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MELLON INSTITUTE

4400 FIFTH AVENUE

PITTSBURGH 13, PA.

December 13, 1960

Mr. Donovan A. Smith
Isotopes Branch
Division of Licensing and Regulation
United States Atomic Energy Commission
Washington 25, D. C.

Dear Mr. Smith:

Ref: L&R:IB:DAS (30747)

This is in reply to your letter of December 5 requesting additional information on our license application for a 100 curie cobalt 60 source.

Enclosed are additional sketches which describe the source plug and the raising mechanism. The source will be contained in the plug as per the illustration. This plug will be raised to the operating position inside an extension tube mounted on top of the safe. Raising and lowering will be done via a motor-driven winch. The operating limits will be established via the indicated microswitches. The lower microswitch will also serve to actuate a green light which will clear access to the irradiation chamber. If the lower microswitch is open an appropriate warning light will be actuated as per Section 20.203(C)(2) of CFR-20. Together with the use of closed circuit television to monitor the rod position we believe that this arrangement is fail safe.

In regard to your first question on leak testing, it will be seen from the description of the source plug that there is little possibility of any difficulty on this. The only remote possibility would be through the screwed thread in the top of the plug. This will be appropriately wipe tested.

In regard to question 3, the roof area of the hot cell will be used only for the raising and lowering mechanism and will be curtained in such a way that it will not be accessible to personnel. The overhead flooring consists of two foot of poured concrete so that no difficulty is expected.

A/b

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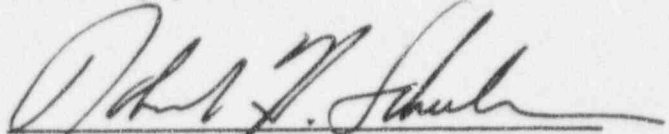
Mr. Smith

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Enclosed are copies of the standard operating, administrative and emergency procedures to be used with the proposed source.

Sincerely yours,



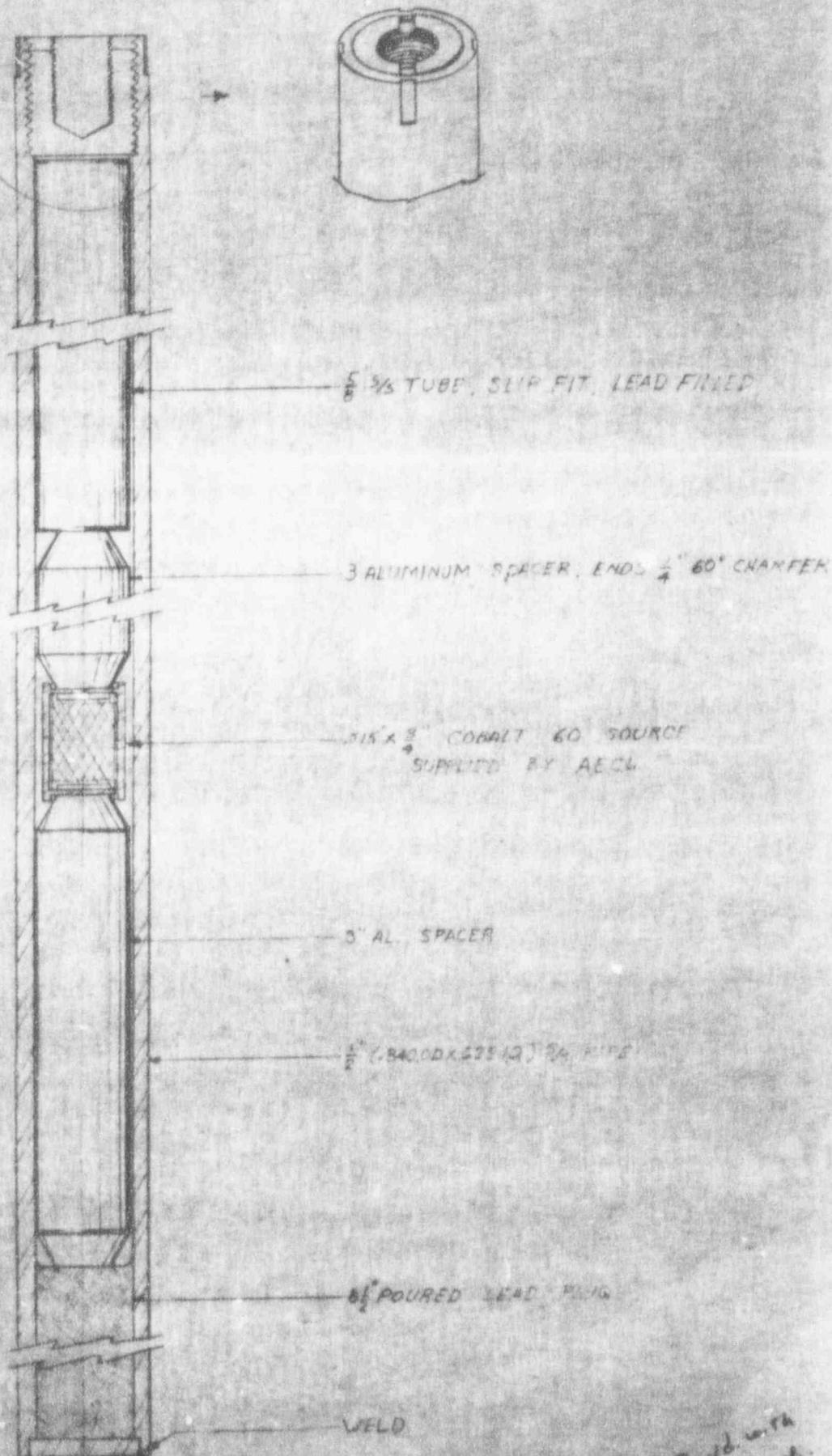
Robert H. Schuler, Head
Radiation Research Laboratories

RHS:eib

Enclosures



100 curie
Cobalt 60 source
Source plug



Read with
1/13/44

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MEMORANDUM

To: Users of Cobalt-60 irradiation facility Date: December 13, 1960
From: Dr. R. H. Schuler
Subject: ADMINISTRATIVE INSTRUCTIONS REGARDING USE OF COBALT-60 IRRADIATION FACILITY

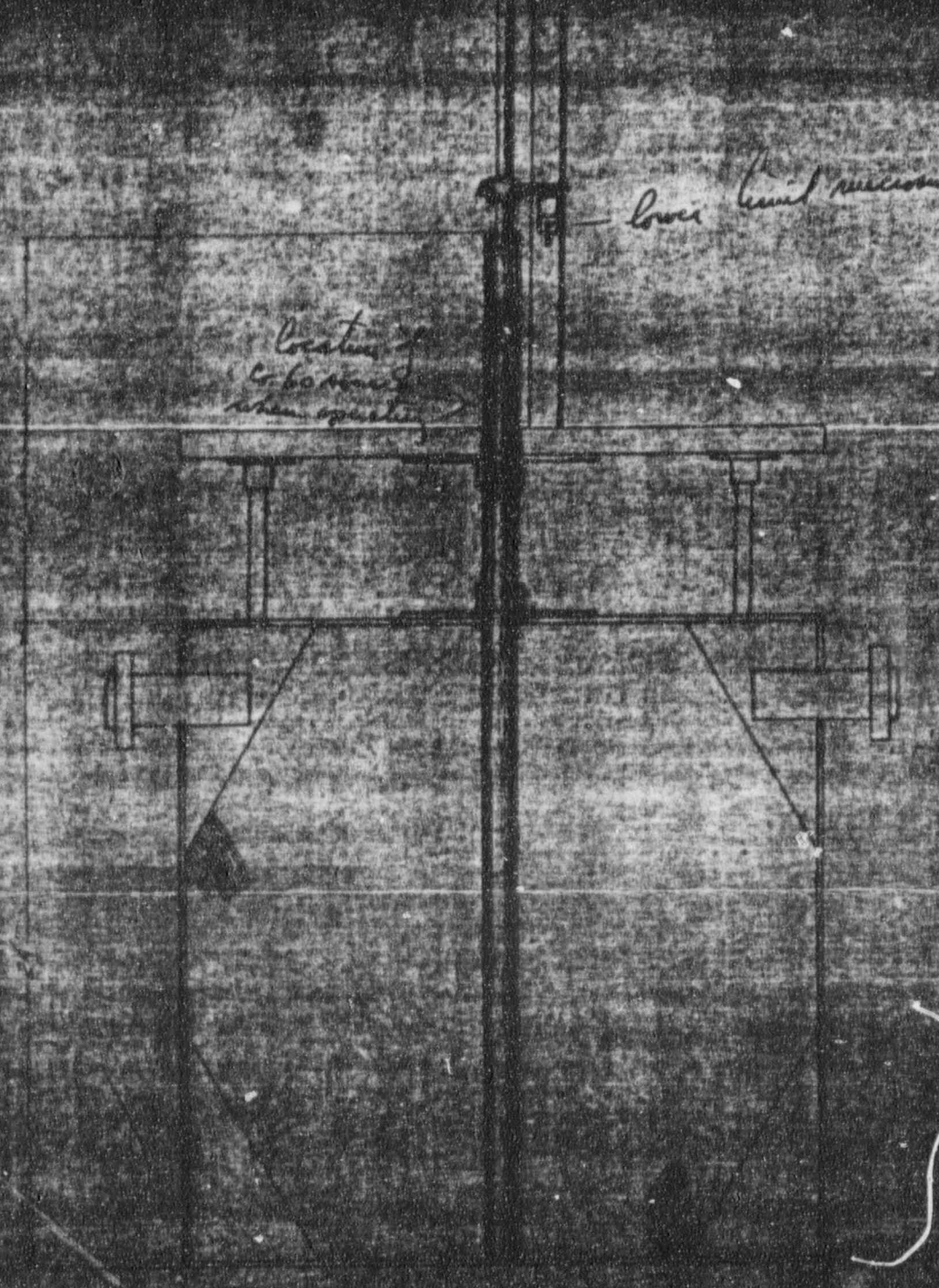
This cobalt-60 irradiation facility represents a very serious health physics hazard. This facility is to be used only by responsible investigators who have been thoroughly and adequately informed of the radiation hazards which exist. Operation of the facility is to be in accord with the attached operating instructions. Authorization to use the facility rests with the Institute's expert in charge of radiation safety (Dr. R. H. Schuler) and with the Director of Administration (Dr. G. A. Webb). Operating instructions can be changed only by the above.

Filed

Handwritten notes at top left, possibly "Boiler" and "Pressure".

low limit microswitch

*Location of
C. 60 valve
when operating*



Handwritten squiggle or signature at bottom right.