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C-8 Investigation At The Incinerator

Here is a summary of the findings:

- Air samples collected and then analyzed by the methylene blue method in April (13th to 20th) indicated that incinerator personnel were consistently exposed above the provisional AEL for C-8 (=0.56 mpb). - See Table 1.
- Two of the five air samples collected were also analyzed by the C-8/G.C. method which is specific for C-8 in order to verify the methylene blue results. - See Table 2.
- C-8 levels determined by the C-8/G.C. method were less than those determined by the methylene blue method. However, the Forklift Truck Operator was found to be potentially exposed to C-8 concentrations around 0.50 mpb. According to Sally Stafford (Experimental Station), the levels determined by the C-8/G.C. method are rough since

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standards used were geared more for C-8 in blood analyses.

- If 0.50 mpb is a valid number, source of C-8 must be at the incinerator (winds were from the east on the day the 0.50 mpb was measured).

Further air sampling was performed in May (5th to 13th). Samples collected when incinerator and salt bath running showed essentially no C-8 when analyzed by the C-8/G.C. method. Therefore, the source doesn't seem to be at the incinerator.

- Using the C-8/G.C. method, it was found that C-8 concentrations in the incinerator area are consistent with wind conditions and Teflon[®] plant status. Therefore, the source of C-8 is most likely the Teflon[®] dryer exhaust - see Table 4.

- According to R. Wexler (E.S.D.), the highest downwind concentration of C-8 should be experienced approximately 1900 feet from Teflon[®] dryer exhaust stacks. The incinerator is located about 2600 feet east of these stacks. Further air samples will be collected downwind of Teflon[®] dryer exhaust to verify this.

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• One attempt was made to sample downwind
but winds shifted somewhat. - See Table 3 ...

• Other outside samples collected to date
are contained in Table 5.

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TABLE 1.

DATE	PERSON OR AREA	MPB C-8 (M.B. METHOD)
4/13/81	Incinerator Operator	1.21
4/15/81	Forklift Truck Operator	0.84
4/15/81	Near Salt Bath	0.51
4/20/81	Near Salt Bath	0.21
4/20/81	Forklift Truck Operator	1.11

TABLE 2.

DATE	PERSON OR AREA	MPB C-8 (M.B. METHOD)	MPB C-8 (C-8/G.C.)
4/13/81	Incinerator Operator	1.21	—
4/15/81	Forklift Truck Operator	0.84	0.50
4/15/81	Near Salt Bath	0.51	0.03
4/20/81	Near Salt Bath	0.21	—
4/20/81	Forklift Truck Operator	1.11	—

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TABLE 3.

DATE	CONDITIONS	LOCATION	WINDS	MPB C-8
5/8/81	Both Dryers Running Normally	900 ft. west of Teflon® dryer exhaust stacks	8:00 SE@4.5mph 12:00 SE@6mph 2:00 SE@6.7mph	0.03
5/8/81	"	1200 ft. west of Teflon® dryer exhaust stacks	"	< 0.03
5/8/81	"	1500 ft. west of Teflon® dryer exhaust stacks	"	< 0.03
5/8/81	"	450 ft. east of Teflon® dryer exhaust stacks	"	< 0.03

TABLE 4.

DATE	CONDITIONS	AREA OR PERSON	WIND	MPB C-8
5/5/81	Both Incinerators, Teflon® plant, and Salt Bath Running	Inside Forklift Truck	8:00 <1mph 12:00 NW@5mph 2:00 W@6mph	0.07
5/7/81	Salt Bath and Teflon® plant Running. Both Incinerators Down.	Incinerator Operator	8:00 NE@9mph 12:00 NE@10mph 2:00 N@10mph	< 0.03*
5/13/81	Salt Bath and Plastics Incinerator Running. Teflon® Plant and Paper Incinerator Down.	Incinerator Operator		< 0.03
5/13/81	"	Forklift Truck Operator		< 0.03

* The minimum detection limit is approximately 0.03 mpb.

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TABLE 5.

Other outside samples collected to date are:

<u>DATE</u>	<u>LOCATION</u>	<u>WINDS</u>	<u>MPB C-8 (M.B. METHOD)</u>
3/27/81	Outside Trailer Offices - West of Bldg. 168	Noon NNE-12mph	0.64 methylmercury
3/31/81	"	Noon SSW-5-6mph	< 0.1 *
3/31/81	"	"	< 0.1
3/27/81	Outside Trailer Offices - Approx. 100 ft. West of Bldg. 164	Noon NNE-12mph	< 0.1
4/8/81	Outside Carr Bldg. At West Door	Noon - SW-15mph	0.15
4/15/81	"	Noon N-7mph	< 0.1
6/8/81	Immediately North of West Supernate Pond		Not yet analyzed
6/8/81	Immediately North of Middle Supernate Pond		Not yet analyzed
6/8/81	Immediately North of East Supernate Pond		Not yet analyzed

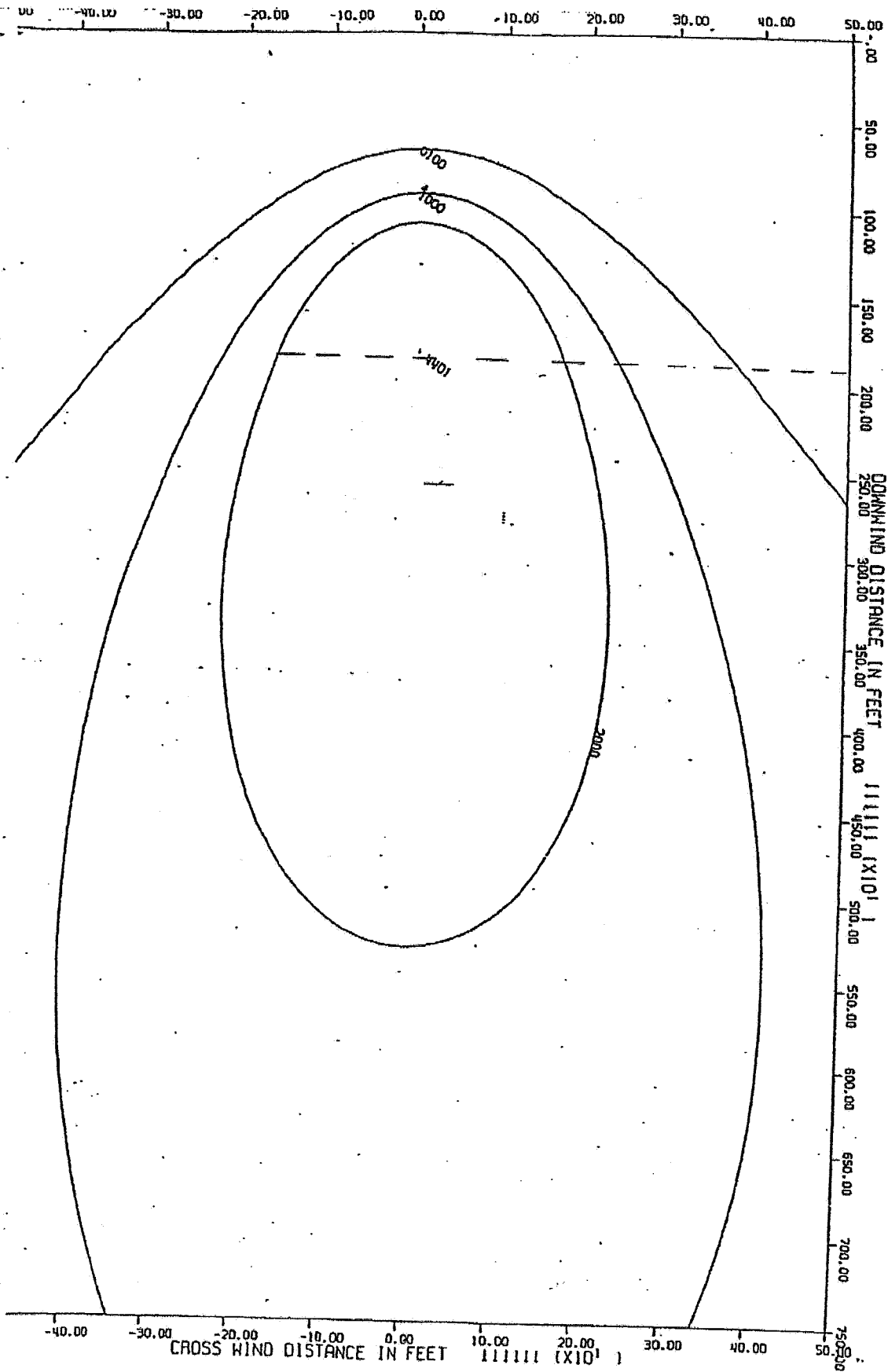
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CASE 1 AFTER MAY SHUTDOWN
WIND - 8.2 FT/SEC, NEUTRAL

4/30/81

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WIND DIR. = 90 DEG.
ELEVATION = 0 FT.



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