

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1053-15
FROM	Grant Harrigan	SHIFT:	0630 to 1745
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	21 st January, 2008		Terry Smith, ALL-TECH
		STPA NO.	CP-0048

**SUBJECT: 18th January, 2008, Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Cooling Pond
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 18th of January, 2008. Peter Ibrahim and Reg Peters of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH), performed all air monitoring activities for the Cooling Pond.

Weather conditions on the day of sampling:

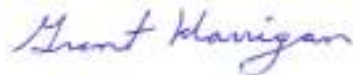
- Clear with cloudy periods
- Temperature: -4.5°C
- Wind Direction: Southwest

Comments: ALL-TECH was on-Site at 0630 and sampling began as soon as there was Site activity. Air monitoring was performed during EarthTech construction activities.

All downwind and upwind measurements of PM₁₀ were well below the established Site Action Level for this parameter of 155 µg/m³.

This report has been prepared by Grant Harrigan and reviewed by Dianne Theriault. If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,



Grant Harrigan, B.Tech
Environmental Technologist
ALL-TECH Environmental Services Cape Breton Ltd.

Copied via e-mail:

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Real-time Airborne PM₁₀ Concentration Results
Sydney Tar Ponds Agency – Cooling Pond
18th January, 2008

Sample No. & Air Monitoring Location	Time of Day	PM ₁₀ Action Level (µg/m ³)	Average Result (µg/m ³)	Wind Direction	Relative Position	Description of Activity	Observations that may affect sample
1 100m Southeast Inglis Street and Spar Road intersection	0715	155	21	Southwest	Downwind	No visible activity	No observations seen to effect sampling integrity
2 50m North of Acadian Lines Bus Terminal	0722	155	18	Southwest	Upwind	Background	No observations seen to effect sampling integrity
3 100m Southeast Inglis Street and Spar Road intersection	0737	155	22	Southwest	Downwind	Excavator moving material	Calm wind with varying wind directions
4 200m Southwest of STPA building	0815	155	5	Southwest	Upwind	Background	Calm wind with varying wind directions
5 15m East of Ferry Street Bridge	0815	155	15	Southwest	Downwind	Excavator moving material	Calm wind with varying wind directions
6 15m East of Ferry Street Bridge	0838	155	30	Southwest	Downwind	Excavator moving material	Calm wind with varying wind directions
7 200m Southwest of STPA building	0915	155	6	Southwest	Upwind	Background	Calm wind with varying wind directions

Sample No. & Air Monitoring Location	Time of Day	PM ₁₀ Action Level (µg/m ³)	Average Result (µg/m ³)	Wind Direction	Relative Position	Description of Activity	Observations that may affect sample
8 30m Southeast of Walker Street and Ferry Street intersection	0918	155	19	Southwest	Downwind	Excavator moving material	Calm wind with varying wind directions
9 30m Southeast of Walker Street and Ferry Street intersection	0935	155	20	Southwest	Downwind	Excavator moving material	Calm wind with varying wind directions
10 50m North of Acadian Lines Bus Terminal	1015	155	5	Southwest	Upwind	Background	Calm wind with varying wind directions
11 60m Southeast Inglis Street and Spar Road intersection	1015	155	10	Southwest	Downwind	Excavator moving material	No observations seen to effect sampling integrity
12 60m Southeast Inglis Street and Spar Road intersection	1031	155	8	Southwest	Downwind	Excavator moving material	No observations seen to effect sampling integrity
13 50m North of Acadian Lines Bus Terminal	1115	155	5	Southwest	Upwind	Background	No observations seen to effect sampling integrity
14 60m Southeast Inglis Street and Spar Road intersection	1120	155	16	Southwest	Downwind	Excavator moving material	No observations seen to effect sampling integrity

Sample No. & Air Monitoring Location	Time of Day	PM ₁₀ Action Level (µg/m ³)	Average Result (µg/m ³)	Wind Direction	Relative Position	Description of Activity	Observations that may affect sample
15 65m Southeast Inglis Street and Spar Road intersection	1135	155	15	Southwest	Downwind	Excavator moving material	No observations seen to effect sampling integrity
16 50m North of Acadian Lines Bus Terminal	1215	155	8	Southwest	Upwind	Background	No observations seen to effect sampling integrity
17 65m Southeast Inglis Street and Spar Road intersection	1215	155	6	Southwest	Downwind	Excavator moving material	No observations seen to effect sampling integrity
18 65m Southeast Inglis Street and Spar Road intersection	1231	155	6	Southwest	Downwind	Excavator moving material	No observations seen to effect sampling integrity
19 50m North of Acadian Lines Bus Terminal	1315	155	10	Southwest	Upwind	Background	No observations seen to effect sampling integrity
20 75m Southeast Inglis Street and Spar Road intersection	1315	155	10	Southwest	Downwind	Excavator moving material	No observations seen to effect sampling integrity
21 90m Southeast Inglis Street and Spar Road intersection	1333	155	12	Southwest	Downwind	Excavator moving material	No observations seen to effect sampling integrity
22 50m North of Acadian Lines Bus Terminal	1415	155	7	Southwest	Upwind	Background	No observations seen to effect sampling integrity

Sample No. & Air Monitoring Location	Time of Day	PM ₁₀ Action Level (µg/m ³)	Average Result (µg/m ³)	Wind Direction	Relative Position	Description of Activity	Observations that may affect sample
23 90m Southeast Inglis Street and Spar Road intersection	1415	155	11	Southwest	Downwind	Excavator moving material	No observations seen to effect sampling integrity
24 90m Southeast Inglis Street and Spar Road intersection	1432	155	12	Southwest	Downwind	Excavator moving material	No observations seen to effect sampling integrity
25 90m Southeast Inglis Street and Spar Road intersection	1515	155	17	Southwest	Downwind	Excavator moving material	No observations seen to effect sampling integrity
26 50m North of Acadian Lines Bus Terminal	1530	155	14	Southwest	Upwind	Background	No observations seen to effect sampling integrity
27 90m Southeast Inglis Street and Spar Road intersection	1533	155	20	Southwest	Downwind	Excavator moving material	No observations seen to effect sampling integrity
28 50m North of Acadian Lines Bus Terminal	1615	155	10	Southwest	Upwind	Background	No observations seen to effect sampling integrity
29 90m Southeast Inglis Street and Spar Road intersection	1615	155	13	Southwest	Downwind	Excavator moving material	No observations seen to effect sampling integrity
30 90m Southeast Inglis Street and Spar Road intersection	1631	155	44	Southwest	Downwind	Excavator moving material	Sampler tripod blew over due to strong wind gust

Sample No. & Air Monitoring Location	Time of Day	PM ₁₀ Action Level (µg/m ³)	Average Result (µg/m ³)	Wind Direction	Relative Position	Description of Activity	Observations that may affect sample
31 50m North of Acadian Lines Bus Terminal	1700	155	7	Southwest	Upwind	Background	No observations seen to effect sampling integrity
32 90m Southeast Inglis Street and Spar Road intersection	1700	155	11	Southwest	Downwind	Excavator moving material	No observations seen to effect sampling integrity

Notes: Air sample duration for each monitoring event was 15 minutes.

Comparison of Downwind Daily Results for Dust Budget

Location	Duration	Dust Budget Value ($\mu\text{g}/\text{m}^3$)	Dust Budget Exceedance Value ($\mu\text{g}/\text{m}^3$)
100m Southeast Inglis Street and Spar Road intersection	0715 to 0752	22	990
15m East of Ferry Street Bridge	0815 to 0853	45	990
30m Southeast of Walker Street and Ferry Street intersection	0918 to 0950	65	990
60m Southeast Inglis Street and Spar Road intersection	1015 to 1046	74	990
60m and 65m Southeast Inglis Street and Spar Road intersection	1120 to 1150	90	990
65m Southeast Inglis Street and Spar Road intersection	1215 to 1246	96	990
75m and 90m Southeast Inglis Street and Spar Road intersection	1315 to 1348	107	990
90m Southeast Inglis Street and Spar Road intersection	1415 to 1447	119	990

Location	Duration	Dust Budget Value ($\mu\text{g}/\text{m}^3$)	Dust Budget Exceedance Value ($\mu\text{g}/\text{m}^3$)
90m Southeast Inglis Street and Spar Road intersection	1515 to 1548	138	990
90m Southeast Inglis Street and Spar Road intersection	1615 to 1646	167	990
90m Southeast Inglis Street and Spar Road intersection	1700 to 1715	178	990

VOC Monitoring

Monitoring Method	Yes	No
Sustained Odours Observed		•
P.I.D. Required	•	

*P.I.D. was used for samples and was below detection level.