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(Under Secrecy Agreement with California Research Corporation)

ETHYL CORPORATION
Inter-Office Correspondence

To: Mr. H. J. Gibson

From: H. E. Hesselberg

Subject: California Research Corporation
Cooperative Program

Date: April 23, 1959

As a result of the interest of California Research Corporation in possible commercial use of lead alkyls more volatile than tetraethyllead, Ethyl Corporation is currently one of the participants in an investigation of possible health hazards involved.

In brief, this investigation will involve these phases:

1. Determination of lead exposure, both organic and inorganic, and of urinary lead elimination of a group of individuals presently involved in a high-volume, indoor fueling operation. The gasoline will be the usual commercial stock containing 1 to 2 ml TEL per gallon.
2. Upon establishment of the Phase I baseline, TEL concentration will be increased to 3.0 ml per gallon and a second exposure and elimination baseline established.
3. X-105A will be substituted, in equal molar concentration, for TEL in the Phase 2 gasoline. Exposure and elimination levels will be determined. Concurrently, the lead exposure and elimination of the individuals involved in the blending, loading, and transportation of the Phase 3 gasoline will be determined.

Ethyl Corporation has responsibility for all lead in air determinations connected with the investigation. Since the Kettering Laboratories are recognized authorities in this field, their services have been retained for this purpose. They will be responsible for specifying the nature and frequency of sampling as well as the analysis and interpretation of results obtained. To conduct the actual test sampling, Western Region Sales has agreed to make available the services of Mr. W. Y. Hancock. Mr. Hancock will work with representatives of the Kettering Laboratory to implement

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both the organic and particulate lead sampling program at the required locations and will be responsible for the collection, analysis and/or forwarding of all samples obtained.

Mr. Hancock has received instruction on the specified procedures to be followed in organic lead sampling from Research Services at the Baton Rouge Laboratories. Research Services will supply Mr. Hancock the necessary sampling equipment and reagent supplies. The Kettering Laboratories will furnish the necessary equipment for inorganic lead in air monitoring and will specify operating procedures. All communication relative to the conduct of the lead in air investigation should be directly from Western Region Sales representatives to the Kettering Laboratory.

Ethyl Corporation Product Services will have responsibility for safety aspects of the installation and operation of the X-105A blending facilities.

Since the original contacts and the execution of the Secrecy Agreement covering this program were handled through the Detroit Laboratories, Research and Development, they will continue to maintain contact with California Research Corporation on this program.

The number of individuals having knowledge of this program has been held to a minimum and all concerned have been advised that this program is covered by a Secrecy Agreement.


H. E. Hesselberg

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