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OUR REF. SBC/2

YOUR REF.

DATE

26th April 1951

Dr. R. A. Kehoe,
The Kettering Laboratory of
Applied Physiology,
University of Cincinnati,
Cincinnati,
Ohio,
U.S.A.

Dear Dr. Kehoe,

I am serving on a Committee which has been set up by our British Standards Institution to consider the drafting of a proposed British Standard which it is intended to issue covering the use of respirators (gas masks and dust masks) and breathing apparatus, for use in the petroleum and allied industries. As a member of this Committee, I represent the Institute of Petroleum, and I do not in any way represent the Company. Mr. Kelley serves as the Company's representative.

As you will note from the attached copy of a memorandum which I have given to Mr. Noble on the subject, tetraethyl lead is not specifically included, and I think it is a pity if, in fact, a British Standard on the subject is to be published it is deficient on such an important product, which, of course is so widely met with in the petroleum industry. The Standard is intended for the guidance of the petroleum industry, and it seems quite illogical for anybody who might pick it up not to see an answer that he might reasonably expect to find.

As you will see, the difficulty arises from the fact that there is no "approved" canister for use against tetraethyl lead - "approved" meaning approved by the Factories Branch of the Home Office after such a canister has been subjected to a test at the Government testing station at Porton. I have suggested that as the B.S.I. is not a statutory body, but an impartial one, it might consider making a "recommendation" on the subject. I wanted to ask you whether there was in existence in the States any comparable Standard on this subject, either under the auspices of A.S.A., A.P.I., or A.S.T.M.

On a similar argument to that which I have suggested might be applied to tetraethyl lead, I wondered if you yourself had any views as to any other specific groups of hydrocarbons or their derivatives which are commonly met with in the petroleum industry, upon which recommendations in the way of respirators or breathing apparatus might be considered for inclusion in this proposed British Standard. I realise that to introduce this theme might be touching on rather stony ground, but if you care to offer an opinion I will regard it in strict personal confidence. As I mentioned at the beginning, I am serving as a representative of the Institute of Petroleum, and I have raised the point with them as to whether the petroleum industry in England might wish specific groups of substances to be listed, even although statutory approval might not be established for canisters. I still feel that well considered recommendations might be given for guidance.

I am also appending a list of dusts which it is proposed to list. We agreed to include lead as in the form of fume and dust. This was admitted to be an omission, and the Home Office representative stated that the proposed standard dust respirator was entirely satisfactory against lead fume, performing with an extraction efficiency well over 90% under these conditions.

Have you any personal views on the ranking of the dusts between the categories of harmful and nuisance. I just queries sulphur being regarded as harmful, and I was told that the consensus of opinion was that sulphur dist is potentially harmful. I also introduced the possibility of iron pyrites as a material which is likely to be met with to an increasing degree in the oil industry for the preparation of sulphur acid in view of the sulphur shortage. In some processes the pyrites has to be ground down to a very fine degree (100% passing 100 mesh), and in this form it is an extremely dusty material. Some pyrites can contain up to 0.3 - 0.5% of arsenic, and apart from the undoubted nuisance of such a fine pyrites dust, I wondered whether it could introduce the possibility of the inhalation of any substantial amount of arsenic. Have you any personal and private views on this issue. Equally, have you any views on any other dusts that might be encountered inside the petroleum industry, which might be listed.

At the expense of being repetitive, I do feel personally that if this draft is issued as an official British Standard, then anybody in the oil industry might reasonably expect to pick it up and find an answer, at the minimum, in the form of a recommendation, covering materials with which he is associated.

Yours sincerely,

H. Fossett
(H. Fossett)

hf/ecd