AIM

Association for Information and Image Management

1100 Wayne Avenue, Suite 1100
Silver Spring, Maryland 20910

301/587-8202

Centimeter

Inches

MANUFACTURED TO AIM STANDARDS
BY APPLIED IMAGE, INC.

1 of 1

2728'

(CLASSIFICATION)

GENERAL ELECTRIC

DECLASSIFIED

HANFORD ATOMIC PRODUCTS OPERATION - RICHLAND, WASHINGTON

DOCUMENT NO.

HW-83922

SERIES AND COPY NO.

DATE

September 3, 1964

☒

THIS DOCUMENT CONTAINS RESTRICTED DATA AS
DEFINED BY THE ATOMIC ENERGY ACT OF 1954.
IT IS TRANSMITTED FOR THE CLOSURE OF ITS
CONTENTS TO ANY MAN OR AN UNAUTHORIZED
PERSON IS PROHIBITED.

TITLE

241-SX TANK FARM WASTE STORAGE

☐

OTHER OFFICIAL CLASSIFIED INFORMATION

THIS MATERIAL CONTAINS INFORMATION AFFECTING
THE NATIONAL DEFENSE OF THE UNITED STATES
WITHIN THE MEANING OF THE ESPIONAGE LAWS,
TITLE 18, U. S. C., SECS. 793 AND 794, THE TRANS-
MISSION OR REVELATION OF WHICH IN ANY MANNER
TO AN UNAUTHORIZED PERSON IS PROHIBITED BY
LAW.

AUTHOR

G. L. Hanson

ISSUING FILE

THIS INFORMATION MUST NOT BE LOANED, REPRODUCED OR USED BY AN UNAUTHORIZED PERSON. NO ONE SHOULD HAVE ACCESS
TO IT WITHOUT THE AUTHORITY OF THE ISSUING OFFICE. IT IS THE RESPONSIBILITY OF THE USER TO RETURN IT TO THE ISSUING
OFFICE WHEN IT IS NO LONGER NEEDED. IT IS THE RESPONSIBILITY OF THE USER TO KEEP IT IN A SAFE PLACE AND TO PROTECT IT
FROM LOSS, DAMAGE, OR THEFT. IT IS THE RESPONSIBILITY OF THE USER TO RETURN IT TO THE ISSUING OFFICE WHEN IT IS
NO LONGER NEEDED. IT IS THE RESPONSIBILITY OF THE USER TO KEEP IT IN A SAFE PLACE AND TO PROTECT IT FROM LOSS,
DAMAGE, OR THEFT. IT IS THE RESPONSIBILITY OF THE USER TO RETURN IT TO THE ISSUING OFFICE WHEN IT IS NO LONGER
NEEDED. IT IS THE RESPONSIBILITY OF THE USER TO KEEP IT IN A SAFE PLACE AND TO PROTECT IT FROM LOSS, DAMAGE,
OR THEFT. IT IS THE RESPONSIBILITY OF THE USER TO RETURN IT TO THE ISSUING OFFICE WHEN IT IS NO LONGER NEEDED.

ROUTE TO:

PAYROLL NO.

LOCATION

FILES ROUTE
DATE

SIGNATURE AND DATE

300 File

REFERENCE COPY
RECEIVED 300 AREA

SEP 8 1964

RETURN TO *from document*

TECHNICAL INFORMATION FILES

Techn. Infr. Lib.
R. W. Harrison

53011

703

OCT - 6 '64

*[Signature]**EA Arnold**Waste Storage Tanks*

(CLASSIFICATION)

DECLASSIFIED

DECLASSIFIED

BW-83922

Distribution:

- 1 - SJ Beard
- 2 - GL Hanson
- 3 - RE Roberts
- 4 - SG Smolen - CB Foster
- 5 - JCO File
- 6 - Records Center

Classification Cancelled and Changed To

DECLASSIFIED

By Authority of DS Lewis

CG-PR-2, 4-15-64

By DK Hanson, 4-19-64

Verified By Jerri Maley, 4-19-64

Classification Cancelled (Change)

~~CONFIDENTIAL~~

By Authority of Printout

Date: 4/24

By L. Lopez, 4/24

September 3, 1964

S. J. Beard

Purex Process Engineering
Research and Engineering

241-SX TANK FARM WASTE STORAGE

Salt wastes from the Redox solvent extraction process have been routed to the 241-SX tank farm for storage since May 21, 1954. Tanks in this farm contain wastes from three types of irradiated uranium processing: 1) low (approximately 250 M/D/T) and 2) high (approximately 600 M/D/T) natural uranium; and 3) E-metal.

It is estimated that approximately 1.6 Kgs of Am-Cm, 17 Kgs of Np-237, 20 Kgs of Pu and 8 tons of uranium are present in the sludges from wastes generated through 4-30-64. The above estimates were made on the following bases:

	<u>Am-Cm</u>	<u>Np-237</u>	<u>Pu Loss</u>	<u>U Loss</u>
Low M/D/T U	Negligible	0.35 g/t	1.4 g/t	1.1 lb/T
High M/D/T U	0.14 g/t	2.0 g/t	1.4 g/t	1.1 lb/T
E-metal	0.14 g/t	3.0 g/t	1.4 g/t	1.1 lb/T

A total of 12.1 Kgs of the 29.1 Kgs of Np-237 estimated has been recovered or is present in the Redox Np-237 accumulation cycle as of 4-30-64. Because of the potential for unmeasured losses (such as Pu or U precipitates) the total plutonium and uranium may exceed the quantities stated herein.

A breakdown of the estimates is attached.

ORIGINAL SIGNED BY
G. L. HANSON

Redox Process Engineering
Research and Engineering

DECLASSIFIED

MASTER

GL Hanson:jas

DISTRIBUTION OF THIS DOCUMENT IS UNLIMITED

241-SX TANK FARM

Tank No.	Fill Dates	Type Metal & Tons			Products to Waste			
		Low	High	E	Gas. Am-Cm	Gms. Np	Gms. Pu	Lbs. U
101-102-103	5/21/54 - 2/25/55 8/22/55 - 9/19/55	469.7	1007.3	None	141	164 2,015	658 1,410	517 1,108
104-105	2/25/55 - 8/22/55 10/11/55 - 10/20/55 12/15/55 - 1/23/56 2/10/56 - 2/13/56 3/29/56 - 4/5/56 11/3/56 - 11/4/56	736.4	627.4	None	88	258 1,255	1,031 878	810 700
108-SX	11/8/55 - 12/15/55 4/5/56 - 4/13/56 8/2/56 - 8/16/56 1/2/57 - 3/26/57 10/24/57 - 12/3/57 9/25/58 - 1/9/59	None	957.3	93.6	134 13	1,915 281	1,340 131	1,053 103
107-SX	4/13/56 - 6/9/56 7/27/56 - 8/10/56 5/9/57 - 8/8/57 12/3/57 - 12/23/57	None	1105.6	None	155	2,211	1,548	1,216
109-SX	9/19/55 - 11/8/55 1/23/56 - 2/10/56 11/24/56 - 12/3/56	593.5	None	None	0	208	831	653
112-SX	2/13/56 - 3/29/56 11/21/56 - 1/2/57	622.2	None	None	0	218	871	684
111-SX	6/9/56 - 11/2/56	550.9	145.9	None	20	193 298	771 204	606 160
114-SX	11/5/56 - 11/21/56 3/26/57 - 5/9/57 8/8/57 - 10/24/57 12/13/57 - 2/19/58 6/5/58 - 9/1/58	159.9	1411.6	None	198	224 2,823	224 1,976	176 1,553
113-SX	2/19/58 - 6/5/58	None	432.1	None	60	364	605	475
115-SX	9/1/58 - 9/25/58 11/4/59 - 7/8/60	None	144.7 314.4		20 51 44	289 1,091 629	1,672	1,461

DECLASSIFIED

<u>Tank No.</u>	<u>Fill Dates</u>	<u>Type Metal & Tons</u>			<u>Products to Waste</u>			
		<u>Low</u>	<u>High</u>	<u>E</u>	<u>Gas</u> <u>Am-Cm</u>	<u>Gas</u> <u>Np</u>	<u>Gas</u> <u>Pu</u>	<u>Lbs</u> <u>U</u>
111-SX (2nd fill)	1/9/59 - 11/4/59	None	125.3	562.4	18 79	251 1,687	1,672	1,650
112-SX (2nd fill)	7/8/60 - 11/21/60 7/11/61 - 12/13/61	None	88.1	711.7	12 100	176 2,135	921	387
110-SX	11/21/60 - 7/11/61	None	None	746.8	105	2,240	501	349
109-SX (2nd fill)	12/13/61 - 8/30/62	None	None	664.6	93	1,994	775	385
108-SX (2nd fill)	8/30/62 - 1/29/63 6/26/63 - 1/7/64	None	None	1,026.2	144	3,079	1,681	1,035
107-SX (2nd fill)	1/29/63 - 6/26/63 1/7/64 - 4/30/64	None	None	888.3	124	2,665	784	1,033
Total					1,599	29,163	20,484	16,114

DECLASSIFIED

DATE

FILMED

8/3 /94

END