



**Department of Energy**  
Ohio Field Office  
West Valley Demonstration Project  
10282 Rock Springs Road  
West Valley, NY 14171-9799

October 22, 1999

Mr. Jack D. Parrott, Project Manager  
U.S. Nuclear Regulatory Commission  
MS T8F37  
Washington, DC 20555

**SUBJECT:** Information on Remote Handled Waste Facility (RHWF) at the West Valley Demonstration Project (WVDP)

Dear Mr. Parrott:

Per your discussion with my staff, I am providing information on the RHWF at WVDP. The purpose of the RHWF is to process high dose/high contamination WVDP wastes for off-site disposal. Conceptual design and preliminary hazards analysis of the RHWF were completed in June 1999. We have recently issued a design-build contract and are currently preparing a Preliminary Safety Analysis Report (PSAR) for the facility. A Final Safety Analysis Report (FSAR) will be prepared before the start of nuclear operations at this facility.

Based on a review of the Memorandum of Understanding (MOU) between the U.S. Nuclear Regulatory Commission (NRC) and the U.S. Department of Energy (DOE), and the precedence of NRC participation in the safety analysis activities at WVDP, we believe that the NRC should conduct a review of the RHWF PSAR. The NRC may provide the review comments informally or issue a Safety Evaluation Report (SER), as deemed appropriate and efficient by the Commission. I am committed to satisfactorily resolving the review comments from the NRC and other reviewers.

In order to meet DOE's needs for this facility, the Ohio Field Office West Valley Demonstration Project (OH/WVDP) has approved an aggressive schedule for the design, construction, and operations of the RHWF. We will require an approved PSAR before allowing the start of construction and the procurement of long-lead equipment. The enclosed briefing package provides details of the schedule that support this effort.

The schedule for the PSAR development, review, and approval is based on the following approach:

- West Valley Nuclear Services Company (WVNS) is conducting a series of overviews/briefings for the Project design, construction, operations, safety, and regulatory requirements to the Project personnel to familiarize them with the facility design and operation. OH/WVDP would like to make these presentations to the NRC at your convenience and at a location of your choice.

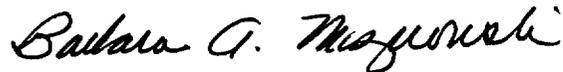
- The PSAR reviews will be conducted in parallel as far as practical. WVNS has already implemented this approach for its internal and independent reviewers. This approach saves considerable time for the review cycle. The DOE plans for PSAR review following a similar approach. The NRC review is expected shortly after all DOE comments have been resolved. In the past, NRC has focused their review on radiological hazards.
- After receiving and evaluating NRC comments, we would plan to hold a joint meeting to resolve your comments. Again, this approach will result in considerable savings in time and effort for the review of the PSAR.

An approved PSAR is a precursor to the start of construction of the RHWF at the WVDP. OH/WVDP asks the NRC to plan resources for its review of the PSAR. Please note that other regulatory requirements including permits, notifications, and approvals for the RHWF are either in place or on schedule.

We would be pleased to provide an overview of the Project including expected scope and involvement of the NRC, at your convenience.

If you have any questions regarding the enclosed documents or the proposed approach listed above, please contact Bryan C. Bower of my staff at (716) 942-4368.

Sincerely,



Barbara A. Mazurowski, Director  
West Valley Demonstration Project

Enclosure: An Introduction to the RHWF at the WVDP

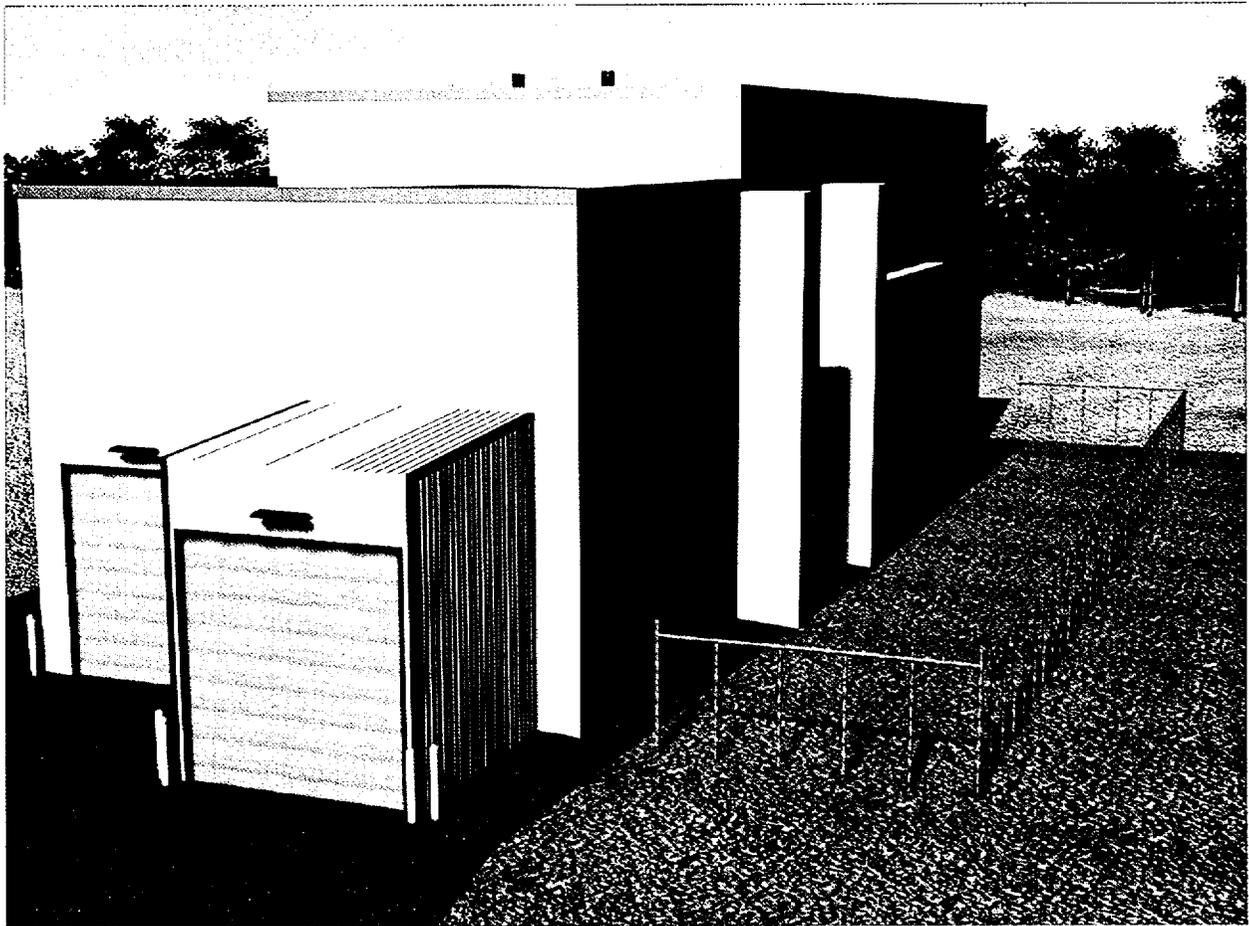
cc: B. C. Bower, OH/WVDP, WV-DOE, w/enc.  
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O. Mendiratta, WVNS, AOC-19, w/o enc.

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*An Introduction to the Remote Handled Waste Facility  
at the West Valley Demonstration Project*



# **AN INTRODUCTION TO THE REMOTE HANDLED WASTE FACILITY AT THE WEST VALLEY DEMONSTRATION PROJECT**

The purpose of the Remote Handled Waste Project (RHWP) is to process high dose / high contamination West Valley Demonstration Project (WVDP) wastes for off-site disposal. One of the key features of the RHWP is the Remote Handled Waste Facility (RHWF), a new standalone facility that will be designed and constructed for processing these wastes. The following is a brief overview of the RHWF. It covers key facility features, waste streams, waste processing and examination activities, preliminary hazard analysis, and the safety analysis approach. One purpose of this overview is to support resource planning and scheduling for organizations participating in the review and approval of a preliminary safety analysis report (PSAR) being developed for the RHWF. The text is organized into four areas: "Facility" which includes a facility description including waste inventory and processing activities; "Preliminary Process Hazards Analysis", "Preliminary Hazard Categorization"; and "PSAR Schedule" showing a tentative schedule for the PSAR and related activities. Detailed documentation on facility design, operations, and safety analysis is available from the cognizant Department of Energy (DOE) local office, the OH/WVDP.

## **1. FACILITY**

### **1.1 INTRODUCTION**

Facility decontamination activities at the WVDP have resulted in the removal of quantities of highly contaminated vessels, piping, and equipment, which are currently stored at the WVDP in the Chemical Process Cell Waste Storage Area (CPC-WSA). Future decontamination and facility deactivation activities will result in the generation of additional high dose rate or highly contaminated wastes. High dose rates and high contamination levels will require that these materials be processed in a facility that has been designed for remote handling and processing.

### **1.2 WASTE INVENTORY**

There are 24 waste streams currently in scope for the RHWP, of these, only 13 have been identified as candidate waste streams for the RHWF. The remaining 11 waste streams will be processed in other facilities at the WVDP (Table-1).

**AN INTRODUCTION TO THE REMOTE HANDLED WASTE FACILITY AT THE  
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Table 1. Remote-Handled Waste Streams to be Processed

Number	Amount & Description	Number	Amount & Description
1	5 HICs of FRS Resins	13 *	2 CPC Vessel Boxes (TRU)
2	4 FRS Pool Debris Cans	14 *	6 CPC Vessel Boxes (LLW)
3 *	17 WTF HLW Pumps	15 *	4 Vent Filter Boxes in Cement
4	3 Concrete Pedestals	16 *	53 Vent Filter Boxes
5	227 Suspect CH-TRU Drums	17	19 Hi-Vac Cans
6	99 Suspect CH-TRU Boxes	18 *	13 Shielded Boxes
7	20 Vit Jumpers	19	28 Vit Cell Deactivation Wastes
8	50 Vit Melter Inserts	20A *	28 Shielded Boxes (DAW)
9	91 Vit Discarded Equip.	20B *	10 Shielded Boxes (Resins)
10 *	4 CPC Jumper Boxes (TRU)	21 *	25 Shielded Drums
11 *	8 CPC Jumper Boxes (LLW)	23 *	35 Containers of Closure Wastes
12 *	2 CPC Dissolver Boxes	24	HEC Cleanup Waste (future waste)

\* Indicates remote handled waste streams planned to be processed in RHWF

### 1.3 WASTE CHARACTERISTICS

Physical parameters of the waste streams to be processed in the RHWF are provided in Table-2. It should be noted that although the incoming waste may have radionuclide distributions similar to SNF or HLW, that this does not imply that the incoming waste will be classified as such. In fact, the bulk of the processed waste that is ready for shipment will be LLW with small quantities of CHTRU and RHTRU.

**AN INTRODUCTION TO THE REMOTE HANDLED WASTE FACILITY AT THE  
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Table 2 - Typical Physical Parameter of the Waste Stream - Restrictive Dimensions \*

# Waste Container Designator	Number of waste containers or items	Max. Length or Dia. (ft)	Max. Width (ft)	Max. Height (ft)	Max. Wt. on hook (lbs)	Total Waste wt. in all containers (lbs)	Total Waste Volume (ft <sup>3</sup> )
1 WTF Transfer & Decant Pumps	5	50	4	4	8,000	41,667	4,000
2 Jumper Boxes (TRU)	4	12.96	6.92	6.96	3,870	15,480	1,728
3 Jumper Boxes (LLW)	8	12.96	6.92	6.96	3,870	30,960	3,456
4 Dissolver Vessel Boxes	2	19.88	11.79	11.22	35,854	71,708	5,260
5 Vessel Boxes (TRU)	2	13.72	8.42	8.96	9,942	15,842	1,368
6 Vessel Boxes (LLW)	6	16.58	11.44	11.02	21,119	15,842	8,555
7 Vent Filter Boxes (in cement)	4	6.33	7.33	9.50	53,800	191,300	1,700
8 Vent Filter Boxes	53	6.33	7.50	6	13,274	>200,000	>4,500
9 Shield Boxes	13	12.50	6.50	6.50	9,648	32,237	5,322
10 Shielded Boxes (DAW)	28	12	6	6	10,500	139,525	5,357
11 Shielded Boxes (Resins)	10	6	6	4	2,000	20,000	254
12 Shielded Drums	25	2	Cyl	3	1,390	15,861	184
13 Main Plant Closure Wastes	46	6.5" dia	Tanks	12	9,800	72,280	4,400

\* The dimensions shown are the largest if more than one container with different sizes exist.

## AN INTRODUCTION TO THE REMOTE HANDLED WASTE FACILITY AT THE WEST VALLEY DEMONSTRATION PROJECT

### Select Physical Parameters of the Waste Streams:

#### Waste Boxes

Various sizes ranging up to 20'x12'x12'  
General box size 6'x4'x4'  
Five boxes for HLW pumps at 4'x4'x50'  
Boxes constructed of up to 12 gage carbon steel, welded construction  
Boxes are reinforced with 1/4" flat bar, 3/4" rod, 1/4" to 1/2" channels  
Some boxes lined with 1" to 2" of lead shielding

#### Waste Box Contents

Cylindrical vessels (see below)  
Jumpers (see below)  
WTF HLW Pumps (see below)  
HEPA filters encased in grout (4 boxes)  
Scrap metal and floor debris  
2"x4" wood supports  
Sheets of Herculite

#### Cylindrical Vessels

Range in size of up to 12' dia. X 16' long  
Columns from main plant up to 11" dia. X 43' long  
Constructed of 300 series stainless steel  
Wall thickness ranges from 1/4" to 3/4"  
Dissolver vessels have interior structures including 15" dia. baskets and 2" dia. pipes.  
Dissolver vessels have three ply walls of 1/2" steel totaling 1 1/2" in thickness

#### Jumpers (pipes rigged for remote installation)

Range in size up to 10' long and bent at angles up to 6' across  
Constructed of 300 series stainless steel  
Sizes 1 1/2" to 4" schedule 40 and 1/2" to 6" schedule 80  
Counter weights of lead encased stainless steel, flanges, and other fittings attached

#### WTF HLW Pumps

Constructed of stainless steel  
Shaft diameter - 2"  
Pump diameter - 36"

**AN INTRODUCTION TO THE REMOTE HANDLED WASTE FACILITY AT THE  
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**1.4 WASTE THROUGHPUT**

The RHWF will process the waste streams listed in Table-3 below over a seven-year period. The facility will be operated using two shifts per day and seven days per week during the seven-year period. The daily throughput will vary widely depending on the waste stream being processed. The throughput rate is expected to range from 5 to 67 cu ft/day, with an average of approximately 22 cu ft/day.

<b>Table-3 Volume of the Incoming Waste Streams for the RHWF</b>		
<b>Waste Stream Designator</b>	<b>Number of containers</b>	<b>Total waste volume (ft<sup>3</sup>)</b>
CPC Jumper Boxes (TRU)	4	1,728
CPC Jumper Boxes (LLW)	8	3,456
CPC Dissolver Vessel Boxes	2	5,260
CPC Vessel Boxes (TRU)	2	1,368
CPC Vessel Boxes (LLW)	6	8,555
Vent Filter (in cement) Boxes	4	1,700
Vent Filter Boxes	53	4,500
Shield Boxes	13	5,322
Shielded Boxes (DAW)	28	5,357
Shielded Boxes (Resins)	10	254
Shielded Drums	25	184
WTF Pumps	17	13,600
Main Plant Closure Wastes	46	4,400
	<b>Total</b>	<b>55,684</b>

## AN INTRODUCTION TO THE REMOTE HANDLED WASTE FACILITY AT THE WEST VALLEY DEMONSTRATION PROJECT

### 1.5 FACILITY DESCRIPTION

An artist's rendering and a plan view of the facility are provided in Attachment-1. The five main areas of the RHWF that directly support waste repackaging operations are the Receiving Area, Buffer Cell, Work Cell, Waste Packaging Area, and Operating Aisle. The other areas of the facility that perform support functions are the HVAC Areas, Contact Maintenance Area, Sample Packaging and Screening Area, Load Out/Truck Bay, and Offices. Each area is described briefly below.

#### Receiving Area

This area receives incoming containers of waste from a transport vehicle and provides weather protection during unloading operations. The Receiving Area provides confinement during the movement of a waste container into the Buffer Cell and also provides some shielding. This area acts as a secondary buffer to ensure confinement of radioactive contamination in the more highly contaminated parts of the RHWF. The area is normally radiologically clean but may become slightly contaminated, temporarily. The cell is equipped with a 20 ton bridge crane.

#### Buffer Cell

The Buffer Cell acts as an air lock between the Receiving Area and the highly contaminated Work Cell. The Buffer Cell provides confinement during the movement of a waste container into the Work Cell and also provides some shielding. This cell may be used as a radiologically controlled area for contact-handled operations such as repackaging, over-packing, or removing large-sized waste boxes when radiological conditions do not mandate remote-handling operations. Radiological contamination levels as high as  $10^4$  to  $10^6$  dpm/100cm<sup>2</sup> may be present. Powered conveyors can be moved to match the width of the various waste boxes. There is a clean 20 ton bridge crane that has rails extending the full length of the Buffer Cell.

#### Work Cell

The Work Cell is the primary work zone within the RHWF for remote handling, surveying, sampling, sorting, segmenting, decontaminating, segregating, and packaging operations. It is 55 feet long by 22 feet wide by 37 feet high shielded space. Space is provided to operate up to three work stations (two are planned initially). There is also additional space for staging incoming waste containers and temporary storage of waste disposal drum and box liners. Radiological contamination levels  $>10^{12}$  dpm/100 cm<sup>2</sup> can be present in the cell. There is a hot (contaminated) 30 ton bridge crane with rails the full length of the Work Cell. The hot bridge crane trolley supports a telescoping tube that is the attachment point for various end effectors used to perform remote handling operations. There are also two jib cranes that support telescoping tubes. The interchangeable end effectors include heavy-duty cutting equipment, powered dexterous manipulators (PDMs), and PDMs with light-duty cutting equipment. The PDMs and cranes are used to operate a full range of fixtures and tools for all

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the remote operations, i.e., handling, surveying, sampling, sorting, cutting, etc.

Pieces of waste that are ready for packaging are temporarily stored in liners in the Box & Drum Liner Storage Drawers prior to being transferred out of the Work Cell through the Bagless Transfer System in the Waste Packaging Area.

### Waste Packaging Area

The Waste Packaging Area provides a confined and shielded space for efficiently loading out liners filled with waste into a drum or a box. Two Bagless Transfer Systems (one for drums and one for boxes) are mounted on top of the Waste Packaging Area. These systems provide the physical boundaries necessary to bring material out of an area with radiological contamination levels greater than  $10^{12}$  dpm/100 cm<sup>2</sup>, while maintaining the exterior of the waste disposal container clean. The Waste Packaging Area is equipped with two carts on tracks for moving drums and boxes, a shielded forklift, and a monorail transfer hoist.

### Operating Aisle

The Operating Aisle is a clean space for remotely operating facility equipment. Three shield windows are installed in the Work Cell walls. Three operator work stations are provided at the shield windows.

### HVAC Areas

The Mechanical Equipment Area houses the air handling system for the make-up air distributed to the stairwells and operating spaces within the RHWF. The Exhaust Blower Room provides an isolatable space for the large blowers that pull air from the Work Cell through the HEPA filters. The Exhaust Filter Area and Exhaust Blower Room are on the first floor. Equipment located in these areas typically requires hands-on maintenance.

### Contact Maintenance Area

The Contact Maintenance Area provides a shielded zone isolated from the Work Cell where personnel can perform maintenance on the crane, PDMs, and other equipment removed from the Work Cell. It is located at the far end of the building adjacent to the Work Cell. The first floor of the maintenance area contains a lay down area and storage shelves for the end effectors. A workbench and tool storage area is also provided for hands-on maintenance of the heavy-duty and light-duty end effectors, jib cranes, or crane telescoping tubes.

### Sample Packaging and Screening Area

This area provides for removal of samples from the Work Cell and placing the samples in containers for transfer to a laboratory for analysis. The samples are removed from the transfer drawer inside a sample transfer glove box. The contained samples can be transferred out of the glove box through a bagless transfer system to a sample shield pig or to the sample hood. A dumbwaiter is installed to lower the sample shield pig to the first floor for transfer out of

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the RHWF to a laboratory. Samples can also be pre-screened and counted for gross Beta and Alpha activity with counting equipment available in the area.

### Load Out/Truck Bay

Load-out of filled waste disposal containers, and receipt and storage of empty waste disposal containers is performed inside an all-weather shelter called the Load Out/Truck Bay. It is a clear-span pre-engineered metal building (approx. 60 feet by 50 feet). A shielded fork lift is used to load and unload waste containers from trucks parked inside the area.

### Offices

This area provides a clean, low-dose rate area adjacent to the RHWF for performing administrative functions. It is built adjacent to the low dose end of the RHWF (outside the Contact Maintenance Area) as a two story office facility with about 2,000 square feet of floor space for crew offices, meeting rooms, a lunch room, and sanitary facilities. Personnel Contamination Monitors (PCM) are located on all access routes from the RHWF to the Offices.

## **1.6 WASTE PROCESSING**

The following waste processing functions will be performed on the RHWF waste streams to take the materials from their present condition and prepare them for transport offsite for storage or disposal:

### Transfer Onsite to the RHWF

The waste streams to be processed in the RHWF are presently stored in several locations on the West Valley site. Most wastes are already in containers. Some of the higher dose rate waste streams may need supplemental shielding during an onsite transfer.

### Survey and Sample

Each incoming waste container to the RHWF will be surveyed upon arrival in the Work Cell to help determine the amount of radioactivity present in the waste. After the container is opened, samples will be obtained as the contents are removed to help determine the type of radionuclides present. This information will be used to support sorting, segmenting, and segregating operation decisions.

### Sort and Segregate

Some waste streams have small items that will be sorted by size and loaded directly into a waste disposal container liner. These small waste items will be segregated by the radionuclide concentration which determines whether an item is low level radioactive waste (LLW) or transuranic (TRU) waste. Some waste streams may contain hazardous regulated constituents that will be sorted out and segregated as mixed waste.

## **AN INTRODUCTION TO THE REMOTE HANDLED WASTE FACILITY AT THE WEST VALLEY DEMONSTRATION PROJECT**

### Segment (size reduction)

For some of the waste streams, large waste items must be cut into smaller pieces before they are loaded into a waste disposal container liner. Segmenting may also allow segregation of LLW pieces cut away from TRU waste pieces.

### Stabilization/Void Filling

Selected LLW disposal containers will require stabilization to meet shallow-land disposal requirements. For most LLW containers to be generated at the RHWF, this will require filling the voids present in the container to prevent collapse once buried.

### Characterization for Shipment

Surveys and assays will be performed on final waste disposal containers to support characterization of the radioactive contents for shipping and waste disposal classification.

## **2. PRELIMINARY PROCESS HAZARDS ANALYSIS**

Though the project plans call for processing in the RHWF, only 13 of the 24 waste streams listed in Table-1, the Preliminary Process Hazards Analysis is not specifically limited to those 13 waste streams. Should it become necessary to use the RHWF to process some of the remaining 11 waste streams, there would be no substantial impact on the frequencies or consequences of analyzed accidents.

The RHWF is not considered to be a complex facility in terms of the processes to be performed therein. The activities to be performed in the RHWF are mostly mechanical in nature and the processes utilized are routine. Though different types of mechanical activities will be performed, none of them, in and of themselves, are considered to be complex. As compared to the Vitrification facility at the WVDP, the waste type, inventory, and energy is quite different. The RHWF does not have process liquid wastes nor HLW; therefore types of hazards for the RHWF are not going to be the same as for the Vitrification facility. Therefore, a "What If" analysis is considered satisfactory, and is a method consistent with PHAs that have been performed for other WVDP facilities.

The identification of accidents presenting the greatest risk to on-site individuals and the off-site public is one of the primary goals of the PHA. Accidents selected for more rigorous evaluation will be those accidents with the largest risk factors.

Process hazard analysis were performed for the four key areas of the RHWF; Receiving Area, Buffer cell, Work Cell, and the Load Out Area. The analysis also includes transfer of the waste to and from the RHWF. Some of the hazards evaluated were:

Radioactive material is airborne or otherwise uncontrolled release due to container rupture

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caused by accidental drop or otherwise damaged.

- A fire caused by ignition of the spilled contents from the waste containers, faulty electrical wiring, operations, a truck accident, or due to a seismic event.
- A failure of the HEPA ventilation filters.
- Release of contamination due to a seismic event.
- Criticality due to configuration of the fissile materials, introduction of moderator, or accumulation of the fissile material.

Several multiple Preventive Systems/features and Mitigation Systems/features were identified to prove adequacy of the design and the processes. These included: structural and equipment design, quality control, regular preventive maintenance programs, administrative controls, detection systems and alarms, leak confinement features, criticality control measures, and fire suppression systems.

### **3. PRELIMINARY HAZARD CATEGORIZATION:**

DOE-STD-1027-92, *Hazard Categorization and Accident Analysis Techniques for Compliance with DOE Order 5480.23, Nuclear Safety Analysis Reports*, indicates that the preliminary hazard categorization of a DOE facility is to be based on inventory (i.e., quantities of radiological materials). For the analyses, essentially all of the inventory is considered to be transuranic nuclides. Although, the RHWF can accommodate only a fraction of the waste inventory at any given time, the entire CPC-WSA (primary current remote handled waste storage area) was conservatively assumed to be present in the RHWF. Under these assumptions, the PHA showed the RHWF to be a Hazard Category 2 facility.

This preliminary hazard categorization is based only on radiological inventory, it is nevertheless noted that category 2 likely is/will be an appropriate categorization for the RHWF since the "potential for significant onsite consequences" (which is the DOE Order 5480.23 definition for a category 2 facility) appears to exist.

Final hazard categorization will be performed when a hazards analysis, as defined in Section 4 of DOE-STD-1027-92, has been performed. DOE-STD-1027-92 states that the final hazard categorization of a facility is to be based on an unmitigated release of available hazardous material, and that "unmitigated" is "meant to consider material quantity, form, location, dispensability, and interaction with available energy sources, but not to consider safety features (e.g., ventilation system, fire suppression, etc.) which will prevent or mitigate a release."

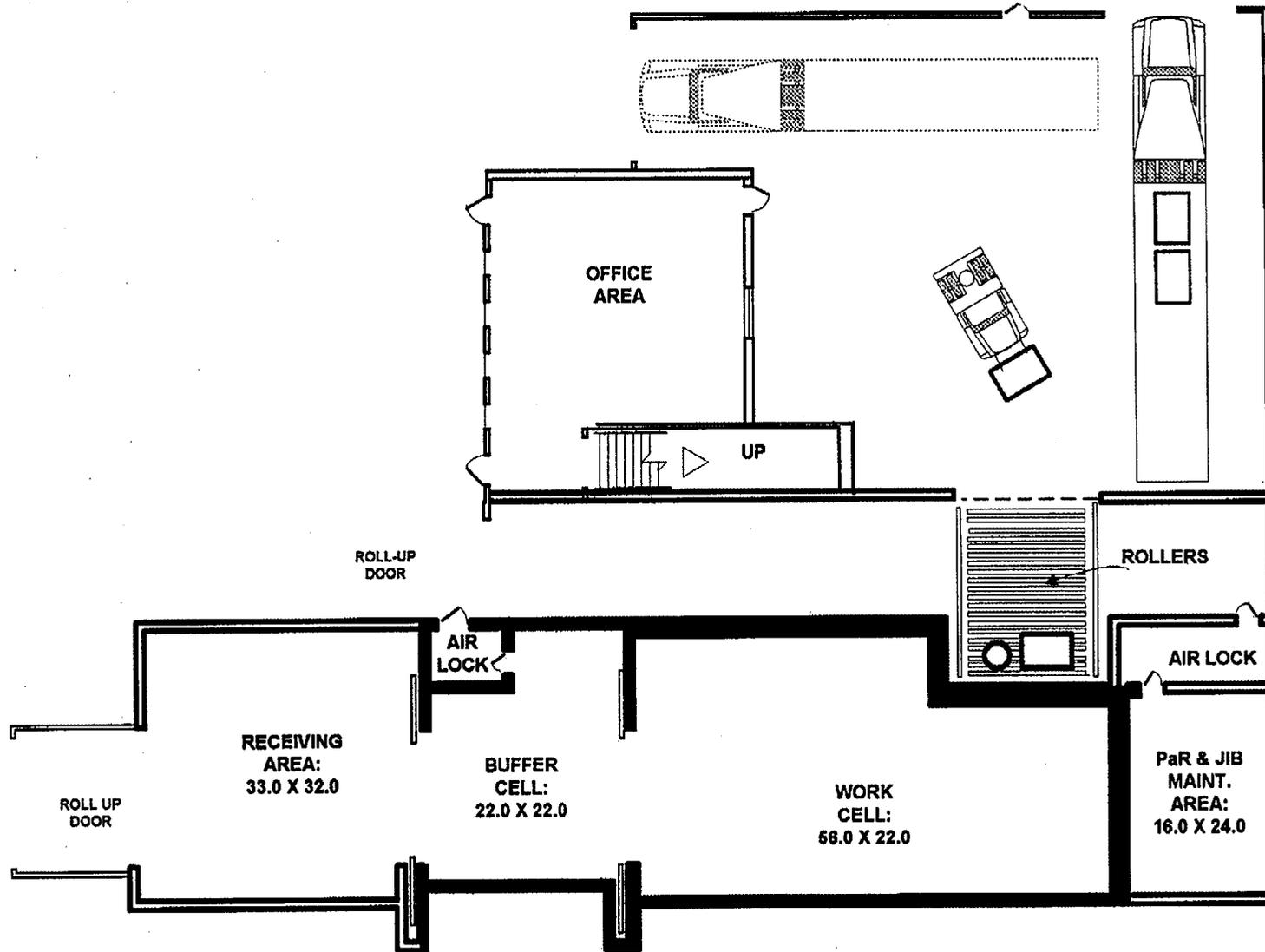
## **AN INTRODUCTION TO THE REMOTE HANDLED WASTE FACILITY AT THE WEST VALLEY DEMONSTRATION PROJECT**

### **4. PSAR SCHEDULE**

A conceptual design for the facility was developed in June 1999 with a design-build contract recently awarded. Start of construction is scheduled for October 2000. NEPA documentation for the facility is in place. An aggressive schedule to have all the documentation in place is being followed by the OH/WVDP M&O Contractor. Current project requirements are that an approval PSAR be in place as a prerequisite to starting major construction activities. Attached schedule (Attachment-2) presents details of the PSAR development, review, and approval activities. The PSAR scope includes transfer of the waste from its current storage location to the RHWF, waste processing activities in the RHWF, and transfer of the processed waste to the waste shipping/storage location for subsequent disposal off-site. As noted in the schedule, some of the activities are being pursued in parallel to reduce the review period without sacrificing quality.



# An Introduction to the Remote Handled Waste Facility at the West Valley Demonstration Project



Activity ID	Rem Dur	Early Start	Early Finish	1999												2000											
				JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC						
<b>PSAR DEVELOPMENT</b>				<b>PSAR DEVELOPMENT</b>																							
10	0	01JUL99A	06AUG99A	PREPARE PSAR OUTLINE																							
20	0	19JUL99A	27AUG99A	DRAFT OF CH.1,3,10,11,12 TENTATIVE SEL ACCIDENT																							
30	25	30AUG99	01OCT99	COMPLETE DRAFTS OF CH 4,5,6,7,8																							
40	20	04OCT99	29OCT99	ACCIDENT ANALYSES COMPLETE/DRAFTS OF CH 2 & 9																							
50	10	01NOV99	12NOV99	FINAL DRAFT COMPLETE - ALL CHAPTERS																							
60	0		12NOV99	COMPLETE PSAR DEVELOPMENT																							
<b>INDEPENDENT PARALLEL REVIEW</b>				<b>INDEPENDENT PARALLEL REVIEW</b>																							
70	48	01SEP99*	05NOV99	INDEPENDENT REVIEW OF DRAFT PSAR																							
80	53	01SEP99*	12NOV99	RESOLVE INDEPENDENT REVIEW COMMENTS																							
<b>RHWP REVIEW</b>				<b>RHWP REVIEW</b>																							
90	3	15NOV99	17NOV99	RHWP REVIEW																							
100	5	18NOV99	24NOV99	INCORPORATE RHWP REVIEW COMMENTS																							
<b>WVNS REVIEW (INCLUDING R&amp;SC)</b>				<b>WVNS REVIEW (INCLUDING R&amp;SC)</b>																							
110	18	29NOV99	22DEC99	WVNS REVIEW (INCLUDING R&SC)																							
120	11	23DEC99	11JAN00	RESOLVE COMMENTS ON GREEN SHEET REVIEW																							
<b>OH/WVDP AND DOE-OH REVIEW</b>				<b>OH/WVDP AND DOE-OH REVIEW</b>																							
130	0	12JAN00		DELIVER PSAR TO DOE FOR REVIEW																							
140	0	12JAN00		DOE / RHWP KICK OFF MEETING																							
150	22	12JAN00*	10FEB00	DOE REVIEW																							
160	8	11FEB00	22FEB00	DOE CONSOLIDATE COMMENTS																							
170	0		22FEB00	DOE SUBMITS COMMENTS TO WVNS																							
180	40	23FEB00	19APR00	WVNS RESOLVES COMMENTS																							
190	10	20APR00	03MAY00	DOE REVIEW/ACCEPTS COMMENTS																							
200	10	04MAY00	17MAY00	WVNS REVISES PSAR																							
<b>NRC REVIEW</b>				<b>NRC REVIEW</b>																							
210	0	18MAY00*		TRANSMIT PSAR TO NRC																							
220	0	18MAY00*		NRC / DOE / RHWP KICK OFF MEETING																							
230	30	18MAY00	29JUN00	NRC REVIEW PSAR																							
240	0	30JUN00		RECEIVE RAI / CONCERNS FROM NRC																							
250	15	30JUN00	21JUL00	RESOLVE NRC RAI / CONCERNS																							
260	15	24JUL00	11AUG00	NRC PREPARES SER																							
270	0		11AUG00	OH / WVDP RECEIVES SER FROM NRC																							
<b>PSAR APPROVAL</b>				<b>PSAR APPROVAL</b>																							
330	20	10AUG00*	07SEP00	OH / WVDP PREPARES DRAFT DOE-SER																							
340	0	08SEP00		OH / WVDP TRANSMITS DRAFT DOE-SER TO DOE-OH																							
350	13	08SEP00	26SEP00	DOE-OH REVIEWS NRC SER & DRAFT DOE-SER																							
360	0		26SEP00	DOE-OH PROVIDES PSAR APPROVAL																							

Project Start	30AUG99		Early Bar
Project Finish	26SEP00		Progress Bar
Data Date	30AUG99		Critical Activity
Run Date	16SEP99		

OM02

Sheet 1 of 1

**REMOTE HANDLED WASTE FACILITY**

**TENTATIVE PSAR SCHEDULE**