



Interoffice Communication

To A. H. Sather
From J. V. Uptain
Date December 20, 1978
Subject CHEMICAL EXPOSURE MONITORING SUMMARY
-FOURTH QUARTER, 1978

I. Spray Metalizing

For some time we have utilized a crude "flame coating" process in the maintenance shop for building up metal parts, particularly shafts and similar round objects. The process consists of metering finely divided metal powders, made for the purpose, into a flame, which contacts the metal part to be built up. Some concern developed that workers in the area might, as a result, be overly exposed to heavy metals, since no controls for limiting the air-borne concentration were present.

On 10/4/78, eleven (11) air samples were taken, while the various powders were used. The results appear in Table I and clearly show that better controls are needed. Since generation of the fumes is confined to one place in the shop, the most efficient control appears to be an adequately designed, local ventilation/exhaust system. This subject is under discussion at writing.

II. Compound Line I Air Sampling

The final results of the high volume air samples taken on Compound Line I appear in Table II. Although one antimony result (sample 78-102) and one barium result (sample 78-116) are disturbingly high, the most significant problem appears to be lead - especially in view of the new OSHA Lead Standard.

III. Color Weigh Room

Final analysis results of color weigh room sampling done since connection of the weigh hood to the compound ventilation system appear in Table III. As can be seen, the concentrations of heavy metals are still too high and little, if any, improvement was realized by the hood change. At writing, plans are being cast for re-vamping of the entire operation, including the ventilation equipment.

IV. 1978 Lead-in-Air Measurements

In anticipation of the questions to be raised as the effective date of the new OSHA Lead Standard approaches, all of the 1978 lead-in-air measurements made with the high volume technique were summarized (see Table IV).

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IV. 1978 Lead-in-Air Measurements (Cont.)

These measurements were all area-type in nature and, although they are no substitute for the dosimetry specified in the new standard, will be helpful during the "initial determination" that will be required

V. Trimellitic Anhydride

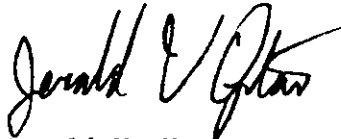
During bag charging of trimellitic anhydride to a plasticizer reactor, one sample was taken. The airborne concentration was found to be 13 milligrams per cubic meter, somewhat high. More samples are needed to better define the hazard. In the meantime, operators are required to wear respiratory protection during the task, which occurs only during the occasional production of TOTM.

VI. Carbon Black

Several samples were taken of worker breathing zone air while they were charging carbon into plasticizer reactors. All results were essentially zero, with no significant danger being apparent.

VII. Hydroquinone

Six air samples were taken in the PVC reactor areas to define airborne concentration of hydroquinone. All results were negative.



Jerald V. Uptain

Attachments

- c. Plant Manager, Department Heads
DSC, EDS, DAK, JJH, ODS

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