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BRITISH MERCHANT SHIPPING MISSION
OFFICE OF THE BRITISH PETROLEUM REPRESENTATIVE
IN THE U. S. A.

February 4th, 1943

Dr. Robert Kehoe,
Kettering Laboratory,
Cincinnati, Ohio.

Dear Dr. Kehoe,

Your letter and enclosures regarding the use of leaded motor gasoline for cooking purposes raises an important and difficult problem.

I quite agree with you that the use of such gasoline involves a definite health hazard not only from the lead in the products of combustion, but also because of the risk of absorption of lead tetra-ethyl through the skin of the men who would handle (and inevitably spill) the fuel.

This leaves two alternatives open for consideration:-

- (a) Employ some method of removing the lead tetra-ethyl from the fuel.
- (b) Use a leadless fuel for cooking purposes.

Both alternatives involve very considerable difficulties so that the selection lies between two unattractive courses.

A good deal of research has been done on adsorbative filters for removing lead tetra-ethyl but with what success I do not know, though the Ethyl Corporation of course, can answer this. Actually, however, it would, I think involve such a large amount of equipment, including continual replacements for exhausted filters, as regeneration is not a simple business, that it would not be a practicable proposition.

The alternative is to organize the separate supply, transport and distribution of unleaded fuel (gasoline and/or kerosene according to the requirements of the stove). There are probably sufficient supplies of such fuel available in England, America and the Middle East from indigenous production; the serious problem of course, is the transportation (presumably in drums, which are scarce), segregation from leaded fuel and separate storage and handling. I can quite appreciate the weighty objections to this proposal, but at present I can see no better solution unless filtration has been developed to a much higher degree of effectiveness and simplicity than I believe to be the case.

Yours very truly,

F.B. Thole.

N 7867

F.B. THOLE
Technical Adviser.