

- Large Fire or Explosion
- Chemical Leak or Spill
- Nuclear Emergency
- Major Transportation Incident - train derailment, road closures in the event of a severe traffic incident
- Terrorist Attack

## **11. Animal Risks to Life or Health**

This may include risks from wild animals or domesticated animals in rural and urban work locations. Controls shall be put in place and identified to all workers who may be exposed to the dangers of animal attacks.

## **12. Motor Vehicle Collision**

All Escarpment Renewables drivers shall be trained regarding procedures to follow in case of a motor vehicle collision. This includes the Incident Reporting Procedure (PRO-SAF-001) and the Motor Vehicle Incident Safe Job Procedure (SJP-SAF-015). Personnel may also be equipped with an Emergency Response Card for **What To Do After an Incident/Motor Vehicle Collision** which shall include emergency procedures and contact numbers in case of an motor vehicle incident.

Immediate procedures to follow if you are involved in an incident or motor vehicle collision:

1. Assess the situation
2. Contact emergency services (call 911) if necessary
3. Notify your supervisor immediately
4. Secure the area
5. Do not admit fault
6. Do not speak to the media
7. Complete an Incident Report Form

## **13. Property Damage**

All cases of property damage must be reported immediately. This could include damage to any property, roadway, sidewalk, sign, grass, tree or other vegetation, building, fence, waste container, etc.

Upon discovery of any property damage:

- Contact your supervisor and advise of the damage
- Assess the area for potential risks to yourself, co-workers and/or the public (i.e. – damaged equipment that is unsafe to operate, broken tree branch that could fall, damaged sidewalk creating a trip hazard, etc.) remain in the area until the hazard can be effectively controlled
- Take photos of the scene
- Complete Incident Report Form

Property damage could be related to another emergency (i.e. – Motor Vehicle Collision); all damage shall be reported to your Supervisor immediately and documented as part of the Investigation Report(s).

## 14. Power Line Contact

No object shall be brought closer to an energized electrical conductor with a nominal phase to phase voltage rating set out in Column 1 of the table below; the minimum approach distance is set out in Column 2.

Nominal Phase-to-Phase Voltage Rating	Minimum Distance
750-150,000 volts	3.0 metres
More than 150,000 to 250,000 volts	4.5 metres
More than 250,000 volts and over	6.0 metres

- Do not stockpile, load or unload material near power lines
- Assume all power lines are energized – if the voltage is unknown, stay 6 metres away
- In the case of sites with power lines in working areas, an Overhead Power Line Protection Check List shall be completed, reviewed with crew and kept onsite
- Ensure all warning signs are posted and legible

### In Case of Contact

- If contact has been made with equipment, operator must stay in equipment and await instruction by proper authority
- Inform supervisor of the power line contact – supervisor will notify authorities
- Never touch equipment and ground at the same time
- Follow instructions of all emergency personnel – all other personnel must stay at least 10 metres (30+ feet) away from the vehicle until the power has been shut off

## EMERGENCY EXIT FROM VEHICLE IN CONTACT WITH LIVE POWER LINE

In the event that personal safety is in jeopardy and you must exit the vehicle before power can be shut off, workers shall:

- **DO NOT PANIC** – open the door of the vehicle, remain in the seat and swing your legs out of the cab without touching the ground or any metal parts of the vehicle
- Jump from the cab of the vehicle ensuring **BOTH** feet touch the ground at the same time – **DO NOT TOUCH THE VEHICLE UNDER ANY CIRCUMSTANCE**
- Begin to move away from the vehicle by either shuffling your feet (**DO NOT WALK OR RUN**) or by hopping (both feet leaving the ground and touching back down at the same time). Continue to move away from the vehicle until you are a minimum of 10 metres (30+ feet) away

## 15. Falls From Height

Company Policy states that "No worker shall expose themselves to a fall from height greater than three meters or more without providing effective Fall Protection which includes; Guardrail Protection, Travel Restraint or Fall Restriction. Under no circumstance shall a person work in situation where Fall Arrest is the only form of protection available. This shall be considered dangerous work."

There are other examples when Fall Protection is required. See MWSI Fall Protection Guidelines (SWP-SAF-248) for more information.

In the case where the policy, training and/or safe job procedures are not followed and a worker experiences a fall, the following steps shall be taken in order to perform an emergency rescue related to a fall from height.

- Notify immediate Supervisor that a fall has happened – Supervisor will notify the Environmental, Health and Safety Manager (Fall Arrest Rescue Coordinator) for further instructions
- In all cases of a worker falling and being suspended 911 must be called
- Supervisor shall appoint a worker to guide Emergency Services Personnel to the location of the fallen worker

- Assess the scene and ensure that there are no other hazards that will further injure the fallen worker or another worker if a rescue is required
- If possible, place a ladder, rolling stairs or an Aerial Work Platform under the individual to support the weight of the fallen worker; this will remove stress from the lower limbs being restricted
- If the worker is conscious and does not require immediate first aid then place the equipment under the worker and allow them to egress safely to the ground
- Any worker that has suffered a fall from height must see professional medical personnel; once 911 has been called wait for help to arrive and keep the worker calm. At a minimum, when the worker is on the ground have them sit with their back supported and their legs stretched out in front of them for at least 30 minutes – do not allow the worker to either walk around or lay flat. First Aid should be rendered by qualified personnel only
- When possible, secure the scene; no access should be allowed other than Emergency Services, Company Accident Investigators and respective government officials (i.e. – the MOL)
- Notify Health and Safety Representatives, Joint Health and Safety Committee Members and applicable Safety Department personnel

If the worker is **UNCONSCIOUS** call 911 immediately. Unconscious suspended workers may be suffering from suspension trauma which is the result of lack of blood flow to the brain

- Notify immediate Supervisor that a fall has happened and the worker is **NON-RESPONSIVE** – Supervisor will notify the Environmental, Health and Safety Manager (Fall Arrest Rescue Coordinator) for further instructions. Immediately contact facility personnel trained in First Aid and CPR and send someone to guide Emergency Services to the location of the fallen worker
- Stay with fallen worker until help arrives. Assess the scene and ensure that there are no other hazards that will further injure the fallen worker or another worker performing the rescue
- If possible, place a ladder, rolling stairs or an Aerial Work Platform under the individual to support the weight of the fallen worker; this will remove stress from the lower limbs being restricted. Do not attempt to rescue the worker unless you are trained to do so and controls are in place to prevent the rescuer from falling
- Section off accident area, allow access to Emergency Services Personnel, Rescue Team, Safety Department Personnel and respective government officials (i.e. – the MOL)
- Notify Health and Safety Representatives, Joint Health and Safety Committee Members and applicable Safety Department personnel

## **16. Confined/Restricted Space Emergency**

Confined Space Entry requires a Provincially Regulated Site Specific Plan. Escarpment Renewables has a comprehensive Confined Space Entry Program for Ontario (POL-SAF-028) that must be followed in cases where confined space entry is required. This includes written procedures specific to the site to be followed in case of an emergency.

Contact the Environmental, Health and Safety Manager or a member of the Safety Department for more information.

## **17. Water Emergency & Rescue**

Requirements for "Drowning Protection" are detailed in the Applicable Provincial Regulations.

*These regulations shall be reviewed with all workers on site along with SWP-SAF-173 and SJP-SAF-102 Working within 10 Feet of a Pond, River or Open Waters Edge.*

### **General**

According to Provincial Regulations, any worker who may be exposed to the risk of drowning shall be outfitted with a suitable Personal Floatation Device (PFD or life jacket – see below).

In addition:

- Workers who may work on approaches to water in which there is no guardrail or fencing shall utilize a travel restraint system (i.e. – harness, lanyard and lifeline with a rope grab system) where they are tied off to a suitable anchor point in a manner in which it is impossible for the worker to reach the water's edge
- Workers shall never wear a life jacket and a harness/lanyard combination together. A harness is designed to pull up on deployment which can push a PFD up and restrict the workers airway which could lead to choking/suffocation of a worker

### **Working Around, Over or Near Water:**

- Warning signs shall be posted in the area to warn public and workers of the hazard of open water (e.g., Danger, Deep or Icy Water, Keep Out, etc.)
- Where there is a current in the water, a line extending across the water, with floating objects attached to it, capable of supporting the heaviest person on the site in case he/she falls into the water, shall be installed
- All workers must be alert and aware of their fellow workers at all times when working around water
- A floatation device shall protect workers in proximity to a water hazard with a risk of drowning. This device will provide buoyancy adequate to keep a worker's head above water, face up without effort by the worker (see "Life Jacket / Personal Floatation Device (PFD) Requirements" below).
- All PFD's and other rescue devices shall be located as close to the work area as possible.
- Rescue equipment such as boats must be stored near the water and ready for use.
- All workers working at the location shall be trained on the use of life jackets and preservers, rescue devices, PPE, Reach\*Throw\*Row\*Go Procedures (see below for more information), etc.
- This emergency response plan includes additional information and procedures to be followed in order to safely work adjacent to water:
  - The plan includes site address, method of access, and emergency responders who must be informed that a worker has entered water and possible assistance in rescue is required
  - Complete the "Roles and Responsibilities for Water Rescue" for more information

### **Life Jacket/Personal Floatation Device (PFD) Requirements:**

- PFDs must be Canadian Coast Guard, Department of Fisheries and Oceans approved or equivalent. The PFD information must state that it is designed to keep the wearer face up in the water

### **Emergency Water Rescue:**

In the event a worker falls into water a quick assessment of the emergency must occur – in order to determine what the situation is you need to talk to the worker. If the worker does not respond, it likely indicates a significant event and they may be gasping for air, panicking or unconscious.

When a victim is conscious and struggling:

- Locate a rescue device such as a line, rope, shepherds hook, long pole or life preserver
- Move to a safe, stable area where you can securely position yourself
- Try reaching the victim by holding out the rescue device or throwing them a life preserver with rope attached – See Reach\*Throw\*Row\*Go Procedures for more information
- Instruct the victim to grab the line as cold water can have significant effect on the physical and mental capabilities of a person (panic, hypothermia)
- Tow the conscious victim to shore slowly and steady. Maintain communication with the victim, instructing them to continue to hold on and reach down with their feet until they can feel bottom

If the victim is unconscious:

- **Contact emergency services immediately – Call 911 and site personnel trained in First Aid**
- Remove person from water
- First aid trained personnel must assess the situation
- Follow directions of 911 operator and start CPR if required

## **Rescue Equipment:**

- A ring buoy attached to a 15 meter 9.5mm diameter polypropylene rope, or rope throw bags.
  - Note: The rope throw bag itself is a softer impact item and does the same job
- Lifejackets for all persons required for a rescue operation including those standing in or near water
- A boat (where applicable) equipped with a motor if the water is likely to be rough or swift
- A boat hook (which is a short shaft with a fitting on one end shaped to help in rescuing a person or recovering an object)
- An Emergency Alarm System (i.e. – open communication devices, Air Horn) must be maintained to alert workers to the need for an emergency rescue
- Where there is current in the water, a line extending across the water, with floating objects attached to it that are capable of supporting the heaviest person on site in case he/she falls into the water

## **\*Reach \* Throw \* Row \* Go Procedures – Rescue Items for \*REACH & \*THROW Operations Shall Be Readily Available During Waterside Operations**

**"The First Step:"** Always call 911 in the event of a worker entering a body of water and requiring rescue. It is always better to have rescue assistance on the way and not needed than to need rescue assistance and not have it.

**\*Reach:** The worker is located close to the shoreline and the rescuer(s) can retrieve them by reaching with a rigid device such as a rescue pole or hook, etc. without having to enter the water. Rescued workers must be conscious, alert, and able to grab and hold on to the reaching device for this method to be effective.

**\*Throw:** Worker requiring rescue is too far away from the shoreline to be reached with a rigid device. Rescuers can throw ropes, rope bags, floatation rings, a PDF tied to a rope, etc. to retrieve the victim without having to enter the water. Workers must be conscious, alert, and able to grab and hold on to the thrown object for this method to be effective

## **\*ROW AND \*GO METHODS SHOULD ONLY BE ATTEMPTED BY TRAINED PROFESSIONALS**

**\*Row:** Worker requiring rescue is too far away from the shoreline to be reached or to have a flotation device thrown to them. Rescuers must use a boat or approved watercraft to access and retrieve the worker without having to enter the water. Once close enough to the worker, rescuers can reach, throw, or manually lift the worker directly into the boat (whichever method is safest). The worker may be conscious and alert or unconscious. To ensure effectiveness of the row method a minimum of three rescuers are to be present at each waterside operation, two of which shall be trained and available for rescue purposes.

**\*Go:** This method should only be attempted by professionals (emergency services) trained specifically in water rescue. Rescuers must physically enter the water and swim to the worker to retrieve them. This method may be used from the shoreline or from a boat depending on the circumstances. This method is typically used for unconscious victims but may also be used for conscious and alert victims that are in distress or unable to grab and hold on to a flotation device. Only rescuers, who are trained and strong swimmers, should enter the water to retrieve a worker.

## **Spill Procedure:**

To prevent a spill or accidental release of hazardous material and contamination of water, all equipment and tools must be fueled on land and away from water. If it is not possible to remove a tool or equipment from the water when fueling, the tool or equipment must be surrounded by floating absorbent socks attached to the vessel in the event of an accidental release/spill. Additional socks, absorbent pads and waste containment disposal bags must be available on site. Any spill of hazardous material that enters a waterway must be reported to the Environmental, Health and Safety Manager

## **Key Items to Remember for Any Water Rescue:**

**Communication Is Key** – Rescuers on and off shore should be in constant communication with each other as well as the worker needing rescue. Those rescuers not directly retrieving the worker need to be the eyes and ears or “spotters” for those rescuers that are retrieving the victims

**Personal Safety Is Paramount** – These procedures are to rescue the worker already in the water, not create new ones! All rescuers in or near the water MUST be wearing Personal Flotation Devices (PFDs). All rescuers on shore should also be wearing PFDs when possible. A rescuer should never remove his or her PFD and place it on another person. Whenever possible, rescuers should tie themselves off to a stationary object on shore to prevent being pulled into the water (i.e., trees, rocks, pylons, buildings, vehicle, etc.)

**Keep It Simple** – Rescuers should try to avoid entering the water whenever possible. Do Not Throw, Row, or Go if a worker can be reached from the shoreline

**Be Aware Of Your Surroundings** – During any incident, rescuers need to be alert and aware of the hazards around them. Be sure to consider the weather, hazards on the shoreline, hazards in the water, currents, other watercraft, etc. when planning and executing any type of a water rescue

## **After The Rescue:**

Once the worker has been rescued, trained personnel shall provide First Aid and CPR. **First Aid for people with water-immersion injuries is unique and requires special training.** First Aiders must assume an underlying cause occurred for the near drowning. What was the reason for the worker to enter the water? Did he/she have a heart attack? Was he/she struck or pushed into the water? Most importantly, is there the potential for head, neck or spine injuries? If the worker is unconscious, assume this is the case.

CPR or Cardiopulmonary Resuscitation can be performed on unconscious persons in order to maintain brain function until professional Emergency Service Workers arrive. Only trained First Aiders can perform CPR. If an AED (Defibrillator) is available, follow the directions for shocking and CPR Procedures according to the device instructions.

### CPR Procedures for Trained First Aiders

- Ensure it is safe for you to proceed – do not risk personal injury
- Is the person conscious? Clap, speak loudly or physically stimulate the person. If there is no response consider the ABC (Airway, Breathing, Compressions) Procedure
- Ensure the Airway is Open – carefully tilt the persons head back to open the airway
- Check for Breathing - feel for air moving in and out of the persons mouth or nose. If breath is detected place the person in the recovery position
- Begin Compressions - if breath is not detected, begin circulating oxygen by performing chest compressions. Push hard and deep (approximately 2 inches on adults) while performing compressions. Maintain a rhythm of about 100 compressions per minute or 30 compressions every 18-20 seconds. Note that if the person was in the water, compressions may result in water being pushed out of the person through the airway. Ensure the airway is clear at all times while performing compressions
- After 30 compressions stop and reassess Airway and Breathing; if airway is blocked ensure it is clear, if breathing is detected place the person in the recovery position, if breath is not detected resume compressions
- Continue until EMS personnel arrive, another person is able to assist or take over, your personal safety becomes a concern, or you are too physically exhausted to continue

## Roles and Responsibilities for Water Rescue

<input type="checkbox"/> N/A	<b>Emergency Response Plan for Work on Bodies of Water</b>	
	This plan is for Shore-Based* Water Rescue	
Location:	Escarpment Renewables	
Emergency Response Team:	James Thomson	
	Kyle Howes	
	Sam Huang	
List the appropriate person responsible for the activity on the right:		
James Thomson	Will Sound Emergency Alarm	
James Thomson	Will take charge and make sure the area is safe	
James Thomson	Will call Emergency Services – Dial 911 if necessary	
James Thomson	Will don all required safety equipment and will toss a Floatation Device to the person being rescued	
Kyle Howes	Will assist in rescue procedure and will ensure that the rescuer is secure	
Kyle Howes	Will assist and will bring First Aid Equipment, blankets, additional PFD's etc. to the rescue site	
Sam Huang	Will go to the site or accident location entrance and provide direction for Emergency Response Personnel	
<b>EMERGENCY CONTACTS</b>		
Emergency Services: 911	Ministry of Labour: 1-877-202-0008	
Hospital: 905-945-2253	Head Office: 905-475-6356	
Supervisor: James Thomson - 289-455-1115	Other: Jody Preston - 416-676-2977	

<input type="checkbox"/> N/A	<b>Emergency Response Plan for Work On/Near Ice Covered Bodies of Water</b>	
	This plan is for Shore-Based* Water/Ice Rescue	
Location:	Escarpment Renewables	
Emergency Response Team:	James Thomson	
	Kyle Howes	
	Sam Huang	
List the appropriate person responsible for the activity on the right:		
James Thomson	Will Sound Emergency Alarm	
James Thomson	Will take charge and make sure the area is safe	
James Thomson	Will call Emergency Services – Dial 911 if necessary	
James Thomson	Will don all required safety equipment and will toss a Floatation Device to the person being rescued	
Kyle Howes	Will assist in rescue procedure and will ensure that the rescuer is secure	
Kyle Howes	Will assist and will bring First Aid Equipment, blankets, additional PFD's etc. to the rescue site	
Sam Huang	Will go to the site or accident location entrance and provide direction for Emergency Response Personnel	
<b>EMERGENCY CONTACTS</b>		
Emergency Services: 911	Ministry of Labour: 1-877-202-0008	
Hospital: 905-945-2253	Head Office: 905-475-6356	
Supervisor: James Thomson - 289-455-1115	Other: Jody Preston - 416-676-2977	

\*In Water Rescue Shall Only Be Performed By Trained Personnel or Emergency Service Personnel

### **Emergency Contact Numbers**

Fire:	<b>911</b>
Ambulance:	<b>911</b>
Police:	<b>911</b>
Hospital Name:	West Lincoln Memorial Hospital
Address:	424 Sobie Road - Grimsby, Ontario
Phone Number:	905-228-1506
Provincial Government Office: (Health and Safety/MOL):	1-877-202-0008
Provincial Government Office (Environment):	1-800-565-4923
Local Hydro Utility Company:	Grimsby Power 905-945-5437
Spills Reporting Agency:	Spills Action Centre 1-800-286-6060
Transportation Ministry:	N/A
OTHER	Jody Preston 416-676-2977 Luke Procter 905-806-3105
Head Office:	<b>424 Sobie Road Grimsby, Ontario 905-228-1506</b>
Division or Regional Headquarters:	White Owl Family Office 180 Renfrew Drive, Suite 130 Markham, Ontario L3R 9&2

# FIRE SAFETY PLAN

Bio-Digester Facility  
Escarpment Renewables  
424 Sobie Rd., Grimsby ON L3M 4E7

**HAZARDOUS PROCESSING AREAS:** Yes - Digester Tanks

**WARNING:** The bladders contain bio-gas, methane, hydrogen sulphide, carbon dioxide, and LEL. **Breathing in these gases could be fatal.** Exercise caution, wear ALTAIR 4X monitors if you enter into the area. Wear SCBA when required.

This approved document shall be kept readily available on the premises in the Fire Safety Plan box at all times, for use by fire officials in case of an emergency.

The designated location of the Fire Safety Plan is in the Main Office.

Fire Safety Plan prepared by:

Michael Agnew – Trillium Fire Protection (905)-684-0196  
Mark Berti – Fire Safety One (905) 988-7734

Revised by – Jody Preston, Miller Waste Systems Inc. Facility Safety Trainer

Date of Submission: Sept. 5th, 2019

Revision Date: November 13, 2019

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## **INTRODUCTION**

This Fire Safety Plan is required by the Ontario Fire Code, Section 2.8

This Fire Safety Plan is designed to provide occupant safety in the event of fire, to provide effective utilization of the fire safety features of the building and to minimize the possibility of fires. This plan discusses what occupants are to do in the event of fire, fire safety, supervisory staff and related duties, and other related issues.

The Fire Safety Plan will also assist firefighters in the performance of their duties, by providing floor plans and building information, if an emergency ever occurs.

In order for this plan to be effective, management must know the Fire Safety Plan and be able to implement it in the event of fire. The Fire Code requires the owner to be responsible for carrying out the provisions for fire safety, and defines "owner" as "any person, firm or corporation controlling the property under consideration". Consequently, the owner may be any one of, or a combination of parties, including building management, maintenance staff and tenant groups.

This official document is to be kept readily available at all times for use by staff and fire officials in the event of an emergency. The fire safety plan approved location is the Fire Safety Plan box at the front entrance of the building.

The fire safety plan shall be stored in a white box with contrasting lettering indicating FIRE SAFETY PLAN. The box shall be secured with a padlock to prevent unauthorized access with a spare padlock located inside the box. The box shall be located near the main entrance to the office building which is the main access point for the fire service.

**Submission Procedures:**

At least one (1) copy of the Plan (8 ½ X 11 format) must be submitted to the Chief Fire Official. Upon approval, two (2) more copies of the plan will be submitted to the Chief Fire Official. Two copies of the plan will be retained by the Fire Department, and one copy returned to the author.

**The Chief Fire Official is to be notified regarding any subsequent changes in the approved Fire Safety Plan. The Fire Safety Plan shall be reviewed as often as necessary, but at least every 12 months, and shall be revised as necessary so that it takes into account changes in the uses or other characteristics of the building or premises.**

## **ONTARIO FIRE CODE DEFINITIONS**

### **Excerpts from The Ontario Fire Code**

**Article 1.2.1.1.** - Unless otherwise specified the Owner is responsible for carrying out the provisions of this code.

**Article 1.1.2.3.** - The original or a copy of any record required by this Code shall be made available to the **Chief Fire Official** for examination on request.

### **Definitions**

**CHECK** - Means visual observation to ensure the device or system is in place and is not obviously damaged or obstructed.

**INSPECT** - Means physical examination to determine that the device or system will apparently perform in accordance with its intended function.

**TEST** - Means the operation of a device or system to ensure that it will perform in accordance with its intended operation or function.

**OWNER** - Means any person, firm or corporation having control over any portion of the **building** or property under consideration and includes the persons in the **building** or property.

**BUILDING** - Means any structure used or intended for supporting or sheltering any use or occupancy.

**SUPERVISORY STAFF** - Means those occupants of a **building** who have some delegated responsibility for the fire safety of other occupants under the fire safety plan and may include the **fire department** where the **fire department** agrees to accept these responsibilities.

## **FIRE SAFETY PLAN APPROVED LOCATION**

The Fire Safety Plan shall be stored in a white box with contrasting lettering indicating FIRE SAFETY PLAN. The box shall be secured with a padlock to prevent unauthorized access, with a spare padlock located inside the box. The box shall be located near the main entrance to the building which is the main access point for the fire service.

## **FIRE SAFETY PLAN REVIEW REQUIREMENTS**

The Fire Safety Plan shall be reviewed as often as necessary, but at least every 12 months, and shall be revised as necessary so that it takes into account changes in the uses or other characteristics of the building or premises.

## **FIRE EMERGENCY PROCEDURES POSTED AND MAINTAINED**

At least one copy of the **Fire Emergency Procedures for Occupants** (Page 16 of this document) shall be prominently posted and maintained on each floor area.

## **AUDIT OF BUILDING RESOURCES**

**OCCUPANCY TYPE:** D and F3

**OCCUPANT LOAD:** Less than 6 persons

**PRINCIPAL ENTRANCE FOR FIRE DEPARTMENT RESPONSE:** Private driveway from Sobie Road

**EXITS:** See schematics

**NO. OF BUILDINGS:** 2 (Office and Workshop)

**AREA:** Tanks and bladders = approx. 11 780 m<sup>3</sup>. Office space 30 m<sup>2</sup> approx. Workshop 30 m<sup>2</sup> approx.

**TYPE OF CONSTRUCTION:** Combination of combustible and non-combustible

**YEAR OF CONSTRUCTION:** 2017

**EMERGENCY GENERATOR:** No

**HEATING SYSTEM (TYPE):** Two types:

1. Engine Heat (Fire Services should NOT shut down the engine heat until a site supervisor has arrived to assist in the shutdown)
2. Lochinvar Propane Boiler (Closed glycol-based system which covers in-floor and sides of tanks)

**MAIN GAS SHUT OFF LOCATION:** Three (one for back-up heater, two for the flare)

**MAIN ELECTRICAL SHUT OFF LOCATION:** Inside the transfer compound (fenced in)

**WATER MAIN SHUT OFF LOCATION:** No water on site

**HVAC UNITS:** No

**ROOF ACCESS:** Dirt ramp from the driveway. Roof is not to be accessed without authorization from Escarpment Renewables staff

**ATTIC ACCESS:** No

**FIRE DEPARTMENT ACCESS:** From the driveway off Sobie Road

**DESIGNATED FIRE ROUTE:** Private driveway around the building complex

**FIRE DEPARTMENT KEY BOX:** No

**FIRE DEPARTMENT CONNECTION (SPRINKLER/STANDPIPE):** No

**NEAREST HYDRANT LOCATION:** Sobie Road at Park Road

**HOSE CABINETS:** No

**FIRE PUMP:** No

**SPRINKLER SYSTEM (TYPE):** No

**AREA OF COVERAGE FOR SPRINKLERS:** Not applicable

**SPRINKLER SHUT OFF OR ISOLATION VALVES:** Not applicable

**DETECTION SYSTEM:** Methane detectors, Hydrogen Sulphide detectors, Carbon Dioxide detectors and LEL detectors

**SECONDARY POWER SUPPLY:** No back-up power

**MONITORED:** The detection system is monitored by Escarpment Renewables site computer system. When a detection device is activated, the computer system generates a notification to the cell phones of Escarpment Renewables employees. The employees are required to acknowledge the notification and attend at the site.

**EXITS FROM THE BUILDING:** See schematics

**NO. OF STAIRWELLS:** None. The quad building has below grade ladders in the tank room

**EMERGENCY POWER AND LIGHTING:** No

**POR TABLE FIRE EXTINGUISHERS:** All structures have ABC or CO<sub>2</sub> Extinguishers installed at doorways/exits

**HAZARDOUS PROCESSING AREAS:** Yes - Digester Tanks

**WARNING:** The bladders contain bio-gas, methane, hydrogen sulphide, carbon dioxide, and LEL. Breathing in these gases could be fatal. Exercise caution, wear ALTAIR 4X monitors if you enter into the area. Wear SCBA when required

**STORAGE AREAS:** On site trailer storage

**DESCRIPTION OF SITE:**

This site contains the following major components (see site plan):

1. Building - houses methane bags (grounding all around the building)
2. Engine and carbon filtration system (Contains main breaker for site. Fire Services should NOT shut off main electrical until Niagara Power staff or Escarpment Renewables attend the site to assist with the shut off)
3. Office Building
4. Weighing Scale
5. Two digestate storage tanks
6. Two digester tanks
7. Plug flow digester
8. Pre-storage underground tank
9. Front-end gravity feeder
10. Separation pump (pumphouse)
11. Bunker area for solid ASM and NASM storage
12. Leachate sedimentation pond which receives run-off rainwater from the bunker area
13. Fresh water drainage pond
14. Workshop and spare parts warehouse
15. Propane Tanks (3)
16. Diesel Fuel Tank (for telehandler)
17. Two main power lines - one for the office, the other for the rest of the site

## **AUDIT OF HUMAN RESOURCES**

**BUILDING OWNER:** Escarpment Renewables

**BUILDING OWNER ADDRESSES AND PHONE NUMBERS:**

424 Sobie Rd, Grimsby L3M 4E7  
(905) 228-1506

**PROPERTY EMERGENCY CONTACTS:**

James Thomson – 289-455-1115  
Kyle Howes – 905-208-2492  
Sam Huang – 416-991-4786

**PORTABLE FIRE EXTINGUISHER CONTACT:** Fire Safety House – 905-878-8303

**Premises Occupied By:** Escarpment Renewables

## **OWNER/MANAGER RESPONSIBILITIES FOR FIRE SAFETY**

The building owner has numerous responsibilities related to fire safety and has responsibility for carrying out the provisions of the Ontario Fire Code. "Owner" means any person, firm, corporation having control over any portion of the building or property under consideration and includes the persons in the building or property. The Building Owner must appoint a Fire Safety Coordinator to be responsible for the overall fire safety within the building. The Fire Safety Coordinator must ensure that all staff and responsible persons are properly trained before giving them any responsibilities under the Fire Safety Plan.

The owner must ensure that the following measures are enacted:

1. Keep a copy of the approved Fire Safety Plan on the premises in an approved location. Ensure that all provisions set out in the Plan are carried out
2. The Fire Safety Plan shall be reviewed as often as necessary, but at least every 12 months, and shall be revised as necessary so that it takes into account changes in the use or other characteristics of the building premises
3. Ensure the Fire Safety Plan is current. The Chief Fire Official shall be notified regarding any changes in the Fire Safety Plan
4. Ensure that the Fire Safety Plan, or parts thereof, are distributed to all occupants.
5. Post and maintain at least one (1) copy of the "Emergency Procedures for Occupants" (page 17 of this document) on each floor level
6. Appoint and organize designated supervisory staff to carry out fire safety duties. Each supervisory staff person shall be provided with a copy of their duties as identified in the Fire Safety Plan
7. Provide for the instruction and training of supervisory staff, and other occupants, so that they are aware of their responsibilities for fire safety
8. Records of training of supervisory staff are to be kept on site. Such training will take place prior to anyone assuming fire safety duties under this Plan
9. Designate and train alternates to replace supervisory staff during any absence
10. Holding of fire drills in accordance with the Ontario Fire Code, incorporating emergency procedures appropriate to the site
11. Control of fire hazards in the buildings and on site
12. Maintenance of building facilities provided for the safety of occupants
13. Ensuring that checks, tests and inspections as required by the Ontario Fire Code are completed on schedule and that records are kept for a minimum period of 2 years

## **APPOINTMENT OF DESIGNATED SUPERVISORY STAFF**

This fire safety plan includes the appointment and organization of designated "supervisory staff" and alternates who are required to be trained to respond to a fire emergency in a predetermined manner. Supervisory staff duties and responsibilities are outlined in this fire safety plan. The person(s) designated as supervisory staff must be qualified and willing to take on the added duties and responsibilities. The person(s) who is designated as "supervisory staff" does not have to be from management or be a supervisor from the company/organization.

OFC 2.8.1.2 (1) **Supervisory Staff** shall be instructed in the fire emergency procedures as described in the fire safety plan before they are given any responsibility for fire safety.

- (2) **Supervisory Staff** shall be available on notification of a fire emergency to fulfill their obligation as described in the fire safety plan.
- (3) Subject to Article 2.8.2.2, **Supervisory Staff** are not required to be in the **building** on a continual basis.

### **Identification of Supervisory Staff: (\*and the alternate)**

Role	Supervisory Staff	Alternates
Fire Warden	James Thomson	Kyle Howes Sam Huang

## **TRAINING OF SUPERVISORY STAFF**

### **Training of Supervisory Staff: Escarpment Renewables**

Ongoing inspections, training and fire drills are necessary to ensure an effective fire safety program.

Training will be scheduled as often as necessary to ensure the supervisory staff know their responsibilities.

The orientation training program for supervisory staff should include fire safety instructions on: what to do upon discovery of fire and how to prevent or minimize fire hazards at the site.

All supervisory staff must know their duties when an emergency occurs and the location and operation of portable fire extinguishers.

### **General Responsibilities for Supervisory Staff**

1. Keep entrances and exits clear of any obstructions at all times
2. Do not permit combustible materials to accumulate
3. Keep access roadways and fire routes accessible at all times
4. In the event of any alert from the computer monitoring system, initiate alternative measures as specified in operational procedures for the site
5. Participate in fire drills
6. Comply with the Ontario Fire Code. Arrange for substitute in your absence

## **SUPERVISORY STAFF DUTIES AND RESPONSIBILITIES**

In order for the emergency response portion of this fire safety plan to be effectively implemented, management and every employee must understand the important role they play in promoting fire safety in the workplace. Everyone must be required to adhere to the fire safety practices and procedures. The orientation training program for all employees should include fire safety instructions on: what to do upon discovery of fire and how to prevent or minimize fire hazards in the workplace. A copy of the Fire Emergency Procedures and other duties outlined in the fire safety plan must be given to all supervisory staff.

Supervisory Staff must have a working knowledge of the site detection system and should know how to operate a portable fire extinguisher.

## **SITE STAFF DUTIES AND RESPONSIBILITIES**

### **In General:**

1. Staff must read the Fire Safety Plan each year in order to understand emergency procedures
2. Keep access to entrances and EXITS, inside and outside, clear of any obstructions at all times
3. Do not permit combustible materials to accumulate in quantities or locations that would constitute a fire hazard
4. Promptly remove all combustible waste from areas where waste is placed for disposal, if applicable
5. Participate in fire drills
6. Have a working knowledge of the site safety systems
7. Report any deficiencies to the Fire Warden
8. Comply with the Ontario Fire Code

## **SUPERVISORY STAFF EMERGENCY PROCEDURES**

### **Upon discovery of smoke or fire:**

1. Alert occupants and leave the fire area
2. Close all doors behind you - Yell "FIRE, FIRE, FIRE!"
3. Make provisions or take precautions to confine, control, and extinguish the fire if safe to do so

You may attempt to fight the fire if it is safe to do so, and if you have been trained on the use of portable fire extinguishers

4. Assist occupants to evacuate the building if safe to do so
5. Exit the building using the nearest exit. If you encounter smoke or fire, use an alternate exit
6. Call the Fire Service, from a safe location, by dialing 9-1-1, provide the correct address and location of the fire, and your name
7. Designate a person to proceed to the main entrance to meet Fire Service personnel

### **Upon arrival of Fire Department:**

1. Inform the Fire Officer regarding conditions in the building
2. Provide fire personnel access, vital information and any emergency keys

## **EMERGENCY PROCEDURES FOR OCCUPANTS**

### **Upon discovery of fire:**

1. Leave the fire area, closing all doors behind you
2. Alert other occupants of the building - Yell "FIRE, FIRE, FIRE!"
3. Make provisions or take precautions to confine, control, and extinguish the fire if safe to do so

You may attempt to fight the fire if it is safe to do so, and if you have been trained on the use of fire extinguishers

4. Use the nearest exit to leave the building
5. Telephone the FIRE SERVICE, from a safe location, dial 9-1-1. Never assume that this has been done
6. Give the correct site address (424 Sobie Rd., Grimsby) and location of the fire and your name
7. Proceed to the designated meeting area (see below)
8. Do not return until it is declared safe to do so by a Fire Official

**DESIGNATED MEETING AREA: Sobie Road, outside the front gate at the front of the site – NOTE: Depending on wind direction, occupants may be directed to a secondary area**

## **FIRE DRILL PROCEDURES AND TRAINING**

The purpose of a fire drill is to ensure that the Supervisory Staff and occupants are familiar with emergency evacuation procedures. This will ensure an orderly evacuation should it become necessary. The Fire Drill will be prepared in consultation with the Chief Fire Official.

It is the responsibility of **Escarpmment Renewables** to schedule the annual drill. Advance notice (at least 48 hours), should be posted advising the occupants of the time and date of these drills. Notify the **Fire Service Dispatch** prior to any drill. Dial **905-684-4311**. Give the address of the site, your name and the expected duration of the drill. Simulate a fire emergency and alert persons on site by yelling "FIRE, FIRE, FIRE!" or using cell phones. Record the actions of the occupants and staff. Note any deficiencies/ problems. Contact the Fire Service upon completion of drill.

Following each drill, all Supervisory Staff and occupants should attend a debriefing to report on their observations. Fire drills must be conducted in accordance with the FIRE CODE. All fire drill records must be retained and kept on site for 12 months after the fire drill.

**NOTE:** For this building complex (Bio-Digester Facility), the Ontario Fire Code requires that fire drills be conducted **annually**.

### **ORGANIZING AND CONDUCTING A FIRE DRILL**

Fire drills must be conducted on a frequency set out by the Ontario Fire Code 2.8.3.2. All employees/occupants understand the procedures to be followed in an emergency. Employees are trained to safely shut down critical systems or equipment they are using during an emergency in order to prevent further hazards.

A person is designated to respond to the safety needs of any guests or contractors during an emergency.

All fire drill records must be retained and kept on site for 12 months after the fire drill. A procedure is established to evaluate the fire drill once it has been completed. (see sample below).



# EMERGENCY DRILL REPORT

## SAFETY FORM DISTRIBUTION: All Locations

**FORM NUMBER:**  
FOR-SAF-021 Rev. 1

**PAGES:** 1  
**REVISION DATE:**  
January 1, 2021

Date of Drill:	Time of Drill:	
Location:		
Type of Drill:	<input type="checkbox"/> Planned	<input type="checkbox"/> False Alarm
Type of Emergency:	<input type="checkbox"/> Fire	<input type="checkbox"/> Other Emergency:
Total Time Required to Evacuate Facility:	Minutes	Seconds

Did All Personnel Evacuate Facility?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Did All Personnel Meet at the Designated Area?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Did you identify any individuals with disabilities or injuries in need of assistance?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
If yes, were they evacuated safely?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
If "NO", why not?		

Rate the Overall Effectiveness of the Drill:			
Speed of Evacuation	<input type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor
Effectiveness of Procedures	<input type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor
Communication During Drill	<input type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor

Names of Supervisory/Management Staff Present:			
1.	2.		
3.	4.		
Corrective Action Required:			
Additional Comments:			
Report Completed By:	Date:		

## **CONTROL OF FIRE HAZARDS**

### **Industrial Properties**

1. Do not store combustible material in non-approved areas
2. Ensure that fire and smoke barrier doors are operating properly and are never wedged open
3. Avoid improper storage of flammable liquids and gases
4. Never use defective electrical appliances, frayed extension cords, overloaded outlets or extension cords for permanent wiring
5. Avoid careless use of smoking materials
6. Never improperly dispose of oily rags.

### **Specific to this Site**

If any operations are conducted near a bio gas building, precautions must be taken to avoid rupturing any tanks or pipes located above or below ground.

Upon arrival of delivery trucks, drivers must be stopped and on-site staff will provide direction as to delivery operations.

All arriving drivers and/or contractors will be met by site personnel and will be provided with a verbal summary of site safety precautions.

Contractors will be briefed as to site safety operations before any work is commenced.

## **ALTERNATIVE MEASURES FOR OCCUPANT SAFETY**

Where possible, all staff and occupants should be made aware of temporary shutdowns of site safety and detection components. All shut-downs will be confined to as limited an area and duration as possible.

The **OWNER** is responsible for the safety of occupants at all times.

In the event of shut-down, or operational problems with building safety or detection systems, the owner or their representative will initiate alternative measures as noted:

**Notification:** Occupants will be notified and instructions will be posted as to alternative measures or actions to be taken in case of emergency.

### **Shut Down Procedure:**

1. The Fire Warden will notify Grimsby Fire Department Dispatch at (905) 684-4311. Provide your name, address of the site and a description of the problem and when you expect it to be corrected.
2. Notices are to be posted outside all affected buildings stating the problem and when it is expected to be corrected. (sample notice is provided herein – page 23)
3. Notify the Fire Department and the building occupants when repairs have been completed and systems are operational.

### **Hot Works:**

Hot works (such as, but not limited to, roofing or welding) must have precautions put into place before the work commences. Fire hazards and preventative measures must be identified. The owner and/or managers must take the lead role in identifying these potential fire hazards and establishing fire prevention practices to safely eliminate or control the hazard.

**Subsection 2.8.2.1. (5) of the Ontario Fire Code sets out the following:**

*Before demolition or construction, including hot surface applications, commences in or on the building or premises, the fire safety plan shall be revised to incorporate*

- (a) temporary alternative measures for the fire safety of the occupants during the demolition or construction, and*
- (b) temporary procedures to control fire hazards associated with the demolition or construction, including procedures to mitigate risks to adjacent buildings.*

Examples of temporary alternative measures and temporary procedures may include (but are not limited to):

The owner/manager (Escarpment Renewables) must review the scope of all hot works procedures before they commence. All hot works procedures will be monitored by institution of a Fire Watch. The Fire Watch will continue throughout the duration of the work activity and for a period of thirty (30) minutes minimum after completion of the work. Fire Watch procedures shall be documented, as set out in this plan, and records are to be maintained for a period of two years. Employees must be fully trained in the established fire prevention practices. Appropriately sized and type of fire extinguisher shall be readily available. Employees shall be trained in the use of such fire extinguishers.

# **IMPORTANT NOTICE**

## **Detection System Out of Service**

The Detection System may not function if there is a leak

The Detection system is being serviced by qualified personnel and will be restored as quickly as possible

The building is not to be occupied while the Detection System is out of service

If you discover a fire:

- Shout “FIRE, FIRE, FIRE!” to warn others
- Leave the area using your nearest exit
- Use alternate exit if required
- Call 9-1-1 to notify Fire Department
- If you hear someone shouting “FIRE”, leave the area immediately

When the detection system is back in service, this notice will be removed.

If you require further information - Site contact person and phone number is: James Thomson – 289-455-1115

## **FIRE PROTECTION COMPONENTS**

### **EXITS:**

An exit is that part of a means of egress that leads from the floor area it serves to a public thoroughfare or to an approved open space. Walls, floors, doors and other means provide a protected path necessary for occupants to proceed with reasonable safety to a place of refuge.

### **FIRE DEPARTMENT ACCESS:**

Fire Department access allows firefighters and their equipment to gain access to the building. Vehicles parked in a Fire Route, excess vegetation, snow and other forms of obstructions to access routes, fire hydrants and Fire Dept. connections are not permitted by the Fire Code. Maintaining Fire Dept. access is an ongoing matter. In addition, access into a building requires consideration e.g. with a key box and thorough preplanning.

### **PORATBLE EXTINGUISHERS:**

Portable extinguishers are intended as a first aid measure to cope with fires of limited size. The basic types of fires are Class A, B and C. Portable extinguishers are rated for corresponding classes of fires.

## **MAINTENANCE OF BUILDING FACILITIES AND FIRE PROTECTION EQUIPMENT**

This Fire Safety Plan contains a detailed schedule identifying the required checks, inspections and tests of all fire safety systems and features provided. Ontario Fire Code definitions of key words are as follows:

- CHECK** Means a *visual* observation to ensure the device or system is in place, and is not obviously damaged or obstructed.
- INSPECT** Means *physical* examination to determine that the device or system will apparently perform in accordance with its intended function.
- TEST** Means the *operation* of a device or system to ensure that it will perform in accordance with its intended operation or function.

### **The building owner/manager must:**

Ensure that all fire protection features provided in each building are checked, inspected, tested and maintained in accordance with the frequencies specified in Division B Part 2 and Part 6 of the Fire Code and all applicable referenced standards.

When using in-house personnel to conduct some of these checks, inspections and tests, ensure that the person is fully trained and qualified to carry out the activity. Keep permanent records of all tests and corrective measures taken for a period of two years after they are made. The records are to be made available upon request to the Chief Fire Official.

## **FIRE SAFETY MAINTENANCE DUTIES**

### **LEL, CARBON MONOXIDE, CARBON DIOXIDE, METHANE AND HYDROGEN SULPHIDE DETECTORS**

**(also reference manufacturer's instructions)**

Action	Frequency	Responsibility
Maintain all types of detectors as recommended by the manufacturer.	Annually	Owner
Test alarm functions as recommended by the manufacturer.	Annually	Owner
Replace all detectors.	On a frequency prescribed by the manufacturer	Owner

## PORTABLE FIRE EXTINGUISHERS

NFPA 10 sets out details for maintenance guidelines for portable fire extinguishers.

Action	Frequency	Responsibility
Each extinguisher shall have a securely attached tag showing the maintenance or recharge date, the servicing agency, and the signature of the person who performed the service.	Annually	Contractor
A permanent record containing all the inspection and maintenance conducted on all of the portable fire extinguishers shall be maintained for a period of at least 2 years and be made available to the Chief Fire Official upon request.	Annually	Contractor
Portable extinguishers shall be inspected as follows:  - Check nozzle for operation and any obstructions - Seal or tamper indicators are in place - Pressure gauge is reading satisfactorily - No apparent physical or mechanical damage - Instructions for use on name plate are legible and face outward	Monthly	Contractor
Extinguishers shall be subject to maintenance not more than one year apart or when specifically indicated by an inspection. Maintenance procedures shall include a thorough examination of the 3 basic elements of an extinguisher: mechanical parts, extinguishing agent and expelling means	Annually	Contractor
Stored pressure extinguishers which require a 12 year hydrostatic test shall be emptied and subject to applicable maintenance procedures.	Every 6 years	Contractor
Hydrostatically test dry chemical and vaporizing liquid type extinguishers.	Every 12 years	Contractor

### MEANS OF EGRESS

Action	Frequency	Responsibility
Inspect all doors in fire separations.	Monthly	Owner
Check all doors and fire separations to ensure they are closed.	Daily	Owner
Maintain exit signs to ensure they are clean, legible, illuminated and in good repair.	Daily	Owner
Ensure corridors and exits are free of obstructions.	Daily	Owner

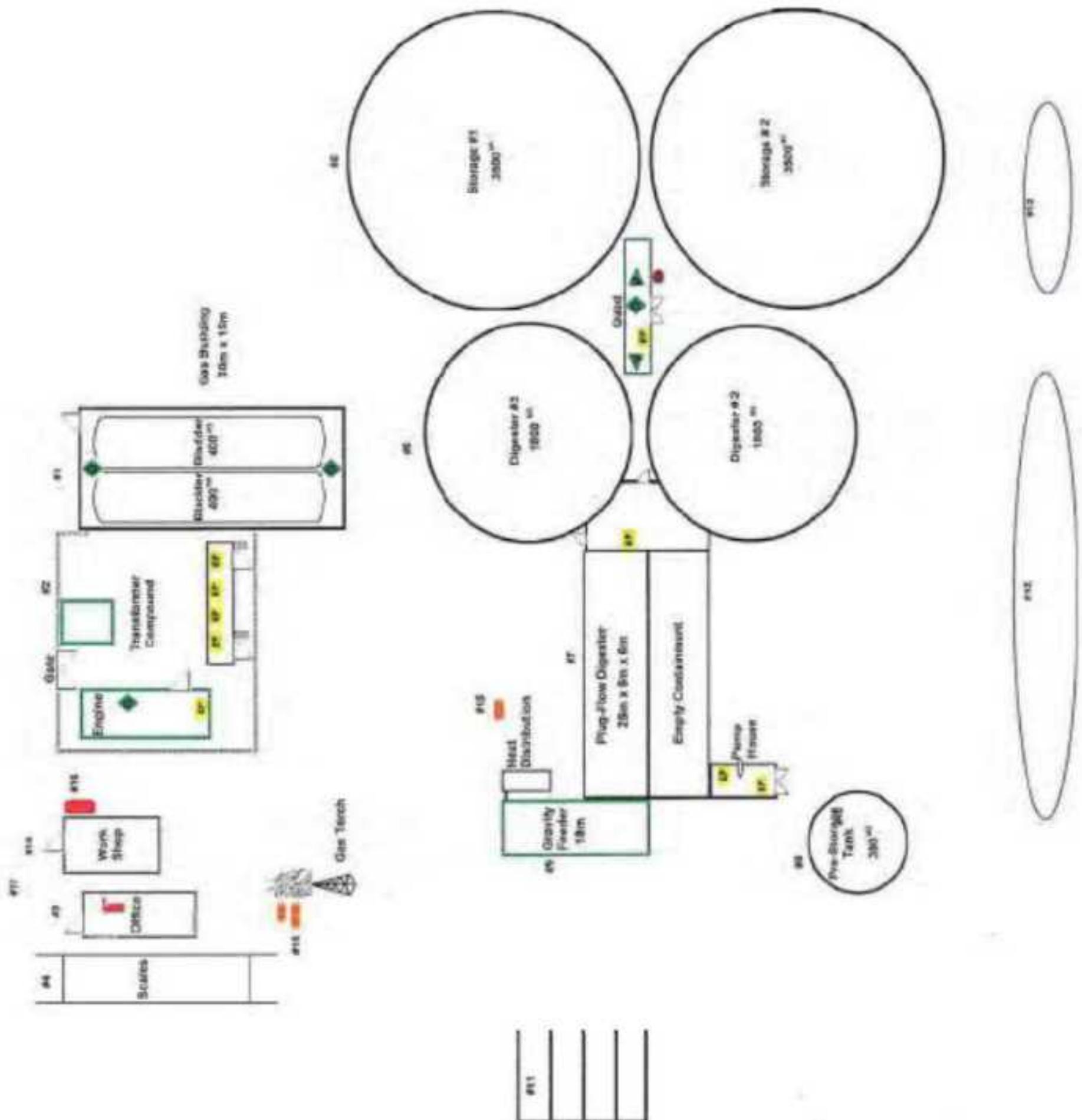
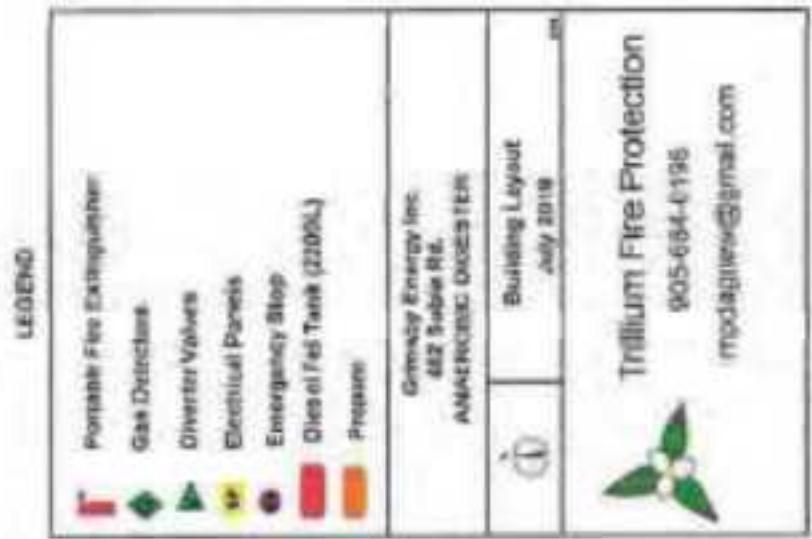
### FIRE DEPARTMENT ACCESS

Action	Frequency	Responsibility
Ensure that fire access routes are maintained so as to be immediately ready for use at all times by fire department vehicles.	Daily	Owner

### ELECTRICAL DISCONNECT SWITCHES

Action	Frequency	Responsibility
Disconnect switches for ventilating systems shall be inspected to establish that the system can shut down in an emergency.	Annually	Owner

## **SCHEMATICS**





# FIRE SAFETY PLAN

Bio-Digester Facility  
Grimsby Energy Inc.  
424 Sobe Rd., Grimsby ON L3M 4E7

**HAZARDOUS PROCESSING AREAS:** Yes - Digester tanks.

**WARNING:** The bladders contain bio-gas, methane, hydrogen sulphide, carbon dioxide, and LEL. **Breathing in these gases could be fatal.** Exercise caution, wear ALTAIR 4X monitors if you enter into the area. Wear SCBA).

This approved document shall be kept readily available on the premises in the Fire Safety Plan box at all times, for use by fire officials in case of an emergency.

The designated location of the Fire Safety Plan is in the Main Office.

Fire Safety Plan prepared by:

Michael Agnew - Trillium Fire Protection (905)-684-0196

Mark Berti - Fire Safety One (905) 988-7734

Date of Submission: (Sept. 5th, 2019)

Revision Date: \_\_\_\_\_

Revision Date: \_\_\_\_\_

APPROVED

CHIEF FIRE OFFICIAL  
GRIMSBY FIRE DEPT.

DATE SEPT 16 / 19

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## **INTRODUCTION**

This Fire Safety Plan is required by the Ontario Fire Code, Section 2.8

This Fire Safety Plan is designed to provide occupant safety in the event of fire, to provide effective utilization of the fire safety features of the building and to minimize the possibility of fires. This plan discusses what occupants are to do in the event of fire, fire safety, supervisory staff and related duties, and other related issues.

The Fire Safety Plan will also assist firefighters in the performance of their duties, by providing floor plans and building information, if an emergency ever occurs.

In order for this plan to be effective, management must know the Fire Safety Plan and be able to implement it in the event of fire. The Fire Code requires the owner to be responsible for carrying out the provisions for fire safety, and defines "owner" as "any person, firm or corporation controlling the property under consideration". Consequently, the owner may be any one of, or a combination of parties, including building management, maintenance staff and tenant groups.

This official document is to be kept readily available at all times for use by staff and fire officials in the event of an emergency. The fire safety plan approved location is the Fire Safety Plan box at the front entrance of the building.

The fire safety plan shall be stored in a white box with contrasting lettering indicating FIRE SAFETY PLAN. The box shall be secured with a padlock to prevent unauthorized access with a spare padlock located inside the box. The box shall be located near the main entrance to the office building which is the main access point for the fire service.

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At least one (1) copy of the Plan (8 ½ X 11 format) must be submitted to the Chief Fire Official. Upon approval, two (2) more copies of the plan will be submitted to the Chief Fire Official. Two copies of the plan will be retained by the Fire Department, and one copy returned to the author.

**The Chief Fire Official is to be notified regarding any subsequent changes in the approved Fire Safety Plan. The Fire Safety Plan shall be reviewed as often as necessary, but at least every 12 months, and shall be revised as necessary so that it takes into account changes in the uses or other characteristics of the building or premises.**

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### **Excerpts from The Ontario Fire Code**

**Article 1.2.1.1.** - Unless otherwise specified the Owner is responsible for carrying out the provisions of this code.

**Article 1.1.2.3.** - The original or a copy of any record required by this Code shall be made available to the Chief Fire Official for examination on request.

### **Definitions**

**CHECK** - Means visual observation to ensure the device or system is in place and is not obviously damaged or obstructed.

**INSPECT** - Means physical examination to determine that the device or system will apparently perform in accordance with its intended function.

**TEST** - Means the operation of a device or system to ensure that it will perform in accordance with its intended operation or function.

**OWNER** - Means any person, firm or corporation having control over any portion of the building or property under consideration and includes the persons in the building or property.

**BUILDING** - Means any structure used or intended for supporting or sheltering any use or occupancy.

**SUPERVISORY STAFF** - Means those occupants of a building who have some delegated responsibility for the fire safety of other occupants under the fire safety plan and may include the fire department where the fire department agrees to accept these responsibilities.

### **FIRE SAFETY PLAN APPROVED LOCATION**

The Fire Safety Plan shall be stored in a white box with contrasting lettering indicating FIRE SAFETY PLAN. The box shall be secured with a padlock to prevent unauthorized access, with a spare padlock located inside the box. The box shall be located near the main entrance to the building which is the main access point for the fire service.

### **FIRE SAFETY PLAN REVIEW REQUIREMENTS**

The Fire Safety Plan shall be reviewed as often as necessary, but at least every 12 months, and shall be revised as necessary so that it takes into account changes in the uses or other characteristics of the building or premises.

### **FIRE EMERGENCY PROCEDURES POSTED AND MAINTAINED**

At least one copy of the **Fire Emergency Procedures for Occupants** (Page 17 of this document) shall be prominently posted and maintained on each floor area.

## AUDIT OF BUILDING RESOURCES

**OCCUPANCY TYPE:** D and F3

**OCCUPANT LOAD:** Less than 6 persons

**PRINCIPAL ENTRANCE FOR FIRE DEPARTMENT RESPONSE:** Private driveway from Sobie Road

**EXITS:** See schematics

**NO. OF BUILDINGS:** 2 (Office and Workshop)

**AREA:** Tanks and bladders = approx 11 780 m3. Office space 30 m2 approx. Workshop 30 m2 approx.

**TYPE OF CONSTRUCTION:** Combination of combustible and non-combustible

**YEAR OF CONSTRUCTION:** 2017

**EMERGENCY GENERATOR:** No

**HEATING SYSTEM (TYPE):** Two types:

1. Engine Heat (Fire Services should NOT shut down the engine heat until a site supervisor has arrived to assist in the shut down)
2. Lochinvar Propane Boiler  
(Closed glycol based system which covers in-floor and sides of tanks).

**MAIN GAS SHUT OFF LOCATION:** Three. ( one for back-up heater, two for the flare)

**MAIN ELECTRICAL SHUT OFF LOCATION:** Inside the transfer compound (fenced in)

**WATER MAIN SHUT OFF LOCATION:** No water on site

**HVAC UNITS:** No

**ROOF ACCESS:** Dirt ramp from the driveway. Roof is not to be accessed without authorization from Grimsby Energy Inc. staff.

**ATTIC ACCESS:** No

**FIRE DEPARTMENT ACCESS:** From the driveway off Sobie Road

**DESIGNATED FIRE ROUTE:** Private driveway around the building complex

**FIRE DEPARTMENT KEY BOX:** No

**FIRE DEPARTMENT CONNECTION (SPRINKLER/STANDPIPE):** No

**NEAREST HYDRANT LOCATION:** Sobie Road at Park Road

**HOSE CABINETS:** No

**FIRE PUMP:** No

**SPRINKLER SYSTEM (TYPE):** No

**AREA OF COVERAGE FOR SPRINKLERS:** Not applicable

**SPRINKLER SHUT OFF OR ISOLATION VALVES:** Not applicable

**DETECTION SYSTEM:** Methane detectors, Hydrogen Sulphide detectors, Carbon Dioxide detectors and LEL detectors.

**SECONDARY POWER SUPPLY:** No back-up power

**MONITORED:** The detection system is monitored by Grimsby Energy Inc. site computer system. When a detection device is activated, the computer system generates a notification to the cell phones of Grimsby Energy Inc. employees. The employees are required to acknowledge the notification and attend at the site.

**EXITS FROM THE BUILDING:** See schematics

**NO. OF STAIRWELLS:** None. The quad building has below grade ladders in the tank room.

**EMERGENCY POWER AND LIGHTING:** No

**PORTABLE FIRE EXTINGUISHERS:** To be installed

**HAZARDOUS PROCESSING AREAS:** Yes - Digester tanks. **WARNING:** The bladders contain bio-gas, methane, hydrogen sulphide, carbon dioxide, and LEL. Breathing in these gases could be fatal. Exercise caution, wear ALTAIR 4X monitors if you enter into the area. Wear SCBA).

**STORAGE AREAS:** On site trailer storage

**DESCRIPTION OF SITE:**

This site contains the following major components (see site plan):

1. Building - houses methane bags (grounding all around the building)
2. Engine and carbon filtration system (Contains main breaker for site. Fire Services should NOT shut off main electrical until Niagara Power staff or Grimsby Energy Staff attend the site to assist with the shut off)
3. Office Building
4. Weighing Scale
5. Two digestate storage tanks
6. Two digester tanks
7. Plug flow digester
8. Pre-storage underground tank
9. Front-end gravity feeder
10. Separation pump (pumphouse)
11. Bunker area for solid ASM and NASM storage
12. Leachate sedimentation pond which receives run-off rainwater from the bunker area.
13. Fresh water drainage pond
14. Workshop and spare parts warehouse
15. Propane Tanks (3)
16. Diesel Fuel Tank (for loader)
17. Two main power lines - one for the office, the other for the rest of the site

## AUDIT OF HUMAN RESOURCES

**BUILDING OWNER:** Grimsby Energy Incorporated

**BUILDING OWNER ADDRESSES AND PHONE NUMBERS:**

424 Sobe Rd, Grimsby L3M 4E7  
(905) 228-1506

**PROPERTY EMERGENCY CONTACTS:**

Adam Farkas (289) 214-4603  
Greg Wilson (289) 260-2351  
Tom Ferencevic (289) 668-0201

**PORTABLE FIRE EXTINGUISHER CONTACT:** To be determined

**Premises Occupied By:** Grimsby Energy Incorporated

## **OWNER/MANAGER RESPONSIBILITIES FOR FIRE SAFETY**

The building owner has numerous responsibilities related to fire safety and has responsibility for carrying out the provisions of the Ontario Fire Code. "Owner" means any person, firm, corporation having control over any portion of the building or property under consideration and includes the persons in the building or property. The Building Owner must appoint a Fire Safety Coordinator to be responsible for the overall fire safety within the building. The Fire Safety Coordinator must ensure that all staff and responsible persons are properly trained before giving them any responsibilities under the Fire Safety Plan.

The owner must ensure that the following measures are enacted:

1. Keep a copy of the approved Fire Safety Plan on the premises in an approved location. Ensure that all provisions set out in the Plan are carried out.
2. The Fire Safety Plan shall be reviewed as often as necessary, but at least every 12 months, and shall be revised as necessary so that it takes into account changes in the use or other characteristics of the building premises.
3. Ensure the Fire Safety Plan is current. The Chief Fire Official shall be notified regarding any changes in the Fire Safety Plan.
4. Ensure that the Fire Safety Plan, or parts thereof, are distributed to all occupants.
5. Post and maintain at least one (1) copy of the "Emergency Procedures for Occupants" (page 17 of this document) on each floor level.
6. Appoint and organize designated supervisory staff to carry out fire safety duties. Each supervisory staff person shall be provided with a copy of their duties as identified in the Fire Safety Plan.
7. Provide for the instruction and training of supervisory staff, and other occupants, so that they are aware of their responsibilities for fire safety.
8. Records of training of supervisory staff are to be kept on site. Such training will take place prior to anyone assuming fire safety duties under this Plan.
9. Designate and train alternates to replace supervisory staff during any absence.
10. Holding of fire drills in accordance with the Ontario Fire Code, incorporating emergency procedures appropriate to the site.

11. Control of fire hazards in the buildings and on site.
12. Maintenance of building facilities provided for the safety of occupants.
13. Ensuring that checks, tests and inspections as required by the Ontario Fire Code are completed on schedule and that records are kept for a minimum period of 2 years.

## **APPOINTMENT OF DESIGNATED SUPERVISORY STAFF**

This fire safety plan includes the appointment and organization of designated "supervisory staff" and alternates who are required to be trained to respond to a fire emergency in a predetermined manner. Supervisory staff duties and responsibilities are outlined in this fire safety plan. The person(s) designated as supervisory staff must be qualified and willing to take on the added duties and responsibilities. The person(s) who is designated as "supervisory staff" does not have to be from management or be a supervisor from the company/organization.

OFC 2.8.1.2 (1) **Supervisory Staff** shall be instructed in the fire emergency procedures as described in the fire safety plan before they are given any responsibility for fire safety.

(2) **Supervisory Staff** shall be available on notification of a fire emergency to fulfill their obligation as described in the fire safety plan.

(3) Subject to Article 2.8.2.2, **Supervisory Staff** are not required to be in the building on a continual basis.

### **Identification of Supervisory Staff: (\*and the alternate)**

Role	Supervisory Staff	Alternates
Fire Warden	Adam Farkas	Greg Wilson Tom Ferencevic

## **TRAINING OF SUPERVISORY STAFF**

### **Training of Supervisory Staff - Grimsby Energy Inc.**

#### **Training of Supervisory Staff**

Ongoing inspections, training and fire drills are necessary to ensure an effective fire safety program.

Training will be scheduled as often as necessary to ensure the supervisory staff know their responsibilities.

The orientation training program for supervisory staff should include fire safety instructions on: what to do upon discovery of fire and how to prevent or minimize fire hazards at the site.

All supervisory staff must know their duties when an emergency occurs and the location and operation of portable fire extinguishers.

#### **General Responsibilities**

Keep entrances and exits clear of any obstructions at all times.

Do not permit combustible materials to accumulate.

Keep access roadways and fire routes accessible at all times.

In the event of any alert from the computer monitoring system, initiate alternative measures as specified in operational procedures for the site.

Participate in fire drills.

Comply with the Ontario Fire Code. Arrange for substitute in your absence.

## **SUPERVISORY STAFF DUTIES AND RESPONSIBILITIES**

In order for the emergency response portion of this fire safety plan to be effectively implemented, management and every employee must understand the important role they play in promoting fire safety in the workplace. Everyone must be required to adhere to the fire safety practices and procedures. The orientation training program for all employees should include fire safety instructions on: what to do upon discovery of fire and how to prevent or minimize fire hazards in the workplace. A copy of the Fire Emergency Procedures and other duties outlined in the fire safety plan must be given to all supervisory staff.

Supervisory Staff must have a working knowledge of the site detection system and should know how to operate a portable fire extinguisher.

## **SITE STAFF DUTIES AND RESPONSIBILITIES**

### **In General:**

Staff must read the Fire Safety Plan each year in order to understand emergency procedures.

Keep access to entrances and EXITS, inside and outside, clear of any obstructions at all times.

Do not permit combustible materials to accumulate in quantities or locations that would constitute a fire hazard.

Promptly remove all combustible waste from areas where waste is placed for disposal, if applicable.

Participate in fire drills.

Have a working knowledge of the site safety systems.

Report any deficiencies to the Fire Warden.

Comply with the Ontario Fire Code.

## **SUPERVISORY STAFF EMERGENCY PROCEDURES**

### **Upon discovery of smoke or fire:**

Alert occupants and leave the fire area.

Close all doors behind you. Yell "Fire".

(You may attempt to fight the fire if it is safe to do so, and if you have been trained on the use of portable fire extinguishers.)

Assist occupants to evacuate the building if safe to do so.

Exit the building using the nearest exit. If you encounter smoke or fire, use an alternate exit.

Call the Fire Service, from a safe location, by dialing 9-1-1, provide the correct address and location of the fire, and your name.

Designate a person to proceed to the main entrance to meet Fire Service personnel.

### **Upon arrival of Fire Department:**

Inform the Fire Officer regarding conditions in the building.

Provide fire personnel access, vital information and any emergency keys.

## **EMERGENCY PROCEDURES FOR OCCUPANTS**

### **Upon discovery of fire:**

Leave the fire area, closing all doors behind you  
Alert other occupants of the building. Yell "FIRE".  
Make provisions or take precautions to confine, control, and extinguish the fire if safe to do so.  
You may attempt to fight the fire if it is safe to do so, and if you have been trained on the use of fire extinguishers.  
Use the nearest exit to leave the building.  
Telephone the FIRE SERVICE, from a safe location, dial 9-1-1. Never assume that this has been done.  
Give the correct site address (424 Sobie Rd., Grimsby) and location of the fire and your name.  
Proceed to the designated meeting area.  
Do not return until it is declared safe to do so by a Fire Official.

**DESIGNATED MEETING AREA: Sobie Road, at the front of the site.**

## **FIRE DRILL PROCEDURES AND TRAINING**

The purpose of a fire drill is to ensure that the Supervisory Staff and occupants are familiar with emergency evacuation procedures. This will ensure an orderly evacuation should it become necessary. The Fire Drill will be prepared in consultation with the Chief Fire Official.

It is the responsibility of **Grimsby Energy Inc.** to schedule the annual drill. Advance notice (at least 48 hours), should be posted advising the occupants of the time and date of these drills. Notify the **Fire Service Dispatch** prior to any drill. Dial **905-684-4311**. Give the address of the site, your name and the expected duration of the drill.

Simulate a fire emergency and alert persons on site by yelling "Fire" or using cell phones. Record the actions of the occupants and staff. Note any deficiencies/problems. Contact the Fire Service upon completion of drill.

Following each drill, all Supervisory Staff and occupants should attend a debriefing to report on their observations. Fire drills must be conducted in accordance with the FIRE CODE. All fire drill records must be retained and kept on site for 12 months after the fire drill.

**NOTE:** For this building complex (**Bio-Digester Facility**), the Ontario Fire Code requires that fire drills be conducted annually.

### ORGANIZING AND CONDUCTING A FIRE DRILL

Fire drills must be conducted on a frequency set out by the Ontario Fire Code 2.8.3.2. All employees/occupants understand the procedures to be followed in an emergency. Employees are trained to safely shut down critical systems or equipment they are using during an emergency in order to prevent further hazards.

A person is designated to respond to the safety needs of any guests or contractors during an emergency.

All fire drill records must be retained and kept on site for 12 months after the fire drill. A procedure is established to evaluate the fire drill once it has been completed. (see sample below).

#### RECORD OF FIRE DRILL

Forward the Completed Record of Fire Drill to: Grimsby Energy Inc.

Date and Time of fire drill:

Name of person supervising drill and completing this report:

Management/Supervisory Personnel Present:

Time of Notification to Fire Department (prior to drill)

Observations from the drill:

## **CONTROL OF FIRE HAZARDS**

### **Industrial Properties**

Do not store combustible material in non-approved areas.

Ensure that fire and smoke barrier doors are operating properly and are never wedged open.

Avoid improper storage of flammable liquids and gases

Never use defective electrical appliances, frayed extension cords, overloaded outlets or extension cords for permanent wiring.

Avoid careless use of smoking materials.

Never improperly dispose of oily rags.

### **Specific to this Site**

If any operations are conducted near a bio gas building, precautions must be taken to avoid rupturing any tanks or pipes located above or below ground.

Upon arrival of delivery trucks, drivers must be stopped and on-site staff will provide direction as to delivery operations.

All arriving drivers and/or contractors will be met by site personnel and will be provided with a verbal summary of site safety precautions.

Contractors will be briefed as to site safety operations before any work is commenced.

## **ALTERNATIVE MEASURES FOR OCCUPANT SAFETY**

Where possible, all staff and occupants should be made aware of temporary shutdowns of site safety and detection components. All shut-downs will be confined to as limited an area and duration as possible.

The **OWNER** is responsible for the safety of occupants at all times.

In the event of shut-down, or operational problems with building safety or detection systems, the owner or their representative will initiate alternative measures as noted:

**Notification:** Occupants will be notified and instructions will be posted as to alternative measures or actions to be taken in case of emergency.

### **Shut Down Procedure:**

1. The Fire Warden will notify Grimsby Fire Department Dispatch at (905) 684-4311. Provide your name, address of the site and a description of the problem and when you expect it to be corrected.
2. Notices are to be posted outside all affected buildings stating the problem and when it is expected to be corrected. (sample notice is provided herein)
3. Notify the Fire Department and the building occupants when repairs have been completed and systems are operational.

### **Hot Works:**

Hot works (such as, but not limited to, roofing or welding) must have precautions put into place before the work commences. Fire hazards and preventative measures must be identified. The owner and/or managers must take the lead role in identifying these potential fire hazards and establishing fire prevention practices to safely eliminate or control the hazard.

**Subsection 2.8.2.1. (5) of the Ontario Fire Code sets out the following:**

*Before demolition or construction, including hot surface applications, commences in or on the building or premises, the fire safety plan shall be revised to incorporate*

- (a) temporary alternative measures for the fire safety of the occupants during the demolition or construction, and*
- (b) temporary procedures to control fire hazards associated with the demolition or construction, including procedures to mitigate risks to adjacent buildings.*

Examples of temporary alternative measures and temporary procedures may include (but are not limited to):

The owner/manager (Grimsby Energy Incorporated) must review the scope of all hot works procedures before they commence. All hot works procedures will be monitored by institution of a Fire Watch. The Fire Watch will continue throughout the duration of the work activity and for a period of thirty (30) minutes minimum after completion of the work. Fire Watch procedures shall be documented, as set out in this plan, and records are to be maintained for a period of two years. Employees must be fully trained in the established fire prevention practices. Appropriately sized and type of fire extinguisher shall be readily available. Employees shall be trained in the use of such fire extinguishers.

## **IMPORTANT NOTICE**

### **Detection System Out of Service**

The Detection System may not function if there is a leak.

The Detection system is being serviced by qualified personnel and will be restored as quickly as possible.

The building is not to be occupied while the Detection System is out of service.

If you discover a fire:

- Shout to warn others
- Leave the area using your nearest exit
- Use alternate exit if required
- Call 9-1-1 to notify Fire Department
- If you hear someone shouting "Fire", leave the area immediately.

When the detection system is back in service, this notice will be removed.

If you require further information - Site contact person and phone number is:

## **FIRE PROTECTION COMPONENTS**

### **EXITS:**

An exit is that part of a means of egress that leads from the floor area it serves to a public thoroughfare or to an approved open space. Walls, floors, doors and other means provide a protected path necessary for occupants to proceed with reasonable safety to a place of refuge.

### **FIRE DEPARTMENT ACCESS:**

Fire Department access allows firefighters and their equipment to gain access to the building. Vehicles parked in a Fire Route, excess vegetation, snow and other forms of obstructions to access routes, fire hydrants and Fire Dept. connections are not permitted by the Fire Code. Maintaining Fire Dept. access is an ongoing matter. In addition, access into a building requires consideration e.g. with a key box and thorough preplanning.

### **PORTABLE EXTINGUISHERS:**

Portable extinguishers are intended as a first aid measure to cope with fires of limited size. The basic types of fires are Class A, B and C. Portable extinguishers are rated for corresponding classes of fires.

## **MAINTENANCE OF BUILDING FACILITIES AND FIRE PROTECTION EQUIPMENT**

This Fire Safety Plan contains a detailed schedule identifying the required checks, inspections and tests of all fire safety systems and features provided. Ontario Fire Code definitions of key words are as follows:

CHECK	Means a <i>visual</i> observation to ensure the device or system is in place, and is not obviously damaged or obstructed.
INSPECT	Means <i>physical</i> examination to determine that the device or system will apparently perform in accordance with its intended function.
TEST	Means the <i>operation</i> of a device or system to ensure that it will perform in accordance with its intended operation or function.

### **The building owner/manager must:**

Ensure that all fire protection features provided in each building are checked, inspected, tested and maintained in accordance with the frequencies specified in Division B Part 2 and Part 6 of the Fire Code and all applicable referenced standards.

When using in-house personnel to conduct some of these checks, inspections and tests, ensure that the person is fully trained and qualified to carry out the activity. Keep permanent records of all tests and corrective measures taken for a period of two years after they are made. The records are to be made available upon request to the Chief Fire Official.

## **FIRE SAFETY MAINTENANCE DUTIES**

### **LEL, CARBON MONOXIDE, CARBON DIOXIDE, METHANE AND HYDROGEN SULPHIDE DETECTORS**

(also reference manufacturer's instructions)

Action	Frequency	Responsibility
Maintain all types of detectors as recommended by the manufacturer.	Annually	Owner
Test alarm functions as recommended by the manufacturer.	Annually	Owner
Replace all detectors.	On a frequency prescribed by the manufacturer	Owner

## PORTABLE FIRE EXTINGUISHERS

NFPA 10 sets out details for maintenance guidelines for portable fire extinguishers.

Action	Frequency	Responsibility
Each extinguisher shall have a securely attached tag showing the maintenance or recharge date, the servicing agency, and the signature of the person who performed the service.	Annually	Contractor
A permanent record containing all the inspection and maintenance conducted on all of the portable fire extinguishers shall be maintained for a period of at least 2 years and be made available to the Chief Fire Official upon request.	Annually	Contractor
Portable extinguishers shall be inspected as follows: Check nozzle for operation and any obstructions Seal or tamper indicators are in place Pressure gauge is reading satisfactorily No apparent physical or mechanical damage Instructions for use on name plate are legible and face outward	Monthly	Owner
Extinguishers shall be subject to maintenance not more than one year apart or when specifically indicated by an inspection. Maintenance procedures shall include a thorough examination of the 3 basic elements of an extinguisher: mechanical parts, extinguishing agent and expelling means.	Annually	Contractor
Stored pressure extinguishers which require a 12 year hydrostatic test shall be emptied and subject to applicable maintenance procedures.	Every 6 years	Contractor
Hydrostatically test dry chemical and vaporizing liquid type extinguishers.	Every 12 years	Contractor

#### **MEANS OF EGRESS**

Action	Frequency	Responsibility
Inspect all doors in fire separations.	Monthly	Owner
Check all doors and fire separations to ensure they are closed.	Daily	Owner
Maintain exit signs to ensure they are clean, legible, illuminated and in good repair.	Daily	Owner
Ensure corridors and exits are free of obstructions.	Daily	Owner

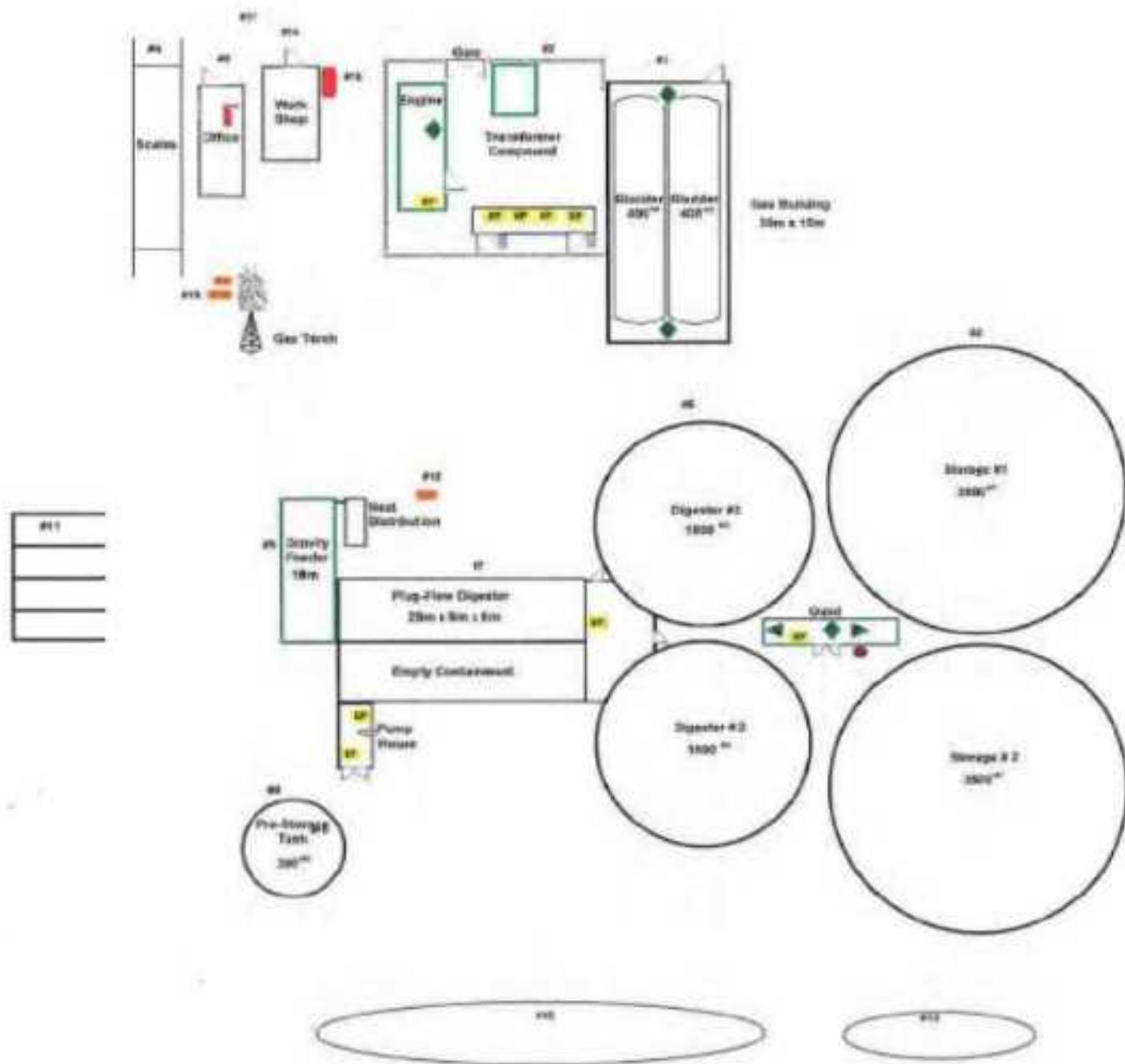
#### **FIRE DEPARTMENT ACCESS**

Action	Frequency	Responsibility
Ensure that fire access routes are maintained so as to be immediately ready for use at all times by fire department vehicles.	Daily	Owner

#### **ELECTRICAL DISCONNECT SWITCHES**

Action	Frequency	Responsibility
Disconnect switches for ventilating systems shall be inspected to establish that the system can shut down in an emergency.	Annually	Owner

## SCHEMATICS



**LEGEND**

- Fire Extinguisher
- Gas Detector
- Detector Values
- Electrical Boxes
- Emergency Stop
- Drum/Tote (200L)
- Piping

Grindley Energy Inc.  
402 Table Rd.  
AMHERSTBURG  
ON N9B 2L2

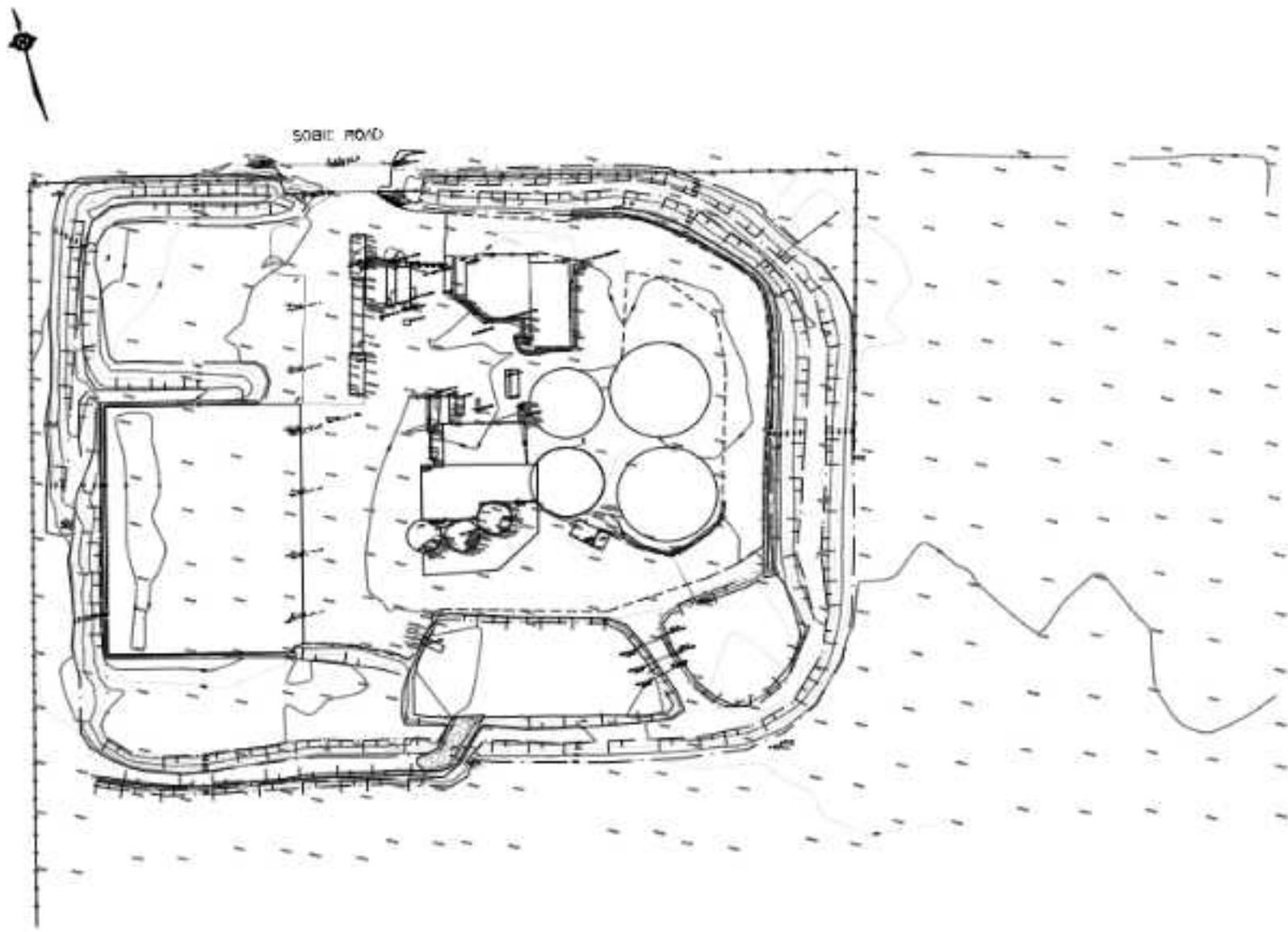
Building Layout  
July 2018

Trillium Fire Protection  
905-684-4195  
mocagiew@gmail.com



# **Appendix H**

## **As-Built Grading Plan**



# **Appendix I**

## **Detailed Engineering and Equipment Documents**

Detail Engineering and Equipment Documents are pending final design