

Southwestern Portland Cement Company

Table A.9 Summary of Bypass Stack Carbon Tetrachloride and Monochlorobenzene Emissions Run #3

Run No.	Time (4/30/92)	Monochlorobenzene			Carbon Tetrachloride		
		(ppm) ¹	(lb/dscf) ²	(lb/hr) ³	(ppm) ¹	(lb/dscf) ²	(lb/hr) ³
3A	1817-1903	<1.09E-04	<3.20E-11	<1.18E-04	8.01E-05	3.20E-11	1.18E-04
3B	1919-2005	<1.09E-04	<3.19E-11	<1.17E-04	1.28E-04	5.11E-11	1.88E-04
3c	2019-2100	<1.09E-04	<3.19E-11	<1.17E-04	1.44E-04	5.75E-11	2.11E-04
Averages		c 1.09E-04	<3.19E-11	<1.17E-04	1.17E-04	4.69E-11	1.72E-04

¹ parts per million

² pounds per dry standard cubic foot

³ pounds per hour

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Table A. 10 Monochlorobenzene Calculated from Bypass

Run No.	Flow Rate		Oxygen		Ratio Bypass to Total Flow (%)	Bypass MCB Emissions (lb/hr) ²	Total MCB Emissions (lb/hr) ²
	Main Stack (dscfm) ¹	Bypass Stack (dscfm) ¹	Main Stack (%)	Bypass Stack (%)			
1A	122,130	61,697	12.0	18.10	13.7	<1.17E-04	<8.53E-04
1B	122,130	61,697	12.0	18.10	13.7	<1.16E-04	<8.46E-04
1C	122,130	61,697	12.0	18.10	13.7	<1.25E-04	<9.12E-04
ID	122,130	61,697	12.0	18.10	13.7	c 1.26E-04	<9.19E-04
Averages	122,130	61,697	12.0	18.10	13.7	<1.21E-04	<8.83E-04
2A	128,536	62,011	12.0	18.15	13.0	<1.19E-04	<9.17E-04
2B	128,536	62,011	12.0	18.15	13.0	<1.18E-04	<9.10E-04
Averages	128,536	62,011	12.0	18.15	13.0	<1.19E-04	<9.14E-04
3A	126,143	61,309	12.0	18.23	12.7	c 1.18E-04	<9.27E-04
3B	126,143	61,309	12.0	18.23	12.7	<1.17E-04	c 9.19E-04
3C	126,143	61,309	12.0	18.23	12.7	<1.17E-04	<9.19E-04
Averages	126,143	61,309	12.0	18.23	12.7	<1.17E-04	<9.22E-04

¹ Dry Standard Cubic Feet per Minute

² pounds per hour

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Table A.11 Summary of Destruction and Removal Efficiency Data

Run No.	Fuel Input per Run		Emission Rate		Destruction and Removal Efficiency per Run	
	Total MCB (lb/hr) ¹	Total CTC (lb/hr) ²	Adjusted MCB (lb/hr) ³	Total CTC (lb/hr) ⁴	MCB (%)	CTC (%)
1A	297.1	52.4	<8.53E-04	5.98E-03		
1B			<8.46E-04	<3.49E-04		
1C			<9.12E-04	c 3.57E-04		
1D			<9.19E-04	<3.59E-04		
Averages			<8.83E-04	<1.76E-03	≥99.9997	≥99.9966
2A	302.6	53.0	<9.17E-04	3.65E-04		
2B			<9.10E-04	3.78E-04		
Averages			<9.14E-04	3.72E-04	89.9996	99.9992
3A	291.5	47.8	<9.27E-04	7.15E-04		
3B			<9.19E-04	7.82E-04		
3C			<9.19E-04	8.00E-04		
Averages			<9.22E-04	7.66E-04	299.9997	99.9983
Kiln Destruction and Removal Efficiency					≥99.9996	99.9981

¹ Monochlorobenzene input, pounds per hour

² Carbon Tetrachloride input, pounds per hour

³ Total Monochlorobenzene emission rate, actual bypass emissions plus the calculated main stack emissions, pounds per hour

⁴ Total Carbon Tetrachloride emission rate, actual bypass and main stack emissions, pounds per hour

APPENDIX B

PROCESS DATA

SPIKING REPORT

**SOUTHWEST PORTLAND CEMENT COMPANY
FAIRBORN, OHIO**

BY

**B3 SYSTEMS OF TEXAS, INC.
12022 SUGAR SPRINGS
HOUSTON, TEXAS 77077**

**Test date
30 APRIL 1992**

**Report Date
4 JUNE 1992**

1.0 GENERAL

This report is to document the spiking activity that occurred during the compliance testing for destruction and removal efficiencies (DRE) in the Southwest Portland Cement Company (SPCC) facility in Fairborn, Ohio on April 30, 1992.

2.0 SUMMARY

Two organic compounds were pumped into the liquid fuel line, monochlorobenzene (MCB) and carbon tetrachloride (CTC). The target pumping rates for the MCB and CTC were 300 pounds per hour and 50 pounds per hour respectively. Table 1 provides a summary of the actual pumping rates for each material during each test.

Table 1 Average Spiking Rates		
	Monochloro- benzene (lbs/hr)	Carbon Tetrachloride (lbs/hr)
Run 1	299.9	50.0
Run 2	300.0	49.9
Run 3	295.1	49.9

The specific gravities for the MCB and CTC are 1.11 and 1.59, respectively.

Appendix A, B and C provide detailed results of the spiking rates. Appendix A is a graphic summary of the spiking rates during testing. Appendix B provides a summary of spiking rates in tabular form on one (1) minute increments.

3.0 ACKNOWLEDGMENTS

B3 Systems appreciated very much the helpfulness and cooperation of all personnel involved in the compliance test, but especially that of the SPCC operations and maintenance persons who supported B3 Systems' operations.