

THE ASSOCIATED ETHYL COMPANY LIMITED

Registered Office: THE ADELPHI, LONDON, W.C. 2

Address all communications until further notice to:

ARTILLERY HOUSE, ARTILLERY ROW, LONDON, S.W.1

Telephone: ABBEY 3974-7

Telegrams: ETHYLPORT, SOWEST, LONDON

Directors:

H. E. BEDFORD (U.S.A.) J. B. AUG. KESSLER (NETHERLANDS)
J. W. SOYLE R. W. SELLERS
H. B. HEATH EVES A. J. SINGLETON
N. A. GASS E. E. SOUBRY
L. N. HAMILTON (U.S.A.) T. R. A. BEVAN (Managing)

OUR REF.

0/ea

YOUR REF.

7th February, 1944.

Dr. R. A. Kehoe,
University of Cincinnati,
College of Medicine,
Cincinnati, Ohio.

Dear Dr. Kehoe,

Mr. Bevan asked me to send
you the enclosed copy of Notes of a Meeting
held at the Royal Army Medical College, Millbank,
on 19th January last, for your information.

Mr. Bevan saw these notes before
he left.

Very truly yours,

[Signature]

*Other copy in file on
War time handling of
lead gasoline*

RE 0007161

N 7805

Notes of a meeting held at the R.A.M. College, Millbank, on 19th January 1944, to discuss the draft prepared by Dr. Kehoe on the summary of conditions responsible for toxic hazards to workmen engaged in filling small containers with leaded gasoline and in handling packaged leaded gasoline together with the recommendations for the avoidance of such hazards.

Chairman:	Major-General D.T. Richardson	Director of Hygiene
Present:	Air Commodore T. McClurkin	Director of Hygiene, Air Ministry
	Brigadier G. Riddoch	Consulting Neurologist
	Col. T. F. Kennedy	Professor of Hygiene
	Dr. E.R.A. Merewether	Sen. Med. Insp. Factory Dept., Ministry of Labour
	Dr. S. H. W.	, -do- Ministry H.Q.
	Col. M. H. I.	Admiralty
	Surgeon Gen.	
	Lt.-Col. H.	
	Mr. T. R. A.	Ethyl Co. Ltd.
	Mr. G. R. Sm.	
	Major R. R.	Army
	Capt. J. K.	Army
	Major S. Ell.	College
	Major H. B. F.	Office
	Lt.-Col. L. G.	ice.

ORIGINAL DOCUMENT WAS LEGAL SIZE

Introduction

In opening the meeting the meeting was held at the R.A.M. College the last meeting was held at the R.A.M. College installations in the Middle East. He pointed out that in some of these plants a combination of circumstances existed which had produced conditions dangerous to the health of the operatives. These included, overloading of equipment and employment of unskilled labour leading to excessive spillage, high temperatures and lack of adequate ventilation. Under such conditions total evaporation of leaded petrol took place and cases of lead intoxication chiefly among native labourers had occurred. At Abadan, the cases of serious illness and deaths were limited to the hot weather period and occurred after about 3 weeks' exposure. Dr. Kehoe had prepared a paper on the subject copies of which had been circulated to those present and it was proposed to discuss this paper with a view to issuing appropriate instructions to Service personnel for the avoidance of such hazards.

A. Recommendations and Specifications for Permanent or Semi-Permanent Installations handling leaded gasoline.

Mr. Bevan pointed out that the recommendations contained in this section were applicable only to permanent and semi-permanent installations operated by the Oil Companies including those operated by them for the Army, but they were not intended for improvised or mobile military installations.

Dr. Merewether said that in this country where these installations were factories any question of regulations would have to be decided by the Ministry of

KE 0007162

N 7805.01

... on the summary of conditions responsible for toxic hazards to workmen engaged in filling small containers with leaded gasoline and in handling packaged leaded gasoline together with the recommendations for the avoidance of such hazards.

- - - - -

Chairman:	Major-General D.T. Richardson	Director of Hygiene
Present:	Air Commodore T. McClurkin	Director of Hygiene, Air Ministry
	Brigadier G. Riddoch	Consulting Neurologist
	Col. T. F. Kennedy	Professor of Hygiene
	Dr. E.R.A. Merewether	Sen.Med.Insp. Factory Dept., Ministry of Labour
	Dr. S. H. Wilkes	Chief Chemist, -do-
	Col. M. H. Brown	Canadian Military H.Q.
	Surgeon Cdr. G. Southwell-Sander	Medical Dept., Admiralty
	Lt.-Col. H. N. Gothay	D.C.I.S.
	Mr. T. R. A. Bevan	The Associated Ethyl Co.Ltd.
	Mr. G. R. Smith	-do-
	Major R. R. Cleland	Sn. Corps, U.S. Army
	Capt. J. K. Latham	Sn. Corps, U.S. Army
	Major S. Elliott	Chemist, R.A.M.College
	Major H. B. Hodson	A.M.D.5., War Office
	Lt.-Col. L. G. Hucks.	S.T. 2, War Office.

Introduction

In opening the meeting the Director of Hygiene said that since the last meeting was held at the R.A.M. College, Dr. Kehoe had made a tour of petrol filling installations in the Middle East. He found that in some of these plants a combination of circumstances existed which had produced conditions dangerous to the health of the operatives. These included, overloading of equipment and employment of unskilled labour leading to excessive spillage, high temperatures and lack of adequate ventilation. Under such conditions total evaporation of leaded petrol took place and cases of lead intoxication chiefly among native labourers had occurred. At Abadan, the cases of serious illness and deaths were limited to the hot weather period and occurred after about 3 weeks' exposure. Dr. Kehoe had prepared a paper on the subject copies of which had been circulated to those present and it was proposed to discuss this paper with a view to issuing appropriate instructions to Service personnel for the avoidance of such hazards.

A. Recommendations and Specifications for Permanent or Semi-Permanent Installations handling leaded gasoline.

Mr. Bevan pointed out that the recommendations contained in this section were applicable only to permanent and semi-permanent installations operated by the Oil Companies including those operated by them for the Army, but they were not intended for improvised or mobile military installations.

Dr. Merewether said that in this country where these installations were factories any question of regulations would have to be decided by the Ministry of Labour. He pointed out it was not safe to assume that a high temperature was always necessary as one or two cases had occurred among carburettor testers in this country.

Lt.-Col. Hucks said that military installations would be constantly changing their location. They would be of the mobile or improvised type and might be set up in tents or requisitioned buildings. It would not always be possible to lay on water and they could of course have no control over the floor surface.

Dr. Merewether considered that some test should be adopted even in military establishments otherwise the occurrence of cases of T.E.L. poisoning would be the first indication of dangerous conditions.

D. of H. pointed out that the estimation of lead in the atmosphere was a complicated process and he doubted whether it would be possible for this to be carried out in military installations.

Mr. Wilkes said that the estimation of petrol vapour in the atmosphere was fairly easily carried out and suggested that this might be used as a guide.

Mr. Bevan stated however, that an estimation of the petrol content of the air would give no indication of the amount of lead present and pointed out that the recommendation referred to permanent installations operated by the Oil Companies.

Lt.-Col. Hucks considered that if necessary Mobile Petrol Labs. might be able to carry out the test recommended provided the necessary apparatus were available.

Mr. Wilkes referring to the recommendations in para. 5 considered that mechanical ventilation was more valuable than any other measure.

Lt.-Col. Hucks said that as far as military installations were concerned mechanical ventilation would be quite impracticable and they would have to depend upon other forms of ventilation. It was however, pointed out that this recommendation was intended to apply when conditions were such as to give rise to hazardous exposure from spillage and evaporation.

B. Recommendations for Improvised and mobile can-filling installations handling leaded gasoline.

Lt.-Col. Hucks said that in general these recommendations were part of the normal S.T.2 practice but hosing down the floors would not as a rule be practicable.

D. of H. said it would only be possible to lay down the general principles for the protection of personnel engaged on this work. The actual details which would vary with local conditions would have to be left to the man on the spot. It should, however, be impressed on those in charge of such installations that they were responsible for the health of the operatives.

Lt.-Col. Hucks referring to the question of protective clothing said that denim overalls were provided and these were changed at the end of the day. Magazine shoes were provided for indoor installations.

D. of H. said that the recommendations regarding the medical selection of personnel would not apply to military personnel who would have already been medically examined.

Brigadier Riddoch agreed and stated that it was important that stupid people should not be selected for this work.

Lt.-Col. Hucks said that military installations would be operated by trained

KE 0007164

D. of H. pointed out that the estimation of lead in the atmosphere was a complicated process and he doubted whether it would be possible for this to be carried out in military installations.

Mr. Wilkes said that the estimation of petrol vapour in the atmosphere was fairly easily carried out and suggested that this might be used as a guide.

Mr. Bevan stated however, that an estimation of the petrol content of the air would give no indication of the amount of lead present and pointed out that the recommendation referred to permanent installations operated by the Oil Companies.

Lt.-Col. Hucks considered that if necessary Mobile Petrol Labs. might be able to carry out the test recommended provided the necessary apparatus were available.

Mr. Wilkes referring to the recommendations in para. 5 considered that mechanical ventilation was more valuable than any other measure.

Lt.-Col. Hucks said that as far as military installations were concerned mechanical ventilation would be quite impracticable and they would have to depend upon other forms of ventilation. It was however, pointed out that this recommendation was intended to apply when conditions were such as to give rise to hazardous exposure from spillage and evaporation.

B. Recommendations for Improvised and mobile can-filling installations handling leaded gasoline.

Lt.-Col. Hucks said that in general these recommendations were part of the normal S.T.2 practice but hosing down the floors would not as a rule be practicable.

D. of H. said it would only be possible to lay down the general principles for the protection of personnel engaged on this work. The actual details which would vary with local conditions would have to be left to the man on the spot. It should, however, be impressed on those in charge of such installations that they were responsible for the health of the operatives.

Lt.-Col. Hucks referring to the question of protective clothing said that denim overalls were provided and these were changed at the end of the day. Magazine shoes were provided for indoor installations.

D. of H. said that the recommendations regarding the medical selection of personnel would not apply to military personnel who would have already been medically examined.

Brigadier Riddoch agreed and stated that it was important that stupid people should not be selected for this work.

Lt.-Col. Hucks said that military installations would be operated by trained personnel.

D. of H. considered that having regard to the early symptoms of T.E.L. poisoning the O.C. would be most likely to detect changes in disposition of the operatives and it was important that such cases should be referred to the Medical Officer.

Dr. Merewether considered that opportunities should be given for the worker to be interviewed by the doctor periodically in order that any changes in his mentality could be detected.

D. of H. then read a report from the Consultant Physician Paiforce which contained details of the clinical aspects of Tetra Ethyl Lead Poisoning.

It was agreed that a copy of this report should be sent to Dr. Kehoe for his comments.

It was also agreed that -

1. Appropriate instructions based on Dr. Kehoe's paper should be issued to units operating petrol filling installations by S.T.2.
2. The complete report together with a description of the clinical aspects of T.E.L. poisoning should be issued for the information of medical officers. It was considered that this could best be done in the A.M.D. Bulletin.
3. S.T.A.4 should be asked to issue an instruction on the avoidance of possible health hazards from the use of leaded petrol in petrol cookers.

H.B. Hodson,
Major.