

ABERDEEN CHEMICAL PLANTINDUSTRIAL HYGIENE MONTHLY REPORT

Month: August, 1986

Date of Report: Sept. 29, 1986

I. ROUTINE CHEMICAL DOSIMETRYAll Sample Results

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

Overexposures

<u>JOB CLASS</u>	<u>EXPOSURE</u>	<u>SOURCE</u>
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.

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

<u>Job Class</u>	<u>TWA Result (Micrograms Lead/M³)</u>	<u>PEL (Micrograms Lead/M³)</u>
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.

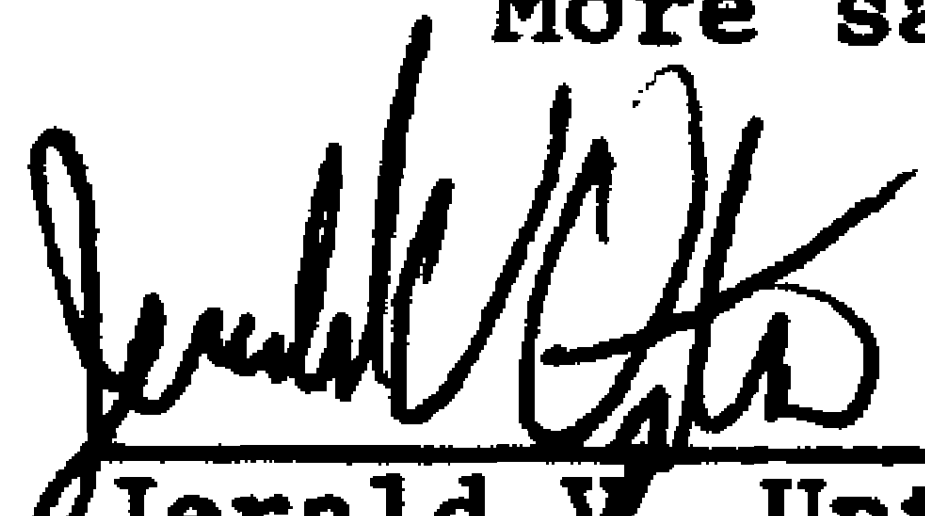
<u>Operator</u>	<u>Equipment</u>	<u>Sample Time (Min.)</u>	<u>TWA Result (ppm, VCM)</u>	<u>Wind Conditions</u>
A	Old Unit RVCM Filter Pack	19.0	< 0.1	N to S, 5 MPH
B*	Old Unit RVCM Filter Pack	19.0	6.1	N to S, 5 MPH
C	New Unit RVCM Filter Pack	10.0	362.2	N to S, 5-10 MPH

* 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.


Jerald V. Uptain

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c: JF, JWW, DWH, PJK, WFH, TFL, VEM, RAF, AHS, CWT
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ABERDEEN CHEMICAL PLANT
INDUSTRIAL HYGIENE MONTHLY REPORT

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

I. ROUTINE CHEMICAL DOSIMETRY

All Sample Results

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

Overexposures

<u>JOB CLASS</u>	<u>EXPOSURE</u>	<u>SOURCE</u>
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.

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

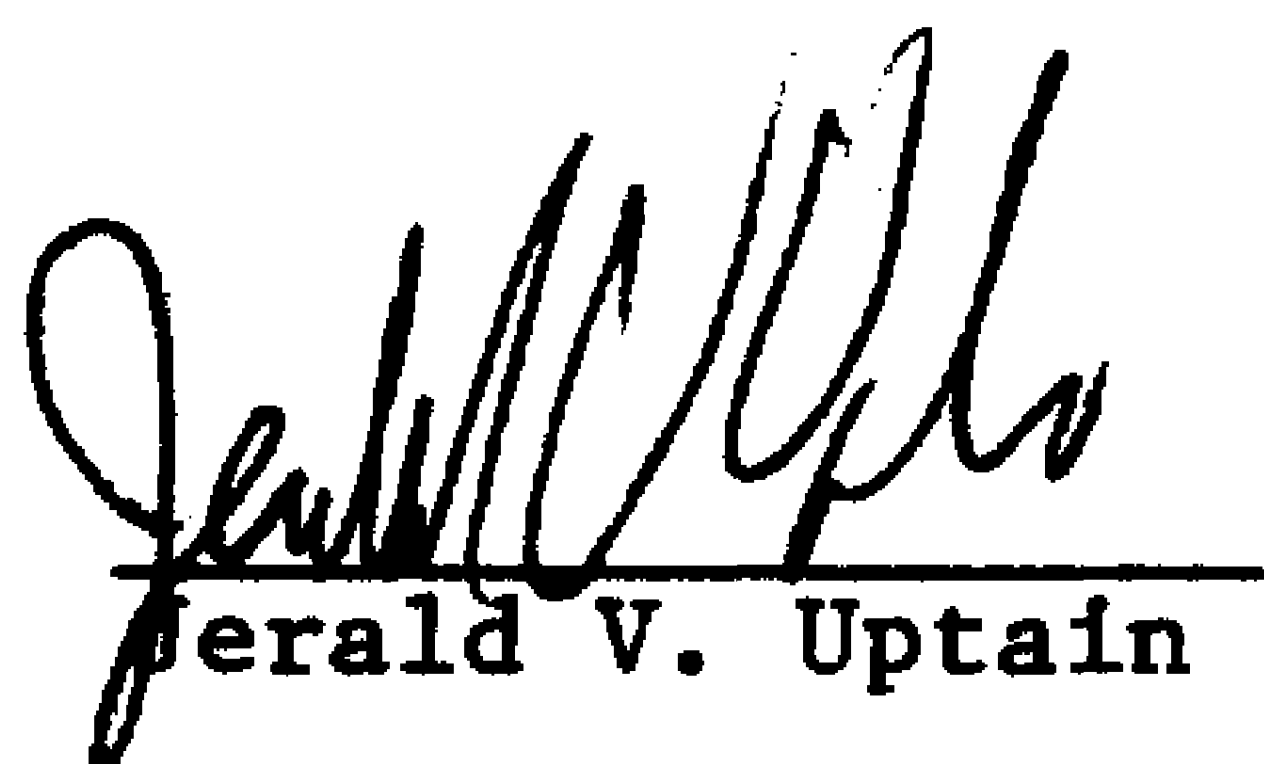
- * Mechanics C and D, besides helping blank out the tops and bottoms of the reactors, also, unlike Mechanics A and B, blanked out chemwash lines. The chemwash line to 742 had VCM trapped inside.

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.

<u>Operator</u>	<u>Resin Type</u>	<u>Blend Tanks</u>	<u>Sample Time (Min.)</u>	<u>TWA Result (ppm, VCM)</u>	<u>Wind Conditions</u>
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.


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ABERDEEN CHEMICAL PLANT
INDUSTRIAL HYGIENE MONTHLY REPORT

Month: June, 1986
Date of Report: July 28, 1986

I. ROUTINE CHEMICAL DOSIMETRY

All Sample Results

<u>CHEMICAL</u>	<u>< PEL</u>		<u>> PEL (OVEREXPOSURES)</u>	
	<u>NO.</u>	<u>%</u>	<u>NO.</u>	<u>%</u>
VCM	80	97.6	2	2.4
Lead	15	93.7	1	6.3
Total Particulates	6	100.0	0	0.0

Overexposures

<u>JOB CLASS</u>	<u>EXPOSURE</u>	<u>SOURCE</u>
Chief Operator	2.9 ^{**} ppm, VCM	Employee overexposed while preparing 742 reactor for a cooling jacket repair.
Instrument Technician	1.8 [*] ppm, VCM	Employee overexposed while calibrating the old unit fresh VCM receiver level indicator.
Color Weigh Compounder	169.6 [*] Micrograms Lead/M ³	Employee overexposed while weighing up small quantities of Cyastab 988 and Tribase EXL for Compound Line V in the Color Weigh Room. At writing, the source of the employee's recent overexposures has been investigated and related to work practice changes caused by Line V startup. Corrective measures are being taken.

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

II. HAZARD COMMUNICATION PROGRAM

- A Hazard Communication Program makeup class was held for six people.
- The Hazardous Material Reference Books were improved by adding index tabs and hi-lighting the product names on all MSDSs.

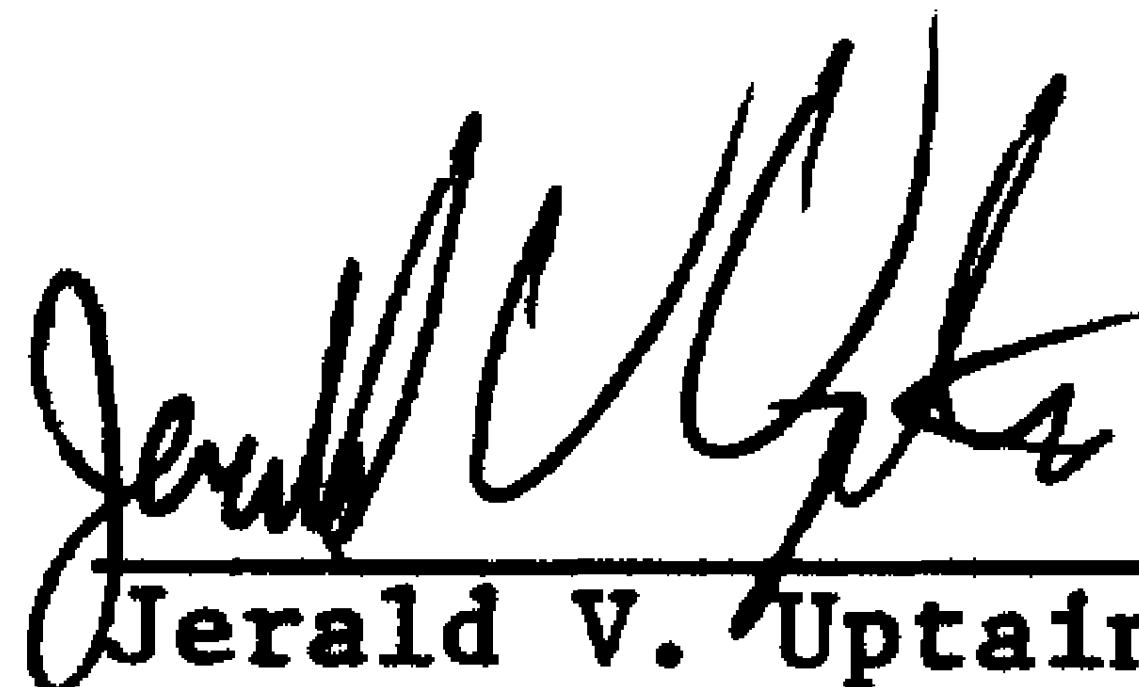
III. LAB VENTILATION

Lab ventilation hood airflows were checked. No abnormalities were found.

IV. SHORT-TERM VCM EXPOSURES

Two short-term VCM exposure measurements were made during the blanking of the 745 reactor condenser. The measurements were made using REAL "Minimonitors" worn by two mechanics as they performed the work. Conclusions about the need for respirator protection during this job are being deferred until additional samples have been taken.

<u>Mechanic</u>	<u>Sample Time (Min.)</u>	<u>TWF Result (ppm, VCM)</u>
A	145	< 0.1
B	166	0.2


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ABERDEEN CHEMICAL PLANT

INDUSTRIAL HYGIENE MONTHLY REPORT

Month: May, 1986

Date of Report: June 24, 1986

I. ROUTINE CHEMICAL DOSIMETRY

All Sample Results

<u>CHEMICAL</u>	< PEL		> PEL (OVEREXPOSURES)	
	<u>NO.</u>	<u>%</u>	<u>NO.</u>	<u>%</u>
VCM	82	98.8	1	1.2
Lead	18	94.7	1	5.3
Total Particulates	3	100.0	0	0.0

Overexposures

<u>JOB CLASS</u>	<u>EXPOSURE</u>	<u>SOURCE</u>
General Mechanic	1.7* ppm, VCM	Employee overexposed while repairing VCM leaks at the VCM tank farm compressor shed.
Color Weigh Compounder	116.5* Micrograms Lead/M ³	Employee overexposed while weighing up Tribase XL, Tribase EXL, and Cyastab 988 in the Color Weigh Room.

* Respiratory protection was worn.

II. HAZARD COMMUNICATION PROGRAM

Most of the month's industrial hygiene activity involved hazard communication. All compliance items were completed before May 25th.

III. GILMONT PRECISION FLOWTUBE

The calibration of the Gilmont flowtube used with Bendix air pumps during lead and total particulates dosimetry work was checked. No significant drift was seen.

IV. PLASTICIZER BUILDING VENTILATION

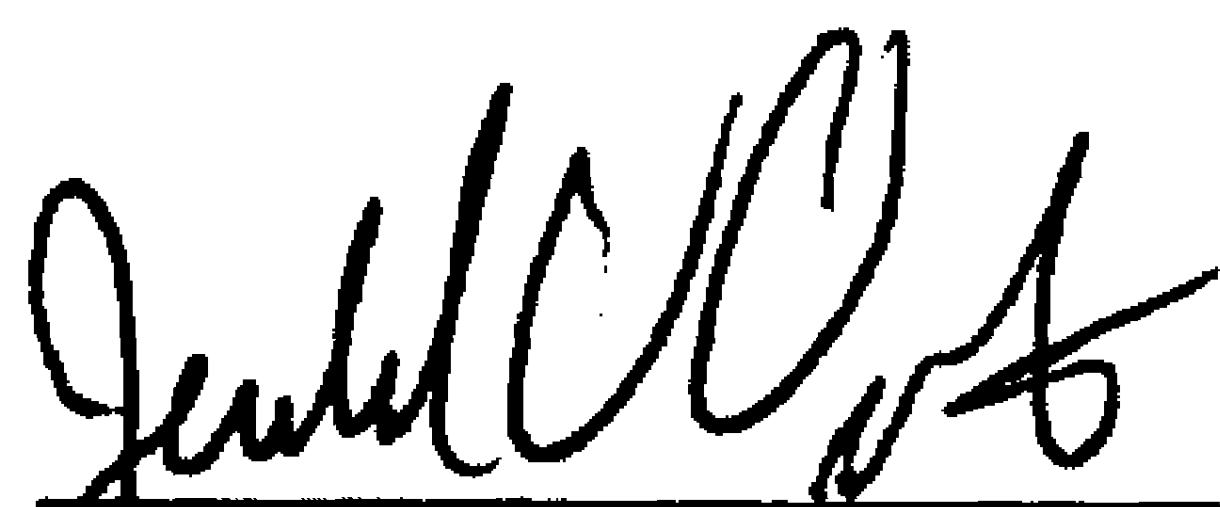
A study requested by Engineering was made of the air exchange rates inside the Plasticizer building. Measurements were taken with a "hot-wire" velometer, first with all windows and doors open, and then again with all of them closed.

IV. PLASTICIZER BUILDING VENTILATION - Continued

The results, summarized below, showed that total air exchange in the reactor section of the building was roughly halved by closing all doors and windows, indicating a need for more makeup air during cold weather.

AIR EXCHANGES PER HOUR - PLASTICIZER BUILDING

	<u>Doors & Windows</u>	
	<u>Open</u>	<u>Closed</u>
First Floor	42.4	21.2
Second Floor	32.0	16.2


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ABERDEEN CHEMICAL PLANT
INDUSTRIAL HYGIENE MONTHLY REPORT

Month: April, 1986
Date of Report: May 29, 1986

I. ROUTINE CHEMICAL DOSIMETRY

All Sample Results

<u>CHEMICAL</u>	<u>< PEL</u>		<u>> PEL (OVEREXPOSURES)</u>	
	<u>NO.</u>	<u>%</u>	<u>NO.</u>	<u>%</u>
VCM	77	100.0	0	0.0
Lead	17	100.0	0	0.0
Total Particulates	8	100.0	0	0.0

II. OSHA VCM WORK PRACTICES CONTROL PLAN

The plant's OSHA VCM Work Practices Control Plan was reviewed. No changes were found to be needed. A letter stating the finding was written to file.

III. RESPIRATORY PROTECTION

The plant's respirator program was revised and reviewed.

IV. HAZARD COMMUNICATION PROGRAM

Most of the month's industrial hygiene activity involved hazard communication. The status of the plant's compliance program is:

- * Written Program - approved and distributed.
- * Training Program - classes complete, several make-up classes planned.
- * Signs - 95% complete.
- * Chemical lists - complete - In Hazardous Material Reference Books.
- * Material Safety Data sheets - placed in Hazardous Materials Reference Books - books distributed in plant.
- * Chemical Inventory - Compliance audit conducted. Corrective measures 85% complete.


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ABERDEEN CHEMICAL PLANT
INDUSTRIAL HYGIENE MONTHLY REPORT

Month: March, 1986
Date of Report: April 21, 1986

I. ROUTINE CHEMICAL DOSIMETRY

All Sample Results

<u>CHEMICAL</u>	<u><</u> <u>NO.</u>	<u>PEL</u> <u>%</u>	<u>> PEL (OVEREXPOSURES)</u> <u>NO.</u>	<u>%</u>
VCM	78	97.5	2	2.5
Lead	15	88.2	2	11.8
Total Particulates	6	100.0	0	0.0

Overexposures

<u>JOB CLASS</u>	<u>EXPOSURE</u>	<u>SOURCE</u>
Vinyl A Operator	1.5** ppm, VCM	Employee overexposed while performing his regular job duties in the old unit. The specific cause of his overexposure has not been determined.
Chief Operator	1.7** ppm, VCM	Employee overexposed while performing his regular job duties. No specific cause for his overexposure has been determined.
Compounder	72.0* Micrograms Lead/M ³	Employee overexposed while charging Line III blenders.
Color Weigh Compounder	46.1* Micrograms Lead/M ³	Employee overexposed while weighing up Tribase XL in the Color Weigh Room.

* Respiratory protection was worn.

** Respiratory protection was not worn.

II. RESPIRATORY PROTECTION

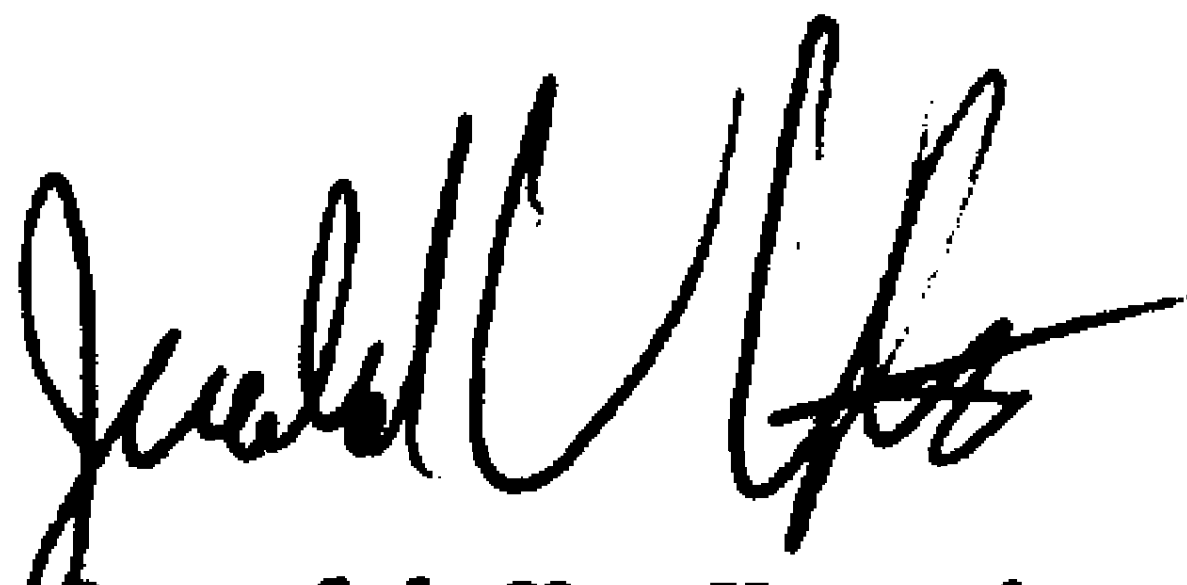
The plant's respirator program was reviewed, revised and re-submitted for approval.

IV. HAZARD COMMUNICATION PROGRAM

The status of the plant's Hazard Communication Compliance program is:

- * Written Program - Submitted for final approval.
- * Training Program - Final preparations complete.
- * Warning Signs - All ordered, 40 percent installed.
- * Chemical Lists - Updated, ready to be placed in Hazardous Materials Reference Books.
- * Material Safety Data Sheets (MSDS) - Files of Hazardous and Non-Hazardous Chemical MSDS's have been copied and placed in Hazardous Materials Reference Books.

The Hazardous Materials Reference Books will contain the plant's written program, Chem-List, and all Material Safety Data Sheets. The books will be distributed for easy employee access following Hazard Communication training in April.



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ABERDEEN CHEMICAL PLANT
INDUSTRIAL HYGIENE MONTHLY REPORT

Month Of: February, 1986
Date of Report: March 25, 1986

I. ROUTINE CHEMICAL DOSIMETRY

All Sample Results

<u>Chemical</u>	< PEL		> PEL (Overexposures)	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
VCM	77	95.1	4	4.9
Lead	17	100.0	0	0.0
Total Particulates	6	100.0	0	0.0

Overexposures

<u>Job Class</u>	<u>Exposure</u>	<u>Source</u>
Vinyl A Operator	1.6* ppm, VCM	Employee overexposed while changing seal water filters in the old unit.
Chief Operator	1.2* ppm, VCM	Employee overexposed while helping Vinyl A Operator (above) change filters.
Vinyl A Operator	1.4** ppm, VCM	Employee performed his regular job duties in the old unit. No specific cause for his overexposure has been determined.
Vinyl A Operator	1.2 ppm, VCM	Employee overexposed while locating VCM leaks in the old unit.

*Respiratory protection was worn.

**Respiratory protection was not worn.

II. VENTILATION

Charts showing the acceptable ranges of airflows were posted on or near each Compound area ventilation hood. Operations then began daily airflow checks using their new, miniature velometer.

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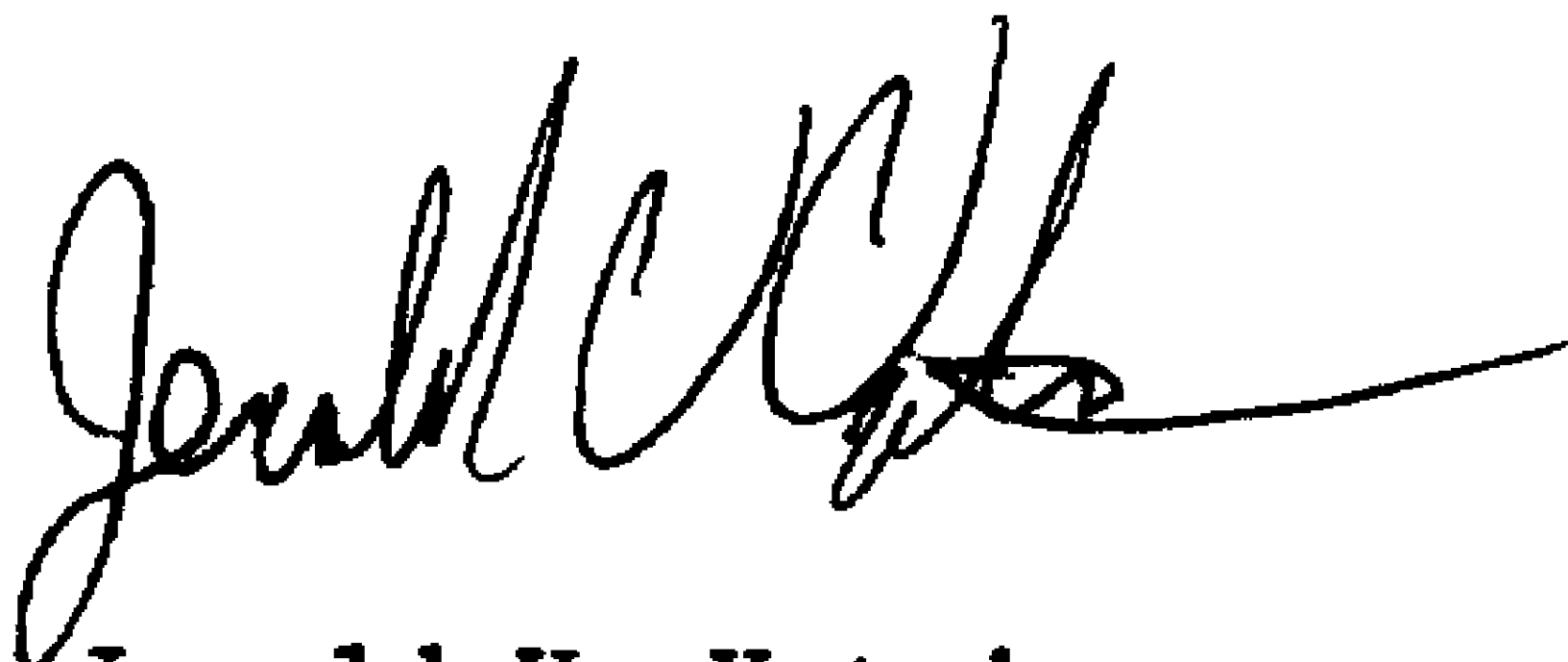
III. OSHA HAZARD COMMUNICATION STANDARD

The list of plant chemicals was updated using the newest MSDS's and then verified by the plant departments.

Signs and labels required for labeling were ordered.

The MSDS master file was reorganized to match the layout of the Hazardous Materials Reference Book.

An outline for use in conducting employee training was prepared.



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A

ABERDEEN CHEMICAL PLANT

INDUSTRIAL HYGIENE MONTHLY REPORT

Month: January, 1986
Date of Report: February 20, 1986

I. ROUTINE CHEMICAL DOSIMETRY

All Sample Results

<u>CHEMICAL</u>	< PEL		> PEL (OVEREXPOSURES)	
	<u>NO.</u>	<u>%</u>	<u>NO.</u>	<u>%</u>
VCM	83	98.8	1	1.2
Lead	14	82.4	3	17.6
Total Particulates	6	100.0	0	0.0

Overexposures

<u>JOB CLASS</u>	<u>EXPOSURE</u>	<u>SOURCE</u>
Chief Operator	53.4* ppm, VCM	Employee overexposed while working next to a new unit filter pack change.
Color Weigh Compounder	134.7* Micrograms Lead/M ³	Employee overexposed while weighing up Cyastab 523, 564 and 988 in the color weigh room.
Compounder	61.7* Micrograms Lead/M ³	Employee overexposed while charging Line III blenders with Cyastab 564.
Compounder	36.6* Micrograms Lead/M ³	Employee overexposed while charging Line III blenders with Cyastab 564.

* Respiratory protection was worn.

II. VENTILATION

The quarterly check of the compound ventilation system revealed decreased airflows through the Line III blender hoods. The hoods were then cleaned out by operations and re-checked, showing the flows to be back to acceptable levels.

III. RESPIRATORY PROTECTION

The plant's respirator program was revised and submitted for approval.

IV. OSHA HAZARD COMMUNICATION STANDARD

The plant's hazard communication program was revised and distributed to plant department heads for comment.

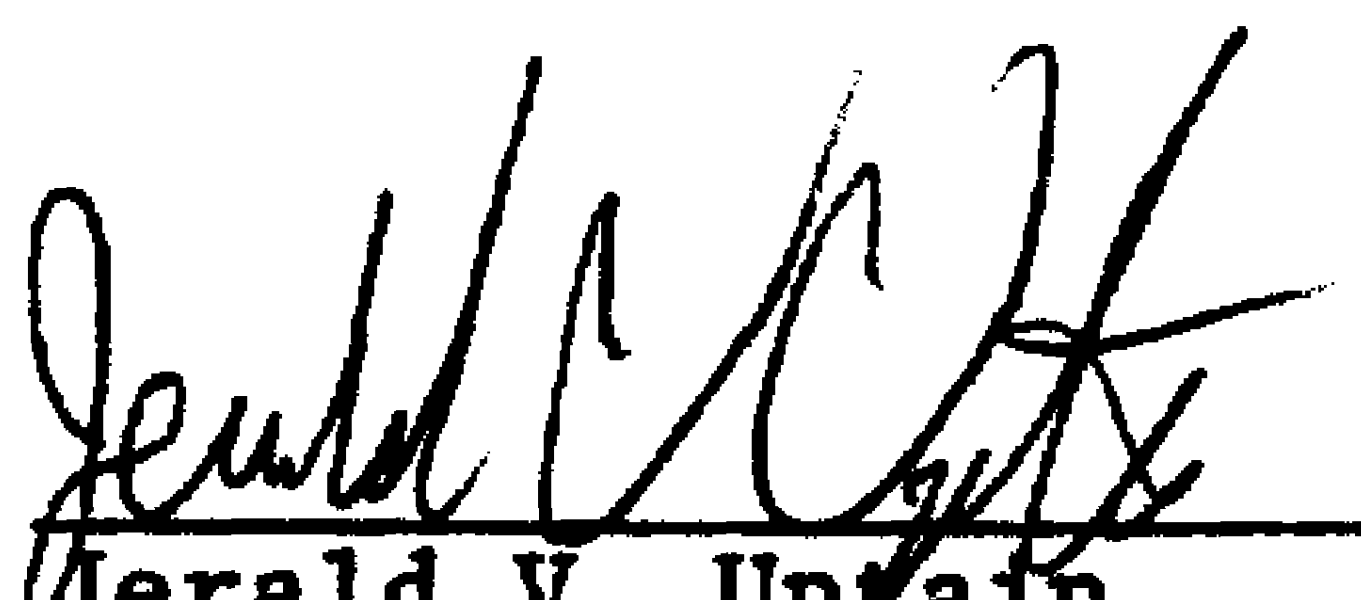
Copies of Tel-A-Trains "Chemical Safety, Parts 1 and 2," videotapes were ordered for use in hazard communication training.

Ringbinders for the plant's "Hazardous Materials Reference Books" were ordered.

V. SHORT-TERM VCM EXPOSURES

One set of short-term VCM exposure measurements was made during blanking of 744 reactor. The measurements were made, using REAL "Minimonitors" worn by three mechanics while they performed the work. As shown below, Mechanics "A" and "B" confined their work to blanking out the bottom of the reactor, while Mechanic "C" blanked out the condenser. Conclusions concerning the need for respiratory protection during this job are being deferred until additional samples have been taken.

<u>Mechanic</u>	<u>Sample Time (Min.)</u>	<u>TWA Result (ppm, VCM)</u>	<u>Work Task</u>
A	145	< 0.1	Blanked out bottom of 744 reactor.
B	160	< 0.1	Blanked out bottom of 744 reactor.
C	160	5.1	Blanked out 744 reactor condenser.


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A

ABERDEEN CHEMICAL PLANT
INDUSTRIAL HYGIENE MONTHLY REPORT

Month: December, 1985
Date of Report: January 16, 1986

I. ROUTINE CHEMICAL DOSIMETRY

All Sample Results

<u>CHEMICAL</u>	<u>< PEL</u>		<u>> PEL (OVEREXPOSURES)</u>	
	<u>NO.</u>	<u>%</u>	<u>NO.</u>	<u>%</u>
VCM	86	94.5	5	5.5
Lead	14	87.5	2	12.5
Total Particulates	7	100.0	0	0.0

Overexposures

<u>JOB CLASS</u>	<u>EXPOSURE</u>	<u>SOURCE</u>
Yard Operator	3.0* ppm, VCM	Employee overexposed while hooking and unhooking VCM railcars.
Instrument Technician	14.5** ppm, VCM	Employee overexposed while helping replace the flush water valve above the new unit dump Sweco.
General Mechanic	1.1** ppm, VCM	Employee overexposed while repairing the new unit slurry valve.
Dryer A Operator	1.5** ppm, VCM	Employee performed his regular job duties. No specific cause for his overexposure has been found.
Vinyl A Operator	2.1* ppm, VCM	Employee overexposed while locating VCM leaks in the new unit.
Line I Compounder	37.0* Micrograms Lead/M ³	Employee overexposed while cleaning Line I blenders.
Line III Compounder	116.9* Micrograms	Employee overexposed while charging the Line III blenders with Cystab 800.

* Respiratory protection was worn.

** Respiratory protection was not worn.

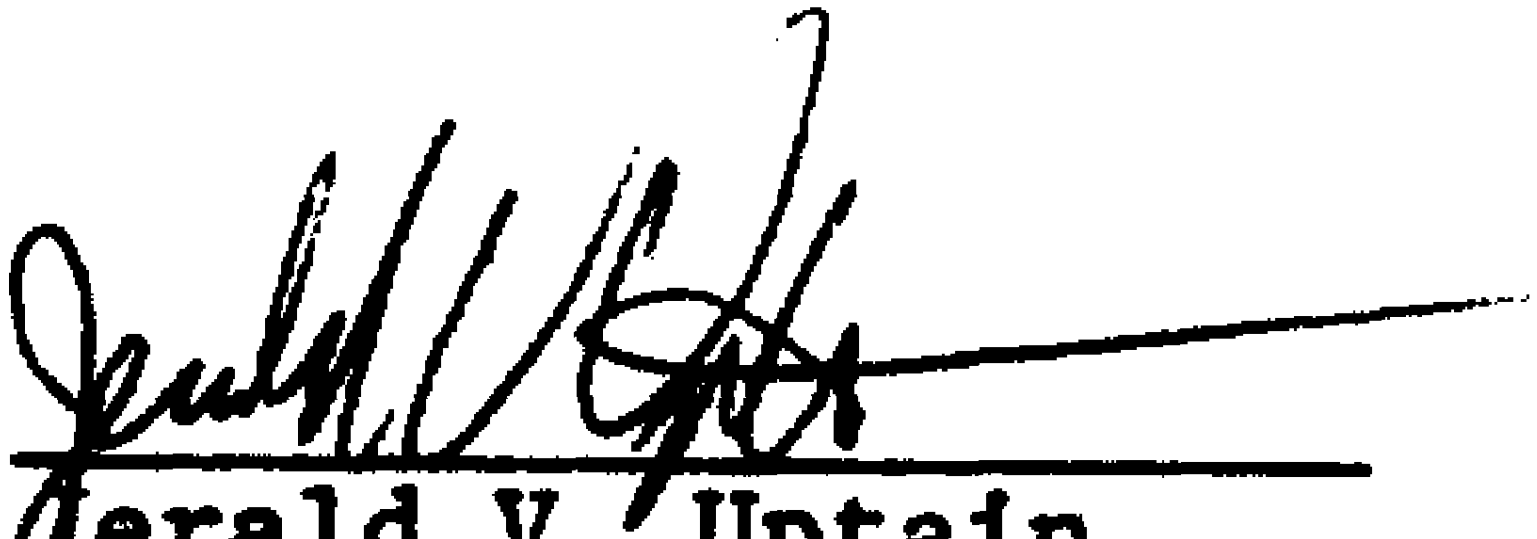
II. RESPIRATORY PROTECTION

Jerry Halford, of Respiratory Protection Services, Inc., conducted makeup, respirator face-fit testing of three employees.

Annual respirator training was completed.

III. VENTILATION

The fourth quarter check of the lab ventilation hoods was conducted. No abnormalities were found.


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ABERDEEN CHEMICAL PLANT
INDUSTRIAL HYGIENE MONTHLY REPORT

Month: November, 1985
Date of Report: January 13, 1986

I. ROUTINE CHEMICAL DOSIMETRY

All Sample Results

<u>CHEMICAL</u>	<u>< PEL</u>		<u>> PEL (OVEREXPOSURES)</u>	
	<u>NO.</u>	<u>%</u>	<u>NO.</u>	<u>%</u>
VCM	78	97.5	2	2.5
Lead	15	93.8	1	6.2
Total Particulates	7	100.0	0	0.0

Overexposures

<u>JOB CLASS</u>	<u>EXPOSURE</u>	<u>SOURCE</u>
Vinyl A Operator	1.6* ppm, VCM	Employee overexposed while investigating a leak in a new unit recovery line.
Vinyl A Operator	1.4* ppm, VCM	Employee overexposed while changing the old unit seal water filters.
Compounder	53.2* Micrograms Lead/M ³	Employee overexposed while weighing up compound in the Color Weigh Room on a temporary basis.

* Respiratory protection was worn.

II. OSHA HAZARD COMMUNICATION RULE

A list of the hazardous chemicals used in the Lab was compiled and added to the plant electronic data base.

The Hazard Communication Program was revised, following review of the first draft by plant department heads.

III. RESPIRATOR TRAINING

Annual respirator training was conducted.

IV. REACTOR MERCURY MANOMETERS

Traps were added to each of the ten vinyl reactor mercury manometers to contain mercury occasionally blown out of the manometer wells during process upsets.

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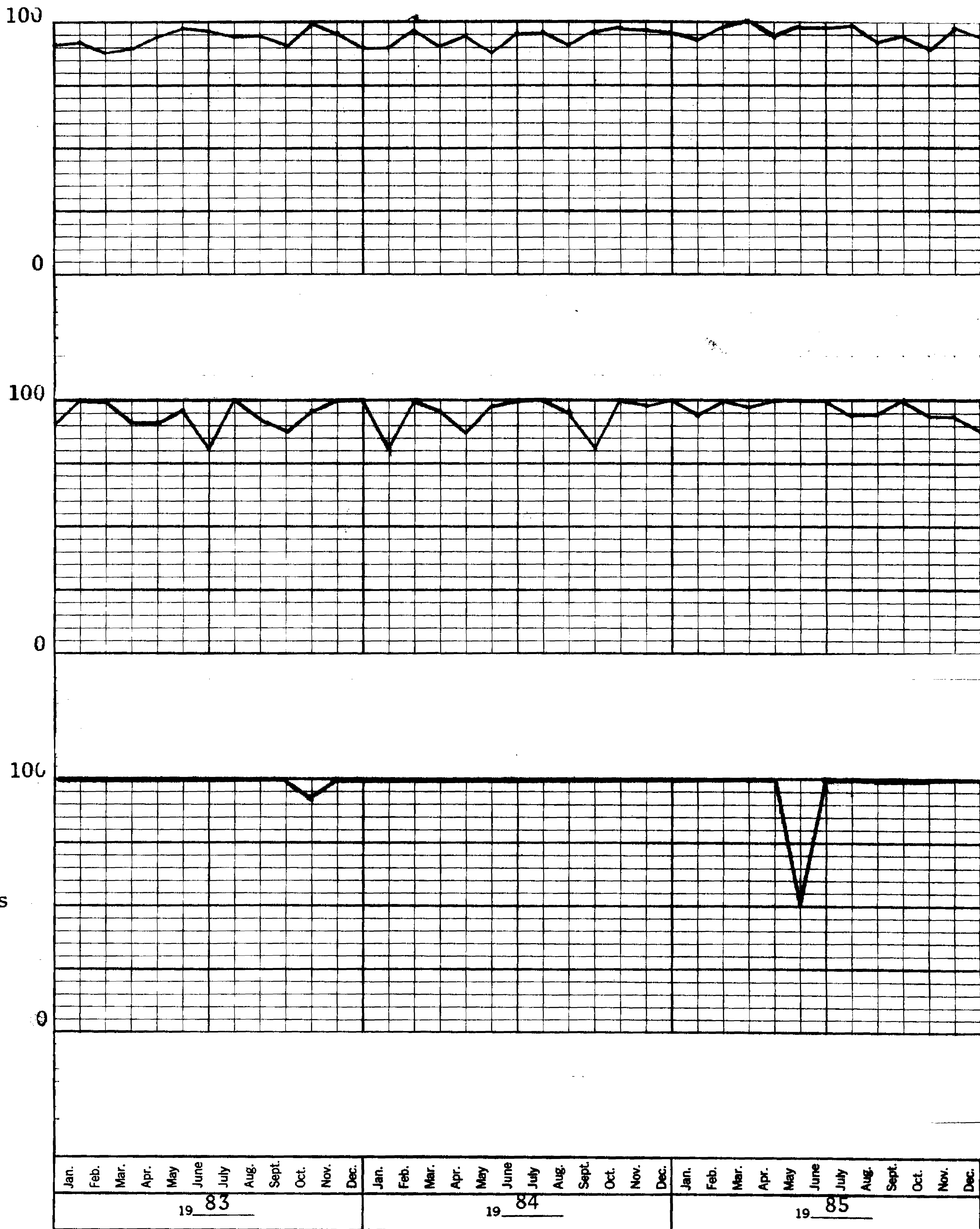
ABERDEEN CHEMICAL PLANT
CHEMICAL DOSIMETRY TRENDS

%
PEL

VCM

Lead

Total
Particulates



ABERDEEN CHEMICAL PLANT
INDUSTRIAL HYGIENE MONTHLY REPORT

Month: October, 1985
Date of Report: November 25, 1985

I. ROUTINE CHEMICAL DOSIMETRY

All Sample Results

<u>CHEMICAL</u>	<u>< PEL</u>		<u>> PEL (OVEREXPOSURES)</u>	
	<u>NO.</u>	<u>%</u>	<u>NO.</u>	<u>%</u>
VCM	76	89.4	9	10.6
Lead	16	94.1	1	5.9
Total Particulates	6	100.0	0	0.0

Overexposures

<u>JOB CLASS</u>	<u>EXPOSURE</u>	<u>SOURCE</u>
Compounder	54.8* Micrograms Lead/M ³	Employee overexposed while charging Line III blenders with Tribase.
Yard Operator	1.3* ppm, VCM	Employee overexposed while helping shift mechanic blank #4 VCM unloading station liquid line.
General Mechanic	2.1* ppm, VCM	Employee overexposed while blanking #4 VCM unloading station liquid line.
General Helper	2.0* ppm, VCM	Employee overexposed while pumping "pond" resin.
Painter/Insulator/ Carpenter	1.6** ppm, VCM	Employee overexposed while installing insulation covers above the old unit Sweco.
Chief Operator	1.2* ppm, VCM	Employee overexposed while preparing an old unit VCM return pump for mainte- nance.
Vinyl A Operator	68.5* ppm, VCM	Employee overexposed while changing VCM filters in the new unit.
Vinyl A Operator	2.2* ppm, VCM	Employee overexposed while changing VCM filters in the old unit.

Industrial Hygiene Monthly Report
Page 2

Overexposures - continued

<u>Job Class</u>	<u>Exposure</u>	<u>Source</u>
General Mechanic	1.3* ppm, VCM	Employee overexposed while replacing the chem wash and rinse valve on 741, 742 and 743 reactors.
General Mechanic	67.1* ppm, VCM	Employee overexposed while opening the manway of the old unit south receiver in preparation for cleaning.

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

II. OSHA HAZARD COMMUNICATION RULE

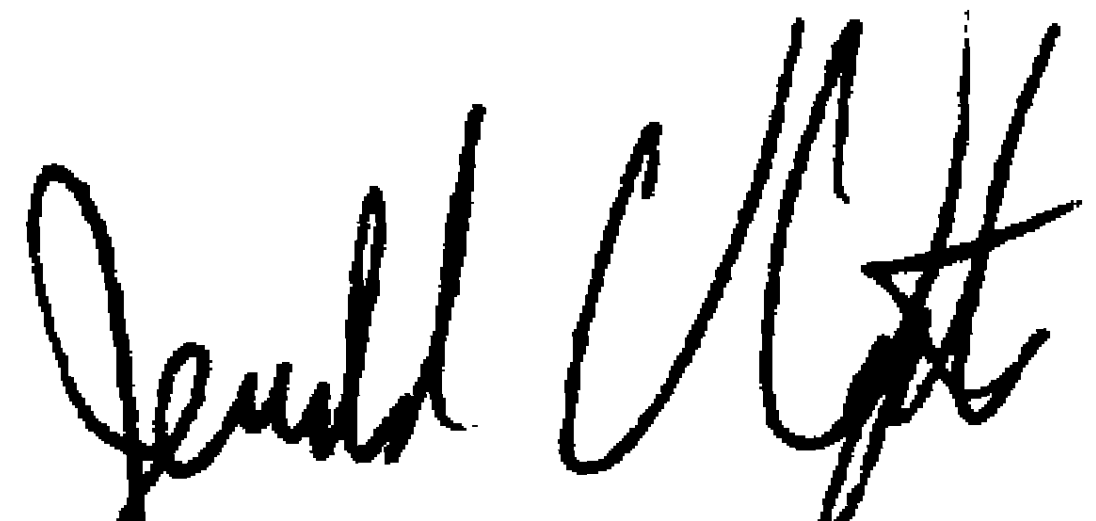
The first draft of the plant's Hazard Communication Program was written and distributed to department heads for review. Included were department lists of chemicals from the plant electronic data base.

III. GILMONT PRECISION FLOWTUBE

The calibration of the Gilmont precision flowtube used with Bendix air pumps during lead and total particulates dosimetry work was checked. No significant drift was seen.

IV. TOTAL PARTICULATES DOSIMETRY

All combination lead/total particulates dosimetry samples are now being sent to CTEK, Inc. for analysis of both items.



Gerald V. Uptain

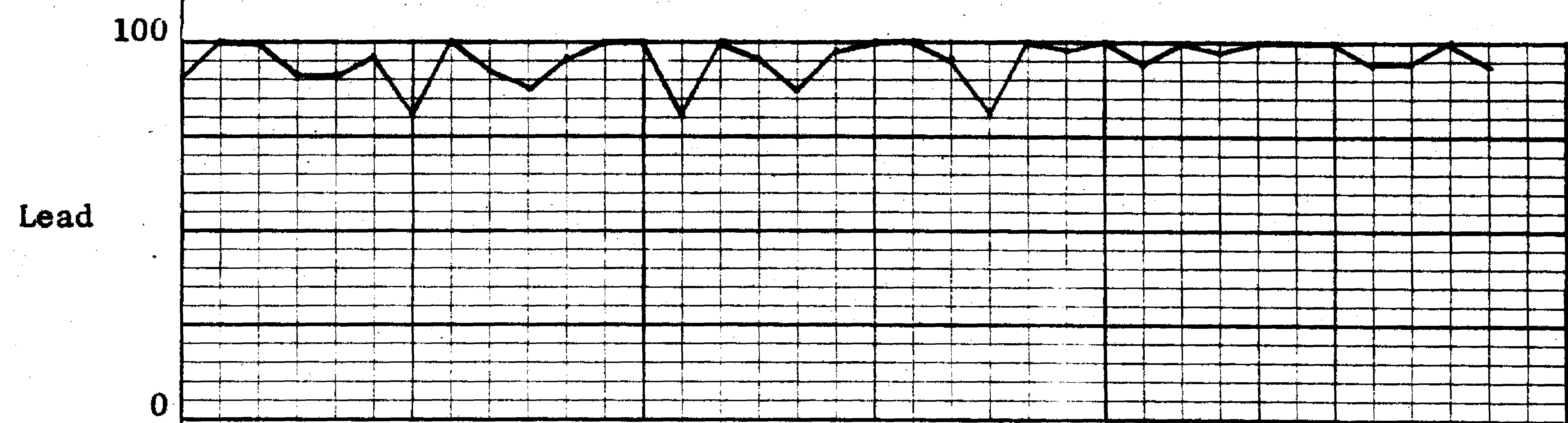
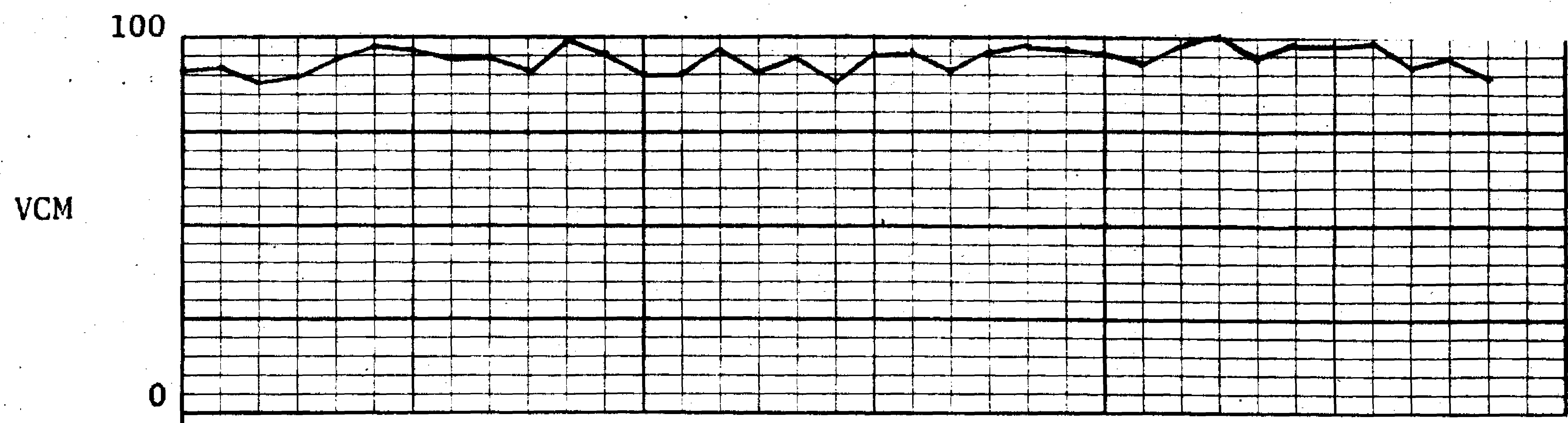
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Tom Grumbles, J. R. Drumwright, M.D. - Houston

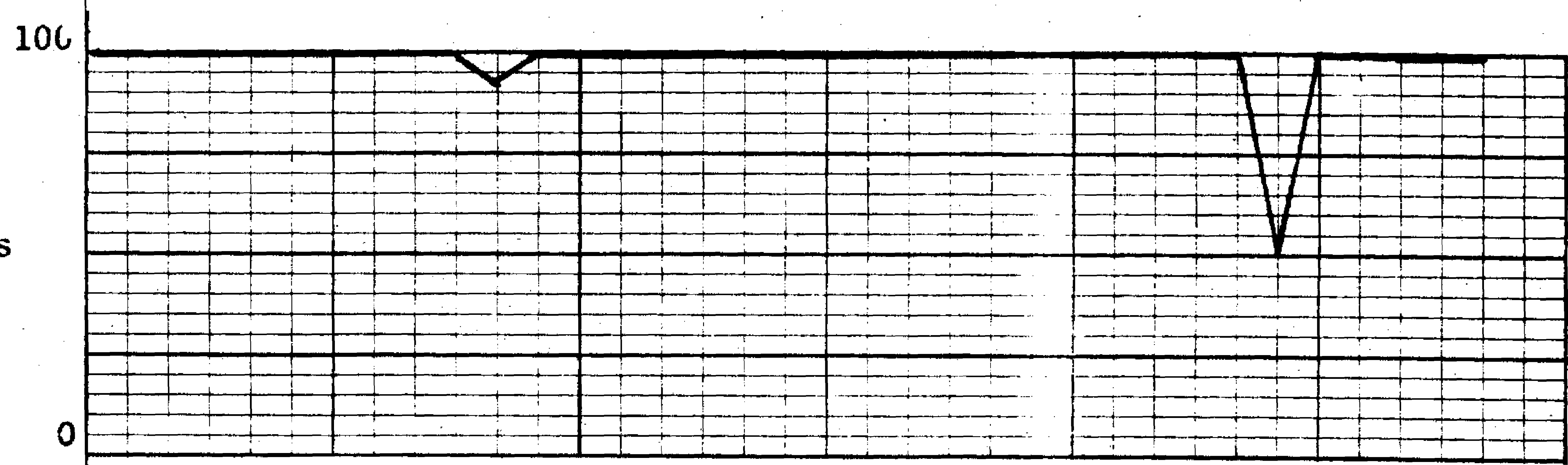
ABERDEEN CHEMICAL PLANT
CHEMICAL DOSIMETRY TRENDS

A

% <
PEL



Total
Particulates



Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
19 83												19 84												19 85											

ABERDEEN CHEMICAL PLANTINDUSTRIAL HYGIENE MONTHLY REPORT

Month: September, 1985

Date of Report: October 28, 1985

I. ROUTINE CHEMICAL DOSIMETRYAll Sample Results

<u>CHEMICAL</u>	<u>< PEL</u>		<u>> PEL (OVEREXPOSURES)</u>	
	<u>NO.</u>	<u>%</u>	<u>NO.</u>	<u>%</u>
VCM	68	94.4	4	5.6
Lead	17	100.0	0	0.0
Total Particulates	5	100.0	0	0.0

Overexposures

<u>JOB CLASS</u>	<u>EXPOSURE</u>	<u>SOURCE</u>
Vinyl A Operator	11.2* ppm, VCM	Employee overexposed while locating the source of a VCM leak in the new unit.
Chief Operator	2.8* ppm, VCM	Employee overexposed while locating the source of a VCM leak in the new unit.
Vinyl A Operator	3.6* ppm, VCM	Employee overexposed while locating the source of VCM leaks in the old unit.
General Mechanic	4.8** ppm, VCM	Employee overexposed while removing insulation from a cooling water transmitter above the old unit dump Sweco.

* Respiratory protection was worn.

** Respiratory protection was not worn.

II. OSHA HAZARD COMMUNICATION RULE

The plant's plan for complying with the labeling requirements of the OSHA Hazard Communication Standard was finalized.

Data entry for the plant electronic data base was completed.

III. RESPIRATORY PROTECTION

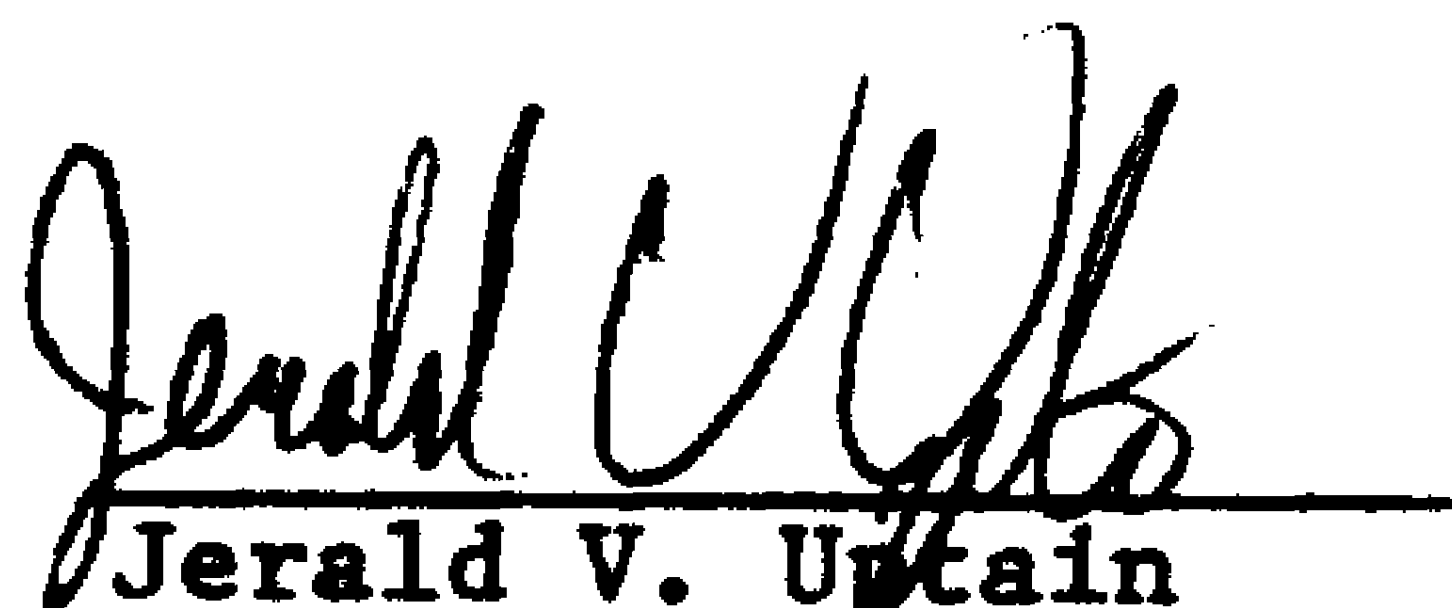
A quarterly check of the plant respirator program was conducted. Several deficiencies were found and corrected.

IV. INDUSTRIAL HYGIENE PROGRAM ASSESSMENT

An assessment of the plant's industrial hygiene program was conducted on September 24-25 by a team made up of T. Grumbles, M. Goodreau, K. Fogg, and J. Drumwright, M.D.

V. VENTILATION

The quarterly checks of the Lab and Compound ventilation systems were completed. One lab filter was found to be dirty and was subsequently cleaned. An across-the-board drop in airflow in the Compound "dry" system was found and corrected by emptying the building ventilation system collection hoppers.


Jerald V. Urtain

rah

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

ABERDEEN CHEMICAL PLANT
INDUSTRIAL HYGIENE MONTHLY REPORT

Month: August, 1985
Date of Report: Sept. 26, 1985

I. ROUTINE CHEMICAL DOSIMETRY

All Sample Results

<u>CHEMICAL</u>	<u>< PEL</u>		<u>> PEL (OVEREXPOSURES)</u>	
	<u>NO.</u>	<u>%</u>	<u>NO.</u>	<u>%</u>
VCM	63	91.3	6	8.7
Lead	16	94.1	1	5.9
Total Particulates	5	100.0	0	0.0

Overexposures

<u>JOB CLASS</u>	<u>EXPOSURE</u>	<u>SOURCE</u>
Color Weigh Compounder	66.2* Micrograms Lead/M ³	Employee overexposed while weighing small quantities of Tribase EXL and Dythal XL in the color weigh room.
Chief Operator	1.6* ppm, VCM	Employee overexposed while preparing new unit east seal water subcooler for maintenance.
General Mechanic	1.6** ppm, VCM	Employee overexposed while blanking out, unheading, and cleaning the new unit seal water subcoolers.
Vinyl A Operator	1.2* ppm, VCM	Employee overexposed while repairing a pressure transmitter line on 742 reactor.
Maintenance Supervisor	2.0** ppm, VCM	Employee worked in both vinyl reactor areas. The specific cause of his overexposure has not been determined.
Chief Operator	4.9** ppm, VCM	Employee worked in both vinyl reactor areas. The specific cause of his overexposure has not been determined.

Overexposures - Continued

<u>Job Class</u>	<u>Exposure</u>	<u>Job Class</u>
Vinyl A Operator	21.2 [*] ppm, VCM	Employee overexposed while changing VCM filter pack filters in the new unit.

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

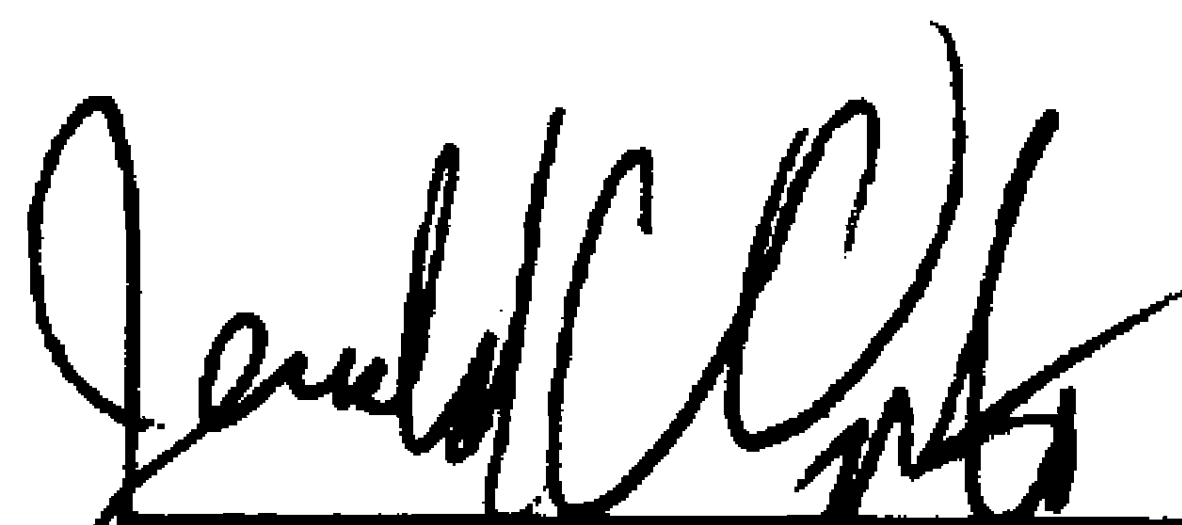
II. OSHA HAZARD COMMUNICATION RULE

MSDS receipt dates were added to the plant electronic data base.

The plant's plan for complying with the labeling requirements of the OSHA Hazard Communication Rule was revised to include suggestions made by T. G. Grumbles.

III. RESPIRATORY EQUIPMENT HANDLING

An audit of respiratory equipment handling, storage, and use was conducted. As a result, changes were made in Scott Air Pak storage case cleaning duties and the packaging of Scott Air Pak facepieces.


Jerald V. Optain

rah

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

R E V I S E DABERDEEN CHEMICAL PLANTINDUSTRIAL HYGIENE MONTHLY REPORT

Month: July, 1985

Date of Report: Sept. 5, 1985

I. ROUTINE CHEMICAL DOSIMETRYAll Sample Results

<u>CHEMICAL</u>	<u>< PEL</u>		<u>> PEL (OVEREXPOSURES)</u>	
	<u>NO.</u>	<u>%</u>	<u>NO.</u>	<u>%</u>
VCM	80	98.8	1	1.2
Lead	16	94.1	1	5.9
Total Particulates	9	100.1	0	0.0

Overexposures

<u>JOB CLASS</u>	<u>EXPOSURE</u>	<u>SOURCE</u>
Vinyl A Operator	2.1* ppm, VCM	Employee overexposed while changing emissions recovery system filters.
Line III Compounder	54.9* Micro-grams Lead/M ³	Employee overexposed while charging Line III blenders. No specific cause has been determined.

* Respiratory protection was worn.

II. NOISE CONTROL

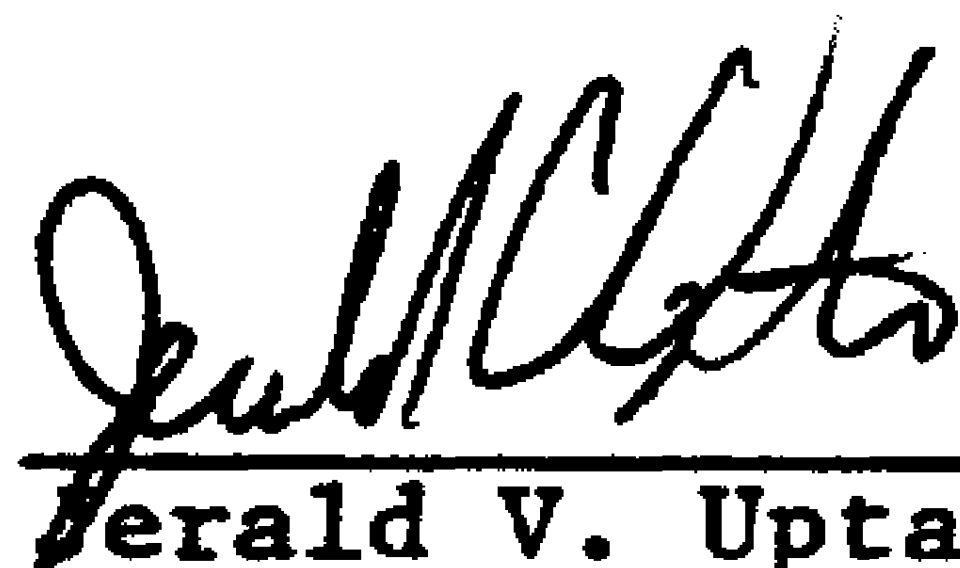
The Noise Control Report and Plan recommendations were revised and the document re-submitted for review.

III. OSHA HAZARD COMMUNICATION RULE

The plant chemical electronic data base was set up and loaded, except for MSDS receipt dates.

Missing MSDSs were re-requested from the manufacturers.

The plant's plan for complying with the labeling requirements of the OSHA Hazard Communication Rule was reviewed with T. G. Grumbles. His suggestions are being incorporated into the plan.



Gerald V. Uptain

rah

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

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ABERDEEN CHEMICAL PLANT
INDUSTRIAL HYGIENE MONTHLY REPORT

Month: July, 1985
Date of Report: August 19, 1985

I. ROUTINE CHEMICAL DOSIMETRY

All Sample Results

<u>CHEMICAL</u>	<u>< PEL</u>		<u>> PEL (OVEREXPOSURES)</u>	
	<u>NO.</u>	<u>%</u>	<u>NO.</u>	<u>%</u>
VCM	80	98.8	1	1.2
Lead	16	94.1	1	5.9
Total Particulates	9	100.1	0	0.0

Overexposures

<u>JOB CLASS</u>	<u>EXPOSURE</u>	<u>SOURCE</u>
Vinyl Shift Supervisor	4.8 ^{**} ppm, VCM	Employee overexposed while performing his normal job duties. No specific cause for his overexposure has been determined.
Line III Compounder	54.9 [*] Micro-grams Lead/M	Employee overexposed while charging Line III blenders. No specific cause has been determined.

* Respiratory protection was worn.

** Respiratory protection was not worn.

II. NOISE CONTROL

The Noise Control Report and Plan recommendations were revised and the document re-submitted for review.

III. OSHA HAZARD COMMUNICATION RULE

The plant chemical electronic data base was set up and loaded, except for MSDS receipt dates.

Missing MSDSs were re-requested from the manufacturers.

III. OSHA HAZARD COMMUNICATION RULE - continued

The plant's plan for complying with the labeling requirements of the OSHA Hazard Communication Rule was reviewed with T. G. Grumbles. His suggestions are being incorporated into the plan.


Gerald V. Uptain

rah

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

A

ABERDEEN CHEMICAL PLANT
INDUSTRIAL HYGIENE MONTHLY REPORT

Month: June, 1985
Date of Report: July 24, 1985

I. ROUTINE CHEMICAL DOSIMETRY

All Sample Results

<u>CHEMICAL</u>	<u>< PEL</u>		<u>> PEL (OVEREXPOSURES)</u>	
	<u>NO.</u>	<u>%</u>	<u>NO.</u>	<u>%</u>
VCM	79	97.5	2	2.5
Lead	15	100.0	0	0.0
Total Particulates	6	100.0	0	0.0

Overexposures

<u>JOB CLASS</u>	<u>EXPOSURE</u>	<u>SOURCE</u>
Vinyl "A" Operator	1.1*	Employee overexposed while changing VCM filter pack filters in the old vinyl unit.
Vinyl "A" Operator	2.0*	Employee overexposed while dumping a coarse batch in the old vinyl unit.

* Respiratory protection was worn.

II. OSHA HAZARD COMMUNICATION RULE

Final revisions were made to the plant's plan for complying with the labeling requirements of the OSHA Hazard Communication Rule.

Preparations were made to begin the design and use of an electronic data base of all plant chemicals.

III. VENTILATION MEASUREMENT

The quarterly ventilation checks in the Lab and Compound areas were done. Airflow through the Compound Line I mill hood was found below normal and subsequently corrected by adjusting the exhaust fan drive belts and cleaning out the ductwork.


Gerald V. Uptain

rah

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

VAB.0001040171

ABERDEEN CHEMICAL PLANT
INDUSTRIAL HYGIENE MONTHLY REPORT

Month: May, 1985
Date of Report: July 2, 1985

I. ROUTINE CHEMICAL DOSIMETRY

All Sample Results

<u>CHEMICAL</u>	<u>< PEL</u>		<u>> PEL (OVEREXPOSURES)</u>	
	<u>NO.</u>	<u>%</u>	<u>NO.</u>	<u>%</u>
VCM	85	97.7	2	2.3
Lead	7	100.0	0	0.0
Total Particulates	1	50.0	1	50.0

Overexposures

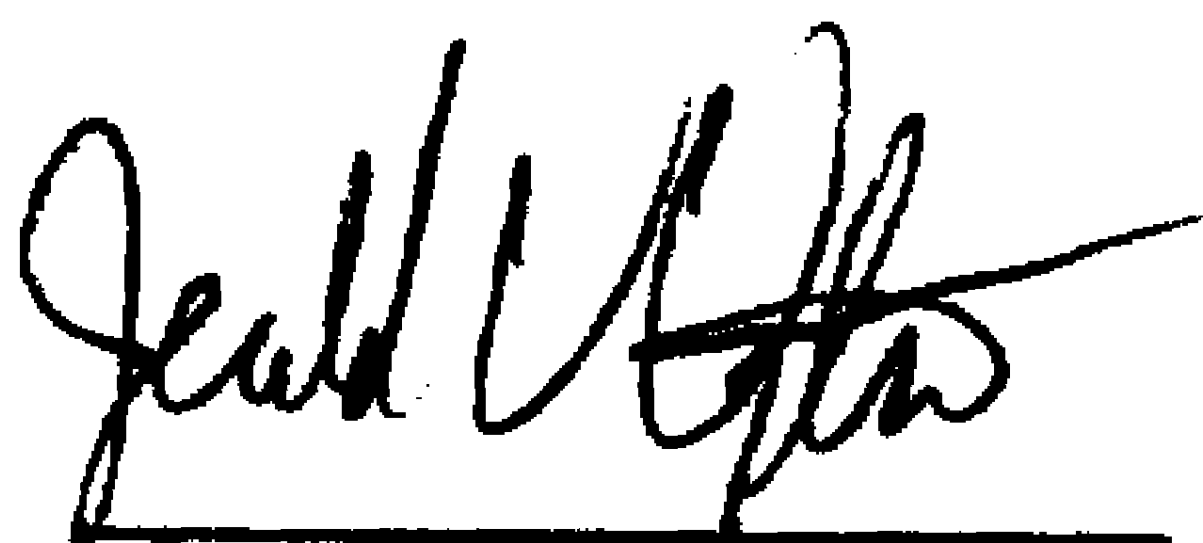
<u>JOB CLASS</u>	<u>EXPOSURE</u>	<u>SOURCE</u>
Maintenance Supervisor	1.4 ^{**} ppm, VCM	Employee worked in both new and old unit recovery areas, the top of the new unit chem wash tank, and at D400 condenser. The specific cause of the overexposure has not yet been determined.
Vinyl Shift Supervisor	4.8 ^{**} ppm, VCM	Employee overexposed while training a new operator in the old vinyl unit. The specific cause of his overexposure has not yet been determined.
Line III/Dry Blend Utility	133.0 [*] micrograms Total Particulates /M ³	The employee was overexposed during a high dusting condition while he was cleaning out a plugged, Dry Blend master batch line. Although the sample result is being considered as an overexposure, it is thought to be elevated due to slugging of material into the inlet of the filter during the clean-out work and not truly representative of airborne concentration.

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

II. OSHA HAZARD COMMUNICATION RULE

The proposal for compliance with the labeling requirements of the OSHA Hazard Communication Rule was revised and re-distributed to department heads for further comment.

The plant's MSDS master file was revised.



Jerald V. Uptain

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

ABERDEEN CHEMICAL PLANT
INDUSTRIAL HYGIENE MONTHLY REPORT

Month: April, 1985
Date of Report: May 21, 1985

I. ROUTINE CHEMICAL DOSIMETRY

All Sample Results

<u>CHEMICAL</u>	<u>PEL</u>		<u>PEL (OVEREXPOSURES)</u>	
	<u>NO.</u>	<u>%</u>	<u>NO.</u>	<u>%</u>
VCM	80	94.4	5	5.6
Lead	7	100.0	0	0.0
Total Particulates	2	100.0	0	0.0

Overexposures

<u>JOB CLASS</u>	<u>EXPOSURE</u>	<u>SOURCE</u>
General Helper	1.8 ^{**} ppm, VCM	Employee overexposed while covering a vinyl reactor area sewer found producing high VCM levels during fire-watch duty.
General Helper	1.1 ^{**} ppm, VCM	Employee spent shift bagging PVC resin. The specific cause of his overexposure has not yet been determined.
General Mechanic	2.9 [*] ppm, VCM	Employee overexposed while blanking out D700 reactor.
Maint. Supervisor	2.5 ^{**} ppm, VCM	Employee worked in all VCM areas. The specific cause of his overexposure has not yet been determined.
General Mechanic	2.1 ^{**} ppm, VCM	Employee worked in the maintenance shop and in the plasticizer tank farm while repairing a pump. The specific cause of his overexposure has not yet been determined.

* Respiratory protection was worn.

** Respiratory protection was not worn.

II. OSHA HAZARD COMMUNICATION RULE

A proposal for compliance with the labeling requirements of the OSHA Hazard Communication Rule was prepared and given to department heads for review.

III. GILMONT PRECISION FLOWTUBE

The calibration of the Gilmont flowtube used with Bendix air pumps during lead and total particulates dosimetry work was checked. No significant drift was seen.

IV. BLEND TANK TOP AREA VCM SAMPLES

Four blend tank top area VCM samples were taken using REAL "Minimoni-tor" badges to determine the need for respiratory protection in the vicinity of the tops of the small V-11 blend tanks during slurry transfer from reactors.

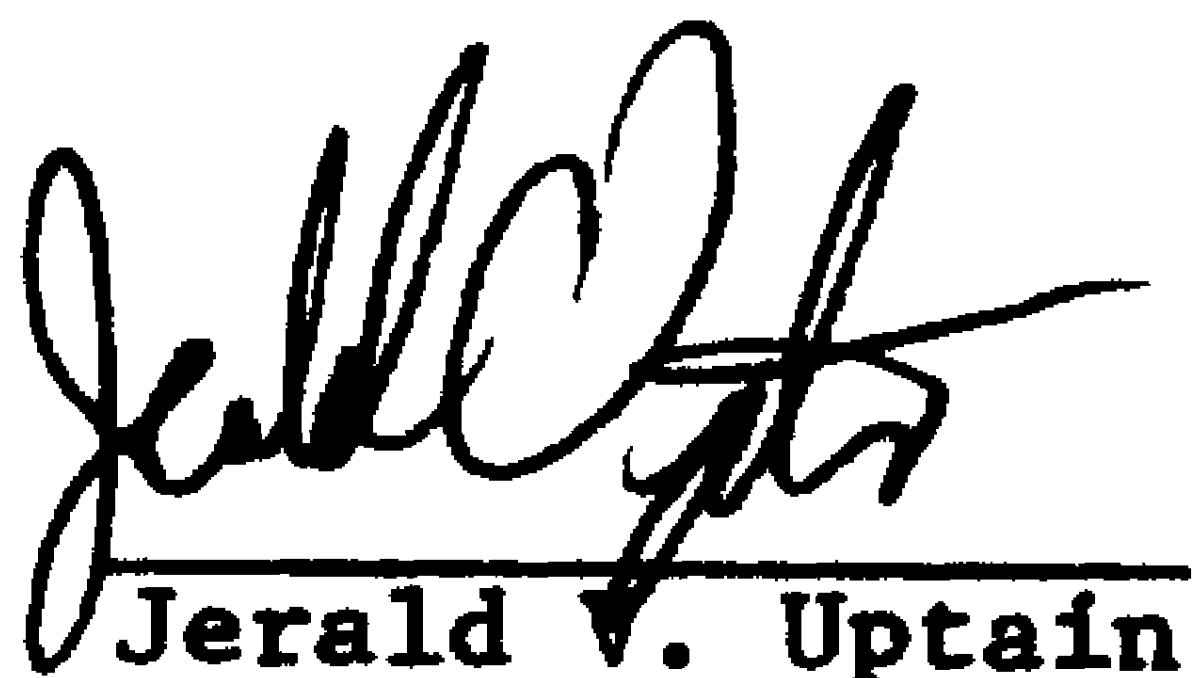
The two samples taken on 4/15/85 were during the transfer of 5265 slurry from 745 reactor into the 650 and 651 blend tanks. Wind at the time was from north to south at 1-5 MPH. The temperature was 60°F under cloudy skies and during high humidity.

The samples taken on 4/16/85 were during the transfer of 5265 slurry from 745 reactor into the 654 and 655 blend tanks. Wind at the time was from north to south at 1-2 MPH. The temperature was 66°F under clear skies.

Sample duration was twenty minutes in all four cases.

The results clearly demonstrate that respiratory protection is needed in the vicinity of the small V-11 blend tanks during slurry transfer from the reactors:

<u>Date</u>	<u>Sample Location</u>	<u>Results, ppm VCM</u>
4/15/85	On top of 651 blend tank, 4 inches south of hatch	< 0.1
4/15/85	4 feet south and above 651 blend tank hatch	13.7
4/16/85	On top of 654 blend tank, 4 inches south of hatch	19.7
4/16/85	4 feet south and above 654 blend tank hatch	12.3

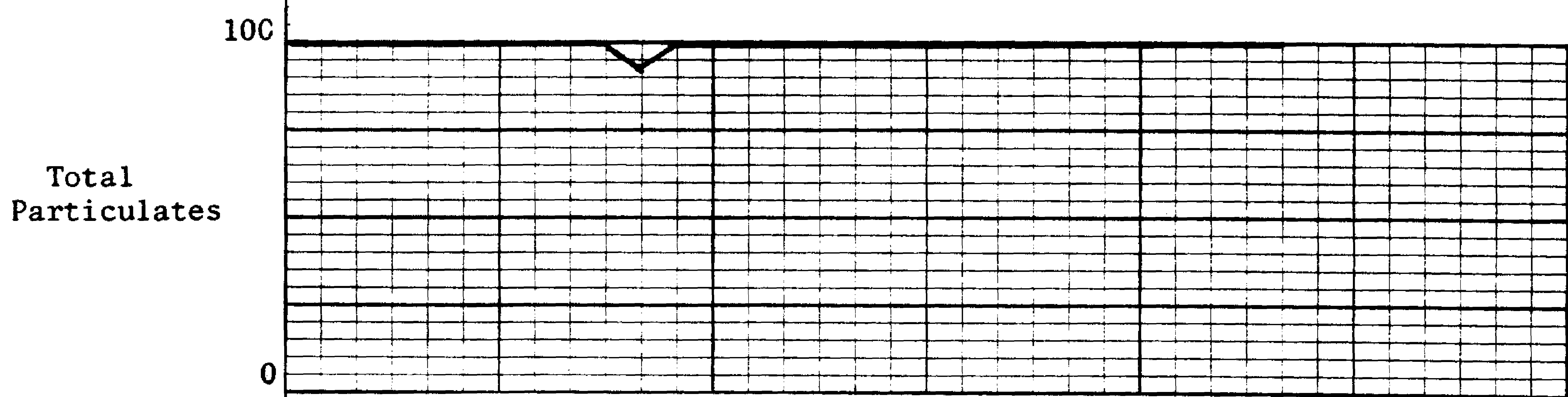
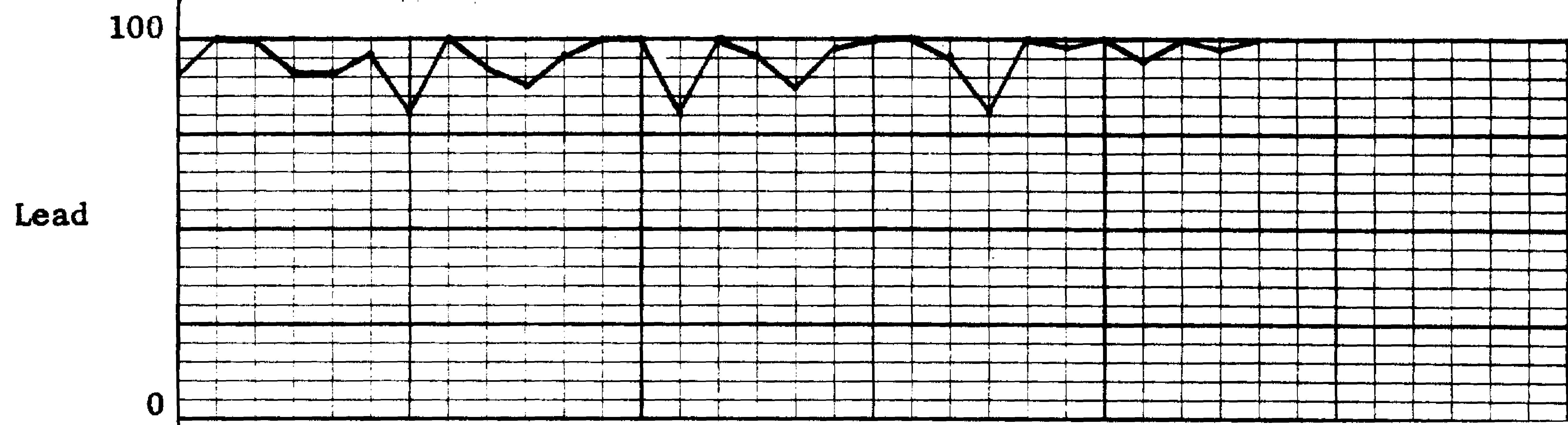

Jerald V. Uptain

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

ABERDEEN CHEMICAL PLANT
CHEMICAL DOSIMETRY TRENDS

A

% <
PEL



Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
19 83												19 84												19 85											

ABERDEEN CHEMICAL PLANT
INDUSTRIAL HYGIENE MONTHLY REPORT

Month: March, 1985
Date of Report: April 25, 1985

I. ROUTINE CHEMICAL DOSIMETRY

All Sample Results

<u>CHEMICAL</u>	<u>< PEL</u>		<u>> PEL (OVEREXPOSURES)</u>	
	<u>NO.</u>	<u>%</u>	<u>NO.</u>	<u>%</u>
VCM	87	100.0	0	0.0
Lead	30	96.6	1	3.2
Total Particulates	5	100.0	0	0.0

Overexposures

<u>JOB CLASS</u>	<u>EXPOSURE</u>	<u>SOURCE</u>
Compound Line Operator	35.9 Micrograms Lead per M ³	Employee overexposed while operating Line I mill during a period of high dusting. Although a respirator is not usually required for this job, the employee was wearing a disposal dust mask.

II. OSHA HAZARD COMMUNICATION RULE

The in-plant hazard determination was completed and a list of the plant's hazardous materials sent to T. Grumbles, Houston, TX.

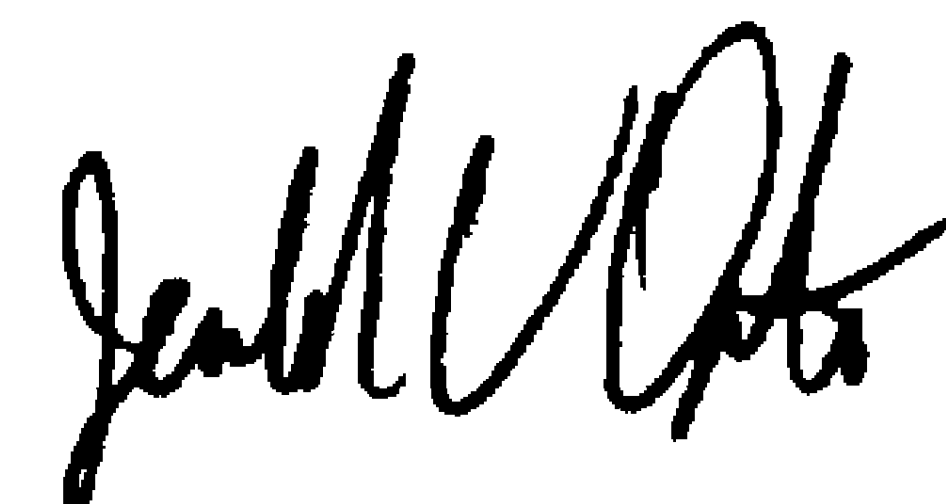
A list of missing or inadequate material supplier material safety data sheets was compiled and preparations made for requesting new sheets.

III. WEEKLY VCM DOSIMETRY REPORTING

The format of the weekly VCM dosimetry summary was simplified and the report re-implemented.

IV. VENTILATION MEASUREMENT

The quarterly ventilation checks in the Lab and Compound areas were done. No serious deficiencies were found.


Jerald V. Uptain

c: JF, JWW, DWH, PJK, WFH, CRS, RAF, AHS, WHM, JRW
Tom Grumbles, J. R. Drumwright, M.D. - Houston

ABERDEEN CHEMICAL PLANT
INDUSTRIAL HYGIENE MONTHLY REPORT

Month: February, 1985
Date of Report: March 21, 1985

I. ROUTINE CHEMICAL DOSIMETRY

All Sample Results

<u>CHEMICAL</u>	<u>< PEL</u>		<u>> PEL (OVEREXPOSURES)</u>	
	<u>NO.</u>	<u>%</u>	<u>NO.</u>	<u>%</u>
VCM	86	97.7	2	2.3
Lead	6	100.0	0	0.0
Total Particulates	0	0.0	0	0.0

Overexposures

<u>JOB CLASS</u>	<u>EXPOSURE</u>	<u>SOURCE</u>
Instrument Technician	5.0* ppm, VCM	Employee overexposed while removing the old unit VCM turbine meters.
General Mechanic	1.5** ppm, VCM	Employee overexposed while changing out a blown safety disc on 745 reactor.

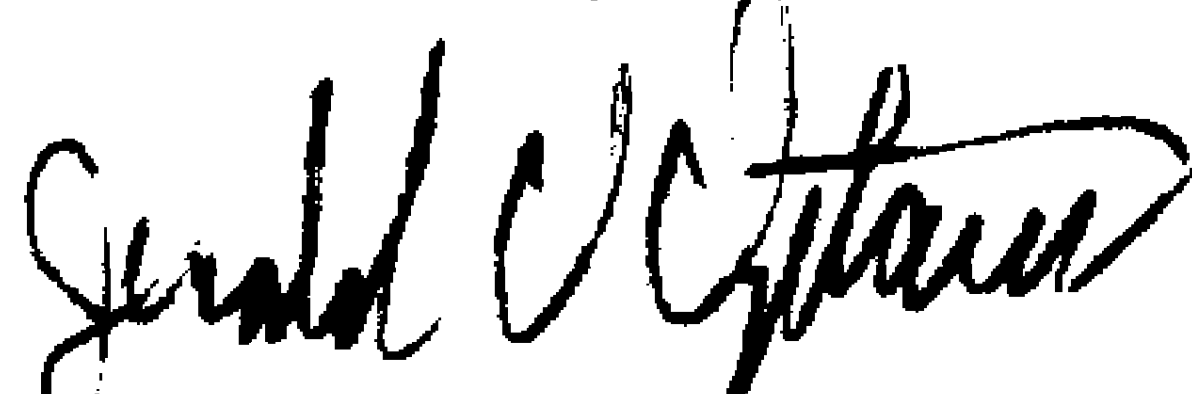
* Respiratory protection was worn.
** Respiratory protection was not worn.

II. LEAD AND TOTAL PARTICULATES DOSIMETRY

Lead and total particulates dosimetry scheduling by job class was begun.

III. VENTILATION MEASUREMENT

The Anemotherm model 60 "hot-wire" velometer was returned from factory repair.


Gerald Uptain

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