

HEADQUARTERS ARMORED FORCE  
Office of the Commanding General  
Fort Knox, Kentucky.

November 12, 1940

OM 463.7

MEMORANDUM TO: Assistant Chief of Staff, G-4.

With reference to my memorandum to you of October 29, 1940 on the subject of Section II, Memorandum No. 5, Hq, Armored Force, "Dangers of Lead Poisoning", when the War Department Liaison Officer of Armored Force reported that Public Health Bulletin on leaded gasoline was out of print, I wrote the Ethyl Gasoline Corporation for a copy and the following is extract of their reply:

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"I am pleased to advise you that Dr. W. F. Machle of our medical staff will call on you shortly. He will bring with him a copy of Public Health Service Bulletin No. 163 providing that any of these bulletins are still available. There is, however, other material of a much later date available and Dr. Machle will have these and will be glad to discuss them with you. Dr. Machle will be able to give you a lot of very pertinent information on the proper handling of gasoline"

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Suggest this be brought to attention of Chief of Staff who OK'ed issue of Section II, Memorandum No. 5 and of Surgeon, I Armored Corps who prepared this Section II, Memorandum No. 5 and if they desire to talk to this Dr. Machle on this matter I'll be glad to notify them.

JOHN McD. THOMPSON,  
Lieut. Colonel, G. M. Corps,  
Quartermaster.

*Inclosure 1*

HEADQUARTERS ARMORED FORCE  
Fort Knox, Kentucky

October 24, 1940.

MEMORANDUM )

NUMBER 5. )

PROCUREMENT OF TOW CHAINS - - - - I  
DANGERS OF LEAD POISONING - - - - II

I. 1. The Quartermaster General's office has advised that tow chains are being procured for all vehicles of one and one-half (1-1/2) tons capacity up to seven and one half (7-1/2) tons capacity. Tow chains or ropes for passenger cars and vehicles of less than one and one-half tons capacity are still in the development stage.

2. Unit supply officers will requisition for tow chains for all vehicles on hand on the basis of one per vehicle for all vehicles from one and one-half (1-1/2) tons capacity to seven and one-half (7-1/2) tons capacity. Requisitions will be forwarded through channels prescribed in Circular 1-6, OQMG, copy being furnished this headquarters.

3. The following nomenclature will be used in requisitioning for these items:

For 1½ to 2½ ton capacity vehicles:

8-A-NS Chain, tow, utility, 16 ft x 7/16 in., high test, in accordance with OQMG drawing No. 07855-V.

For 4 to 7½ ton capacity vehicles:

8-A-NS Chain, tow, 20 ft. x 5/8 in., high test in accordance with OQMG drawing No. 08073-V.

II. 1. Due to the danger of lead poisoning from the careless handling of gasoline, every effort should be made to prevent and control this occupational hazard.

2. Constant contact with gasoline containing lead will result in sufficient absorption to produce not only local skin irritation, loss of pigment, bleeding of the gums, and loosening of the teeth, but other serious systemic symptoms.

3. Division Commanders are directed to institute measures thought necessary to avoid careless handling of gasoline, in order to prevent disability and loss of time from lead poisoning.

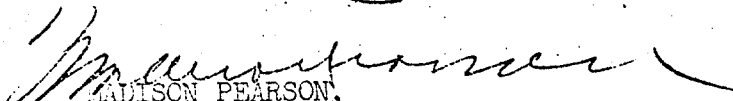
*Enclosed (Over) 2*

Memorandum Number 5, Hq. Armored Force, Ft. Knox, Ky., c.s., cont'd.

By command of Major General MAGRUDER:

SERENO E. BRETT,  
Lieut. Colonel, General Staff Corps,  
Chief of Staff.

OFFICIAL:

  
MADISON PEARSON,  
Lieut. Colonel, A.G.D.,  
Adjutant General.

DISTRIBUTION "A".

KE 0009530

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Headquarters I Armored Corps  
Office The Quartermaster  
Fort Knox, Kentucky.

October 29, 1940.

Memo to A.C. of S., G-4.

Attention is invited to the attached provisions of Section II, Memo. No. 5, cs, this headquarters on the subject of: "Dangers of Lead Poisoning".

Memorandum of October 11, 1940, this headquarters prescribes that gasoline of 80 octane be used in all vehicles and gasoline ranges of the Armored Force, except tanks equipped with Wright engines which are required to use 92 octane gasoline pending outcome of test by Armored Force Board. All of this gasoline contains tetraethyl lead.

We are having a hard enough time getting personnel to take proper care of the gasoline range, Model 1937 and a great deal of the trouble is due to their fear of the range through unfamiliarity with its operation. This latter has been and will be corrected through various means that we have recently undertaken. However to have this scare notice on the subject of lead poisoning come out is going to materially affect the progress we had hoped to secure in this matter, as operating personnel are now going to have some other point to cause them to dislike this range - fear of lead poisoning.

With the gasoline requirements of the Armored Force we are going to have a hard enough time supplying this item without arousing undue fear in personnel that are required to handle it.

This memo. on lead poisoning is misleading. Careless handling of gasoline can not cause lead poisoning. "Constant contact" is too indefinite a term and can but cause unnecessary dread or fear. Paragraph 3 is too general and does not give specific measures that should be used to prevent the very remote possibility of lead poisoning from gasoline containing tetraethyl lead.

It has been brought to my notice that a man of the 1st Armored Division was admitted to the hospital after the last maneuvers overcome while refilling gasoline cans and that the report has been circulated that "he has symptoms of lead poisoning". I am informed that the station hospital has not the equipment with which to make the necessary tests for lead poisoning and that a definite diagnosis can not be made without such clinical tests.

All of these factors lead up to a situation that can cause serious consequences, especially with the coming increases of Armored Force units through selective service men.

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Memo to A. C. of S., G-4, 10/29/40, Contd:

The undersigned has sent to the Liaison Officer asking that he secure certain Public Health Service Bulletins on this subject and on their receipt it is hoped to be able to prepare a letter of instruction to senior unit commanders of the Armored Force that may counteract the harmful aspects of the attached memorandum on dangers of lead poisoning.

I am reliably informed that the Public Health Service is the one that prescribed that not to exceed 3 cc of tetraethyl lead per gallon may be used commercially in gasoline as they found that that quantity was so small that there was not danger of lead poisoning.

The Army Medical Center has made an exhaustive test of the possibility of lead poisoning from the use of 80 octane gasoline in the Field Range, Model 1937 and reported that the presence of lead in the fumes from this range was in such small quantity that there was no danger to either operating personnel or contamination of foods or utensils.

It is recommended that in the future any matters that are apt to have as many repercussions as the matter of lead poisoning from gasoline be thoroughly investigated before any instructions are issued on the subject and that when such investigation has been made that instructions be sent out in forms of letters of instruction to senior unit commanders to avoid the possibility of developing unwarranted fears through too wide a dissemination such as has been given to the attached memo through prescribing "Distribution".

JOHN McD. THOMPSON,  
Lieut. Colonel, Q. M. Corps.

Incl.

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