

Box 2

AIRPORT SITE, ROBERTSON, MISSOURI

Reference

72A-21

MO. 1-2

Robertson, Missouri

Summary

General Information

The Commission maintains a residue storage area known as the Airport Site at Robertson, Missouri. This site is located immediately north of the St. Louis Municipal Airport and east of the McDonnell Aircraft Corporation Plant on Brown Road in St. Louis County.

Consent to use and occupy the 21.7 acre tract was obtained by the Manhattan District on March 2, 1946. Title was acquired to the property on January 3, 1947 by condemnation proceedings for \$20,000. It was acquired for the purpose of storing residues from the Destrehan Street Refinery and the Metal Plant at Plant 4. A covered concrete storage pad 45' x 250' was constructed for storing drums. A concrete pit 202' x 42' x 16' was constructed to store radium bearing residues (K-65). The area was enclosed with a chain-link fence. Later a small building containing showers, change room and office space was moved to the site. A railroad siding and loading facilities were completed in April 1959.

The site was operated by the Manhattan District and the Commission from 1946 until July 1953 when the operation was turned over to Mallinckrodt Chemical Works. Guards were maintained at the site from 1946 to 1951.

In the Metal Plant at Plant 4 and later in the new Metal Plant at Destrehan Street (6E), the slag from the reduction step was separated into two parts. The slag immediately above the derby consisting mainly of MgF_2 was sent to the Vitro Corporation at Canonsburg, Pa., for uranium recovery. The remaining slag (C-Liner), consisting mainly of dolomite liner with less than 2% uranium content, was stored at the site in bulk on the ground. These shipments started on March 10, 1946 and continued until early in 1953 when the dolomite liner was replaced by a recycle MgF_2 liner.

The Destrehan Refinery started up in 1946 and continued to use pitchblende ores as a feed until early in 1955. The contract to purchase these ores with African Metals Corporation required the U. S. to store the raffinate (AM-7), containing metallics such as nickel, cobalt, and copper, and radium bearing residues (K-65). African Metals retained ownership of all material except the uranium content. Although other concentrates were processed during the period, the raffinates were not separated. They were stored in bulk on the ground at the site. The pit constructed to store the radium bearing residue (K-65) was not used due to health reasons. This residue (K-65) was stored at the site from 1946 until early in 1948 in drums. This was transferred to the Lake Ontario storage area in 1948 and 1949 after most of the material had been reworked to recover additional uranium values. The raffinate (AM-10) produced after the pitchblende ores were used was stored separately. A barium cake residue (AJ-4) produced by the refinery is also stored at the site. This residue is a result of a precipitation to reduce sulphate content of digest liquor. African Metals Corporation has relinquished ownership of the barium cake.

In 1955 an interim residue plant was constructed at the Destrehan Street site to scalp a major portion of the uranium content from the magnesium fluoride slag produced in the Metal Plant. Tailings from this operation were stored in the concrete pit at the site.

About 350 tons of the pitchblende raffinate (AM-7) were processed in a small pilot plant facility at Destrehan Street to recover ionium. This material was processed in 1955-1957 and returned to the original raffinate storage at the site.

Plans for Disposition of the Above Material

Interim residue plant tailings are presently being shipped to Fernald and are being processed for uranium recovery at a rate of 200 tons per month. It is planned to increase

ORGANIZATION MANAGEMENT

this rate to about 600 tons per month in July 1959. After this material has been consumed at Fernald, the slag (C-Liner) will be sent to Fernald for processing.

Of the 55,000 30- and 50-gallon drums stored at the site, approximately 10,000 30-gallon drums are being sold. The remainder are unsaleable and will probably have to be baled and sold as scrap metal, together with the 3,500 tons of other contaminated steel and alloy scrap also stored at the site. It is expected that procedures will be established at an early date for disposition of this contaminated scrap metal.

The Vitro Corporation of Canonsburg, Pa., contracted with the African Metals Corporation to purchase the pitchblende raffinate (AM-7) for recovery of nickel, cobalt, and copper. The Commission entered into a contract with the Vitro Corporation to purchase uranium values recovered from the raffinate. Since the market value of nickel, cobalt, and copper have decreased considerably in the last few years, it is understood that Vitro Corporation has cancelled the contract. It is our understanding that the African Metals Corporation may abandon the material in the near future. No plans have been made to recover the uranium values of this material.

There are no current plans to dispose of any of the remaining materials.

Summary of Material Stored at the Site

Airport Storage Inventory - April 11, 1959

	<u>Gross Tons*</u>	<u>Tons U</u>
Pitchblende Raffinate, AM-7	74,000	113.2
Raffinate, AM-10	32,500	47.6
Slag, C-Liner	7,800	122.3
Interim Residue Plant Tailings, C-701	7,000	144.4
Barium Cake, AJ-4	10,200	28.8
Vitro Residues	290	1.9
Captured Japanese U, Precipitates	60	.2
55,000 30-Gallon & 50-Gallon Drums		
Steel and Alloy Scrap	3,500	-
		<u>458.4</u>

*Based on weight of material delivered to site with no adjustment for moisture pick-up.

SPECIAL REREVIEW
FINAL DETERMINATION
UNCLASSIFIED

By:

Date: