

EXECUTIVE SUMMARY

HGC Engineering was retained by Union Gas Limited to undertake an Acoustic Assessment of the 167 Pool Station in Dawn Township, Ontario. The study is required in support of an application for a Comprehensive Certificate of Approval (C of A) to the Ministry of Environment (MOE). The assessment considers all existing operable sound sources at the facility.

Source sound level measurements of existing sources were conducted at the facility on June 20, 2007. The measured source sound levels were used as input to a predictive acoustical model to quantify the environmental sound emissions associated with the facility. Acoustic assessment criteria were established in accordance with the sound level limits in MOE guideline NPC-232.

The analysis results indicate that, with the compressor building north sliding door closed during evening/nighttime hours, noise emissions from the 167 Pool Station are within the applicable limits, as set out in MOE publication NPC-232.

Table A2: Point of Reception Noise Impact Table

Source ID	Source Name	Point of Reception					
		R1 L _{EQ} [dBA]			R2 L _{EQ} [dBA]		
		Dist [m]	Day	Evening/Night	Dist [m]	Day	Evening/Night
U1	Recip. Combustion Exhaust	350	26	26	409	24	24
NS-01	Recip. Radiator/Gas Aftercooler	358	34	34	404	30	30
NS-02	Compressor Building Roof Vent (North)	356	28	28	400	26	26
NS-03	Compressor Building Roof Vent (South)	357	28	28	402	29	29
NS-04	Compressor Building West Ventilation Louvre	360	14	14	394	25	25
NS-05	Compressor Building Hooded Vent (West)	361	4	4	395	25	25
NS-06	Compressor Building Hooded Vent (East)	350	24	24	406	5	5
NS-07	Compressor Building East Ventilation Louvre	352	25	25	407	16	16
NS-08	Compressor Building Open Man Door (West)	362	19	19	398	31	31
NS-09	Compressor Building North Door	354	39	--	398	38	--

Table A3: Acoustic Assessment Summary Table

Point of Reception	Point of Reception Description	Sound Level at Point of Reception, L _{EQ} [dBA]		Verified by Acoustic Audit	Performance Limit, L _{EQ} [dBA]		Compliance with Performance Limit
		Day	Evening/Night		Day	Evening/Night	
R1	30 metres from single storey dwelling (in direction of station) approx. 355 metres NE of station	41	37	N	45	40	Y*
R2	Upper storey window of two storey home approx. 400 metres NW of station	40	37	N	45	40	Y

* Compliance during evening/nighttime hours assumes the compressor building north sliding door remains closed during this time period.