

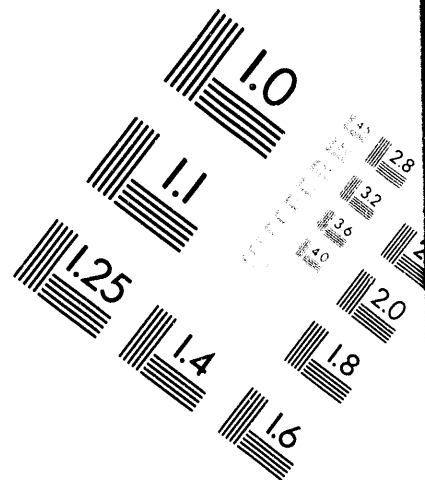
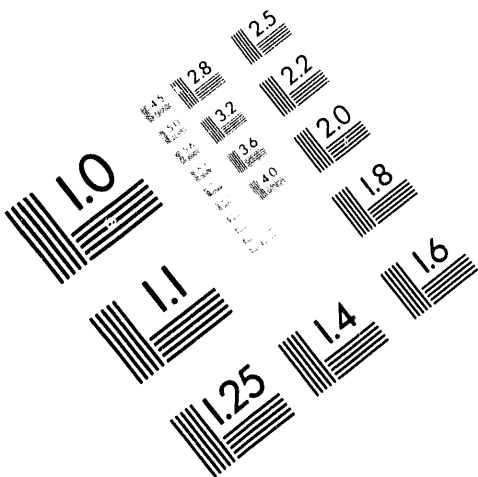


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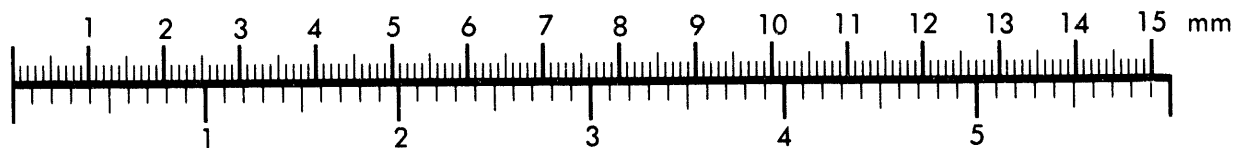
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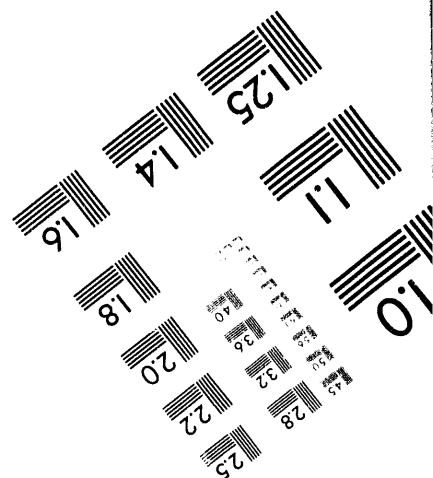
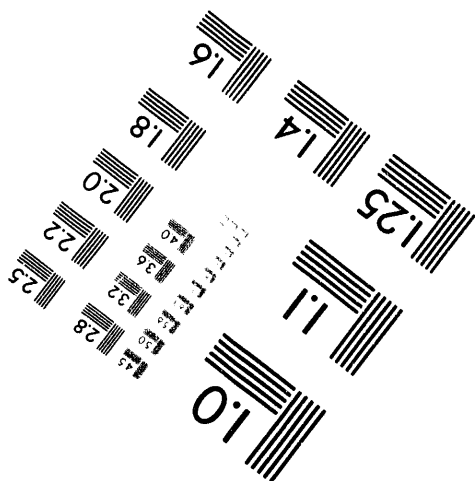
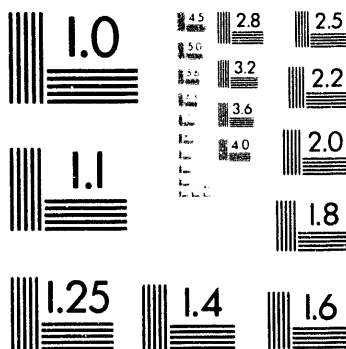
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241-SX TANK FARM WASTE STORAGE

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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

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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 2,323	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		1,461

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Tank No.	Fill Dates	Type Metal & Tons			Products to Waste			
		Low	High	E	Gas Am-Cm	Gas H ₂	Gas Pu	Lbs 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

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