ETHYL CORPORATION

MANUFACTURING AND TRAFFIC DEPARTMENT

October 31, 1944

PLEASE ADDRESS REPLY TO
CHRYSLER BUILDING
405 LEXINGTON AVE., NEW YORK 17, N.Y.

CONFIDENTIAL

Dr. R. A. Kehoe
College of Medicine
University of Cincinnati
Eden & Bethesda Avenues
Cincinnati, Ohio

Dear Dr. Kehoe:

I am attaching hereto a copy of the minutes of our meeting of October 9 here in New York at which we discussed an investigation into the possible hazards of tetraethyl lead manufacture.

This is for your information and files.

Very truly yours,

J. H. Schaefer

Per: J. J. Bibb

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Att.

SURVEY OF HAZARDS OF TEL MANUFACTURE

Minutes of Meeting of October 9, 1944

E. R. Anderson	G. Edgar	H. M. Rodekohr
J. T. Biehle	R. A. Kehoe	R. C. Sharbaugh
G. Calingaert	O. E. Kurt	J. H. Schaefer
C. E. Colvin	H. J. Madden	C. Wasserman
J. A. Costello	G. Rieger	

The meeting was opened with a statement of the problem in mind. It was pointed out that although the responsibility for operation of the TEL units rests with du Pont, Ethyl suffers the consequences of any accidents to plants or operating personnel and shares the responsibility of being sure that all measures, within reason, are taken to provide safe operation. The du Pont Company is investigating the Baton Rouge still explosion and examining other operations in the light of that experience, but there is the possibility that an independent survey of hazardous conditions within the TEL plants by Ethyl would be a double assurance that all necessary corrective measures will be taken. This meeting was called for the purpose of discussing and outlining such an independent investigation by Ethyl. Should our own studies bring to light findings of sufficient importance they will probably be summarized and transmitted to the du Pont management.

There was some discussion as to the part which Ethyl employees should take in the immediate investigation of any future serious accident. It was pointed out that important evidence is often lost if representatives of those departments of both companies which might be of assistance in tracing the cause of an accident do not have immediate access to the scene or some voice in determining the data which should be taken. Opposed to this is the philosophy that those in charge of the operation should be unimpeded in their efforts to clean up any hazardous conditions resulting from the accident and to restore operation as soon as possible. Ethyl's policy in the past has been to respect the wishes of the operating management and it is felt that any arrangement whereby Ethyl's technical people would have an opportunity to participate more directly in an investigation would require an agreement between the management of the two companies.

Discussion of the independent survey of hazards by Ethyl was opened by the relation by representatives of the Development Division of various hazardous conditions already noted in the TEL area. These points had already been discussed at Baton Rouge and many of them are contained in the minutes of the Baton Rouge conference held on October 7.

Dr. Kehoe stated that Medical records indicate that the three points of greatest exposure hazards have been:

a. The still floor and to a smaller extent the autoclave floor of the TEL buildings. The specific points of air contamination have been opening of the stills, leakage around the still shaft, autoclave drop leg cleaning and sampling of the reaction mass.

b. The furnace area where leakage from the sludge pit and around the sludge dryers and dust and slag on the floor have created a bad situation.

c. The Deepwater Blender.

He also pointed out that, while minor compared with the three points mentioned above, air contamination throughout the area had increased somewhat due to the shorter cycles and the resulting greater amount of gases vented to the atmosphere. It is important that the possibility of exposure under normal conditions be held at a minimum so that occasional exposure to high concentrations of lead will not have a serious physiological effect.

It was decided that, under Dr. Kurt's direction, the Development Division would work out a program of study of TEL operating hazards along the lines of the agenda presented at this meeting. The scope of the study should, broadly speaking, provide:

1. Determination of present official procedures.

2. Determination of the extent of deviations therefrom.

3. An analysis of the adequacy of both official procedures and the hazards inherent in such deviations as may occur.

4. A catalog of possible improvements in the nature of double checking by personnel, changes in equipment or employment of various safety devices.

5. Chemical studies related to the decomposition characteristics of TEL, reaction mass and various sludges.

6. A study of the points of undue exposure to TEL and possible corrective measures.

The three Development Section men who are at present observing the TEL operations at Baton Rouge will devote 100% of their time to this study while the two men at Chambers Works will utilize approximately half of their time in similar work. Other personnel in the Engineering and Chemical groups will be called upon as is necessary. Dr. Kurt and Dr. Calingaert will decide on the assistance to be given by the Chemical Research Laboratory at Detroit.

It was agreed that the program should be carried out as completely as possible and a first report presented within sixty days. The investigation will probably be continued beyond this time but it is desired to have some results available within a two months' period.