

W. E. McCormick

D/0020 - Akron 8/5-1

October 8, 1964

Louisville Plant

Industrial Hygiene Survey - Louisville Plant

We have received and studied your note, together with George Wilson's hygiene survey which he issued based on his work at Louisville during the period September 1-5. As regards the handling of lead compounds we plan to do the following:

1. Install exhaust ventilation at the skipt hoist on the 4th Farrel line.
2. Further investigate the adequacy of ventilation at the Honschel Mixer on the 4th Farrel line.
3. Review with all personnel handling lead compounds the necessity for the maintenance of good work habits, particularly, with regard to minimizing dusting while handling these compounds.
4. We plan to partition and to extend the hood at the Building 8 weigh station.
5. We are reemphasizing the necessity for good personal hygiene among personnel handling lead and antimony compounds. We are also posting in additional locations, including the lunch room, smoking room, shower room and all weigh booths a list of lead handling rules and personal hygiene rules.

We agree with your recommendation that liver function studies are not required on a regular basis for personnel in our EDC unit. We will continue to make these examinations on a pre-assignment basis to personnel assigned to this unit.

Both you and Mr. Wilson have made recommendations to us concerning vinylidene hazards, based on the analysis of the various samples obtained by Mr. Wilson during his visit. One recommendation was to prevent spillage of vinylidene chloride during drum handling operations. We will certainly make every effort to minimize such spillage, however, in the rare instances where spillage does occur, the spill will be promptly and thoroughly washed down and personnel will be instructed to avoid inhalation of fumes. We have been doing some work with our vinylidene recipes which we hope will enable us to discontinue the use of vinylidene in drums and to permit us to use all of our vinylidene in bulk from our tank farm.

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You have indicated in your note that concentration of vinylidene existing during the poly cleaning operation is excessive and that we should continue the liver function studies of these personnel on a regular basis. I would like to point out that we have never administered liver function studies to poly cleaning personnel because all of our analytical results on vinylidene concentrations in the polys have been zero or less than 1 ppm. We did however, run liver function studies on our operating personnel, largely, on the basis of the permanence of the assignment in that area and in response to your request that we do such studies on people permanently assigned to the area. As we discussed during your recent visit however, we felt that the exposure for operating personnel is nil and should be discontinued.

Mr. Wilson's report indicates that the concentration of vinylidene in our polys is 10-25 ppm. This is greatly at variance with our results of zero to less than 1 ppm. I am attaching a copy of our latest analysis which was taken on samples obtained at the same time and under the same conditions as existed when Mr. Wilson obtained his samples. Dow Chemical Company indicates that 50 ppm. is the maximum limit for continuous exposure. Mr. Wilson's results of 10-25 ppm are considerably below this and our results of zero to less than 1 ppm certainly don't agree at all with his results. Our samples were analyzed on a Beckman Chromatograph equipped with a hydrogen flame detector. If we initiate liver function studies on personnel cleaning the vessels used to polymerize materials containing vinylidene chloride, this will involve approximately 20-25 people. A considerably greater number of people will be involved over a period of time as people enter and leave this department.

Since I understand that infectious hepatitis causes the same symptoms as impairment of liver function due to exposure to chlorinated hydrocarbons, I think we can create a serious problem for ourselves by initiating such tests, whereas, if our analyses are correct no problem exists. At any rate, I feel that we should determine which of the analyses of poly atmospheric concentrations of vinylidene chloride are correct before taking further action on this recommendation. Perhaps we can discuss this further during your visit next Tuesday.

L. G. Crunkleton

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attach.

cc: A. Vittone

W. Goughman

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