**Cover Sheet for a Hanford
Historical Document
Released for Public Availability**

Released 1995

**Prepared for the U.S. Department of Energy
under Contract DE-AC06-76RLO 1830**

**Pacific Northwest Laboratory
Operated for the U.S. Department of Energy
by Battelle Memorial Institute**

DECLASSIFIED

HW-19738

ATOMIC WEAPON ~~EN~~

RECORD CENTER FILE

cc: #1 JW Albaugh
#2 AB Greeninger - OH Greeninger
#3 RH Beaton
#4 JB Work - B Weidenbaum
#5 PM Collins - AE Smith
#6 RS Bell - VR Chapman
#7 T Prudich - PG Rhodes
#8 OP Amacker - ~~HM~~ ~~Amacker~~ Canceled and Changed To
#9 700 File
#10 300 File
#11 Pink
#12 Yellow

DECLASSIFIED

By Authority of Don Ros
May 1973
By JH Wells 11-19-94
Verified By Jerry Maly 11-21-94

December 20, 1990

RECEIVED

NOT UCN

This document consists of 2 pages.

JUN 8 1956

To: F. W. Albaugh

From: B. Weidenbaum

300 AREA
CLASSIFIED FILES

SPECTROGRAPHIC ANALYSES OF 234-5 BUILDING PRODUCT

The specifications for the 110 model, production of which will soon start in the 234-5 Building, include the requirement--"Completed and signed analytical reports of chemical impurities in the metal used to fabricate the parts of the assembly". At the present time spectrographic analyses are made of the metal and some twenty eight (28) elements are reported. In the interest of lightening the analytical load and minimizing the clerical and stenographic effort to prepare the specification, chemical analysis report, it is requested that plutonium metal should be analyzed by spectrographic methods for only the following elements:

Al
Cr
Li
Na

Be
Fe
Mg
Ni

Ca
La
Mn
Si

MASTER

The determination of B, C, F, and 40-8 in the metal will still be required, as has been the case in the past.

The elements listed above include the light element impurities for which "q" values are given in the specification. These, of course, are an integral part of any assay of chemical purity of plutonium metal. In addition, the elements which are felt to be the most probable contaminants have also been included. In selecting this list the spectrographic analyses of plutonium metal made to date were reviewed carefully to be certain that no element which

MASTER DECLASSIFIED

**SPECIAL RE-REVIEW
FINAL DETERMINATION
DECLASSIFICATION CONFIRMED**

BY J. Lydesen DATE 6-18-79
BY G.E. Barber DATE 11-7-79

DISTRIBUTION OF THIS DOCUMENT IS UNLIMITED

DISCLAIMER

This report was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor any agency thereof, nor any of their employees, make any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof.

DISCLAIMER

Portions of this document may be illegible in electronic image products. Images are produced from the best available original document.

has been present as a significant contaminant, has been omitted. This made it unnecessary to include many elements which have not appeared to an extent greater than the limit of sensitivity for their determination.

Your assistance in compiling and reviewing the spectrographic data is very much appreciated.

6

DECLASSIFIED