

Date March 9, 1973

To H. L. Watson, Calvert City Subject AIR MONITORING -

From J. T. Barr, Calvert City MY MEMO OF MARCH 5, 1973

☐ Take Action	☐ For Your Approval	☐ For Your Info	☐ Discuss With Me
☐ For Your Comments	☐ As Requested	☐ File	☐ Note & Return

A copy of the paper on air monitoring of chlorinated compounds from the Dow Labs is attached. Following your instructions in your memo of February 21, 1973 to R. B. Cross, I attach to your copy a draft of a CE in the sum of \$1,150 for the purchase of equipment of the type described in the attached paper. The exact equipment recommended is given in the attached table.

I have suggested getting one complete unit equipped for respirable dust and lead analyses, plus two basic units which can be adapted by the Lab according to the attached paper to determine vinyl chloride exposures. I would foresee these latter two units being used throughout the plant to determine personnel exposures at given work positions, or being carried by a worker as is described in the Dow paper.

There is every reason to believe that this technique would be extended to other organic vapors, such as methanol and vinyl acetate, which also have had maximum allowable limits prescribed for them by OSHA.


J. T. BARR

JTB:s1

cc: R. R. Harvey
T. W. Herbig
J. D. Kramer/Valley Forge/122
R. W. McGinnis
M. H. Stermon

AP00043318

AIR MONITORING EQUIPMENT RECOMMENDED

1 - C-115 Personnel Monitor Catalogue No. 3650-80	\$ 345.00
2 - C-115 Monitor Catalogue No. 3650-05 @ \$250	500.00
2 - Rechargeable Batteries Catalogue No. 3600-31 @ \$47.80	95.60
2 - Battery Chargers Catalogue No. 3600-20 @ \$32.50	65.00
1 - Box of 100 VM-1 Filters	23.00
2 - Lead Sampling Heads Catalogue No. 3600-310 @ \$1.50	3.00
1 - Box of 100 Filters <i>Pb</i> Catalogue No. 60194	23.00
2 - Plastic Filter Holders Catalogue No. 3600-300 @ \$1.25	<u>2.50</u>
 TOTAL	 \$1,057.10

AP00043319

U. S. DEPARTMENT OF LABOR

SCHEDULE

I. SPECIFICATIONS FOR CHARCOAL TUBE PUMP

The following performance requirements must be met by the pump, regardless of design:

1. The pump shall be adjustable to produce flow rates between 50 cc/min and 200 cc/min through a charcoal tube. (See attachment A for drawing and dimensions of a charcoal tube. Samples can be obtained from NIOSH upon request.) The maximum resistance of any given charcoal tube will be 2.5 inches of water at a flow rate of 200 cc/min.
2. The pump shall be battery operated and shall be capable of operating for at least four hours without recharging or replacing the batteries. Rechargeable batteries shall be used and included with the pumps.
3. In size the pump shall not exceed any of the following dimensions:
 - 1.25 inches in depth
 - 2.50 inches in width
 - 5.00 inches in length

It shall be designed to fit inside a shirt pocket. It shall not exceed 12 ounces in weight, including batteries. A means of attaching the pump to the pocket shall be provided.

4. The pump shall contain an indicating device, such as a stroke or revolution counter, which gives a number which can be converted to total volume of air sampled within $\pm 5\%$ accuracy.
5. The pump shall contain a built-in flow rate indicator. If this flow rate indicator does not indicate actual flow rate within $\pm 5\%$ accuracy, the unit shall have an additional external provision, such as a volt meter jack, to provide accurate flow rate setting and adjustment.
6. There shall be an external tube to protect the glass charcoal tube from breakage and to protect the inlet so that only airborne contaminants may enter.
7. The unit shall be designed in such a way that the tube and tube holder may be attached to the worker in such a location that the sample will be collected from the worker's breathing zone.

AP00043320

SCHEDULE

8. Loading and adjustment features, such as the flow rate adjustment and on-off switch, shall be so designed as to limit opportunities for deliberate or accidental tampering with the sampler while it is in operation.
9. The pump shall be regulated so that the flow rate does not change more than 10% over a continuous 4-hour period of operation although the battery is discharging.
10. The pump shall meet U. S. Bureau of Mines requirements for intrinsic safety.
11. Each pump unit shall be delivered with a removable plastic or leather pouch in which the pump may optionally be placed and attached by a belt clip to a worker's belt.

AP00043321

Date 8 April 1974

To Charles McDonald - Calvert Subject Organic Vapor Reading at Emulsion

From D. J. Lawson - Calvert

Plant during 720-728 Production:

☐ Take Action ☐ For Your Approval ☒ For Your Info ☐ Discuss With Me
☐ For Your Comments ☐ As Requested ☐ File ☐ Note & Return

Attached are the readings taken at the Emulsion Plant with the Century Organic Vapor Analyzer During A-720 and A-728 production.

LOCATION	Date	Time	ppm Organics
Bottom floor in corner by south door	4/2/74	1900	27
" " " " " "	4/3/74	1030	60
" " " " " "	4/4/74	1500	22
" " " " " "	4/5/74	1500	31
" " " " " "	4/6/74	2000	16
Bottom floor 1 ft. over monomer delay pump	4/2/74	1900	90
" " " " " "	4/3/74	1030	140
" " " " " "	4/4/74	1500	14
" " " " " "	4/5/74	1500	25
" " " " " "	4/6/74	2000	46
Bottom floor 10 ft. from pump over drain	4/2/74	1900	150
" " " " " "	4/3/74	1030	35
" " " " " "	4/4/74	1500	<10
" " " " " "	4/5/74	1500	14
" " " " " "	4/6/74	2000	16
Bottom floor halfway between pump & East fan	4/2/74	1900	60
" " " " " "	4/3/74	1030	21
" " " " " "	4/4/74	1500	12
" " " " " "	4/5/74	1500	15
" " " " " "	4/6/74	2000	14
Bottom floor at East Fan	4/2/74	1900	35
" " " " " "	4/3/74	1030	30
" " " " " "	4/4/74	1500	18
" " " " " "	4/5/74	1500	16
" " " " " "	4/6/74	2000	17
Bottom floor at West fan	4/2/74	1900	60
" " " " " "	4/3/74	1030	45
" " " " " "	4/4/74	1500	12
" " " " " "	4/5/74	1500	18
" " " " " "	4/6/74	2000	21
Bottom floor center of West wall	4/2/74	1900	200
" " " " " "	4/3/74	1030	300
" " " " " "	4/4/74	1500	<10
" " " " " "	4/5/74	1500	30
" " " " " "	4/6/74	2000	34
1st level of steps over monomer delay pump	4/2/74	1900	70
" " " " " "	4/3/74	1030	450
" " " " " "	4/4/74	1500	<10
" " " " " "	4/5/74	1500	22
" " " " " "	4/6/74	2000	28

AP00043322

8 April 1974

SUBJECT: Organic Vapor Reading at Emulsion
Plant during 720-728 Production.

<u>LOCATION</u>	<u>Date</u>	<u>Time</u>	<u>ppm Organics</u>
Second floor over sample point	4/2/74	1900	45
" " " " "	4/3/74	1030	90
" " " " "	4/4/74	1500	< 10
" " " " "	4/5/74	1500	18
" " " " "	4/6/74	2000	19
Third floor at reactor by drain	4/2/74	1900	140
" " " " "	4/3/74	1030	45
" " " " "	4/4/74	1500	40
" " " " "	4/5/74	1500	15
" " " " "	4/6/74	2000	15
Third floor at top steps	4/2/74	1900	22
" " " " "	4/3/74	1030	35
" " " " "	4/4/74	1500	40
" " " " "	4/5/74	1500	15
" " " " "	4/6/74	2000	15


D. J. Lawson

DJL:kg

cc: H. M. Konrad
J. D. Kramer
C. J. Smith
M. H. Stermon
H. J. Zorman

AP00043323