



OLINE CORPORATION

RCH LABORATORIES

ST MILWAUKEE AVENUE

DETROIT, MICHIGAN

August 25, 1938.

Dr. W.F. Machle
College of Medicine
University of Cincinnati
Cincinnati, Ohio.

Dear Machle:

Further to our telephone conversation of last week concerning exposure to lead bearing dust at Pratt and Whitney Aircraft.

Two or three days prior to last New Year I visited Pratt and Whitney and happened to notice the apparatus used for cleaning spark plugs. The operation is carried out without wetting the lead deposits and consists in removing deposits with a motor-driven wire brush from the spark plug shells and from the cores by means of sand-paper while the core is rotated at high speed. At the time of this visit no suction ventilation apparatus was in use and I pointed out the hazards associated with the operation. Later on Mr. Karl Beaver of this laboratory visited Pratt and Whitney and observed this operation and found the operator wearing a mask which made breathing extremely difficult. I again wrote to Pratt and Whitney in the matter and as a result of my comments suction ventilation was installed.

Recently, Mr. E.W. [REDACTED] the mechanic carrying out this operation, applied for insurance and was asked for particulars of his occupation. When he described his work to the insurance company he was told that it was extremely hazardous. (I am not sure, however, whether he was rejected for insurance or not). He proceeded to collect a sample of dust retained in the hoods of the ventilation system and was proposing to have this analyzed. This came to the attention of his superior, Mr. E.J. Bussey who is the Assistant Foreman of the Experimental Department. Mr. Bussey sent this dust to me for analysis as you will have noticed from copies of correspondence which you received. During my visit to Pratt and Whitney last week I examined the spark plug cleaning apparatus and found that while suction ventilation apparatus with considerable capacity had been installed the effect had been largely nullified by screens which were fitted in order to prevent spark plugs dropping into the ventilation ducts. These screens had become considerably clogged and had so much reduced the area available for air flow that both the chuck and the wire brush on the apparatus were functioning as centrifugal fans and blowing air out of the hoods in such a manner as to nullify the suction provided by the ventilation fan. Mr. Bussey had the screens removed and this

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effected a very considerable improvement, particularly with regard to the wire brush. However, the latter still threw out a stream of air from the hood. Mr. Bussey also had the chuck enclosed but I was not able to witness a test of this.

Mr. Bussey told me that the matter had been referred to the chief plant physician at Pratt and Whitney and I understand that the latter had stated that the man was not ill from lead affects. I told Mr. Bussey, Mr. Parkins, Mr. Moncrieff, Mr. Hobbs, Mr. Gove and Mr. Lester, all of the Engineering Department, that if there was any question of the man being exposed to a dangerous lead hazard he should either be removed from the job immediately or else equipped with a mask fed by washed, compressed air as shown in the attached photograph. I stated that if exposure was continued after the matter had been brought to the attention of Pratt and Whitney any industrial commission was likely to be extremely critical. Mr. Bussey did not want to either remove the man from the job or get him to wear a mask since he felt that Koenig was fundamentally a trouble-maker and would seize on either of these changes as a means of starting up trouble. I replied to this to the effect that I thought the man's reactions should not enter into the question of his continued exposure to a possible lead hazard.

In visiting the plants of Pratt and Whitney and their associates I observed what I regarded as several considerable dust hazards from grinding and polishing operations and mentioned these to Messrs. Hobbs and Parkins. They stated that if Dr. Schraden could find time for a brief examination of the operations I criticised they would find his opinions of considerable assistance. Arrangements have been made to get Dr. Schraden in touch with Pratt and Whitney's principal plant physician during his visit.

I am writing to Pratt and Whitney suggesting that Dr. Schraden should see either Mr. Parkins, Assistant Chief Engineer, or Mr. L.S. Hobbs who is Engineering Manager and in charge of all engineering and experimental work.

Best wishes.

Yours sincerely,



S.D. Heron

SDH:REL

CC: Mr. W.A. Parkins (2 cc.)

Encl.

P.S. Pratt and Whitney mention that the spark plug cleaning operation is being carried out all over the country and that it is probable that many concerns are conducting the operation with no regard whatsoever for dust hazards.

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S.D.H.