

UNITED STATES ENGINEER OFFICE

- 1 & 2 to addressee
- 3 to Colonel Nichols
- 4 to Read file
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- 6 to Mats file

CLASSIFICATION CANCELLED JAN 10, 1943.

CHANGED TO

BY AUTHORITY OF JR Patten

BY Spind DATE 7/28/86

Box 128, Folder 5

Subject: Polonium

To: The Area Engineer, Chicago Area, Chicago, Illinois.

*Classified*

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TTC:bgh

1. Reference is made to your telephone conversation with the undersigned on June 9th and to your letter of May 27th addressed to the District Engineer, Manhattan District, Attention Colonel K. D. Nichols, subject as above. The Materials Section has canvassed numerous sources of polonium, but as of today is unable to guarantee acquisition of a quantity as large as 500 millicuries. The sources canvassed and the results in each case are as follows:

a. Columbia University has radium D equivalent to approximately 100 millicuries. This quantity has recently been promised to Dr. Anderson at Chicago. We assume that this request from Dr. Anderson to Dr. Urey partially duplicates your request for 500 millicuries and that the quantity of polonium contained therein would be immediately available to Chicago upon extraction, provided the extraction can be accomplished at Chicago. If this is not the case, kindly notify the undersigned, and we will attempt to make some arrangement for accomplishing this work.

b. The quantity of radium D at the Terrestrial Magnetism Laboratory, Carnegie Institute, was of a minor nature, and even that has been passed on.

c. It is rumored that approximately 4 grams of well-aged radium are in the possession of Professor Ratchian at the University of Pennsylvania; this might prove to be a possible source of the entire quantity if we can arrange for an extraction. We are checking this rumor now and expect to know in a few days whether or not this source can be depended upon. We also understand that it would be necessary for us to replace this four grams with an equal quantity during the time that the extraction is being accomplished.

d. Several other inquiries disclosed the fact that a number of old radium tubes had been sent to Dr. Joseph G. Hamilton at the University of California. In checking with Dr. Hamilton by telephone, it was not possible to obtain detailed information, because of the limitations imposed by secrecy. However, if I interpreted correctly a

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conversation that was by necessity somewhat garbled, it would appear that Dr. Hamilton has a potential supply of approximately 1100 millicuries of polonium, from which a polonium extraction was made somewhat recently. Dr. Hamilton had arranged to send this material to Dr. Oppenheimer at Site Y, and plans to ship it tomorrow. It will take approximately one month to complete an extraction, at which time about 400 millicuries of polonium should be available, although the actual recovery of more than 300 millicuries cannot be anticipated. Another extraction in July or August might be accomplished and would probably yield the balance desired by you. In any event, Dr. Hamilton is insistent that the extraction be made at Site Y by one of his own men, in whom he places greatest confidence. He stipulated that he had no objection to the use at Chicago of the polonium so extracted, but that he was unwilling to have the extraction accomplished there, since he was personally responsible for the radium D, which had been loaned to him by various individuals. A copy of letter from the undersigned to Dr. Hamilton confirming his telephone conversation, is inclosed. It is suggested that Dr. Allison get in touch directly with Dr. Oppenheimer and attempt to work out an arrangement for the use of the polonium after extraction at Site Y.

e. Another potential source of large quantities may prove to be the Canadian Radium & Uranium Corporation. However, I believe that material would not be available from the source until at least the latter part of August and at the present time there is nothing to indicate that they can successfully accomplish the extraction.

2. It is requested that you keep the undersigned advised as to the progress in procuring this material and particularly as to any arrangements which Dr. Allison is able to make with Dr. Oppenheimer. Meanwhile, we will check on possible additional sources, and in the event that "d." suggestion contained above should not prove feasible, it is probable that another source of supply can be located.

For the District Engineer

THOMAS T. CRENSHAW,  
Lt. Col., Corps of Engineers.  
Assistant.

cc: Colonel E. D. Nichols

Inclosures:

cc ltr to Dr. Hamilton.

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AT Reim DATE 7/28/86

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