

TO J. T. Sweeney AT Flemington DATE August 2, 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: July 17, 1976 to July 23, 1976

TWA Only\*

Attached are the Plant area 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. Also attached is an analysis of the data by W. D. Bord. Graph #1 shows the percentage of readings above 1 and 5 ppm VCM for the Reactor Building, while Graph #2 shows weekly averages for the Reactor Building and the Pilot Plant.

The Plant was in operation seven days for this report period running at about 100% utilization. The eight Bendix heads placed in special services 7/13/76 remained in special service through this report period.

The high Reactor Building average (13.4) and the high Poly Foreman TWA (12.3 with air) are due to maintenance in the VCM Day Tank Area which averaged 131.8 for this report period.

| Area                | Total | <u>&gt; 1</u> |    | <u>&gt; 5</u> |     | <u>&gt; 25</u> |     | <u>&gt; 100</u> |     |
|---------------------|-------|---------------|----|---------------|-----|----------------|-----|-----------------|-----|
|                     |       | N             | %  | N             | %   | N              | %   | N               | %   |
| Reactor Building    | 7511  | 1271          | 17 | 258           | 3   | 51             | 1   | 13              | 0.2 |
| Recovery Comp. Room | 693   | 88            | 13 | 14            | 2   | 4              | 0.6 | 0               | 0   |
| Pilot Plant         | 5446  | 78            | 1  | 22            | 0.4 | 7              | 0.1 | 5               | 0.1 |
| General Area        | 6865  | 861           | 13 | 338           | 5   | 155            | 2   | 41              | 1   |
| Parshall Flume      | 733   | 93            | 13 | 2             | 0.3 | 0              | 0   | 0               | 0   |

All readings greater than or equal to 100 ppm VCM are tabulated in Table IV. Fifty nine readings at or above 100 ppm occurred during this report period reflecting nineteen separate incidents. Eight incidents occurred in the Reactor Building affecting the foreman's desk, center aisle 1st and 2nd floors, strippers #1 & 2 platforms, #2 slurry transfer pump and the VCM day tank area. One incident occurred in the Pilot Plant affecting the plastisol tower, VCM storage area and "E" reactor. Ten incidents occurred in the General Area affecting the VCM tank car unloading platforms and the VCM transfer pumps in the tank farm.

*R. A. Lojewski*  
R. A. Lojewski

TABLE I

REACTOR BUILDING

Monitoring Point

Period Covered

7-17/7-23-76

|                                            | N    | $\bar{X}$ | $> 1$ | $\bar{5}$ | $\bar{25}$ | $\bar{100}$ |
|--------------------------------------------|------|-----------|-------|-----------|------------|-------------|
| 1 Center Aisle Column #2, 1st floor        | 685  | 0.5       | 74    | 15        | 2          | 0           |
| 2 Center Aisle Column #4, 1st floor        | 0    | SPECIAL   | ←     |           |            | →           |
| 3 Center Aisle Column #6, 1st floor        | 676  | 0.8       | 59    | 14        | 7          | 1           |
| 4 #1 Slurry Transfer Pump, 1st floor       | 0    | SPECIAL   | ←     |           |            | →           |
| 5 #2 Slurry Transfer Pump, 1st floor       | 673  | 6.6       | 52    | 9         | 2          | 1           |
| 6 DeFoamer Tanks, 1st floor                | 0    | SPECIAL   | ←     |           |            | →           |
| 9 VCM Day Tank Area                        | 684  | 131.8     | 66    | 19        | 5          | 3           |
| 0 Center Aisle Column #2, 2nd floor        | 727  | 1.2       | 169   | 38        | 6          | 1           |
| 1 Center Aisle Column #4, 2nd floor        | 0    | SPECIAL   | ←     |           |            | →           |
| 2 Center Aisle Column #6, 2nd floor        | 651  | 1.0       | 101   | 23        | 6          | 1           |
| 3 Stripper #2 Platform, manhole, 2nd floor | 688  | 1.5       | 143   | 26        | 6          | 2           |
| 4 Panel Board Column #7, 2nd floor         | 0    | SPECIAL   | ←     |           |            | →           |
| 5 Stripper #1 Platform, manhole, 2nd floor | 716  | 1.6       | 230   | 52        | 9          | 1           |
| 6 Knock-Out Pots, 2nd floor                | 0    | SPECIAL   | ←     |           |            | →           |
| 7 Foreman's Desk                           | 674  | 1.0       | 131   | 22        | 3          | 1           |
| 8 Dry Chemical Weigh-up Area               | 660  | 0.8       | 104   | 18        | 3          | 0           |
| 9 Stairwell in Hallway, 2nd floor          | 677  | 0.9       | 142   | 22        | 2          | 0           |
| 0 Weigh Tank Chip Basket Area              | 0    | SPECIAL   | ←     |           |            | →           |
| Total                                      | 7511 | 13.4      | 1271  | 258       | 51         | 13          |

RECOVERY COMPRESSOR ROOM

Monitoring Point

|                      | N   | $\bar{X}$ | $> 1$ | $\bar{5}$ | $\bar{25}$ | $\bar{100}$ |
|----------------------|-----|-----------|-------|-----------|------------|-------------|
| 7 #1 Recovery System | 693 | 0.7       | 88    | 14        | 4          | 0           |
| 8 #2 Recovery System | 0   | SPECIAL   | ←     |           |            | →           |
| Total                | 693 | 0.7       | 88    | 14        | 4          | 0           |

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TABLE  
PILOT PLANT

Period Covered 7-17/7-23-76

| Monitoring Point                          | N   | $\bar{X}$ | >1  | $\geq 5$ | $\geq 25$ | $\geq 100$ |
|-------------------------------------------|-----|-----------|-----|----------|-----------|------------|
| Strong Scott Dryer - Process Building     | 679 | < 0.1     | 4   | 0        | 0         | 0          |
| Boiler House                              | 678 | < 0.1     | 4   | 0        | 0         | 0          |
| Pilot Plant Laboratory - Process Building | 677 | 0         | 1   | 0        | 0         | 0          |
| Centrifuge - Reactor Building             | 680 | < 0.1     | 6   | 2        | 0         | 0          |
| "F" Reactor - Reactor Building            | 684 | 0.1       | 13  | 2        | 1         | 0          |
| Parshall Flume                            | 733 | 0.4       | 93  | 2        | 0         | 0          |
| Plastisol Tower - Reactor Building        | 683 | 1.7       | 23  | 9        | 3         | 2          |
| VCM Storage Area - Reactor Building       | 681 | 1.4       | 13  | 4        | 2         | 2          |
| "E" Reactor - Reactor Building            | 682 | 0.2       | 13  | 4        | 1         | 1          |
| "B" & "C" Reactors - Reactor Building     | 680 | < 0.1     | 5   | 1        | 0         | 0          |
| * Total                                   |     | 5,446     | 0.5 | 78       | 22        | 7          |
| * less 2.5%                               |     |           |     |          |           | 5          |

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TAB III  
GENERAL AREA

Period Covered 7-17/7-23-76

| Monitoring Point                   | N    | $\bar{X}$ | $>1$ | $>5$ | $>25$ | $>100$ |
|------------------------------------|------|-----------|------|------|-------|--------|
| 1 Truck Loading Platform           | 642  | <0.1      | 4    | 0    | 0     | 0      |
| 2 Quality Control Laboratory, West | 658  | 0.2       | 32   | 12   | 1     | 0      |
| 3 Quality Control Laboratory, East | 640  | <0.1      | 0    | 0    | 0     | 0      |
| 4 Lunchroom                        | 639  | 0         | 0    | 0    | 0     | 0      |
| 5 Bulk Loading Tower               | 647  | 0.1       | 11   | 0    | 0     | 0      |
| 6 Dryer Room                       | 657  | 0.2       | 26   | 0    | 0     | 0      |
| 7 Bagging Room - Baggers Seat      | 687  | 0.4       | 110  | 0    | 0     | 0      |
| 8 Maintenance Shop                 | 647  | 0.2       | 19   | 3    | 0     | 0      |
| 9 VCM Transfer Pumps - Tank Farm   | 735  | 2.2       | 159  | 29   | 6     | 3      |
| 0 Tank Car Unloading Platform      | 913  | 13.1      | 498  | 294  | 148   | 38     |
| Total                              | 6865 | 1.7       | 861  | 338  | 155   | 41     |

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## TABLE IV

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ALL EXCURSIONS AT OR GREATER THAN 100 ppm VCM

PERIOD 7-17/7-23-76

| DATE    | TIME | AREA AFFECTED                |          |       |            | REMARKS   |
|---------|------|------------------------------|----------|-------|------------|-----------|
| 7-17-76 | 0212 | VCM                          | TRANSFER | PUMPS | TANK FARM. | UNKNOWN   |
|         | 0318 | "                            | "        | "     | "          | "         |
|         | 0321 | "                            | "        | "     | "          | "         |
|         | 2035 | TANK CAR UNLOADING PLATFORM. |          |       |            | UNLOADING |
| 7-18-76 | 1300 | TANK CAR UNLOADING PLATFORM. |          |       |            | UNLOADING |
|         | 1440 | "                            | "        | "     | "          | "         |
|         | 1924 | "                            | "        | "     | "          | "         |
|         | 2017 | "                            | "        | "     | "          | "         |
|         | 2033 | "                            | "        | "     | "          | "         |
|         | 2123 | "                            | "        | "     | "          | "         |
| 7-19-76 | 0705 | TANK CAR UNLOADING PLATFORM. |          |       |            | UNLOADING |
|         | 1515 | "                            | "        | "     | "          | "         |
|         | 1713 | "                            | "        | "     | "          | "         |
|         | 1716 | "                            | "        | "     | "          | "         |
|         | 1732 | "                            | "        | "     | "          | "         |
|         | 1748 | "                            | "        | "     | "          | "         |
|         | 1839 | "                            | "        | "     | "          | "         |
|         | 1900 | "                            | "        | "     | "          | "         |
|         | 1913 | "                            | "        | "     | "          | "         |
|         | 1916 | "                            | "        | "     | "          | "         |
|         | 1932 | "                            | "        | "     | "          | "         |

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# TABLE IV

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ALL EXCURSIONS AT OR GREATER THAN 100 ppm VCM

CONT FROM ①

PERIOD 7-17/7-23-76

| DATE    | TIME | AREA AFFECTED                                           | REMARKS                         |
|---------|------|---------------------------------------------------------|---------------------------------|
| 7-19-76 | 1948 | TANK CAR UNLOADING PLATFORM.                            | UNLOADING                       |
|         | 2010 | " " " "                                                 |                                 |
|         | 2029 | " " " "                                                 |                                 |
|         | 2032 | " " " "                                                 |                                 |
|         | 2053 | " " " "                                                 |                                 |
|         | 2112 | " " " "                                                 |                                 |
|         | 2203 | " " " "                                                 |                                 |
|         | 2206 | " " " "                                                 |                                 |
|         | 2259 | " " " "                                                 |                                 |
| 7-20-76 | 0039 | TANK CAR UNLOADING PLATFORM.                            | UNLOADING                       |
|         | 0442 | " " " "                                                 |                                 |
|         | 0616 | FOREMAN'S DESK, 2 <sup>ND</sup> FL R BLDG.              | HIGH VCM LEVELS IN AIR INTAKES  |
|         | 0916 | CENTER AISLE COLUMN #6, 1 <sup>ST</sup> FL R BLDG.      | UNKNOWN                         |
|         | 1525 | STRIPPER #2 PLATFORM MANHOLE 2 <sup>ND</sup> FL R BLDG. | HIGH VCM LEVELS IN AIR INTAKES  |
| 7-21-76 | 0615 | TANK CAR UNLOADING PLATFORM.                            | UNLOADING                       |
|         | 0845 | VCM DAY TANK AREA.                                      | MAINTENANCE ON VAPOR CONT. TANK |
|         | 0848 | " " " "                                                 |                                 |

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## TABLE IV

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ALL EXCURSIONS AT OR GREATER THAN 100 ppm VCM

CONT. FROM ②

PERIOD

| DATE    | Time | AREA AFFECTED                                    | REMARKS                              |
|---------|------|--------------------------------------------------|--------------------------------------|
| 7-21-76 | 2011 | TANK CAR UNLOADING PLATFORM.                     | UNLOADING                            |
|         | 2103 | " " " "                                          |                                      |
|         | 2145 | CENTER AISLE COLUMN "2, 2 <sup>nd</sup> R. BLDG. | UNKNOWN                              |
|         | 2147 | VCM DAY TANK AREA.                               | MAINTENANCE - VAPOR CONTAINMENT TANK |
|         | 2240 | TANK CAR UNLOADING PLATFORM.                     | UNLOADING                            |
|         | 2243 | " " " "                                          |                                      |
|         | 2330 | " " " "                                          |                                      |
| 7-22-76 | 0052 | TANK CAR UNLOADING PLATFORM.                     | UNLOADING                            |
|         | 0055 | " " " "                                          |                                      |
|         | 0123 | " " " "                                          |                                      |
|         | 0111 | PLASTISOL TOWER, P.P. R. BLDG.                   |                                      |
|         | 0113 | VCM STORAGE AREA, P.P. R. BLDG.                  |                                      |
|         | 0114 | PLASTISOL TOWER, P.P. R. BLDG.                   |                                      |
|         | 0116 | VCM STORAGE AREA, P.P. R. BLDG.                  |                                      |
|         | 0117 | E REACTOR, P.P. R. BLDG.                         |                                      |
|         | 0116 | VCM DAY TANK AREA                                | UNKNOWN                              |

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# TABLE IV

ALL EXCURSIONS AT OR GREATER THAN 100 ppm VCM.

CONT. FROM ③

PERIOD

| DATE    | Time | AREA AFFECTED                                               | REMARKS                        |
|---------|------|-------------------------------------------------------------|--------------------------------|
| 7-23-76 | 0723 | CENTER AISLE COLUMN *6, 2 <sup>ND</sup> FL. R. BLDG.        | UNKNOWN                        |
|         | 0725 | STRIPPER *2 PLATFORM, MANHOLE, 2 <sup>ND</sup> FL. R. BLDG. | HIGH VCM LEVELS IN AIR INTAKES |
|         | 0728 | STRIPPER *1 PLATFORM, MANHOLE, 2 <sup>ND</sup> FL. R. BLDG. |                                |
|         | 0858 | *2 SLURRY TRANSFER PUMP, 1 <sup>ST</sup> FL. R. BLDG.       | UNKNOWN                        |
|         | 0904 | VCM DAY TANK AREA.                                          | UNKNOWN                        |

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REMEDIATION TIME-WEIGHTED EXPOSURE AVERAGES  
CALCULATED FROM BLENDIA MONITORING DATA

7/17/76 TO 7/23/76

Table V

JOB CLASSIFICATION

1wa  
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RESIN PLANT

|                             |      |
|-----------------------------|------|
| POLIFORMAN W AIR            | 12.3 |
| POLIFORMAN WO AIR           | 13.7 |
| SHIFT FORMAN W AIR          | 2.8  |
| SHIFT FORMAN WO AIR         | 3.1  |
| REACTION OPER-CHRG W AIR    | .9   |
| REACTION OPER-CHRG WO AIR   | 1.0  |
| REACTION OPER-DORPE W AIR   | 1.1  |
| REACTION OPER-DORPE WO AIR  | 2.2  |
| REACTION OPER-REELIF W AIR  | 1.0  |
| REACTION OPER-REELIF WO AIR | 2.1  |
| GILTY OPER W AIR            | .5   |
| GILTY OPER WO AIR           | 4.3  |
| DRYER OPER                  | .2   |
| WAREHOUSE SUPERVISOR        | .2   |
| WAREHOUSEMAN-BAGGER         | .2   |

GENERAL AREA

|                         |    |
|-------------------------|----|
| MAINTENANCE FORMAN      | .3 |
| MECHANIC Shift          | .8 |
| MECHANIC DAY            | .7 |
| BOILER OPER             | .1 |
| MAINTENANCE STOREREEPER | .2 |
| MAINTENANCE CLERK       | .2 |
| EFFLUENT MAN W AIR      | .0 |
| EFFLUENT MAN WO AIR     | .0 |
| QC TECHNICIAN           | .1 |
| QC SUPERVISOR           | .1 |

FIRST PLANT

|                   |    |
|-------------------|----|
| CROOP LEADER      | .2 |
| ENGINEER          | .2 |
| TECHNOLOGIST      | .2 |
| TECHNICIAN W AIR  | .2 |
| TECHNICIAN WO AIR | .3 |
| PAINT TECHNICIAN  | .3 |

*Roy Joseph*  
7/26/76

010413

GP #1

# FLEMINGTON BENDIX MONITORING SYSTEM

PERCENT OF READINGS MONITORED ABOVE

1 PPM AND 5 PPM

REACTOR BUILDING

