September 24, 1971

Mr. J. H. McGee, Safety Director
Kerr-McGee Chemical Corporation
P.O. Box #55
Henderson, Nevada 89015

Dear Mr. McGee:

In answer to your letter of September 20, let me say, first, that the inhalation of aerosols of lead (fumes from burning), or the particulate compounds of lead of larger size does not result in the occurrence of any cases of lead poisoning, if suitable preventive measures are taken to control the absorption of lead by workmen. The primary method of preventing lead poisoning, therefore, is that of maintaining the concentration of lead in the air of industrial establishments (at all sites) within the limits of safety. An adjunct to this engineering regimen is a program of Occupational Medicine, which is usually necessary, and sometimes mandatory, in order to achieve safety in some of the more dangerous operations of industry. I have advised the establishment of such a program in a book on Industrial Hygiene and Toxicology. I am sending herewith a booklet containing the chapter which I have written on this subject, which has been reprinted for the purpose of securing a fairly wide distribution. On page 979 of this reprint, you will find my brief remarks on the subject of your inquiry.

The background of this section on "Prophylaxis" is based upon my experience of many years in the lead trades. The sentence relating to the use of milk is based experimentally upon observations in this Laboratory, which have demonstrated that the use of milk in the prophylaxis of lead poisoning has virtually no effect (other than the augmentation of the volume of water introduced into the body and excreted therefrom). You will find a very brief statement of the result of these observations on page 28 of another booklet which I am sending to you (a reprinted copy of a series of lectures given and published in England), in which most of the experimental work of recent years, up to 1961, has been summarized and not published in corresponding form elsewhere. I had these lectures assembled in reprint form, so as to be able to supply them to my associates and professional colleagues in this country and abroad. The discussion of prophylactic measures, in general, and of the experimental basis for my opinion, extends on into another page of this booklet.

You may have reason (I hope) to be interested in other discussions of preventive engineering and preventive medicine in the lead trades, which follow from the experimenta work of the Laboratory in this field, and from our experience (and that of others), and are found beginning on page 66 of this booklet and extending to the top of page 72.

Let me volunteer the information that, in my view, most of the industrial plants concerne with the production or use of lead and lead-containing materials, need the advice and assistance of a knowledgeable physician and a competent industrial hygienist in order to achieve satisfactory environmental conditions within the plant and in its neighborhood

The new Federal legislation on this subject, if the Government takes itself seriously in this, will eventually make such personnel mandatory, as a part of the organizational structure of industry (perhaps on a part-time basis, only, in many relatively small establishments). It is true, of course, that adequate numbers of trained physicians and industrial hygiene engineers are not now available, but the numbers in training are growing, and, I repeat that, under requirements of the law, they will be needed. Meantime, industry will have to meet the requirements of the Government as well as it can, and I predict that there will be a period of unease and conflict within industry in many parts of the country. Not only are the small lead-producing and lead-using factories of the country in bad shape (I have had an unusually wide experience and am reasonably sure of the facts), but industry, generally, in the United States (and to a much greater extent in a number of industrial countries) is poorly equipped to handle the hazards of their operations.

Very truly yours,

Robert A. Kehoe, M.D.
Professor Emeritus of
Occupational Medicine

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enclosures

KERR-McGEE
POST OFFICE BOX 55 • HENDERSON, NEVADA 89015

September 20, 1971

Dr. Robert A. Kehoe
University of Cincinnati
Cincinnati, Ohio

Dear Dr. Kehoe:

At a recent seminar conducted by Mine Safety Appliances Company your name was given to me as a possible source to answer a question regarding illness resulting from inhalation of fumes while working around lead burning operations.

It is conceded by all concerned that the inhalation of the fumes causes an illness and should be avoided. However, there is a "belief" among our burners that the ill effects of fumes inhaled are counteracted by the drinking of milk. I'm sure this is an "old wives tale" but I need some medical evidence to disprove it. It is providing false security and could contribute to an employee's poor health. It also could be an excuse used not to go to the trouble of providing proper protection.

If you can't provide the requested information perhaps you can refer me to a source where it is available. Any help will be appreciated.

Very truly yours,

J. H. McGee,
Safety Director

JHM:gh