PGK

ABERDEEN CHEMICAL PLANT

INDUSTRIAL HYGIENE MONTHLY REPORT

Month: August, 1986
Date of Report: Sept. 29, 1986

## I. ROUTINE CHEMICAL DOSIMETRY

### All Sample Results

| CHEMICAL | < PEL NO. | < PEL % | > PEL (OVEREXPOSURES) NO. | > PEL (OVEREXPOSURES) % |
|---|---|---|---|---|
| VCM | 84 | 97.7 | 2 | 2.3 |
| Lead | 21 | 95.5 | 1 | 4.5 |
| Total Particulates | 4 | 100.0 | 0 | 0.0 |

### Overexposures

| JOB CLASS | EXPOSURE | SOURCE |
|---|---|---|
| General Mechanic | 1.2* ppm, VCM | Employee overexposed while changing a gasket on #5 compressor in the VCM compressor shed. |
| General Mechanic | 2.4** ppm, VCM | Employee overexposed while blanking out 744 reactor in preparation for maintenance. |
| Compounder | 45.6* Micrograms Lead/$M^3$ | Employee overexposed while charging Line III blenders. The exact cause of his overexposure has not yet been determined. |

* Respiratory protection was worn.
** Respiratory protection was not worn.

Nails -> clean up on Sunday night with compressed air.

## II. EMPLOYEE ANNUAL HEALTH TRAINING

Preparations, including a class outline, were begun to conduct employee annual health training during September. The training will include OSHA required instruction related to VCM, lead, asbestos, noise and respiratory protection.

## III. MAINTENANCE PERSONNEL LEAD EXPOSURE

The Maintenance worker lead dosimetry program was begun. The measurements, using the same protocols as with routine, Compound/Dry Blend personnel lead dosimetry, are being made as maintenance work within potential lead exposure areas of the Compound Department is performed. The results for the month are as follows:

III. MAINTENANCE PERSONNEL LEAD EXPOSURE - Continued

| Job Class | TWA Result (Micrograms Lead/$M^3$) | PEL (Micrograms Lead/$M^3$) |
|---|---|---|
| General Mechanic | 7.1 | 47.1 |
| General Mechanic | 6.9 | 47.1 |
| General Mechanic | < 4.4 | 47.1 |

IV. SHORT TERM VCM EXPOSURES

Three, short-term VCM exposure measurements were made during the changing of old and new unit RVCM filter pack filters. The measurements were made with REAL "Minimonitors" worn by two operators ("A" and "B", below) as they changed the old unit filters and by a third operator ("D"), who changed the new unit filters. All three wore respiratory protection, as required, during the work.

| Operator | Equipment | Sample Time (Min.) | TWA Result (ppm, VCM) | Wind Conditions |
|---|---|---|---|---|
| A | Old Unit RVCM Filter Pack | 19.0 | < 0.1 | N to S, 5 MPH |
| B* | Old Unit RVCM Filter Pack | 19.0 | 6.1 | N to S, 5 MPH |
| C | New Unit RVCM Filter Pack | 10.0 | 362.2 | N to S, 5-10 MPH |

* Operator "B" was also wearing his regularly scheduled VCM dosimetry badge, the 8-hour TWA result amounting to 0.7 ppm, VCM.

A concurrent area survey was made in each case, using an HNU "Photoionizer". During the old unit work, an initial concentration of only 5-10 ppm, VCM was measured next to the filter pack head when it was first opened. This concentration dropped to 2-3 ppm within two minutes with no detectable amounts being found beyond fifteen feet south of the work.

During the new unit work, water interference with the HNU prevented an initial measurement at the filter pack head. However, the amount of VCM present was greater, detectable amounts being found as far as thirty-five feet south of the filter pack throughout the work.

More samples are planned.

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CHEMICAL DOSIMETRY TRENDS