

Table 4
Emission Summary Table
BWXT
Peterborough, Ontario

Contaminant	CAS Number	Total Facility Emission Rate (g/s)	Air Dispersion Model Used	Maximum Groundlevel Concentration (ug/m ³)	Averaging Period (hours)	MECP POI Limit (ug/m ³)	Limiting Effect	Benchmark Category	Percentage of MECP POI Limit
Ethyl Benzene	100-41-4	3.53E-01	AERMOD	2.00E+02	10-min	1900	Odour	B1	11%
Ethyl Benzene	100-41-4	3.53E-01	AERMOD	5.11E+01	24	1000	Health	B1	5%
benzyl alcohol	100-51-6	2.76E-01	AERMOD	3.99E+01	24	880	Health	B1	5%
Nitrogen Oxides (NOX)	10102-44-0	4.73E-01	AERMOD	2.80E+02	1	400	Health	B1	70%
Nitrogen Oxides (NOX)	10102-44-0	4.73E-01	AERMOD	8.50E+01	24	200	Health	B1	43%
Methyl Isobutyl Ketone	108-10-1	6.21E-01	AERMOD	8.98E+01	24	1200	Odour	B1	7%
m-xylene	108-38-3	1.20E-01	AERMOD	1.74E+01	24	730	Health	B1	2%
m-xylene	108-38-3	1.20E-01	AERMOD	6.81E+01	10-min	3000	Odour	B1	2%
cyclohexanone	108-94-1	1.20E+00	AERMOD	1.74E+02	24	400	Health	B2	44%
Xylenes	1330-20-7	1.22E+00	AERMOD	1.77E+02	24	730	Health	B1	24%
Xylenes	1330-20-7	1.22E+00	AERMOD	6.91E+02	10-min	3000	Odour	B1	23%
Barite	13462-86-7	3.17E-03	AERMOD	4.58E-01	24	2.5	Health	B2	18%
Talc	14807-96-6	9.50E-03	AERMOD	1.37E+00	24	2	Health	B1	69%
Quartz, Silica	14808-60-7	1.17E-03	AERMOD	1.69E-01	24	5	Health	B1	3%
Chromium (VI)	18540-29-9	1.55E-08	AERMOD	3.11E-06	Annual	0.00014	Health	B1	2%
Chromium (VI)	18540-29-9	1.55E-08	AERMOD	3.11E-06	Annual	0.0014	-	AAV	<1%
Chromium (VI)	18540-29-9	1.55E-08	AERMOD	1.03E-05	24	0.07	-	DAV	<1%
Epoxy Resin	25068-38-6	6.58E-02	AERMOD	9.51E+00	24	120	Health & Particulate	B2	8%
Propylene Glycol T-butyl Ether	57018-52-7	1.04E-01	AERMOD	1.50E+01	24	365	Health	B2	4%
Aromatic 100	64742-95-6	1.12E-01	AERMOD	1.62E+01	24	500	Health	B2	3%
Nickel	7440-02-0	2.42E-05	AERMOD	4.88E-03	Annual	0.04	Health	B1	12%
Chromium	7440-47-3	2.17E-04	AERMOD	1.45E-01	24	0.5	Health	B1	29%
Uranium	7440-61-1	4.13E-10	AERMOD	1.17E-07	Annual	0.03	Health	B1	<1%
Isobutyl Alcohol	78-83-1	1.04E-01	AERMOD	5.85E+01	10-min	2340	Odour	B1	3%
Isobutyl Alcohol	78-83-1	1.04E-01	AERMOD	1.50E+01	24	4600	Health	B1	<1%
Methyl Ethyl Ketone (MEK)	78-93-3	3.68E+00	AERMOD	5.32E+02	24	1000	Health	B1	53%
Naphthalene	91-20-3	4.96E-03	AERMOD	7.17E-01	24	22.5	Health	B1	3%
Naphthalene	91-20-3	4.96E-03	AERMOD	2.81E+00	10-min	50	Odour	B1	6%
Particulate Matter	NA-2	5.33E-02	AERMOD	2.06E+01	24	120	Visibility	B1	17%

Notes:

(1) MECP POI Limit listed on the "Air Contaminants Benchmarks (ACB) List: Standards, Guidelines and Screening Levels for Assessing Point of Impingement Concentrations of Air Contaminants"

B1 - Benchmark 1 - Exceedence of a Benchmark 1 concentration triggers specific actions under the Regulation

B2 - Benchmark 2 - Exceedence of a Benchmark 2 concentration triggers a toxicological assessment to determine the likelihood of adverse effect

Table 3

**Acoustic Assessment Summary
BWXT
1160 Monaghan Road, Peterborough, Ontario**

Point of Reception ID	Point of Reception Description	Time of Day	Existing Sound Levels (L _{EQ}) (dBA)	Performance Limit ¹ (L _{EQ}) (dBA)	Compliance with Performance Limit (Yes/No)	Class Number	Verified by Acoustic Audit
Steady State Noise Impact							
OPOR10	Outside 613 Frank St	07:00–19:00	43	50	Yes	Class 1	No
		19:00–23:00	43	50	Yes	Class 1	No
		23:00–07:00	43	45	Yes	Class 1	No
OPOR7	Outside 126 Park Street North	07:00–19:00	35	50	Yes	Class 1	No
		19:00–23:00	35	50	Yes	Class 1	No
		23:00–07:00	35	45	Yes	Class 1	No
POR1	1178 Monaghan Road	07:00–19:00	46	50	Yes	Class 1	No
		19:00–23:00	44	50	Yes	Class 1	No
		23:00–07:00	44	45	Yes	Class 1	No
POR10	613 Frank Street	07:00–19:00	41	50	Yes	Class 1	No
		19:00–23:00	41	50	Yes	Class 1	No
		23:00–07:00	41	45	Yes	Class 1	No
POR2	508 Wolfe Street	07:00–19:00	46	50	Yes	Class 1	No
		19:00–23:00	44	50	Yes	Class 1	No
		23:00–07:00	44	45	Yes	Class 1	No
POR3	572 Wolfe Street	07:00–19:00	45	50	Yes	Class 1	No
		19:00–23:00	45	50	Yes	Class 1	No
		23:00–07:00	45	45	Yes	Class 1	No
POR4	560 Wolfe Street	07:00–19:00	44	50	Yes	Class 1	No
		19:00–23:00	44	50	Yes	Class 1	No
		23:00–07:00	44	45	Yes	Class 1	No
POR5	560 Wolfe Street	07:00–19:00	41	50	Yes	Class 1	No
		19:00–23:00	41	50	Yes	Class 1	No
		23:00–07:00	41	45	Yes	Class 1	No
POR6	148 Hart Ave	07:00–19:00	33	50	Yes	Class 1	No
		19:00–23:00	33	50	Yes	Class 1	No
		23:00–07:00	33	45	Yes	Class 1	No

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Point of Reception ID	Point of Reception Description	Time of Day	Existing Sound Levels	Performance	Compliance with	Class Number	Verified by Acoustic Audit
			(L _{EQ})	Limit ¹ (L _{EQ})	Performance Limit		
			(dBA)	(dBA)	(Yes/No)		
POR7	126 Park Street North	07:00–19:00	33	50	Yes	Class 1	No
		19:00–23:00	33	50	Yes	Class 1	No
		23:00–07:00	33	45	Yes	Class 1	No
POR8	493 Albert Street	07:00–19:00	35	50	Yes	Class 1	No
		19:00–23:00	35	50	Yes	Class 1	No
		23:00–07:00	35	45	Yes	Class 1	No
POR9	535 Albert Street	07:00–19:00	42	50	Yes	Class 1	No
		19:00–23:00	42	50	Yes	Class 1	No
		23:00–07:00	42	45	Yes	Class 1	No
Emergency Noise Impact							
OPOR10	Outside 613 Frank St	07:00–19:00	24	55	Yes	Class 1	No
		19:00–23:00	—	55	Yes	Class 1	No
		23:00–07:00	—	50	Yes	Class 1	No
OPOR7	Outside 126 Park Street North	07:00–19:00	32	55	Yes	Class 1	No
		19:00–23:00	—	55	Yes	Class 1	No
		23:00–07:00	—	50	Yes	Class 1	No
POR1	1178 Monaghan Road	07:00–19:00	31	55	Yes	Class 1	No
		19:00–23:00	—	55	Yes	Class 1	No
		23:00–07:00	—	50	Yes	Class 1	No
POR10	613 Frank Street	07:00–19:00	23	55	Yes	Class 1	No
		19:00–23:00	—	55	Yes	Class 1	No
		23:00–07:00	—	50	Yes	Class 1	No
POR2	508 Wolfe Street	07:00–19:00	41	55	Yes	Class 1	No
		19:00–23:00	—	55	Yes	Class 1	No
		23:00–07:00	—	50	Yes	Class 1	No
POR3	572 Wolfe Street	07:00–19:00	54	55	Yes	Class 1	No
		19:00–23:00	—	55	Yes	Class 1	No
		23:00–07:00	—	50	Yes	Class 1	No

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			(dBA)	(dBA)	(Yes/No)		
POR4	560 Wolfe Street	07:00–19:00	50	55	Yes	Class 1	No
		19:00–23:00	—	55	Yes	Class 1	No
		23:00–07:00	—	50	Yes	Class 1	No
POR5	560 Wolfe Street	07:00–19:00	45	55	Yes	Class 1	No
		19:00–23:00	—	55	Yes	Class 1	No
		23:00–07:00	—	50	Yes	Class 1	No
POR6	148 Hart Ave	07:00–19:00	35	55	Yes	Class 1	No
		19:00–23:00	—	55	Yes	Class 1	No
		23:00–07:00	—	50	Yes	Class 1	No
POR7	126 Park Street North	07:00–19:00	27	55	Yes	Class 1	No
		19:00–23:00	—	55	Yes	Class 1	No
		23:00–07:00	—	50	Yes	Class 1	No
POR8	493 Albert Street	07:00–19:00	24	55	Yes	Class 1	No
		19:00–23:00	—	55	Yes	Class 1	No
		23:00–07:00	—	50	Yes	Class 1	No
POR9	535 Albert Street	07:00–19:00	26	55	Yes	Class 1	No
		19:00–23:00	—	55	Yes	Class 1	No
		23:00–07:00	—	50	Yes	Class 1	No

Note:

¹ Minimum MECP sound level limits as defined in NPC-300.