FC 16.40 VCM A

ABERDEEN CHEMICAL PLANT

INDUSTRIAL HYGIENE MONTHLY REPORT

Month: July, 1986
Date of Report: Sept. 16, 1986

I. ROUTINE CHEMICAL DOSIMETRY

All Sample Results

CHEMICAL	< PEL NO.	< PEL %	> PEL (OVEREXPOSURES) NO.	> PEL (OVEREXPOSURES) %
VCM	81	100.0	0	0.0
Lead	17	85.0	3	15.0
Total Particulates	9	100.0	0	0.0

Overexposures

JOB CLASS	EXPOSURE	SOURCE
Color Weigh Compounder	38.6* Micrograms Lead/M^3	Employee overexposed while weighing up small amounts of Cyastab 523 for Compound Line V in the Color Weigh Room. The employee's recent overexposures, including the two below (extra samples taken during investigation), have been related to work practice changes caused by Line V startup. Corrective measures are being taken.
Color Weigh Compounder	211.6* Micrograms Lead/M^3	Employee overexposed while weighing up Cyastab 564 in the Color Weigh Room.
Color Weigh Compounder	79.9* Micrograms Lead/M^3	Employee overexposed while weighing up Cyastab 564 in the Color Weigh Room.

* Respiratory protection was worn.

II. OSHA ASBESTOS STANDARD

The following steps have been taken to comply with the new OSHA asbestos standard:

- Two kits were ordered to allow conversion of two, existing 3M airhats to "high efficiency".

- A supply of asbestos hazard warning labels was ordered and received.

II. OSHA ASBESTOS STANDARD - continued

- CTEK, Inc. confirmed that they can perform asbestos-in-air analysis in compliance with the standard and provided the plant with a small quantity of asbestos sampling filters.

- Revision of the plant's asbestos handling program was begun.

III. COMPOUND VENTILATION

Collection hopper buildup was shown to seriously lessen total airflow through the building ventilation system. As a result, production began placing more emphasis on routinely checking and documenting:

- Collection hopper emptying
- "Pulse Air" performance
- Magnahelic gauge readings
- Individual hood airflows, using the department's miniature velometer.

A variety of spot checks was made during the Line I modernization work to assist Engineering in obtaining an optimum air balance.

IV. LEAD/TOTAL PARTICULATES DOSIMETRY

Compound Line V workers were incorporated into the existing lead/total particulates dosimetry program.

V. SHORT-TERM EXPOSURES

Four, short-term VCM exposure measurements were made during the blanking of the 741 and 742 reactors. The measurements were made with REAL "Minimonitors" worn by three mechanics as they performed the work. A separate report summarizing these and previous results will be made.

Mechanic	Sample Time (Min.)	TWA Result (ppm, VCM)
A	200	0.1
B	198	0.2
C*	185	1.0
D*	205	1.4

* Mechanics C and D, besides helping blank out the tops and bottoms of the reactors, also, unlike Mechanics A and B, blanked out chemwash lines. The chemwash line to 742 had VCM trapped inside.

A series of short-term VCM exposure measurements during blend tank top opening was also begun. The measurements, also made with REAL "Minimonitors", were taken with the badges being worn by dryer operators as they opened blend tanks during reactor slurry dumping.

Operator	Resin Type	Blend Tanks	Sample Time (Min.)	TWA Result (ppm, VCM)	Wind Conditions
A	5305	646 & 647	3.0	14.2	S to N, 0-5 MPH
B	5305	646 & 647	3.5	30.7	NW to SE, 0-5 MPH
C	5305	646 & 647	3.0	35.4	NE to SW, 0-5 MPH

A concurrent area survey was made in each case, using an HNU "Photoionizer". In all three cases, no detectable amount of VCM was found in the immediate, adjacent areas of the building roof. Reliable measurement near the blend tank manways was impossible because of high humidity conditions made worse by water vapor from the manways.

Additional samples are planned.

Gerald V. Uptain

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c: JF, JWW, DWH, PJK, WFH, TFL, VEM, RAF, AHS, CWT
Tom Grumbles, J. R. Drumwright, M.D. - Houston

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CHEMICAL DOSIMETRY TRENDS

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