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DECOMMISSIONING OF DIVISION
OF MILITARY APPLICATION EQUIPMENT
AT RICHLAND OPERATIONS OFFICE
FOR PERIOD ENDING JUNE 30, 1975

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DECOMMISSIONING OF DIVISION OF MILITARY
APPLICATION EQUIPMENT AT RICHLAND OPERATIONS OFFICE

SCOPE

The scope of the decommissioning work provides for (1) the removal of all Division of Military Application (DH) fabrication and inspection equipment held in standby status in the 234-5Z Building, (2) disposition of all contaminated equipment and materials removed by packaging for 20-year retrievable storage, (3) reclamation of salvageable materials and equipment for use on site by other Energy Research and Development Administration contractors, and (4) restoration of cleaned-out areas for other future Richland Operations Office programs.

INTRODUCTION

The decommissioning of DMA facilities is under the management of Atlantic Richfield Hanford Company, utilizing the onsite Architect-Engineer (A-E) and the Cost Plus Fixed Fee (CPFF) construction service contractors. Division of Military Application equipment and support facilities required for the Richland Operations Office BB programs will be retained and transferred to that account. The estimated cost for the decommissioning work is \$2,219,000, with a 21-month completion schedule.

SUMMARY

Decommissioning of the DMA facilities is estimated at 65 percent complete compared to 60 percent forecast at the start of the program in April 1974. The transfer of 12 transuranic boxes to 20-year retrievable storage this quarter brings the total to date to 26, and includes all of the Inspection area glove boxes and conveyor sections, four A-Line and two C-Line glove boxes, along with all auxiliary hydraulic equipment pumps, and piping serving the three areas. Removal of additional A-Line and C-Line conveyor sections, one glove box, and relocation of two other glove boxes has been authorized by the Energy Research and Development Administration. Albuquerque Operations Office, and the A-Line portion of work currently is estimated at 40 percent complete. The removal of the one high plutonium-containing glove box, HC-40D&B has been delayed for additional sodium iodide (NaI) gamma counting following Z-Plant Operations cleanout and recovery of over 1,900 grams of plutonium. The fiscal year 1975 cost was \$1,080,000 as estimated, and includes \$11,585 in accrued costs for Fiberglass Reinforced Polyester (FRP) plywood boxes delivered but not billed at month-end. Thirty-eight of the 51 FRP boxes on order have been delivered to date, and the cost of \$98,767 is included in the above fiscal year total.

WORK STATUS AND PROGRESS

The DMA equipment removal work is continuing ahead of schedule, with excellent progress recorded the past two months. Removal of the glove box conveyor sections serving the 192-A and 192-B vault rooms was completed on schedule, and vault 192-A renovated to permit relocation of plutonium from the temporary room 194 vault, thus freeing this storage area for other plutonium-bearing scrap. The openings in the four-foot thick concrete walls for conveyor access between the two vaults were reinforced and filled with concrete.

Twelve transuranic storage boxes of various sizes were transferred to the 20-year retrievable DMA storage this quarter. A summary of the volumes, weights, and other pertinent data on transuranic storage to date is shown on Figure 1. Decommissioning of the Inspection Line area now is complete except for minor patching and painting. The entire Inspection area, encompassing 4,500 square feet of space, exclusive of vaults 192-A and 192-B, now is available for other planned ERDA, Richland Operations Office, programs. The five originally approved A-Line glove boxes also have been removed to transuranic storage and the additional work authorized by ERDA, Albuquerque Operations Office, for the removal of a portion of the A-Line conveyors and glove box HA-39, along with the relocation of glove box HA-40, is estimated at 40 percent complete. The C-Line portion of the additional work, including removal of a portion of the main conveyor and relocation of glove box HC-46F, has not been started except for disconnecting of services. A plot plan delineating the glove boxes and conveyor sections removed to date, along with the remainder scheduled to be removed in fiscal year 1976, is shown in Figure 2.

Counting of glove boxes, conveyor sections, and auxiliary equipment using a portable sodium iodide (NaI) gamma counter is continuing ahead of schedule. Only two glove boxes, HC-40D&B and HA-27FT, have shown significant quantities of residual plutonium. A total of 1900 grams of plutonium, as plutonium oxide, has been recovered from HC-40D&B. Additional counting is continuing to assure that no major holdup areas were overlooked on previous counts. No large plutonium accumulation could be located in glove box HA-27FT, and the unit was transferred to transuranic storage with an estimated residual plutonium content of 480 grams. The FRP box containing this glove box was located three feet from other boxes in the DMA trench for compliance with document ARH-3032, "Specifications and Standards for the Packaging, Storage, and Disposal of Richland Operations Solid Wastes," which limits adjacent storage to 350 grams of plutonium for individual containers.

Work in removing the C-Line mezzanine equipment and breaking of mezzanine concrete to permit removal of the two HC-19 casting complexes has been completed. Glove box HA-40 from the A-Line will be relocated to this area, thus consolidating all remaining active Operations' glove boxes in one area.

COST AND SCHEDULE

The total cost for fiscal year 1975 through June 30, 1975, is \$1,080,000 as budgeted, and includes \$745,556 for JAJ, \$70,182 for Vitro Engineering, \$262,195 for miscellaneous ARHCO services, and \$2,067 for Battelle Northwest photographic services. The ARHCO cost includes \$154,232 in ARHCO overhead and service charges. The JAJ figure includes \$98,767 for 38 FRP plywood boxes that have been delivered to date out of 51 boxes ordered. A total of \$11,585 has been accrued from the fiscal year 1975 authorization for four FRP boxes delivered but not billed to JAJ by the month-end cutoff date. An additional 12 boxes were fabricated onsite by JAJ and the cost is included in the total JAJ figure. A summary of the DMA equipment removal costs and a forecast of expenditures anticipated through the third quarter of fiscal year 1976, when work is scheduled to be completed, is shown in Figure 3.

SUMMARY
DMA TRANSURANIC STORAGE

<u>Burial Number</u>	<u>Month</u>	<u>Net Weight (Pounds)</u>	<u>Volume (Cu.feet¹)</u>	<u>Plutonium (Gram)</u>
1	February	14,100	1,920	4
2	March	40,400	4,567	300
3	March	31,400	6,818	177
4	May	37,250	6,065	612
5	May	28,950	5,765	275
6	June	10,000	3,456	31
		<u>162,100</u>	<u>28,591</u>	<u>1,399²</u>

¹ Total container volume occupying trench, including SKIDS.

² Includes 160 grams of plutonium from Z-Plant Operations' waste containers and miscellaneous equipment loaded with DMA equipment.

Figure 1

DMA Area
Figure 2

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COST STATUS AND ESTIMATE
DMA EQUIPMENT REMOVAL

	<u>Actual Cost</u>	<u>Estimated Cost</u>	<u>Total Cost By Fiscal Year</u>
FY 1974	\$118,307	-----	\$ 118,307
FY 1975			
First Quarter	152,080	-----	
Second Quarter	215,216	-----	
Third Quarter	343,882	-----	
Fourth Quarter	368,822	-----	1,080,000 ¹
FY 1976			
First Quarter		\$400,000	
Second Quarter		425,000	
Third Quarter		295,693	1,020,693 ²
 TOTAL COST			 <u><u>\$2,219,000</u></u>
PERCENT COMPLETE - 65			

- ¹ Includes \$11,585 in accrued funds for FRP plywood boxes delivered to fabricator but not costed to the CPFF construction contractor by the month-end cutoff date.
- ² Includes \$200,000 for the removal of a portion of the DMA equipment originally retained for planned BB programs, but since approved for removal.

Figure 3