

TO	C. J. Nosal	FIELD POINT OR DEPT. & BLDG. NO.	Pedricktown	DATE YOUR LETTER
FROM	T. S. Bialke	FIELD POINT OR DEPT. & BLDG. NO.	Akron - D/0020, 5-H	DATE THIS LETTER
SUBJECT	PEDRICKTOWN INDUSTRIAL HYGIENE SURVEY			

During October an industrial hygiene survey was conducted at the Pedricktown Chemical plant. The plant's occupational health programs were reviewed and found to be generally in good order.

Recommendations are being provided to reduce VCL monitoring and to modify some reporting requirements.

As in the past, the compounding line received the most attention. The decision to install the air pallet system for Sb and Pb handling is commended. Anticipating the start-up of the 6" line and noise control efforts similar to the ones now existing at the 9" line should be initiated.

I would like to thank J. Kiel and G. Kaswell for their cooperation during my visit and especially C. McCann for his timely assistance in making my visit productive.

T. S. Bialke
T. S. Bialke

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cc: J.A.Kiel/C.E.McCann
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H. Waltemate
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• E.C.Martinelli/W.S.Lodge
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Recommendations:

1. Reduce frequency of VCL personnel monitoring from monthly to quarterly for dryer technician, dryer building utility and catalyst technician job classes.
2. Prior to the start-up of the 6" compounding line, upgrade noise control efforts to the same degree as the 9" line.
3. Implement plans to install the enclosed air pallet system for lead and antimony handling; continue to inform this department monthly on its progress.
4. Post boiler house as noise hazardous and require employees who must work in the area outside of the enclosed control room to wear hearing protection.
5. Lower the VCL alarm light located in the south side paste building ground floor so that it can be seen as an employee enters the area from the stairway or outside door.
6. Add a section to the monthly environmental report on status of project designed to control excessive occupational or environmental exposures.
7. Install local exhaust ventilation at each welding bay located in the new welding shop which exhausts outside and does not recirculate even with filtration.

Discussion:

Reviewing the personnel monitoring requirements for the dryer technician, dryer building and utility, and catalyst technical job classes shows their exposure to be below the 0.5 ppm action level with an occasional excursion between 0.5-1 ppm. Currently these job classes are monitored on a monthly basis. Since the exposures have historically been low, the frequency of monitoring can be reduced from monthly to quarterly.

The frequency of routine monitoring for regulated substances should be reviewed and where it can be determined that the levels detected fall in the guidelines for the monitoring requirements of a standard, the monitoring should be reduced. Excessive monitoring for monitoring's sake serves no purpose. Personnel monitoring is a tool to be used for demonstrating compliance with an OSHA standard (which determines the frequency) to initially determine if a worker's exposure to an agent is hazardous and finally to determine if control efforts have been successful.

The combination of administrative and engineering controls implemented for the 9" line have been successful. The 6" line, which is down and has not been used for a period of time; however, must not be started up until a similar combination of administrative and engineering controls like those on the 9" line are implemented.

Discussion (con't)

Since my survey I have received correspondence from C. McCann indicating that the plant has decided to proceed with the implementation of the air pallet system for lead and possibly antimony handling. Personnel monitoring for Pb over the past several months demonstrates that the modifications to the ventilation system, changes in work practices and non-dusty lead pigments have reduced the workers exposure significantly, with an occasional excursion over the 50 ug/M³ standard. Although the controls implemented to date in compounding have demonstrated a measure of success, a decision to install an enclosed lead and antimony system is supported. I would like to be kept informed of this project's status.

The boiler house was very noisy. The plant has recognized this in the past and has installed a noise enclosure for the boiler house operators. These employees must leave the enclosure at times to conduct various tasks such as maintenance, etc.; also other employees have to work in the noisy areas. Such exposures, being intermittent and highly variable, are easier and better controlled through judicious use of hearing protective devices. Controlling noise at its source by enclosures or process modifications is the ideal solution; however, boiler house noise and its concurrent worker exposure does not lend itself to practical engineering controls.

A VCL alarm light located on the south side ground floor of the paste building was hidden by the new installation of a cooling water pipe. The alarm lights must be lowered so they are no longer hidden. It must be kept in mind during a plant expansion that existing environmental and occupational controls must not be compromised by installation of, or during construction of new equipment and procedures.

A report is issued on a monthly basis which documents personnel and area monitoring results and discusses environmental concerns. To improve the utility of this report for out of plant individual's reviewing the document, I would like to suggest the addition of a section listing the personnel monitoring results that are in excess of an exposure limit, why it occurred, what is being done to prevent or correct it, and what type of respirator protection was worn. Also, a section should be added listing the status of OSHA or EPA related projects. I enclose a copy of the Henry plants vinyl task force meeting minutes; you may wish to use portions of their format. (Attachment I).

The new LPA construction was reviewed, particular attention was paid to the ATSC handling and new welding shop. ATSC proposed handling appears to be adequate. It is similar to the way the Niagara Falls plant handles ATSC. The welding shop ventilation was given more consideration since welding fumes may contain unknown amounts of volatilized metals and welding rod flux fumes which are of a toxic nature; therefore, recirculation of welding exhaust fumes is not recommended. There is no known device(s) at a reasonable cost which can assure that the air being recycled is free of toxic welding fumes. Therefore, local exhaust ventilation for control of welding fumes must be discharged out of the work environment.

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Pedricktown IH Survey
October 1980

Discussion (con't)

Personnel samples were taken for acrylonitrile from the latex building and two samples for plasticizer fumes were collected at the mill extruder areas. Results of the plasticizer fumes are not yet available. The Air results (all below the action level of 1 ppm) are as follows:

LATEX BUILDING MONITORING RESULTS
Acrylonitrile

<u>Operator/SS#</u>	<u>Job Class</u>	<u>Operation</u>	<u>Time (min.)</u>	<u>Concentration (ppm)</u>
C. Gant 152-36-8518	Allied Utility man	Reactor Cleaning	363	0.09
W. Risley 156-32-7634	Lead Technician		362	0.08
H. Smith 135-46-8321	Blending Technician	Drum Filling	355	0.06

Two samples for lead, antimony and cadmium were taken on 10/22/80. One sample was taken directly over the 9" line extruder head and the other at the mill operator's work station. Results are listed below:

<u>Area</u>	<u>ug/M³</u>		
	<u>Pb</u>	<u>Sb</u>	<u>Cad.</u>
Extruder Head	10.2	15.5	0.3
Mill Operator's Station	0.3	18.0	0

These results indicate that lead and antimony are being emitted from the extruder head and quite possibly from the mill. The mill is well ventilated as is the extruder head. The only ventilated fume source is the conveyor belt from the extruder to the mill. Considering previous monitorings on the mill men which have not shown them to have a significant exposure to lead or antimony, the fumes escaping from the conveyor belt are of little significance. The escaping Pb and Sb fumes will contribute slightly to an overall compounding area background level of the metals. But at this time, there is no real need to enclose or ventilate the conveyor belt system.

The AN and noise monitoring programs were in good shape. Also, physical exams being offered Pedricktown employees were in order. Overall, the occupational health aspects of the Pedricktown environmental health program are acceptable.

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