

**ARMY SERVICE FORCES
UNITED STATES ENGINEER OFFICE
MANHATTAN DISTRICT
OAK RIDGE, TENNESSEE**

IN REPLY
REFER TO

EIDMG-b

P. O. Box E

7 February 1945

IN-2001

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*Box
C00313*

Subject: Specifications for HEW Product.

To: The Area Engineer, Hanford Engineer Works, Pasco, Washington.

1.- The following are comments made by the consumer of HEW Product as a result of my letter of 28 January 1945:

"We regard it as unlikely that Pu^{IV} will remain in solution at 200 g Pu/liter and 10 M HNO₃. Our own evidence indicates that this will not be the case. We do not want such a high acid concentration and we also do not want the material shipped as solid since it has proven on occasion difficult to re-dissolve.

We are still worried about silicon and suspended solid matter, we are afraid that the silicic acid formed may clog the small filter which we plan to use in pumping out the solution. Tests are in progress on tolerances for suspended material (silica, zirconium hydroxide, metastannic acid, etc.).

a. Carbon as carbon dioxide is entirely harmless.

b. The fluorine content of current Clinton shipments is satisfactory. We recommend that a check be made to see whether Hanford product will achieve comparable purity. The same remarks apply to sulfur.

c. We do not believe, from our understanding of the Hanford process, that the thorium tolerances should be difficult to meet. We do not know how much we can relax our tolerances.

We think that at least the following two analyses should be performed as routine at Hanford:

a. Sparking Pu between copper electrodes for spectrographic analysis. The procedure is adequately described in many Chicago reports.

b. Pu assay fundamentally based on alpha counting.

We are in agreement with the suggestions made in the next but last paragraph of your letter as to procedures for the carrying out of analyses.

HEW-410.2 spec.

*RR-66-4
A.L. Sample 5-1-91
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APPROVED FOR
PUBLIC RELEASE
S.P. GYDESEN, PNNL
10-6-98


Subject: Specifications for HEM Product.

Let me repeat that these comments should not be regarded as final and encourage you again to arrange a meeting in which some agreement on the matters under discussion can be reached."

2. A meeting on specifications is being arranged with duPont now and you will be informed of details at an early date.

A. V. PETERSON
Lt. Colonel, Corps of Engineers

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