I-184

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

TO J. T. Sweeney AT Flemington DATE January 11, 1978

FROM P. D. Ruane AT Flemington COPY TO W. D. Bord
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SUBJECT VCM Exposure Data and TWA - Flemington Plant
Area Monitoring System
December 03, 1977 to December 09, 1977

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. 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 100% utilization. The four G.C.'s were on computer control.

| Area | Total | $\geq$ 1 | | $\geq$ 5 | | $\geq$ 25 | | $\geq$ 100 | |
|---|---|---|---|---|---|---|---|---|---|
| | | N | % | N | % | N | % | N | % |
| Reactor Building | 7,458 | 707 | 9.5 | 31 | 0.4 | 0 | 0 | 0 | 0 |
| Recovery Comp. Room | 1,066 | 207 | 19.4 | 1 | 0.1 | 0 | 0 | 0 | 0 |
| Pilot Plant | 4,254 | 266 | 6.3 | 10 | 0.2 | 1 | 0.02 | 0 | 0 |
| General Area | 5,327 | 125 | 2.3 | 17 | 0.3 | 2 | 0.04 | 1 | 0.02 |
| Parshall Flume | 532 | 150 | 28.2 | 39 | 7.3 | 1 | 0.2 | 0 | 0 |

All readings greater than or equal to 100 ppm VCM are tabulated in Table IV. One reading at or above 100 ppm occurred this report period reflecting one incident. No incidents occurred in the Reactor Building or in the Recovery Compressor Room during this report period. No incidents occurred in the Pilot Plant during this report period. One incident occurred in the General Area affecting the tank car unloading platform.

Paul D. Ruane

Paul D. Ruane

PDR:sm

008668

Bendix Data Comments for the Period of
December 3, 1977 to December 9, 1977

VCM levels in the Reactor Building remained low (.4 ppm).

W. D. Bord

TABLE I

GENERAL AREA

Period Covered 12-03/12-09-77

| Monitoring Point | N | $\bar{X}$ | > 1 | $\bar{>}$ 5 | $\bar{>}$ 25 | $\bar{>}$ 100 |
|---|---|---|---|---|---|---|
| Truck Loading Platform | 532 | 0.1 | 4 | 1 | 0 | 0 |
| Quality Control Laboratory, West | 533 | 0.2 | 18 | 1 | 1 | 0 |
| Quality Control Laboratory, East | 532 | 0.1 | 9 | 0 | 0 | 0 |
| Lunchroom | 533 | 0 | 0 | 0 | 0 | 0 |
| Bulk Loading Tower | 533 | 0 | 0 | 0 | 0 | 0 |
| Dryer Room | 533 | 0 | 0 | 0 | 0 | 0 |
| Bagging Room - Baggers Seat | 533 | 0 | 0 | 0 | 0 | 0 |
| Maintenance Shop | 533 | 0 | 0 | 0 | 0 | 0 |
| PCM Transfer Pumps - Tank Farm | 533 | 0 | 0 | 0 | 0 | 0 |
| Tank Car Unloading Platform | 532 | 1.0 | 94 | 15 | 1 | 1 |
| TOTAL | 5,327 | 0.1 | 125 | 17 | 2 | 1 |

P. D. Ruane
11/14/77

TABLE II

REACTOR BUILDING

Period Covered 12-03/12-09-77

| Monitoring Point | N | $\bar{X}$ | >1 | $\bar{>}$5 | $\bar{>}$25 | $\bar{>}$100 |
|---|---|---|---|---|---|---|
| enter Aisle Column #2, 1st floor | 532 | 0.2 | 18 | 1 | 0 | 0 |
| enter Aisle Column #4, 1st floor | 532 | 0.3 | 43 | 4 | 0 | 0 |
| enter Aisle Column #6, 1st floor | 533 | 0.3 | 29 | 1 | 0 | 0 |
| 1 Slurry Transfer Pump, 1st floor | 533 | 0.4 | 44 | 1 | 0 | 0 |
| 2 Slurry Transfer Pump, 1st floor | SPECIAL | ← | | | | → |
| eFoamer Tanks, 1st floor | SPECIAL | ← | | | | → |
| CM Day Tank Area | SPECIAL | ← | | | | → |
| enter Aisle Column #2, 2nd floor | 533 | 0.5 | 59 | 1 | 0 | 0 |
| enter Aisle Column #4, 2nd floor | 533 | 0.7 | 79 | 6 | 0 | 0 |
| enter Aisle Column #6, 2nd floor | 533 | 0.5 | 63 | 2 | 0 | 0 |
| tripper #2 Platform, manhole, 2nd floor | 532 | 0.6 | 63 | 4 | 0 | 0 |
| anel Board Column #7, 2nd floor | 533 | 0.5 | 70 | 2 | 0 | 0 |
| tripper #1 Platform, manhole, 2nd floor | 533 | 0.5 | 56 | 3 | 0 | 0 |
| nock-Out Pots, 2nd floor | 533 | 0.5 | 70 | 3 | 0 | 0 |
| oreman's Desk | 532 | 0.3 | 36 | 1 | 0 | 0 |
| ry Chemical Weigh-up Area | 533 | 0.4 | 59 | 2 | 0 | 0 |
| tairwell in Hallway, 2nd floor | SPECIAL | ← | | | | → |
| eigh Tank Chip Baskey Area | 533 | 0.1 | 18 | 0 | 0 | 0 |
| TOTAL | 7,458 | 0.4 | 707 | 31 | 0 | 0 |

RECOVERY COMPRESSOR ROOM

| Monitoring Point | N | $\bar{X}$ | >1 | $\bar{>}$5 | $\bar{>}$25 | $\bar{>}$100 |
|---|---|---|---|---|---|---|
| #1 Recovery System | 533 | 0.4 | 53 | 0 | 0 | 0 |
| #2 Recovery System | 533 | 0.7 | 154 | 1 | 0 | 0 |
| TOTAL | 1,066 | 0.6 | 207 | 1 | 0 | 0 |



P. D. Ruane
11/14/77

TABLE [redacted]

PILOT PLANT

Period Covered 12-03/12-09-77

| Monitoring Point | N | $\bar{X}$ | > 1 | $\bar{>}$ 5 | $\bar{>}$ 25 | $\bar{>}$ 100 |
|---|---|---|---|---|---|---|
| Strong Scott Dryer - Process Building | 531 | <0.1 | 2 | 0 | 0 | 0 |
| Boiler House | SPECIAL | ← | | | | → |
| Pilot Plant Laboratory - Process Building | 531 | 0 | 2 | 0 | 0 | 0 |
| Centrifuge - Reactor Building | 532 | 0.1 | 3 | 0 | 0 | 0 |
| "F" Reactor - Reactor Building | 532 | 0.5 | 49 | 6 | 1 | 0 |
| Parshall Flume | 532 | 1.4 | 150 | 39 | 1 | 0 |
| Plastisol Tower - Reactor Building | 532 | 0.3 | 35 | 1 | 0 | 0 |
| VCM Storage Area - Reactor Building | 532 | 0.2 | 2 | 0 | 0 | 0 |
| "E" Reactor - Reactor Building | 532 | 0.5 | 83 | 1 | 0 | 0 |
| "B" & "C" Reactors - Reactor Building | 532 | 0.5 | 90 | 2 | 0 | 0 |
| * TOTAL | 4254 | 0.3 | 266 | 10 | 1 | 0 |

(*less *32 & *36)

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11/14/77

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TABLE IV

ALL EXCURSIONS AT OR GR[illegible] THAN 100 ppm VCM

PERIOD 12-03/12-09-77

| DATE | TIME | AREA AFFECTED | REMARKS |
|---|---|---|---|
| 12-09-77 | 1602 | TANK CAR UNLOADING PLATFORM. | |

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P.D.R. 2/77

FLEMINGTON TIME-WEIGHTED EXPOSURE AVERAGES
CALCULATED FROM BENDIX MONITORING DATA

12/03/77 TO 12/09/77

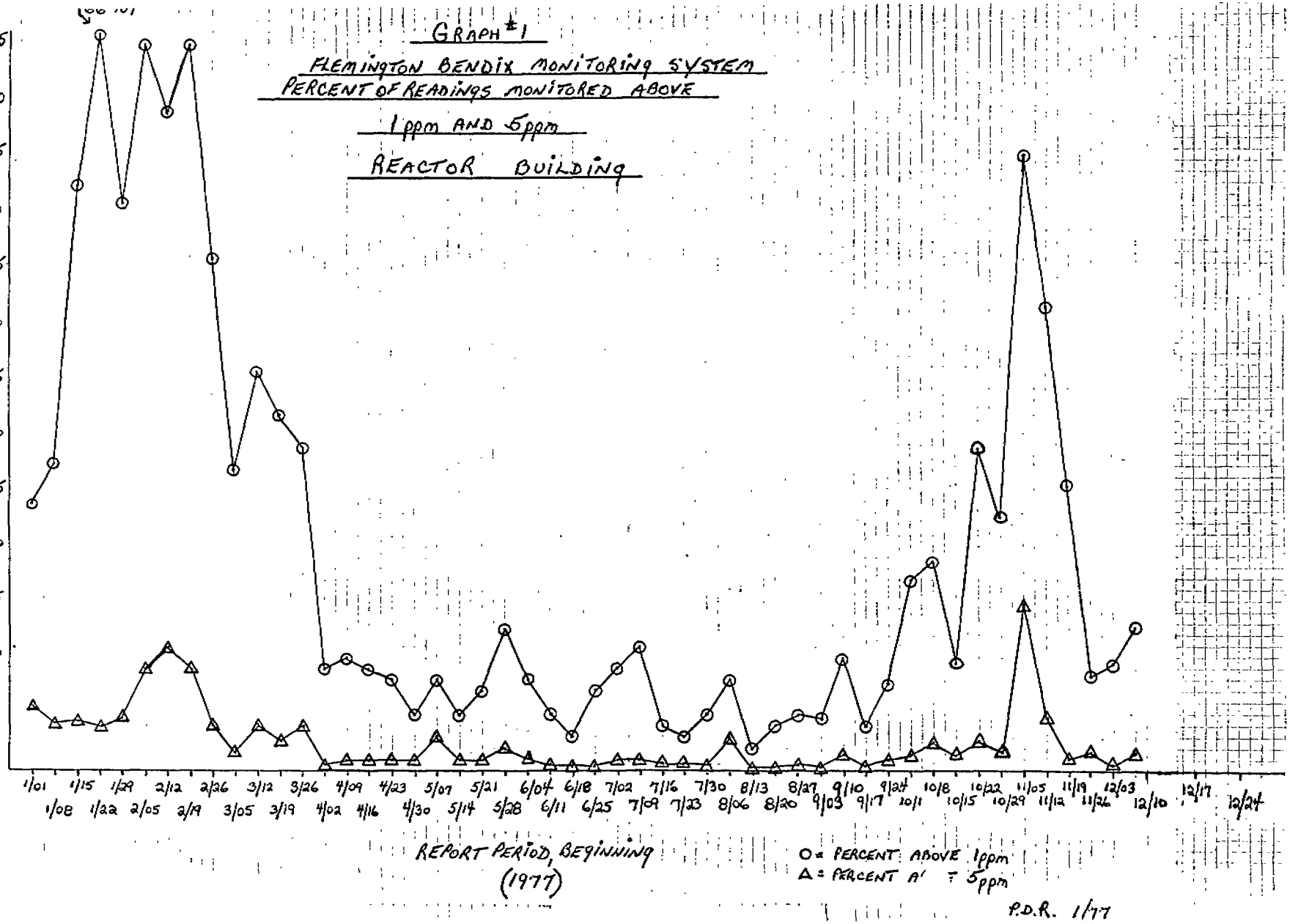
TABLE V

| JOB CLASSIFICATION | TWA |
|---|---|
| **RESIN PLANT** | |
| POLYFORMAN W AIR | .2 |
| POLYFORMAN WO AIR | .3 |
| SHIFT FORMAN W AIR | .2 |
| SHIFT FORMAN WO AIR | .3 |
| REACTOR OPER-CHRG W AIR | .4 |
| REACTOR OPER-CHRG WO AIR | .4 |
| REACTOR OPER-DUMPG W AIR | .2 |
| REACTOR OPER-DUMPG WO AIR | 1.2 |
| REACTOR OPER-RELIEF W AIR | .3 |
| REACTOR OPER-RELIEF WO AIR | 1.3 |
| UTILITY OPER W AIR | .2 |
| UTILITY OPER WO AIR | 2.2 |
| DRYER OPER | 1.0 |
| WAREHOUSE SUPERVISOR | .1 |
| WAREHOUSEMAN-BAGGER | .1 |
| RELIEF OPER | .0 |
| **GENERAL AREA** | |
| MAINTENANCE FORMAN | .1 |
| MECHANIC SHIFT | .3 |
| MECHANIC DAY | .2 |
| BOILER OPER | .1 |
| MAINTENANCE STOREKEEPER | .2 |
| MAINTENANCE CLERK | .1 |
| EFFLUENT MAN W AIR | .2 |
| EFFLUENT MAN WO AIR | .3 |
| QC TECHNICIAN | .1 |
| QC SUPERVISOR | .1 |
| **PILOT PLANT** | |
| GROUP LEADER | .3 |
| ENGINEER | .3 |
| TECHNOLOGIST | .2 |
| TECHNICIAN W AIR | .2 |
| TECHNICIAN WO AIR | .2 |
| MAINT TECHNICIAN | .2 |

Paul Kuane
12-19-77

# GRAPH #1

## FLEMINGTON BENDIX MONITORING SYSTEM
## PERCENT OF READINGS MONITORED ABOVE
## 1ppm AND 5ppm
## REACTOR BUILDING




REPORT PERIOD, BEGINNING (1977)

O = PERCENT ABOVE 1ppm
Δ = PERCENT A' = 5ppm

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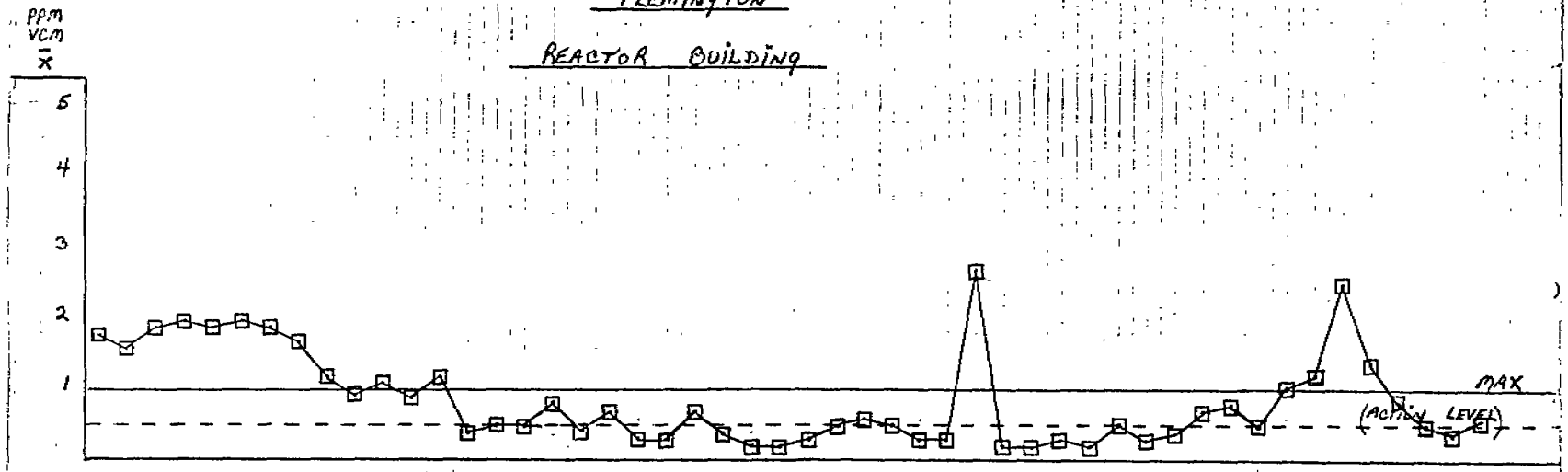
GRAPH 2

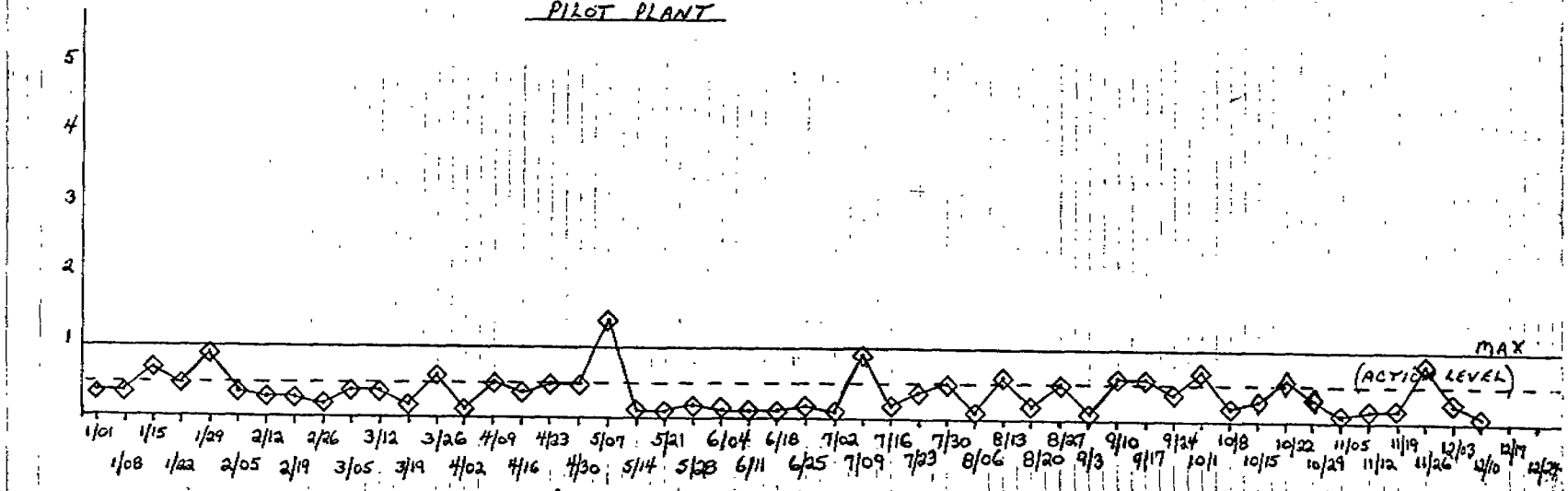
WEEKLY PLANT EXPOSURE AVERAGES

FLEMINGTON

REACTOR BUILDING




PILOT PLANT




1/01 1/15 1/29 2/12 2/26 3/12 3/26 4/09 4/23 5/07 5/21 6/04 6/18 7/02 7/16 7/30 8/13 8/27 9/10 9/24 10/8 10/22 11/05 11/19 12/03

1/08 1/22 2/05 2/19 3/05 3/19 4/02 4/16 4/30 5/14 5/28 6/11 6/25 7/09 7/23 8/06 8/20 9/3 9/17 10/1 10/15 10/29 11/12 11/26 12/10

REPORT PERIOD, BEGINNING

R.D.R. 1/77