

December 12, 1951

Mr. Manfred Bowditch
Director of Health and Safety
Lead Industries Association
420 Lexington Avenue
New York City 17

Dear Manfred:

Your letter of November 19 has gone unanswered a little long, since I have been rather heavily engaged in both out-of-town and in-town affairs.

The question with reference to "Ledloy," is not as easily answered as one might suppose. The question of whether or not exposure occurs in connection with the welding of leaded steel cannot be answered categorically. It depends entirely on the conditions. It is entirely possible to give rise to fumes that will be many times the maximum allowable concentration of lead oxide in the atmosphere. I would not know how to answer the question in a given case, except by inspection of the premises and a full understanding of the conditions provided. In the final analysis I might not be willing to express an opinion without lead determinations on the atmosphere, or alternatively, and better, lead determinations on exposed personnel. All I can tell you is that there is a potential hazard here, and under suitable conditions it can become a serious one.

So far as I am aware, and without going to a good deal of trouble to look it up, little has been published on this subject. Some years ago I consulted with Dolph Kammer on this matter when he was at Inland Steel. I think that his experience in the matter went much further than mine, but I saw enough to convince me of the truth of what I have said above. It is entirely possible that you can get better information concerning the particular problem that you raise from Dolph than you can from me. The difficulty is, however, that the high temperature to which such steel is elevated in welding operations is such as to volatilize lead out of the steel from a somewhat larger area than that being immediately cut. Therefore, the concentration of lead in the atmosphere near such welding operations will be higher than it would be expected to be from the low percentage of lead in the steel. I strongly suspect that there has not been much trouble from this source, partly because of the somewhat restricted use of leaded steel, and partly because of operations in welding it have been intermittent. On this score Kammer can probably tell you the results of his experience, and will give you a better picture of the actual magnitude of the real hazard.

Sincerely yours,