

EXECUTIVE SUMMARY

HGC Engineering was retained by Union Gas Limited to undertake an Acoustic Assessment of the Iroquois Falls Compressor Station in Iroquois Falls, Ontario. Previously, HGC Engineering prepared an Acoustic Assessment Report (“AAR”) in 2008 [1]. At that time, the subject facility was not operational; thus, sound emissions from key items of equipment were based on measurements of equipment conducted by HGC Engineering at a similar Union Gas compressor station. This updated AAR incorporates acoustical measurements conducted by HGC Engineering at the site on September 11, 2012, and has been prepared to satisfy condition 5.1(2) of Environmental Compliance Approval 1949-7KRMC5, issued by the Ontario Ministry of the Environment (“MOE”), which requires that a current AAR be maintained.

Source sound level measurements were conducted at the facility on September 11, 2012, near each stationary source, and at neighbouring offsite points of reception. The source sound levels were used to develop an acoustical model of the facility in order to prepare a sound source inventory, and thereby determine the contribution of each individual source to the overall offsite sound levels. Acoustic assessment criteria were established in accordance with the sound level limits in MOE guideline NPC-232.

The measurements and analysis indicate that the sound levels of the Iroquois Falls Compressor Station meet the sound level criteria of MOE publication NPC-232 during a predictable worst case hour of operation at the station.

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	Night	
R1	Raised bungalow approx. 425 m NE of station	38	Yes*	45	40	Yes/Yes
R2	Raised bungalow approx. 420 m NE of station	38	Yes*	45	40	Yes/Yes
R3	Raised bungalow approx. 410 m NW of station	32	Yes*	45	40	Yes/Yes
R4	Raised bungalow approx. 440 m NW of station	32	Yes*	45	40	Yes/Yes
R5	Two storey home approx. 480 m S of station	38	Yes*	45	40	Yes/Yes
R6	Two storey home approx. 445 m S of station	39	Yes*	45	40	Yes/Yes

* The station was only slightly audible over daytime background sound at the nearest point of reception.