

INTER-OFFICE MEMO **TENNECO CHEMICALS, INC.**

TO J. T. Sweeney AT Flemington DATE December 9, 1976

FROM R. A. Lojewski AT Flemington COPY TO W. D. Bord
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SUBJECT VCM Exposure Data and TWA - Flemington Plant
Area Monitoring System
Period: November 27, 1976 to December 3, 1976

TWA Only*

Attached are Plant summaries (Tables I-III). Table IV lists all excursions at or above 100 ppm including the number of incidents. Table V shows the TWA by job classification calculated from the data in Tables I-III. Graph #1 shows the percentage of readings above 1 and 5 ppm VCM for the reactor building while Graph #2 shows the weekly averages for the Reactor Building and the Pilot Plant. Also attached is an analysis of the Plant data by W. D. Bord.

The Plant was in operation seven days for this report period running at about 77% utilization. The four G.C.'s were on computer control.

Area	Total	≥ 1		≥ 5		≥ 25		≥ 100	
		N	%	N	%	N	%	N	%
Reactor Building	9944	6050	61	995	10	198	2	18	0.2
Recovery Comp. Room	1242	1236	99	730	59	10	0.8	0	0
Pilot Plant	4350	750	17	66	1.5	9	0.2	2	0.05
General Area	6216	351	6	52	0.8	7	0.1	2	0.03
Parshall Flume	621	39	6	7	1.1	0	0	0	0

All readings greater than or equal to 100 ppm VCM are tabulated in Table IV. Twenty two readings at or above 100 ppm occurred this report period reflecting eight separate incidents. Five incidents occurred in the Reactor Building affecting the center aisle, 1st and 2nd floors, stripper platform #1, VCM day tank area, knockout pots, foreman's desk, dry chemical weigh area, and the panel board. One incident occurred in the General Area affecting the VCM transfer pumps, and the VCM tank car unloading platform. Two incidents occurred in the Pilot Plant affecting the centrifuge, and the plastisol tower in the Pilot Plant Reactor Building.

R. A. Lojewski
R. A. Lojewski

RAL:ms

010307

TABLE I
REACTOR BUILDING

Monitoring Point

Period Covered

11-27/12-03-76

N

$\bar{X}$

> 1

> 5

> 25

> 100

1 Center Aisle Column #2, 1st floor	622	1.0	124	19	3	0
2 Center Aisle Column #4, 1st floor	622	3.8	312	62	26	1
3 Center Aisle Column #6, 1st floor	622	1.5	211	26	5	0
4 #1 Slurry Transfer Pump, 1st floor	0	SPECIAL	←			→
5 #2 Slurry Transfer Pump, 1st floor	622	1.3	187	24	3	0
6 DeFoamer Tanks, 1st floor	0	SPECIAL	←			→
9 VCM Day Tank Area	621	2.5	295	30	8	1
0 Center Aisle Column #2, 2nd floor	621	1.9	249	36	4	0
1 Center Aisle Column #4, 2nd floor	621	3.3	461	68	17	2
2 Center Aisle Column #6, 2nd floor	621	2.8	468	55	7	0
3 Stripper #2 Platform, manhole, 2nd floor	621	4.2	490	98	20	0
4 Panel Board Column #7, 2nd floor	622	5.3	490	100	31	2
5 Stripper #1 Platform, manhole, 2nd floor	622	5.5	478	95	27	7
6 Knock-out Pots, 2nd floor	622	4.3	472	82	18	3
7 Foreman's Desk	622	3.2	461	79	9	1
8 Dry Chemical Weigh-up Area	621	3.4	464	82	12	1
9 Stairwell in Hallway, 2nd floor	621	3.2	465	77	7	0
0 Weigh Tank Chip Basket Area	621	2.3	423	62	1	0
Total	9944	3.1	6050	995	198	18

RECOVERY COMPRESSOR ROOM

Monitoring Point

N

$\bar{X}$

> 1

> 5

> 25

> 100

7 #1 Recovery System	621	6.5	619	344	7	0
8 #2 Recovery System	621	7.1	617	386	3	0
Total	1242	6.8	1236	730	10	0

010308

R. A. Lojewski
4/7/76

TABLE I
PILOT PLANT

Period Covered 11-27/12-03-76

Monitoring Point	N	$\bar{X}$	Σ	$\Sigma 5$	$\Sigma 25$	$\Sigma 100$
1 Strong Scott Dryer - Process Building	622	0.3	26	7	0	0
2 Boiler House	0	SPECIAL	←			→
3 Pilot Plant Laboratory - Process Building	621	0.2	16	6	1	0
4 Centrifuge - Reactor Building	621	1.2	201	14	1	1
5 "F" Reactor - Reactor Building	621	0.8	82	6	2	0
6 Parshall Flume	621	0.5	39	7	0	0
7 Plastisol Tower - Reactor Building	621	1.0	151	9	2	1
8 VCM Storage Area - Reactor Building	622	1.1	156	10	1	0
9 "E" Reactor - Reactor Building	622	1.1	118	14	2	0
0 "B" & "C" Reactors - Reactor Building	0	SPECIAL	←			→
* Total		0.8	750	66	9	2

* less #6

R. A. Lojewski
1/8/76

010309

TA III
GENERAL AREA

Period Covered 11-27/12-03-76

	Monitoring Point	N	$\bar{X}$	>1	>5	>25	>100
1	Truck Loading Platform	621	0.1	6	1	1	0
2	Quality Control Laboratory, West	622	0.8	107	16	2	0
3	Quality Control Laboratory, East	622	0.5	42	10	1	0
4	Lunchroom	622	0.1	9	3	0	0
5	Bulk Loading Tower	622	0.1	5	1	0	0
6	Dryer Room	622	0.2	9	2	0	0
7	Bagging Room - Baggers Seat	622	0.3	7	3	0	0
8	Maintenance Shop	621	0.2	7	3	0	0
9	VCM Transfer Pumps - Tank Farm	621	1.3	71	4	1	1
0	Tank Car Unloading Platform	621	1.2	88	9	2	1
	Total	6216	0.5	351	52	7	2

R. A. Lojewski
1/8/76

010310

TABLE IV

ALL EXCURSIONS AT OR GREATER THAN 100 ppm VCM

①

PERIOD 11-27/12-03-76

DATE	TIME	AREA AFFECTED	REMARKS
11-29-76	0837	CENTER AISLE COLUMN #4, 1 ST FL. R. BLDG.	
	1905	PLASTISOL TOWER (PILOT PLANT R. BLDG.)	
11-30-76	0715	VCM TRANSFER PUMPS, TANK FARM.	
	0716	TANK CAR UNLOADING PLATFORM	
	0714	CENTRIFUGE, (PILOT PLANT R. BLDG.)	
	0716	VCM DRY TANK AREA	
12-02-76	0748	STRIPPER #1 PLATFORM MANHOLE, 2 ND FL. R. BLDG.	
	0749	KNOCK OUT POTS, 2 ND FL. R. BLDG.	
	0751	FOREMAN'S DESK, 2 ND FL. R. BLDG.	
	0752	DRY CHEMICAL WEIGH-UP AREA, 2 ND FL. R. BLDG.	
12-03-76	0532	PANEL BOARD COLUMN #7, 2 ND FL. R. BLDG.	
	0533	STRIPPER #1 PLATFORM MANHOLE, 2 ND FL. R. BLDG.	
	1505	STRIPPER #1 PLATFORM MANHOLE, 2 ND FL. R. BLDG.	
	1507	KNOCK OUT POTS, 2 ND FL. R. BLDG.	
	1518	PANEL BOARD COLUMN #7, 2 ND FL. R. BLDG.	
	1520	STRIPPER #1 PLATFORM MANHOLE, 2 ND FL. R. BLDG.	
	1521	KNOCK OUT POTS, 2 ND FL. R. BLDG.	

RAL 2-76

010311

TABLE IV

ALL EXCURSIONS AT OR GREATER THAN 100 ppm VCM

CONTINUED FROM ①

PERIOD ② 11-27/12-03-76

DATE	TIME	AREA AFFECTED	REMARKS
12-03-76	1536	STRIPPER #1 PLATFORM, MANHOLE	2ND FL. R. BLDG.
	1552	" #1 " "	2ND FL. R. BLDG.
	1607	" #1	2ND FL. R. BLDG.
	1616	CENTER AISLE COLUMN #4	2ND FL. R. BLDG.
	1645	" " " #4	2ND FL. R. BLDG.

010312

R.A.L. 2-76

FLEMINGTON TIME-WEIGHTED EXPOSURE AVERAGES
CALCULATED FROM BENDIX MONITORING DATA

11/27/76 TO 12/03/76

JOB CLASSIFICATION

TWA

TABLE V

RESIN PLANT

POLYFORMAN W AIR	1.9
POLYFORMAN WO AIR	2.6
SHIFT FORMAN W AIR	.9
SHIFT FORMAN WO AIR	2.6
REACTOR OPER-CHRG W AIR	2.9
REACTOR OPER-CHRG WO AIR	2.9
REACTOR OPER-DUMPG W AIR	1.9
REACTOR OPER-DUMPG WO AIR	3.5
REACTOR OPER-RELIEF W AIR	1.9
REACTOR OPER-RELIEF WO AIR	3.3
UTILITY OPER W AIR	1.2
UTILITY OPER WO AIR	4.6
DRYER OPER	.2
WAREHOUSE SUPERVISOR	.1
WAREHOUSEMAN-BAGGER	.2

GENERAL AREA

MAINTENANCE FORMAN	.2
MECHANIC SHIFT	2.6
MECHANIC DAY	1.7
BOILER OPER	.1
MAINTENANCE STOREKEEPER	.2
MAINTENANCE CLERK	.1
EFFLUENT MAN W AIR	.2
EFFLUENT MAN WO AIR	.3
QC TECHNICIAN	.5
QC SUPERVISOR	.3

PILOT PLANT

GROUP LEADER	.4
ENGINEER	.4
TECHNOLOGIST	.4
TECHNICIAN W AIR	.4
TECHNICIAN WO AIR	.6
MAINT TECHNICIAN	.5

Paul D. Ruane
12-08-76

010313

GB #1

(62%)

FLEMINGTON BENDIX MONITORING SYSTEM

PERCENT OF READINGS MONITORED ABOVE

1PPM AND 5PPM

(61%)

REACTOR BUILDING

65

60

55

50

45

40

35

30

25

20

15

10

5

7/17 7/24 7/31 8/7 8/14 8/21 8/28 9/4 9/11 9/18 9/25 10/2 10/9 10/16 10/23 10/30 11/6 11/13 11/20 11/27 12/4 12/11

REPORT PERIOD, BEGINNING

O = PERCENT ABOVE 1PPM

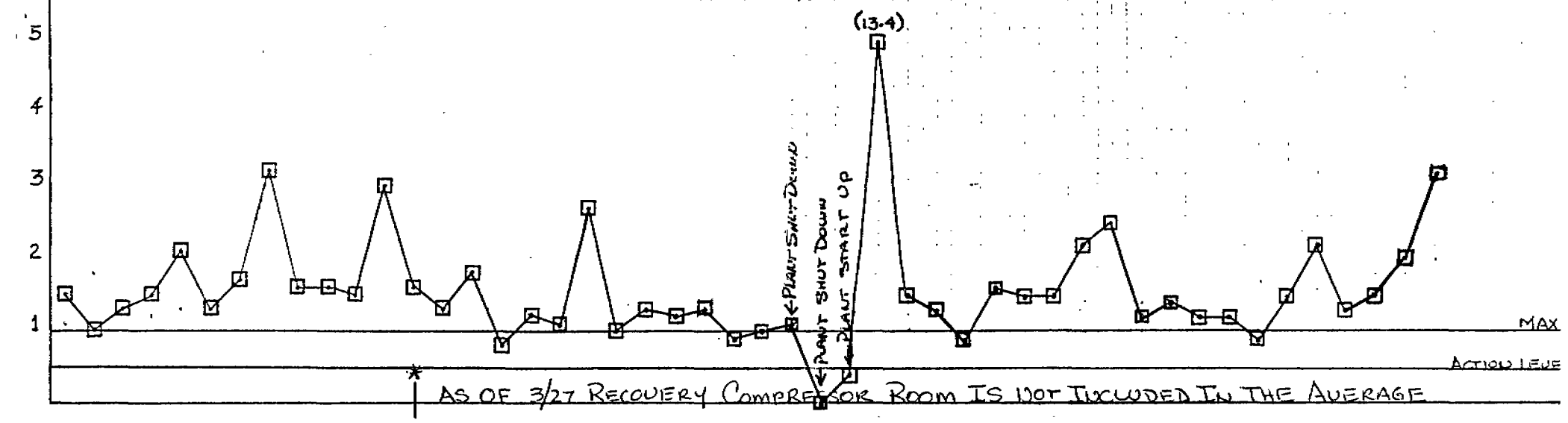
Δ = PERCENT ABOVE 5PPM

010314

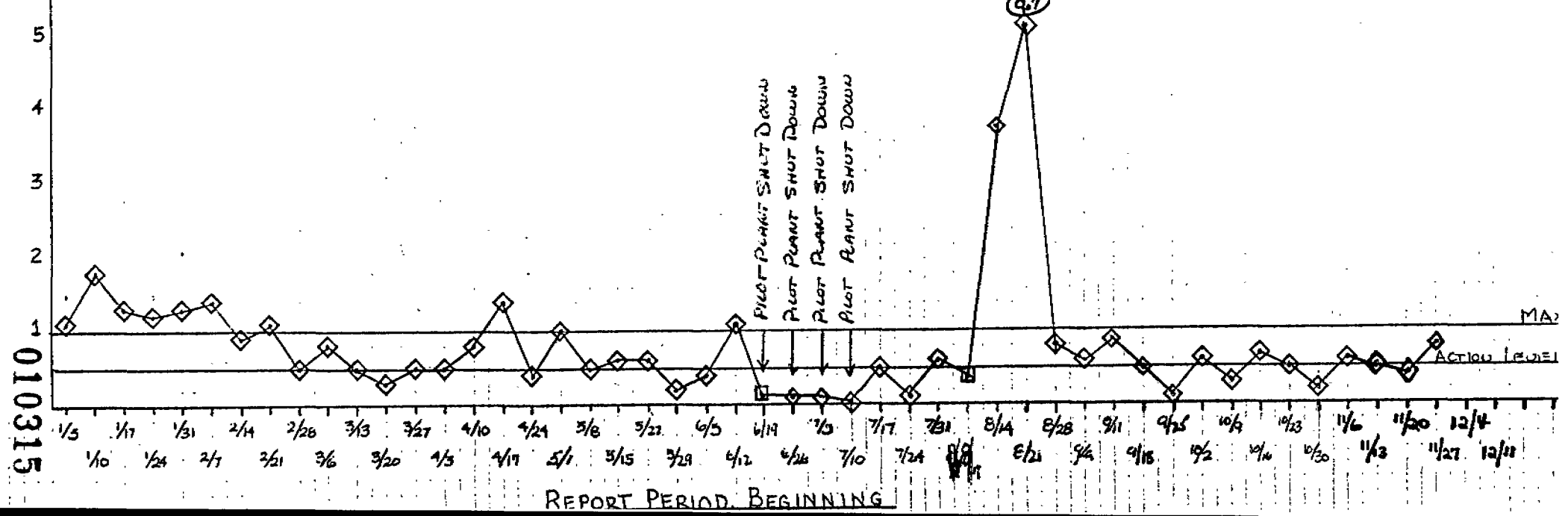
GRAPH #2
WEEKLY PLANT EXPOSURE AVERAGES
FLEMINGTON

PPM
 VCM
 X

REACTOR BUILDING



PILOT PLANT



010315

Bendix Data Comments for the period November 27, 1976 to December 3, 1976

Reactor Building Area

A set up batch in Reactor #8 was the biggest contributing cause of the 3.1 PPM average in the Reactor Building.

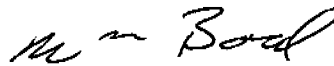
The air intake averaged as high as 9.1 PPM.

Construction of the reactor water sprays has been started. Installation is scheduled for December and January.

This project will reduce the amount of VCM fumes exhausted to the atmosphere from reactors being aired out.

GENERAL AREA:

The General Area remained at a low 0.5 PPM.



W. D. Bord