

EXECUTIVE SUMMARY

HGC Engineering was retained by Union Gas Limited to prepare an updated Acoustic Assessment Report for the Sandwich Compressor Station in Tecumseh, Ontario. Previously, HGC Engineering prepared Acoustic Assessment Reports (“AARs”) in 2008 [1] and 2012 [2, 3] and 2014 [4]. This updated AAR documents upgrades to the compressor plant which were presented in the last report, and have since been implemented, and serves to satisfy condition 4.1(b) of Environmental Compliance Approval 3468-9DUJMT, issued by the Ontario Ministry of Environment and Climate Change (“MOECC”), which requires that a current AAR be maintained.

Source sound level measurements of existing sources were conducted at the facility on November 13, 2007 and October 11, 2012. Sound levels from the upgraded gas turbine exhaust, as well as several building ventilation openings were based on manufacturer’s specifications. The 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 MOECC guideline NPC-205.

The measurements and analysis indicate that the sound levels of the Sandwich Compressor Station meet the sound level criteria of MOECC publication NPC-205. Given the absence of any sources of ground-borne vibration at the site, the facility also complies with the applicable vibration limits of the MOECC.

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
R1	Single storey dwelling 190 metres SW of the station	43	No	45	Yes
R2	Legal non-conforming single storey dwelling 195 metres W of the station	43	No	45	Yes



ACOUSTICS



NOISE



VIBRATION