



Mr. J. H. Skahill
Battery Products Division
1205 Broadway
Red Oak, Iowa

December 6, 1974
Medical Department
4th Floor

Mr. R. S. Christie/Mr. T. J. Burke
Mr. E. Domokos
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Dr. J. J. Welsh
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Industrial Hygiene Survey
Red Oak - Oct. 29-30, 1974

Dear Mr. Skahill:

A routine periodic industrial hygiene survey was conducted at the Red Oak plant on October 29-30, 1974. All plant areas were inspected, and air samples were collected for airborne dusts and vapors. These air samples were analyzed for total dust, manganese, vinyl chloride monomer, toluene, and methyl isobutyl ketone. The attached tables of data summarize the results of these air samples.

Airborne manganese dust, both in the mix room and in the press room, was found to be well below the 5 mg/M^3 ceiling concentration, which is the current OSHA standard for manganese.

The two personal-type air samples collected this year on the mix room operator averaged 0.10 milligrams of manganese per cubic meter of workroom air. The average of the two samples collected this year on the person of a ceramic molding machine operator was 0.19 milligrams of workroom air. Only one sample was collected this year on the person of a Stokes press operator. It contained 0.32 milligrams of manganese per cubic meter of workroom air, as shown in one of the tables attached to this report.

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All of the total dust air samples collected this year in these production areas have also been proportionately low. The maximum such air sample was the highest of the three tabulated in this report. This sample represents the highest such sample collected in this area since June, 1978, when two samples of comparable magnitude were obtained.

Two air samples were collected, representing a total of 7 hours of the work day, on October 29, on the person of the PVC extrusion machine operator. No detectable amount of vinyl chloride monomer was found in either of these air samples. If these are valid results, each of these samples would contain less than 0.1 ppm of vinyl chloride monomer. However, due to an error, these samples were mailed by parcel post and were not received at the Edgewater Laboratory until 10 days after they were mailed. As a result, it is believed that these results are not as valid as earlier ones have been.

Air samples were also collected in the paint room, both on detector tubes for immediate reading and on charcoal for laboratory analysis, for the determination of toluene and methyl isobutyl ketone. Toluene as high as 100 ppm was found in the corner beside the roll coat operation. Two one-hour personal-type air samples, collected on the operator by using a Sipin personal sampling pump and a charcoal tube (MSA Part No. 459004) showed his exposure to toluene to be 35 ppm and 44 ppm. No methyl isobutyl ketone was detected by either sampling method.

No air samples for lead fume or perchloroethylene were collected during this inspection trip.

I greatly appreciate the courtesies extended to me during my visit. If I can be of further assistance, please let me know.

Very truly yours,

E. G. Brown
Industrial Hygienist

EGB/eg
Attachment

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