Table (i) Emission Summary Table

No.	Contaminant	CAS No.	Averaging Period	Total Facility Emission Rate (g/s)	Air Dispersion Model	Maximum POI Concentration (µg/m³)	MECP POI Limit [2] (µg/m³)	Limiting Effect	Source of Criteria	Category	Percent of POI Limit (%)
1	Total Suspended Particulates	N/A - TSP	24-hour	3.18E-02	AERMOD [1]	15.1	120	Visibility	Standard	B1	13%
2	Uranium and Uranium Compounds	7440-61-1	Annual	4.81E-06	AERMOD [1]	0.00076	0.03	Health	Standard	B1	3%
			Annual	4.81E-06	AERMOD [1]	0.00076	0.15	--	AAV	--	0.5%
			24-hour	4.81E-06	AERMOD [1]	0.0033	1.5	--	DAV/URT	--	0.2%

Notes:

1. AERMOD version 22112

2. Air Contaminants Benchmarks (ACB) List: Standards, guidelines and screening levels for assessing point of impingement concentrations of air contaminants, April 2023.

EXECUTIVE SUMMARY

BWXT Nuclear Energy Canada Inc. (BWXT) retained the services of Northern Applied Sciences Inc. (NAPSCI) to prepare an updated Acoustic Assessment Report (AAR) for the 2024 calendar year for the site located 1025 Lansdowne Avenue in Toronto, Ontario (Facility).

The Facility is a manufacturer of natural uranium fuel pellets. The NAICS code associated with the Facility is 325189 (All Other Basic Inorganic Chemical Manufacturing). The operation of this Facility is regulated by the Canadian Nuclear Safety Commission (CNSC). The Facility operates under Environmental Compliance Approval Number 5460-ACWHBS, issued by the Ministry of the Environment, Conservation and Parks on September 12, 2017.

This AAR has been prepared to meet Condition 5 of the facility's ECA, which requires the Facility to prepare an updated AAR by March 31 such that the information in the report is accurate as of December 31 of the previous year. The acoustic assessment report was prepared in a manner that satisfies the requirements of MECP Publications NPC-300 and NPC-233.

Sound levels for this update were estimated using manufacturer sound performance data and were entered into Cadna-A acoustic modelling software to determine the noise impacts at sensitive receptors located near the Facility. The worst-case noise impacts at the sensitive receptors generated by noise sources at the facility are summarized below.

This AAR concludes that the noise impacts at the sensitive points of reception from stationary non-impulsive noise sources meet the applicable noise criteria. A vibration assessment was not needed for the site as there are no significant vibrational sources.

Acoustic Assessment Summary Table (Stationary Sources)

Point of Reception	Description of Reception Point	Facility Leq (dBA)	Verified by Acoustic Audit	Class 1 Performance Limit (dBA)	Compliance with Performance Limit
Day (0700 h to 1900 h)					
POR1	Residence - Plane of Window (@ 4.5 m)	49	Yes	59	Yes
POR2	Residence - Plane of Window (@ 4.5 m)	45	Yes	50	Yes
POR3	Residence - Plane of Window (@ 4.5 m)	51	Yes	53	Yes
POR4a	Residence - Plane of Window (@ 4.5 m)	52	Yes	53	Yes
POR4b	Residence - Plane of Window (@ 7.5 m)	52	Yes	53	Yes
POR5a	Apartment Building - Plane of Window (@ 7.5 m)	50	Yes	57	Yes
POR5b	Apartment Building - Plane of Window (@ 12.5 m)	51	Yes	57	Yes
POR5c	Apartment Building - Plane of Window (@ 17.5 m)	52	Yes	57	Yes
POR6a	Apartment Building - Plane of Window (@ 7.5 m)	51	Yes	56	Yes
POR6b	Apartment Building - Plane of Window (@ 12.5 m)	52	Yes	56	Yes
POR6c	Apartment Building - Plane of Window (@ 17.5 m)	54	Yes	56	Yes

Point of Reception	Description of Reception Point	Facility Leq (dBA)	Verified by Acoustic Audit	Class 1 Performance Limit (dBA)	Compliance with Performance Limit
POR7a	Apartment Building (new) - Plane of Window (@ 16.5 m)	57	Yes	62	Yes
POR7e	Apartment Building (new) - Plane of Window (@ 7.5 m)	52	Yes	62	Yes
Evening (1900 h to 2300 h)					
POR1	Residence - Plane of Window (@ 4.5 m)	46	Yes	59	Yes
POR2	Residence - Plane of Window (@ 4.5 m)	43	Yes	50	Yes
POR3	Residence - Plane of Window (@ 4.5 m)	49	Yes	53	Yes
POR4a	Residence - Plane of Window (@ 4.5 m)	50	Yes	53	Yes
POR4b	Residence - Plane of Window (@ 7.5 m)	50	Yes	53	Yes
POR5a	Apartment Building - Plane of Window (@ 7.5 m)	50	Yes	57	Yes
POR5b	Apartment Building - Plane of Window (@ 12.5 m)	50	Yes	57	Yes
POR5c	Apartment Building - Plane of Window (@ 17.5 m)	51	Yes	57	Yes
POR6a	Apartment Building - Plane of Window (@ 7.5 m)	51	Yes	56	Yes
POR6b	Apartment Building - Plane of Window (@ 12.5 m)	51	Yes	56	Yes
POR6c	Apartment Building - Plane of Window (@ 17.5 m)	53	Yes	56	Yes
POR7a	Apartment Building (new) - Plane of Window (@ 16.5 m)	56	Yes	62	Yes
POR7e	Apartment Building (new) - Plane of Window (@ 7.5 m)	51	Yes	62	Yes
Night (2300 h to 0700 h)					
POR1	Residence - Plane of Window (@ 4.5 m)	46	Yes	55	Yes
POR2	Residence - Plane of Window (@ 4.5 m)	43	Yes	45	Yes
POR3	Residence - Plane of Window (@ 4.5 m)	49	Yes	51	Yes
POR4a	Residence - Plane of Window (@ 4.5 m)	50	Yes	51	Yes
POR4b	Residence - Plane of Window (@ 7.5 m)	50	Yes	51	Yes
POR5a	Apartment Building - Plane of Window (@ 7.5 m)	50	Yes	55	Yes
POR5b	Apartment Building - Plane of Window (@ 12.5 m)	50	Yes	55	Yes
POR5c	Apartment Building - Plane of Window (@ 17.5 m)	51	Yes	55	Yes
POR6a	Apartment Building - Plane of Window (@ 7.5 m)	51	Yes	54	Yes
POR6b	Apartment Building - Plane of Window (@ 12.5 m)	51	Yes	54	Yes
POR6c	Apartment Building - Plane of Window (@ 17.5 m)	53	Yes	54	Yes
POR7a	Apartment Building (new) - Plane of Window (@ 16.5 m)	56	Yes	58	Yes
POR7e	Apartment Building (new) - Plane of Window (@ 7.5 m)	51	Yes	58	Yes