SD-DD-FL-001

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Rockwell Hanford Operations
Energy Systems Group

Rockwell Retired Contaminated Facility Listing And Description

Main Copy Located in 241-B-361 file

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CX-70
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Rockwell Hanford Operations

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Prepared by (Name and Dept. No.)
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See Page 2 for Approvals

Date
July 1982

Abstract

This document is a revision of D&D document D0105FL001, Rockwell Retired Contaminated Facility Listing and Characterization. Retired contaminated structures that meet the Surplus Facilities Management Program (SFMP) and Rockwell Criteria for being retired and qualify for SFMP surveillance, maintenance and D&D funding are included.

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1.0 INTRODUCTION

1.1 Background

At Rockwell Hanford Operations there exists many surplus contaminated facilities including buildings, stacks, and tanks scheduled to be decommissioned by Fiscal Year 2000 (see Rockwell Retired Contaminated Facilities Listing). Many contain large inventories of radionuclides presenting potential radiological hazards on and off the Hanford Reservation. Some structures have limited structural deterioration presenting potential radiological and industrial safety hazards to personnel. Due to the condition of these facilities a systematic surveillance and maintenance program is performed to identify and correct potential hazards to personnel and the environment until eventual decommissioning operations are completed.

1.2 Need

To facilitate planning the surveillance and maintenance program, a single source of information pertaining to the retired facilities is needed. This document provides the needed source of information.

1.3 Scope

The scope of this document is twofold; (1) it will provide a list of all Rockwell facilities currently in the SFMP, and (2) it will summarize the available characterization information applicable to each facility. The level of detail of characterization information varies from site to site with the availability of data. Therefore, this document will be routinely revised as facility characteristics change, and as additional facility data becomes available.

ATTACHMENT I

Retired Facilities Category Listing

In this attachment facilities are listed in their respective categories. The categories are, buildings, tanks, stacks, vaults and weirs. A total for each category is given.

RETIRED FACILITIES CATEGORY LISTING

BLDG	TANKS	STACKS	VAULTS	WEIRS
205-A	295-AZ (1)	291-C-1	213-J	216-A-524
241-A-431	361-B (1)	296-C-2	213-K	2904-S-160
224-B	241-CX-70(1)	291-S-1	*241-CX-72	2904-S-170
2711-B	241-CX-71(1)	296-S-1	244-UR	2904-S-171
201-C	*241-CX-72(1)	296-S-2	241-WR	2904-S-172
215-C	270-E (1)	296-S-4	5 VAULTS	5 WEIRS
241-C-801	207-S (1)	296-S-6		
271-C	276-S-141(1)	296-S-7E		
276-C	276-S-142(1)	296-S-7W		
291-C	361-U (1)	296-S-12(2)		
2707-C	276-U (3)	291-U-1		
212-N	361-Z (1)	296-U-6		
212-P	14 TANKS	296-U-10		
212-R		14 STACKS		
202-S				
233-S				
233-SA				
241-SX-401				
241-SX-402				
276-S				
291-S				
292-S				
293-S				
2711-S				
2718-S				
2904-SA				
221-U				
271-U				
291-U				
232-Z				
234-ZB				
31 BLDG				

* This site consists of a tank in a caissen and and an adjacent vault

ATTACHMENT II

Retired Structural Facilities

The facility/sites given in Attachment II are groupings of interdependent facilities currently in the SFMP. Interdependence is due to structural connections and/or effluent monitoring and removal systems.

FACILITY/SITES		CONSTITUENTS		LOCATION
205-A	Purex Silica Gel Facility	205-A	Bldg.	200-E
216-A-524	Weir	216-A-524	Weir	200-E
241-A-431	Tank Farm Ventilation Bldg.	241-A-431	Bldg.	200-E
295-AZ	Caisson	295-AZ	Caisson	200-E
224-B	Concentration Facility	224-B	Bldg.	200-E
241-B-361	Settling Tank	241-B-361	Tank	200-E
2711-B	Breathing Air Compressor House	2711-B	Bldg.	200-E
201-C	Hot Semiworks Pilot Plant	201-C	Bldg.	200-E
		271-C	Bldg.	200-E
		291-C	Bldg.	200-E
		291-C-1	Stack	200-E
		296-C-2	Stack	200-E
215-C	Gas Preparation Bldg.	215-C	Bldg.	200-E
241-C-801	Cesium Loadout Bldg.	241-C-801	Bldg.	200-E
276-C	Solvent Handling Bldg.	276-C	Bldg.	200-E
2707-C	Storage and Change House	2707-C	Bldg.	200-E
241-CX	Tanks	241-CX-70	Tank	200-E
		241-CX-71	Tank	200-E
		241-CX-72	Tank	200-E
270-E	Condensate Neutralization Tank	270-E	Tank	200-E
212-N	Metal and Fuel Storage Basin	212-N	Bldg.	200-N
212-P	Metal and Fuel Storage Basin	212-P	Bldg.	200-N
212-R	Metal and Fuel Storage Basin	212-R	Bldg.	200-N
213-J	Magazine Storage Cavern	213-J	Vault	G/Mtn.
213-K	Magazine Storage Covern	213-K	Vault	G/Mtn.
202-S	Redox Processing Plant	202-S	Bldg.	200-W
		291-S	Bldg.	200-W
		291-S-1	Stack	200-W
		292-S	Bldg.	200-W
		296-S-1	Stack	200-W
		296-S-2	Stack	200-W
		296-S-4	Stack	200-W
		296-S-6	Stack	200-W
		2711-S	Bldg.	200-W
		2718-S	Bldg.	200-W

	FACILITY/SITES	CONSTITUENTS		LOCATION
207-S	Basin	207-S	Basin	200-W
233-S	Plutonium Concentration Facility	233-S	Bldg.	200-W
		233-SA	Bldg.	200-W
		296-S-7	Stacks	200-W
276-S	Cold Solvent Storage & Makeup	276-S	Bldg.	200-W
		296-S-12	Stack	200-W
		276-S-141	Tank	200-W
		276-S-142	Tank	200-W
293-S	Off Gas Treatment & Recovery Bldg.	293-S	Bldg.	200-W
2904-S-160	Weir	2904-S-160	Weir	200-W
2904-S-170	Weir	2904-S-170	Weir	200-W
		2904-SA	Bldg.	200-W
2904-S-171	Weir	2904-S-171	Weir	200-W
2904-S-172	Weir	2904-S-172	Weir	200-W
241-SX-401	Waste Disposal Condenser House	241-SX-401	Bldg.	200-W
241-SX-402	Waste Disposal Condenser House	241-SX-402	Bldg.	200-W
221-U	U-Plant	221-U	Bldg.	200-W
		271-U	Bldg.	200-W
		291-U	Bldg.	200-W
		291-U-1	Stack	200-W
		296-U-10	Stack	200-W
241-U-361	Settling Tank	241-U-361	Tank	200-W
276-U	Solvent Recovery Facility	276-U	Tank	200-W
244-UR	Waste Disposal Vault	244-UR	Vault	200-W
241-WR	Vault	241-WR	Vault	200-W
		296-U-6	Stack	200-W
232-Z	Waste Incineration Facility	232-Z	Bldg.	200-W
241-Z-361	Settling Tank	241-Z-361	Tank	200-W
234-ZB	Waste Storage Facility	234-ZB	Bldg.	200-W

ATTACHMENT III

Description Information

Characterization information was gathered in accordance with work procedure D0106WP0006 "Characterization of Retired Contaminated Facilities". Information gathered and summarized in this attachment includes a general physical description and data concerning support facilities, structural condition, occupancy/use, fire fighting category, radiological condition, and photograph. Availability and operability of utilities and safety systems is summarized for each facility in a table as shown below.

	Available			Operability			
	Yes	No	Unk	Yes	No	Unk	Comments/Condition/Type
Intrusion Alarm	☐	☐	☐	☐	☐	☐	
Heat	☐	☐	☐	☐	☐	☐	
Ventilation	☐	☐	☐	☐	☐	☐	
Air Conditioning	☐	☐	☐	☐	☐	☐	
Electricity	☐	☐	☐	☐	☐	☐	
Fire Detection	☐	☐	☐	☐	☐	☐	
Fire Suppression	☐	☐	☐	☐	☐	☐	
Compressed Air	☐	☐	☐	☐	☐	☐	
Vacuum System	☐	☐	☐	☐	☐	☐	
Breathing Air	☐	☐	☐	☐	☐	☐	
Water	☐	☐	☐	☐	☐	☐	
Drain	☐	☐	☐	☐	☐	☐	
Emergency Shower	☐	☐	☐	☐	☐	☐	
Exclusion Fence	☐	☐	☐	☐	☐	☐	
Air Sampling	☐	☐	☐	☐	☐	☐	

At the time of writing of this document, facility characterization is not complete. This attachment will be revised as necessary to include additional information as it becomes available.

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270-E Condensate Neutralization Tank	69
213-J Magazine Waste Storage Vault	72
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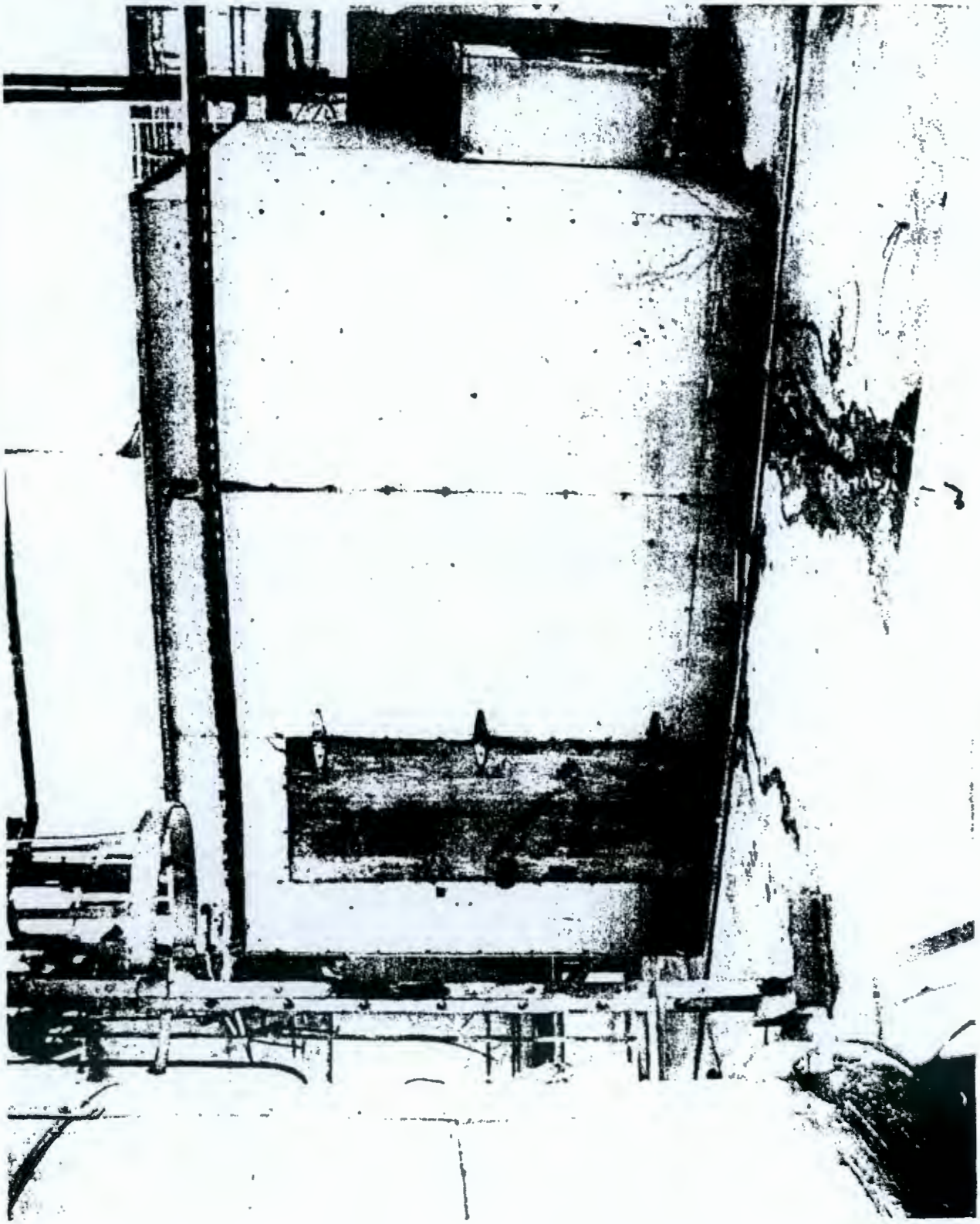


205-A: PUREX SILICA GEL FACILITY

205-A
Purex Silica Gel Facility

1.0 LOCATION

200 East Area
N40300 W48800

2.0 REFERENCE DRAWING(s)

Unable to locate.

3.0 DESCRIPTION

205-A Purex Silica Gel is approximately 12'x 10'x 8' high and constructed of fiberboard sheeting walls and sheet metal roof.

The building, located within the 203-A basin, houses the deactivated silica gel beds and a concrete tank enclosed by a concrete dike. Silica beds are 55 gallon stainless steel drums shielded with 1/4 inch steel plate. Four drums are used.

Other equipment includes two pumps and several rotometers.

Visual inspection revealed roof interior is corroding and wide spacing between fiberboard.

4.0 HISTORY

203-A Silica Gel facility was a prototype unit that was placed in service at Purex during 1956 to prove process feasibility. The uranium solution from the solvent extraction systems of the Redox and Purex Plants often required further treatment to meet product specifications. Silica gel was found to absorb selectively the zirconium - niobium contaminants from the solution with no significant loss of uranium.

205-A (Cont'd)

Upon successful demonstration of the process the 205-A unit was converted for production use. A complete production-type silica gel facility was also built at Redox. Since the Purex prototype silica gel unit was not designed for continuous operations, the final uranium solution was often transferred to the Redox silica gel unit for further treatment.

This facility is currently unused and considered retired.

5.0 CHARACTERIZATION SUMMARY

5.1 Facility Classification: Limited control

5.2 Fire Fighting Category: Not posted

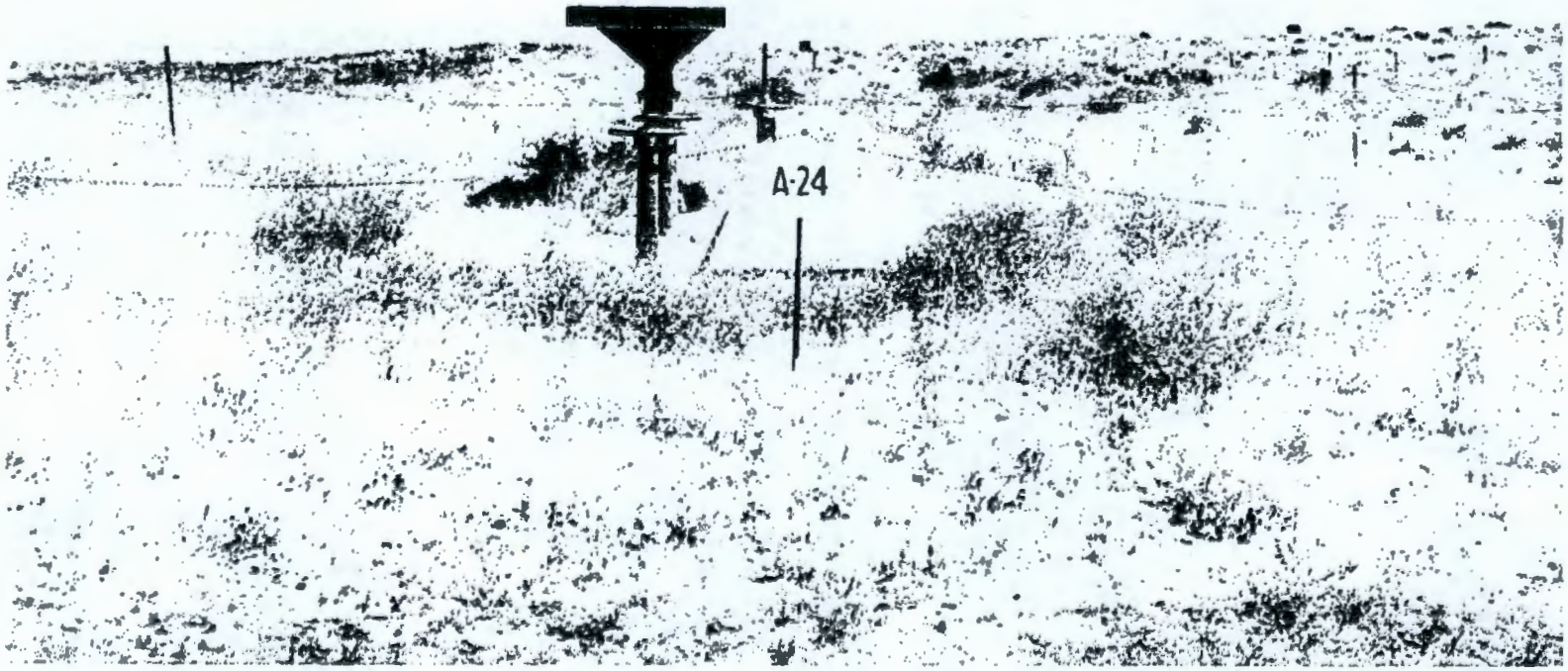
5.3 Radiological Characteristics

5.3.1 Postings: "Radiation Area/Surface Contamination" (posted on 203-A area)

5.3.2 Radionuclide Inventory: 6 curies beta

5.4 Utilities and Safety Systems

	Available			Operability			
	Yes	No	Unk	Yes	No	Unk	Comments/Condition/Type
Intrusion Alarm	☐	■	☐	☐	☐	☐	
Heat	☐	■	☐	☐	☐	☐	
Ventilation	☐	■	☐	☐	☐	☐	
Air Conditioning	☐	■	☐	☐	☐	☐	
Electricity	■	☐	☐	☐	☐	■	
Fire Detection	☐	■	☐	☐	☐	☐	Room survey unavailable
Fire Suppression	☐	■	☐	☐	☐	☐	" " "
Compressed Air	☐	■	☐	☐	☐	☐	" " "
Vacuum System	☐	■	☐	☐	☐	☐	" " "
Breathing Air	☐	■	☐	☐	☐	☐	" " "
Water	☐	■	☐	☐	☐	☐	" " "
Drain	☐	■	☐	☐	☐	☐	" " "
Emergency Shower	☐	■	☐	☐	☐	☐	" " "
Exclusion Fence	☐	■	☐	☐	☐	☐	
Air Sampling	☐	☐	■	☐	☐	■	



216-A-524: WEIR

216-A-524
Weir

1.0 LOCATION

200 East Area
N42300 W46900

2.0 REFERENCE DRAWING(s)

H-2-56976
H-2-56977

3.0 DESCRIPTION

The 216-A-524 weir is an underground liquid effluent control structure located within the 216-A-24 crib area. Outside dimensions are 16' x 8' x 11' deep. Walls and floor are 1' thick reinforced concrete, and the roof (ground level) is closed with two removable concrete cover slabs 6" thick.

The weir interior is divided vertically, by two concrete walls 8'6" high and 1' thick, into three chambers. Piping includes a 16" diameter steel inlet pipe, a 16" diameter steel outlet pipe, and two 16" diameter steel blanked off outlet stubs, one with a 2" diameter steel bypass. Stop log and sluice gates are also present.

Extending above ground are three stem gate valves, with handwheels for operation of sluice gates, and a filtered vent pipe.

4.0 HISTORY

The 216-A-524 weir was built in 1957 to regulate flow of contaminated condensate from waste storage tanks in 241-A and 241-AX tank farms. This weir continued service until crib 216-A-24 was rendered inactive in January 1966. This weir is currently retired and unused.

216-A-524 (Cont'd)

Weir

5.0 CHARACTERIZATION SUMMARY

5.1 Facility Classification: N/A

5.2 Fire Fighting Category: Exempt

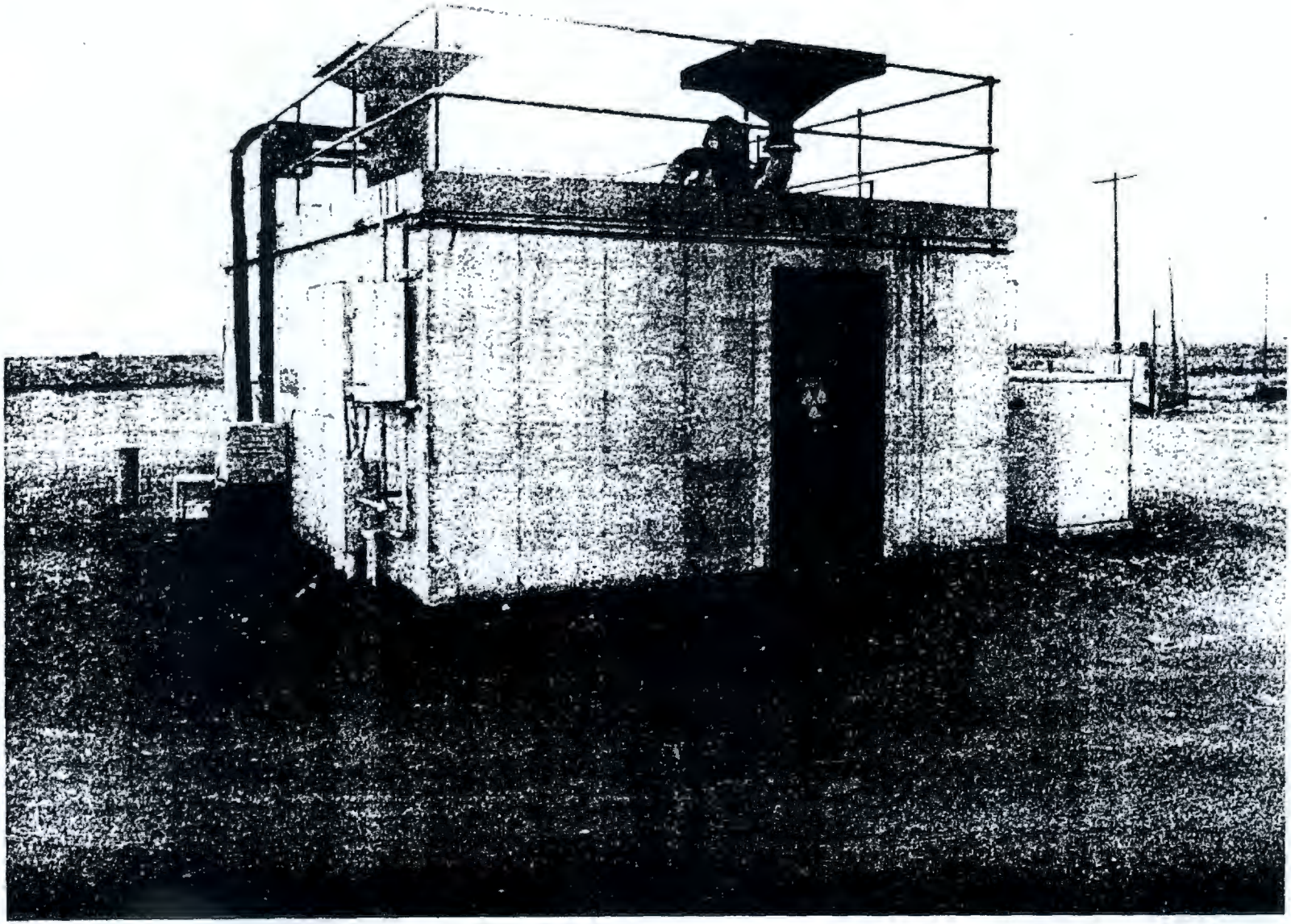
5.3 Radiological Characteristics

5.3.1 Postings: "Radiation Area/Surface Contamination" (posted on chain surrounding crib)

5.3.2 Radionuclide inventory: Unknown

5.4 Utilities and Safety Systems

	Available			Operability			
	Yes	No	Unk	Yes	No	Unk	Comments/Condition/Type
Intrusion Alarm	☐	■	☐	☐	☐	☐	N/A
Heat (steam, other)	☐	■	☐	☐	☐	☐	N/A
Ventilation (specify type)	☐	■	☐	☐	☐	☐	N/A
Air Conditioning	☐	■	☐	☐	☐	☐	N/A
Electricity	☐	■	☐	☐	☐	☐	N/A
Fire Detection	☐	■	☐	☐	☐	☐	N/A
Fire Suppression	☐	■	☐	☐	☐	☐	N/A
Compressed Air	☐	■	☐	☐	☐	☐	N/A
Vacuum System	☐	■	☐	☐	☐	☐	N/A
Breathing Air	☐	■	☐	☐	☐	☐	N/A
Water	☐	■	☐	☐	☐	☐	N/A
Drain	☐	■	☐	☐	☐	☐	N/A
Emergency Shower	☐	■	☐	☐	☐	☐	N/A
Exclusion Fence	■	☐	☐	☐	☐	☐	Chain & post around crib
Air Sampling	☐	■	☐	☐	☐	☐	N/A



241-A-431: TANK FARM VENTILATION BUILDING

241-A-431

Tank Farm Ventilation Building

1.0 LOCATION

200 East Area
N41100 W47500

2.0 REFERENCE DRAWING(s)

H-2-55940

3.0 DESCRIPTION

The 241-A-431 tank farm ventilation building, located within 241-A tank farm perimeter fence, is a reinforced concrete structure in fair condition. Visual inspection revealed spalling, primarily at the corners.

Outside dimensions are 21 x 16 x 25' high, with the lower 16' below grade. Walls are 8" thick and building is divided into two main sections.

The section that houses the ventilation equipment is 10 feet long by 16 feet wide by 9 feet high. Equipment includes a fan, motor, and associated piping and instrumentation.

The section that houses the deentrainment equipment is 11 feet long by 16 feet wide by 25 feet high. Equipment includes the deentrainment tank, a 24 inch, HEPA filtered stack with sampling equipment, and drain lines to French Drains 216-A-16, 17, 23-A, and 23B. The deentrainment vessel is 10 feet high and 6-1/2 feet in diameter. It is constructed of steel plate. A 2 foot high lid is secured to the vessel with bolted flanges.

241-A-431 (Cont'd)

4.0 HISTORY

The 241-A-431 Building was constructed in 1953 to provide off-gas deentrainment for the six tanks in 241-A tank farm. It also provided for receiving the building 296-A-11 stack drainage. The facility operated until its retirement in 1969 and is now unused.

5.0 CHARACTERIZATION SUMMARY

5.1 Facility Classification: Unknown

5.2 Fire Fighting Category: Not posted

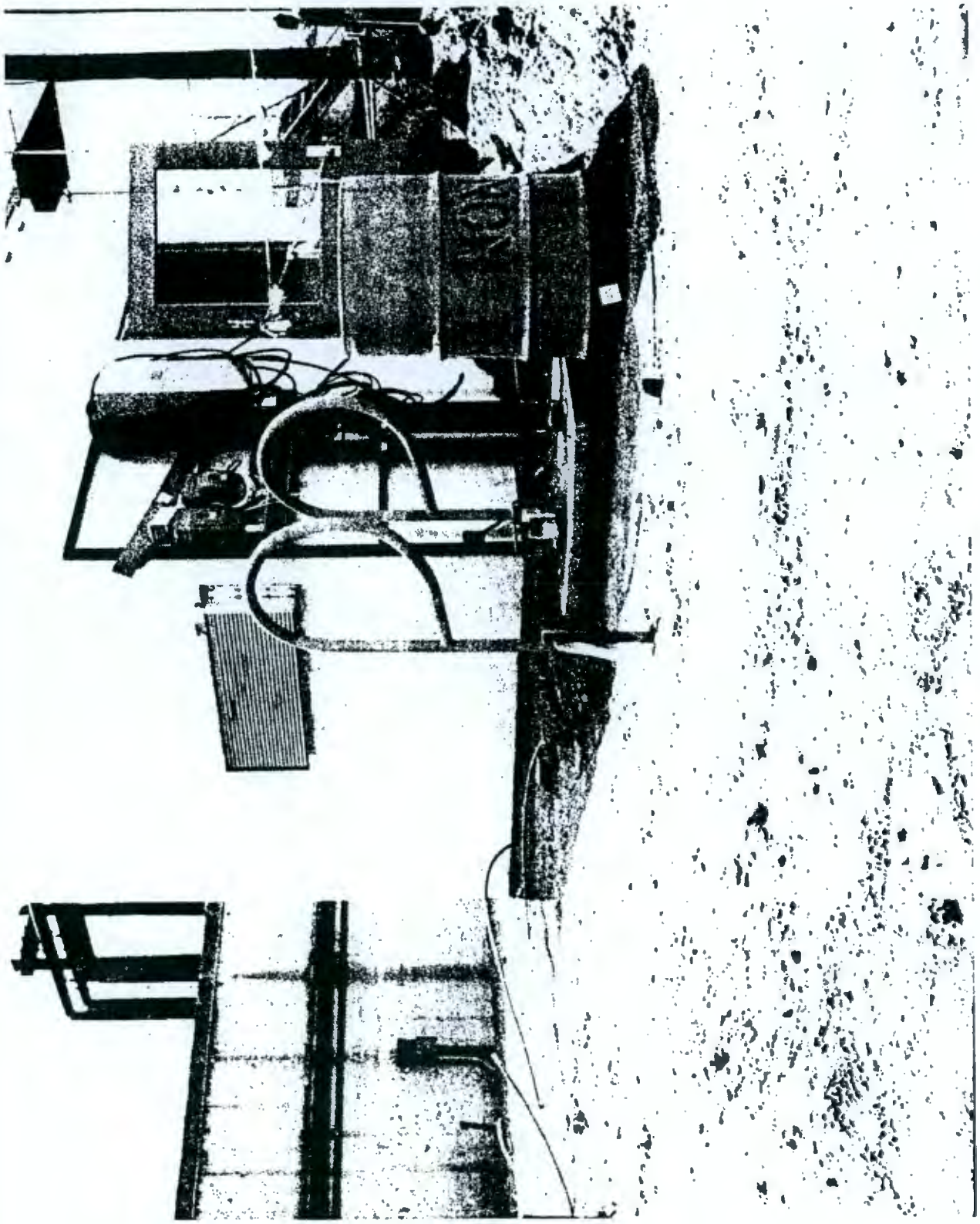
5.3 Radiological Characteristics

5.3.1 Postings: "Radiation Area/Surface Contamination" (posted on 241-A perimeter fence)
"Radiation Area/Airborne Radioactivity" (posted on door)
"On Mask" (posted on entrance door)

5.3.2 Radionuclide inventory: 6 curies beta

5.4 Utilities and Safety Systems

	Available			Operability			
	Yes	No	Unk	Yes	No	Unk	Comments/Condition/Type
Intrusion Alarm	☐	■	☐	☐	☐	☐	
Heat (steam, other)	☐	☐	■	☐	☐	☐	
Ventilation (specify type)	■	☐	☐	☐	☐	☐	
Air Conditioning	☐	☐	■	☐	☐	☐	
Electricity	■	☐	☐	☐	☐	☐	
Fire Detection	☐	■	☐	☐	☐	☐	Room survey unavailable
Fire Suppression	☐	■	☐	☐	☐	☐	" " "
Compressed Air	☐	■	☐	☐	☐	☐	" " "
Vacuum System	☐	■	☐	☐	☐	☐	" " "
Breathing Air	☐	■	☐	☐	☐	☐	" " "
Water	☐	■	☐	☐	☐	☐	" " "
Drain	☐	■	☐	☐	☐	☐	" " "
Emergency Shower	☐	■	☐	☐	☐	☐	" " "
Exclusion Fence	■	☐	☐	■	☐	☐	Utilizes 241A perimeter fence
Air Sampling	■	☐	☐	■	☐	☐	



295-AZ: CAISSON

295-AZ
Caisson

1.0 LOCATION

200 East Area
N40700 W48100

2.0 REFERENCE DRAWING(s)

H-2-63012

3.0 DESCRIPTION

The 295-AZ caisson is a 17' tall, 8' diameter cylinder made of corrugated steel. It rests on a concrete slab and stainless steel liner plate 16-1/2' below grade. A metal decking with manhole and ladder is accessible above grade.

Primary equipment in the caisson includes two flowmeters, a sample pump, a sump pump, and related piping.

4.0 HISTORY

The 295-AZ caisson was built in 1967 in conjunction with 295-A Crib Sampler House. The sample house was built to sample and maintain the ammonia scrubber waste from Purex, and the caisson contained its instrumentation. The sample house has been removed and replaced by a new building. The caisson remains in place, however a new one is being built. 295-AZ caisson is currently retired and unused.

5.0 CHARACTERIZATION SUMMARY

5.1 Facility Classification: N/A

295-AZ (Cont'd)

5.2 Fire Fighting Category: N/A

5.3 Radiological Characteristics

5.3.1 Postings: "Caution Underground Radioactive Material" (On caisson cover)

5.3.2 Radionuclide inventory: .1 curies Pu, 6 curies beta

5.4 Utilities and Safety Systems

	Available			Operability			
	Yes	No	Unk	Yes	No	Unk	Comments/Condition/Type
Intrusion Alarm	☐	■	☐	☐	☐	☐	
Heat	☐	■	☐	☐	☐	☐	
Ventilation	☐	■	☐	☐	☐	☐	
Air Conditioning	☐	■	☐	☐	☐	☐	
Electricity	☐	■	☐	☐	☐	☐	
Fire Detection	☐	■	☐	☐	☐	☐	
Fire Suppression	☐	■	☐	☐	☐	☐	
Compressed Air	☐	■	☐	☐	☐	☐	
Vacuum System	☐	■	☐	☐	☐	☐	
Breathing Air	☐	■	☐	☐	☐	☐	
Water	☐	■	☐	☐	☐	☐	
Drain	☐	■	☐	☐	☐	☐	
Emergency Shower	☐	■	☐	☐	☐	☐	
Exclusion Fence	☐	■	☐	☐	☐	☐	
Air Sampling	☐	■	☐	☐	☐	☐	

224-B: CONCENTRATION FACILITY

224-B
Concentration Facility

1.0 LOCATION

200 East Area
N42400 W54100

2.0 REFERENCE DRAWING(s)

H-2-43231
W-72500

3.0 DESCRIPTION

224-B is a concentration facility in good condition consisting of reinforced concrete and concrete block walls. The roof is reinforced concrete, edged in wood, with a built up gravel and tar surface. Visual inspection of the building's exterior revealed minor cracks in the concrete. Roof edges are deteriorating (no inspection was made of the rooftop).

This building is a three floor structure. Overall exterior dimensions of the first and second floor are 69 feet by 197 feet with heights of 20 feet. Total area of each floor is 11,523 square feet. The third floor is 69 feet by 45 feet with a height of 20 feet. Total area of the third floor is 9,005 square feet.

The building is divided into two main sections. One is the office and gallery section and the other is the process cell section. The office and gallery section is separated from the process cell section by a concrete wall 1 foot thick.

The first floor of the office and gallery portion is partitioned for offices, storage, restrooms, change room, and building service equipment. There are

224-B (Cont'd)

three offices, the largest being 23 ft 8 in. x 23 ft 8 in. Building service equipment (BFU and electrical switchgear) is located in a room 26 x 51 ft. A storage room next to the building services equipment room measures 16 x 26 ft. First floor access to the building elevator is through this storage room. At the Southwest end of the building and adjacent to the largest office space is a room designated as the F-10 room. The F-10 room is 25 x 33 ft and loading is accomplished through a roll-up steel curtain type door.

The second floor of the gallery side of the building is called the "pipe gallery" and the portion of it directly above the offices, lunchroom, change room, restrooms, etc., is an open area approximately 33 x 145 ft. Piping overhead restricts the clearance in this space to some extent. Entrance into the cell portion of the building is possible through any of four air lock doors in this portion of the pipe gallery. These entrances into the cell portion lead out onto operating platforms 10 x 12 ft, extending into the cell portion. The area on the second floor above the F-10 room and the largest office space, was designed as a control room for processing activities in F cell and is designated the F Operating Gallery. This space is 33 x 51 ft.

The third floor of the gallery section is designated the "operating gallery" and contains scales, tanks, and process operating control stations. This space does not extend over the F Operating Gallery (on second floor). Observation of the cell portion is possible from the operating gallery through specially constructed lead glass windows.

The process cell portion of the building is approximately 27 x 197 ft and is divided into five separate cells each 27 x 28 ft and one cell designated F Cell measuring 25 x 51 ft. A stairwell and platform at the second story level consumes an area 13 x 26 ft of the F Cell. At the second floor level there is a 2 ft 6 in. walkway which allows access around the outer walls of the cell portion except for the F Cell portion. The cells are a full three stories high and are divided by concrete walls that extend to the second floor level.

224-B (Cont'd)

The concrete roof slabs are removable so that huge vessels or process equipment may be removed readily.

There are pedestrian entrances at ground level, into each of the cells and a 12 ft wide x 21 ft high opening into the second floor on the cell portion side of the building.

A concrete loading platform on the outside of the building leads to the building elevator. The elevator opening is 7 ft wide and 8 ft high.

4.0 HISTORY

Building 224-B was originally built as a process facility to handle final plutonium decontamination and concentration operations formerly performed in 221-B.

Currently J. A. Jones Construction Company occupies offices in the building and has converted the F-10 room into a regulated workshop. This facility is considered retired.

5.0 CHARACTERIZATION SUMMARY

5.1 Facility Classifcation: Limited control

5.2 Fire Fighting Category: Not posted

5.3 Radiological Characteristics

5.3.1 Postings: "Caution Underground Radioactive Material" (posted on chained off area at backside of building)
"Radiation Zone" (posted on cell doors)

5.3.2 Radionuclide inventory: 150 curies Pu

224-B (Cont'd)

5.4 Utilities and Safety Systems

	Available			Operability			
	Yes	No	Unk	Yes	No	Unk	Comments/Condition/Type
Intrusion Alarm	☐	■	☐	☐	☐	☐	
Heat (steam, other)	■	☐	☐	■	☐	☐	From B-Plant - steam
Ventilation (specify type)	■	☐	☐	■	☐	☐	" "
Air Conditioning	■	☐	☐	■	☐	☐	" "
Electricity	■	☐	☐	■	☐	☐	
Fire Detection	☐	☐	■	☐	☐	☐	Room survey unavailable
Fire Suppression	☐	☐	■	☐	☐	☐	" " "
Compressed Air	☐	☐	■	☐	☐	☐	" " "
Vacuum System	☐	☐	■	☐	☐	☐	" " "
Breathing Air	☐	☐	■	☐	☐	☐	" " "
Water	☐	☐	■	☐	☐	☐	" " "
Drain	☐	☐	■	☐	☐	☐	" " "
Emergency Shower	☐	☐	■	☐	☐	☐	" " "
Exclusion Fence	☐	■	☐	☐	☐	☐	
Air Sampling	☐	☐	■	☐	☐	☐	Room survey unavailable

241-B-361: SETTLING TANK

241-B-361
Settling Tank

1.0 LOCATION

200 East Area
N43300 W52900

2.0 REFERENCE DRAWING(s)

W72902

3.0 DESCRIPTION

241-B-361 settling tank is an underground reinforced gunite tank 20' in diameter.

Eleven risers are visable above grade. One riser is equipped with a manual tape, a second riser contains two dip tubes, a third riser vents the tank, and the eight remaining risers are blanked off.

4.0 HISTORY

241-B-361 settling tank was in service from April 1945 to September 1947 as part of the waste disposal system for low salt, alkaline, radioactive liquid wastes from cell washings collected in the 5-6W cell located in the 221-B building and from the 224-B building. Waste was discharged to the settling tank and overflowed into the 216-B-5 reverse well.

There are no pumpable liquids remaining in the tank. The tank solids present are primarily bismuth phosphate, and the volume of sludge is 1.20 E + 5ℓ, with ~ 2.4 Kg of plutonium still contained in the tank.[1]

This tank is currently unused and considered retired.

1. R.M. Smith, 216-B-5 Reverse Well Characterization Study, RHO-ST-37, Nov. 1980.

241-B-361 (Cont'd)

5.0 CHARACTERIZATION SUMMARY

5.1 Facility Classification: exempt

5.2 Fire Fighting Category: N/A

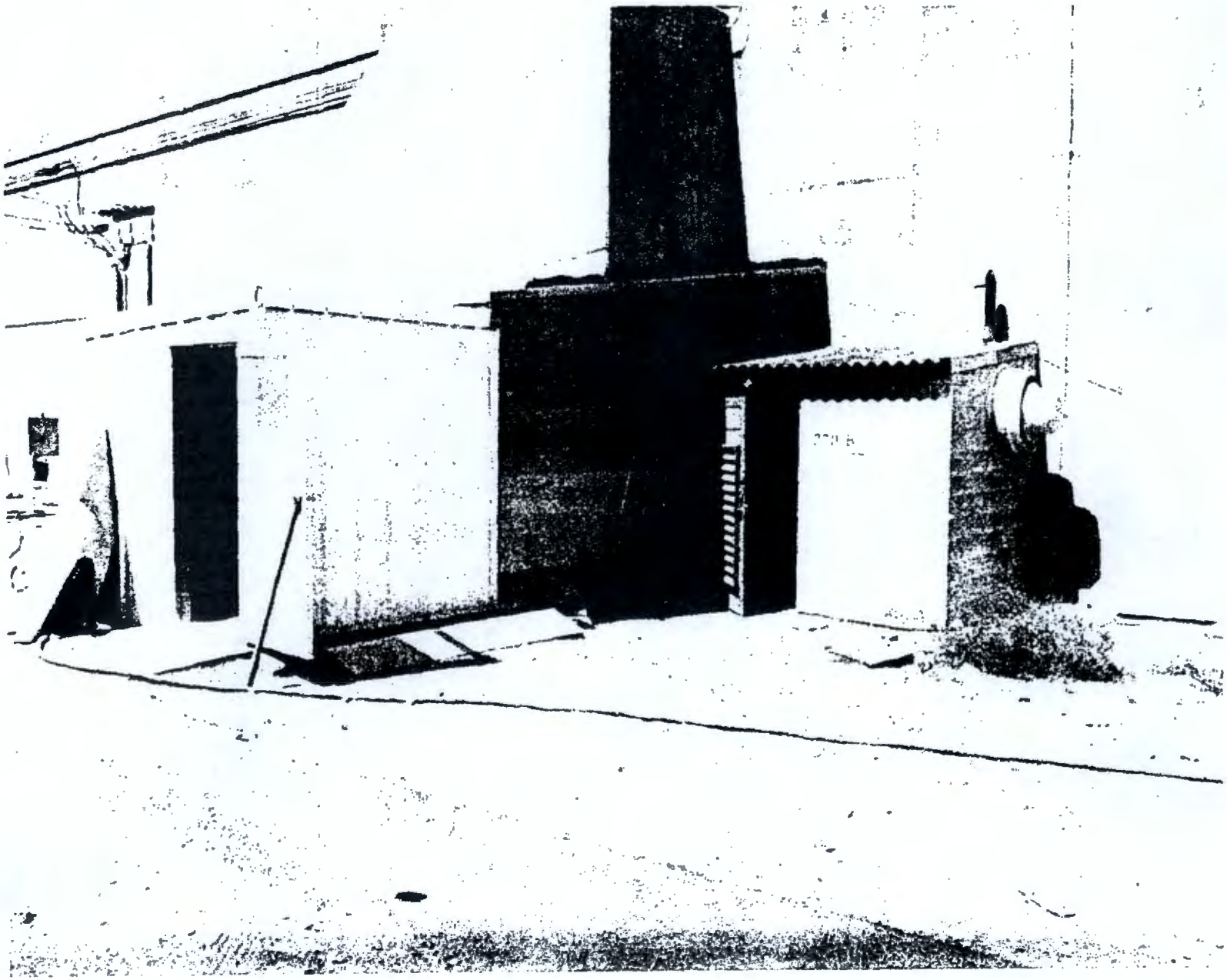
5.3 Radiological Characteristics

5.3.1 Postings: "Radiation Area/Surface Contamination" (on chain around tank risers)

5.3.2 Radionuclide inventory: ~2.4 kg Pu.

5.4 Utilities and Safety Systems

	Available			Operability			
	Yes	No	Unk	Yes	No	Unk	Comments/Condition/Type
Intrusion Alarm	☐	■	☐	☐	☐	☐	N/A
Heat	☐	■	☐	☐	☐	☐	N/A
Ventilation	☐	■	☐	☐	☐	☐	N/A
Air Conditioning	☐	■	☐	☐	☐	☐	N/A
Electricity	☐	■	☐	☐	☐	☐	N/A
Fire Detection	☐	■	☐	☐	☐	☐	N/A
Fire Suppression	☐	■	☐	☐	☐	☐	N/A
Compressed Air	☐	■	☐	☐	☐	☐	N/A
Vacuum System	☐	■	☐	☐	☐	☐	N/A
Breathing Air	☐	■	☐	☐	☐	☐	N/A
Water	☐	■	☐	☐	☐	☐	N/A
Drain	☐	■	☐	☐	☐	☐	N/A
Emergency Shower	☐	■	☐	☐	☐	☐	N/A
Exclusion Fence	■	☐	☐	■	☐	☐	Chain & post
Air Sampling	☐	■	☐	☐	☐	☐	N/A



2711-B: BREATHING AIR COMPRESSOR HOUSE

2711-B

Breathing Air Compressor House

1.0 LOCATION

200 East Area
N42400 W54100

2.0 REFERENCE DRAWING(s)

H-2-60333

3.0 DESCRIPTION

Building 2711-B is a lean-to structure in fair condition consisting of reinforced concrete walls and floor with a corrugated metal over wood roof. Visual inspection revealed minor cracks in the concrete, and deterioration of the wood roof causing it to sag.

This building is 13' long by 7 ft. wide by 9 ft. tall at the highest point. The roof slopes down to 8 ft. tall at the lowest point. Walls are 8 inches thick and the floor slab is 4 inches thick. The floor has a 2" drain. A concrete pad 9' long by 3' wide by 3" thick supports the motor air compressor, and associated equipment and piping. An exhaust fan is contained in a wall opening 1-2/3 ft. square.

4.0 HISTORY

2711-B was built in 1965 to supply breathing air to building 221-B. It is currently used to store retired breathing air equipment. This building is considered retired.

5.0 CHARACTERIZATION SUMMARY

5.1 Facility Classification: Limited control

2711-B (Cont'd)

5.2 Fire Fighting Category: Not posted

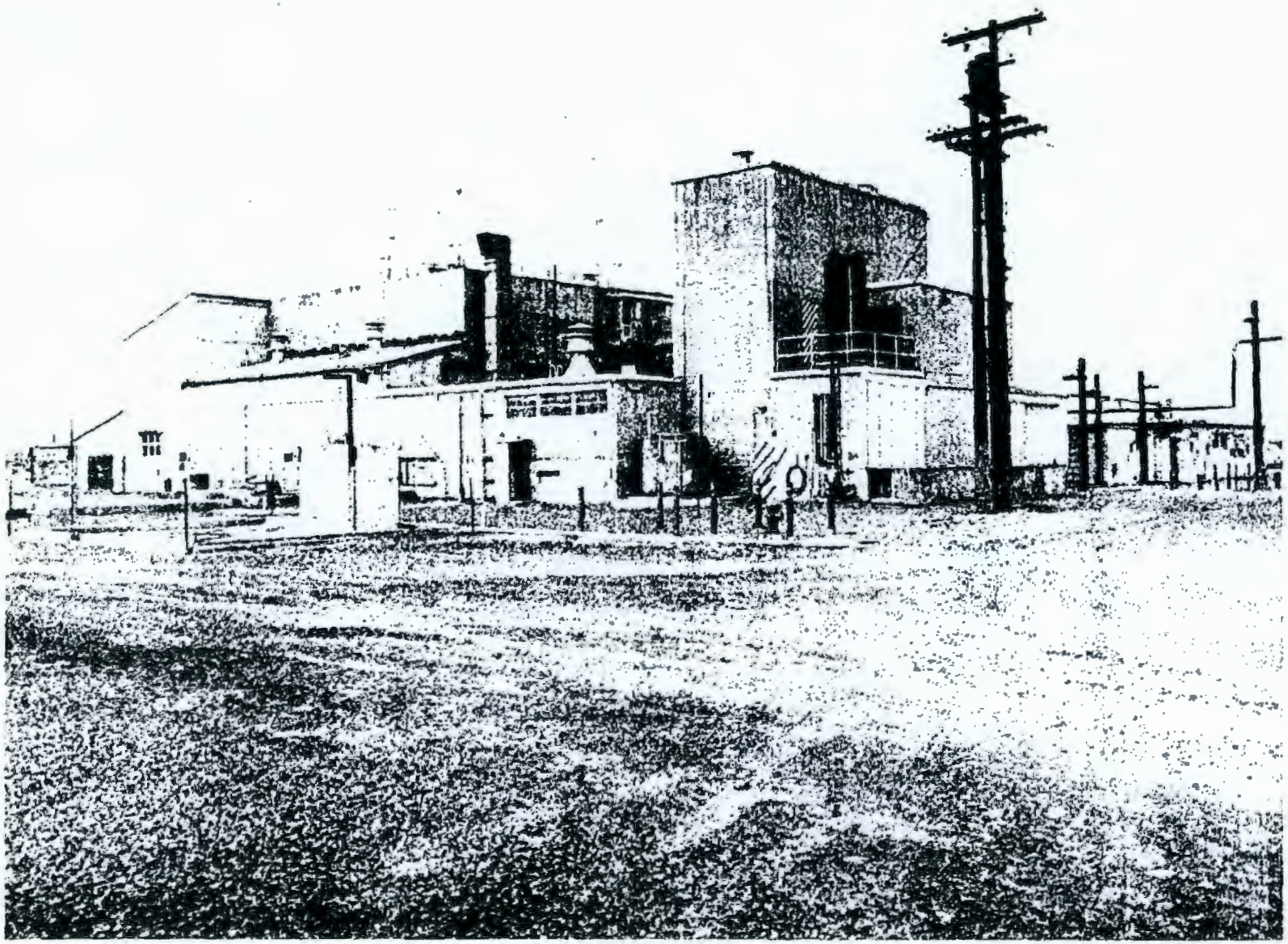
5.3 Radiological Characteristics

5.3.1 Postings: There are no radiological postings on the building's exterior.

5.3.2 Radionuclide Inventory: No contamination has ever been detected in this building however, piping internals are potentially contaminated.

5.4 Utilities and Safety Systems

	Available			Operability			
	Yes	No	Unk	Yes	No	Unk	Comments/Condition/Type
Intrusion Alarm	☐	■	☐	☐	☐	☐	
Heat	☐	☐	■	☐	☐	☐	
Ventilation	■	☐	☐	■	☐	☐	
Air Conditioning	☐	■	☐	☐	☐	☐	
Electricity	■	☐	☐	■	☐	☐	
Fire Detection	☐	■	☐	☐	☐	☐	Room survey unavailable
Fire Suppression	☐	■	☐	☐	☐	☐	" " "
Compressed Air	☐	■	☐	☐	☐	☐	" " "
Vacuum System	☐	■	☐	☐	☐	☐	" " "
Breathing Air	☐	■	☐	☐	☐	☐	" " "
Water	☐	■	☐	☐	☐	☐	" " "
Drain	☐	■	☐	☐	☐	☐	" " "
Emergency Shower	☐	■	☐	☐	☐	☐	" " "
Exclusion Fence	☐	■	☐	☐	☐	☐	" " "
Air Sampling	☐	■	☐	☐	☐	☐	" " "



201-C: PROCESS BUILDING

201-C
Process Building

1.0 LOCATION

200 East Area
N42200 W50300

2.0 REFERENCE DRAWING(s)

H-2-4155, Sht. 1,2,3

3.0 DESCRIPTION

201-C is the radioactive process building of the Hot Semiworks facility. The walls and roof are made of corrugated metal and interior cells are reinforced concrete. The building is in fair condition. Visual inspection of the building's exterior revealed cracks and chipping in the metal.

The process canyon consists of three integrated cells having overall dimensions of 80 x 46 ft resting on a 5-ft-thick base pad 82 x 51 ft, the top of which is 25 ft below grade level.

B Cell, designed to accommodate solvent extraction columns, occupies a central position and has inside dimensions of 36 x 20 ft in plan with a height of 50 ft. The B Cell walls and roof are 5 ft thick with a 4 x 50 ft 6-in. door in the south wall for equipment installation.

A and C Cells, 40 x 22 ft in plan and 20 ft high, are adjacent to B Cell. The outside walls of each of these cells are 3 ft thick, and the ground-level roof slabs are 5 ft thick for shielding. There is a 4 ft x 7 ft x 6-in-thick door in each cell. These cells also have roof openings for equipment handling. A cell has a stainless steel-lined floor, while B and C Cells have painted concrete floors. Helical-shaped stainless steel pipes ("helices") are cast into the concrete, extending from the cells to the outside or to adjacent cells. All process, sampling, instrument and service lines enter and exit the cells through the helices.

201-C (Cont'd)

D Cell, the produce loadout cell, measures 7 x 9 ft deep and protrudes 6 in. above grade level. D Cell is located adjacent to and connected to A Cell by a stainless steel duct which houses the inter-cell process connections and provides drainage and air exhaust from D Cell to A Cell. The concrete floor and walls of D Cell are lined with stainless steel. The entire cover lid is removable.

E Cell, the product storage vault, measures 10 x 22 x 11.5 ft deep. The concrete walls are 1.5 ft thick, and the concrete cover blocks are 3.5 ft thick. Adjacent to this structure are three service pits. E Cell was used to store megacurie quantities of 90 Sr. All connections within the cell are welded, and the walls and floor are painted concrete.

The process equipment in this installation consists of about 35 stainless steel tanks with sizes up to 1600 gal.

Several solvent extraction columns with pulsing facilities are installed in B Cell, along with small pumps, agitators and heat exchangers.

Control facilities for this installation are remote--being installed in 271-C.

Adjacent to B Cell in the 201-C Building is a high-bay hot shop.

With few exceptions, the facility is designed for contact maintenance. Hence any entry into the cell must be preceded by the required equipment and cell decontamination effort.

4.0 HISTORY

201-C was built as part of the Hot Semiworks facility pilot plant in 1949 for the Redox process. In 1954 the facility was converted to a hot pilot plant for the Purex process until it was shut down in 1956. As a pilot fuel reprocessing plant, reactor fuel was brought into the facility, dissolved, the plutonium separated, decontaminated, loaded out, and shipped to another facility. Thus, the buildings became contaminated with a full spectrum of fission products

201-C (Cont'd)

and transuranics. After extensive cleaning and decontamination, the buildings were modified and put back into operation in 1961 for the recovery and purification of megacurie quantities of strontium. Purified strontium was loaded into a cask containing as much as 400,000 Ci of Sr-90 and shipped offsite. The facility was also used for the recovery of cerium, technetium, promethium, and one run of americium and curium. Semiworks was shut down in 1967 and is considered retired.

5.0 CHARACTERIZATION SUMMARY

5.1 Facility Classification: Unknown

5.2 Fire Fighting Category: Not posted

5.3 Radiological Characteristics

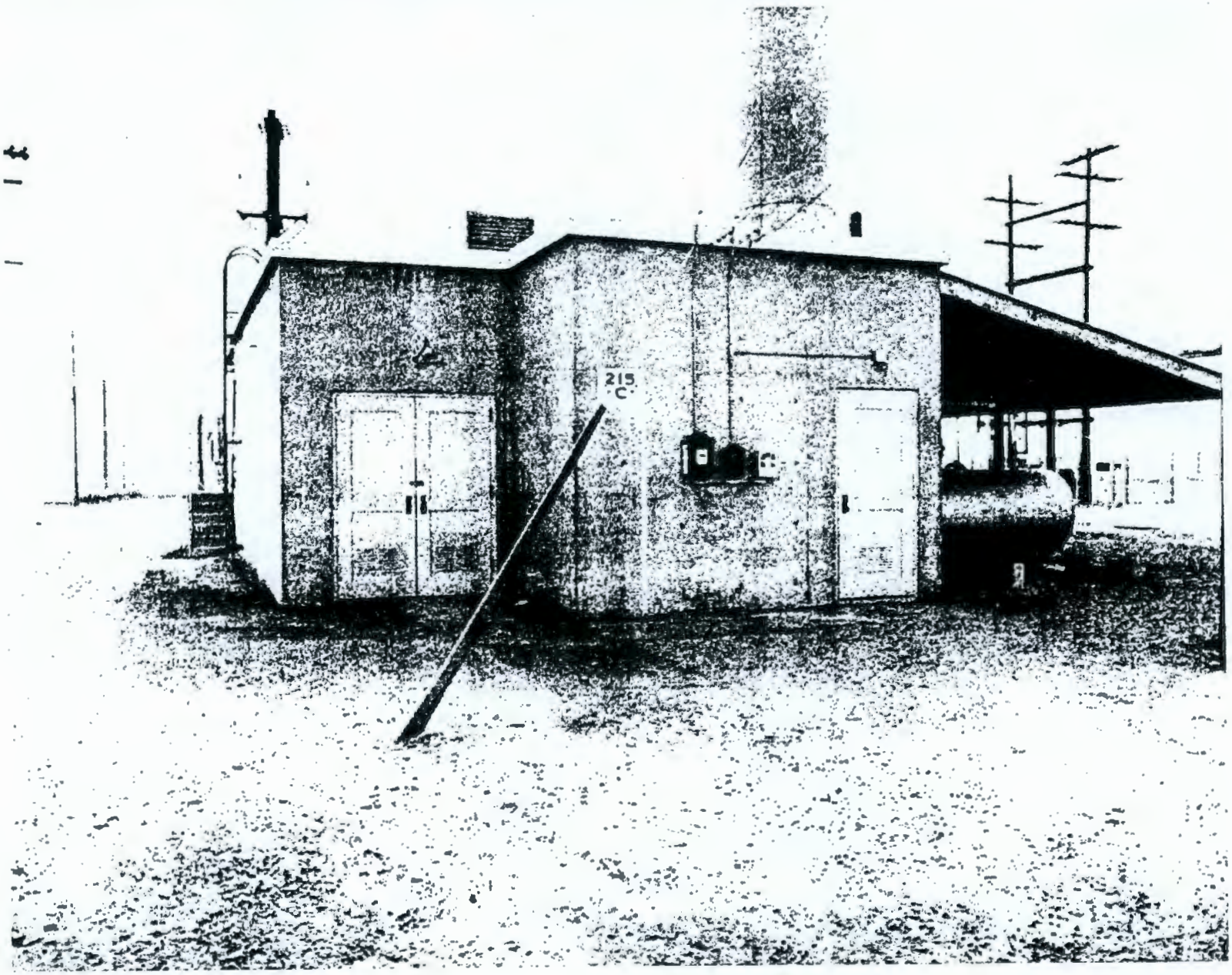
5.3.1 Postings: "Radiation Area/Surface Contamination" (posted on outer entrance doors, NE door of hotshop, East door of air treatment room, North end door of "A" pipeway, North end door of "C" pipeway)

5.3.2 Radionuclide Inventory: 100 curies Pu, 9,000 curies beta

5.4 Utilities and Safety Systems

	Available			Operability			
	Yes	No	Unk	Yes	No	Unk	Comments/Condition/Type
Intrusion Alarm	☐	■	☐	☐	☐	☐	
Heat	■	☐	☐	☐	☐	■	Except air treatment room
Ventilation	■	☐	☐	☐	☐	☐	" " " "
Air Conditioning	■	☐	☐	☐	☐	☐	" " " "
Electricity	■	☐	☐	☐	☐	☐	" " " "
Fire Detection	■	☐	☐	☐	■	☐	*
Fire Suppression	■	☐	☐	☐	■	☐	*
Compressed Air	■	☐	☐	☐	☐	■	Hot shop & air treatment rm.
Vacuum System	■	☐	☐	☐	■	☐	
Breathing Air	■	☐	☐	☐	☐	■	Hot shop & "B" gallery
Water	■	☐	☐	☐	☐	■	Except "C" & "A" pipeway
Drain	■	☐	☐	☐	☐	■	" " " "
Emergency Shower	■	☐	☐	☐	☐	■	Hot shop, "A" & "C" mezzanine
Exclusion Fence	■	☐	☐	■	☐	☐	Chain & post
Air Sampling	■	☐	☐	☐	☐	☐	Hot Shop

* Except in "A" pipeway, air treatment room, "B" gallery, & "C" pipeway.



215-C: GAS PREPARATION BUILDING

215-C
Gas Preparation Building

1.0 LOCATION

200 East Area
N42500 W50200

2.0 REFERENCE DRAWING(s)

H-2-4004

3.0 DESCRIPTION

215-C is a single story concrete structure in good condition. Visual inspection of the building's exterior revealed minor spalling in the concrete.

The building is 35 x 21 x 13' high and has 820 ft^2 area. It has 4" concrete floors and a flat 6" concrete slab roof. The equipment room is 27 x 10', containing 8 to 10" thick concrete equipment pads of various sizes; walls are 8" concrete; vault is 12 x 6' with 10" concrete floor. There is cylinder storage deck-lean-to 15 x 6 ft on the south side of the building.

Equipment in the building includes 25 hp compressors, two air dryers, four air receiver tanks, and various service and process piping.

4.0 HISTORY

215-C was built to provide compressed air for pneumatic equipment and instrument air. Also provided inert gas system for use in 201-C Hot Process Building when flammable solvents were used.

This building is currently unused and considered retired.

215-C (Cont'd)

5.0 CHARACTERIZATION SUMMARY

5.1 Facility Classification: Unknown

5.2 Fire Fighting Category: Not posted

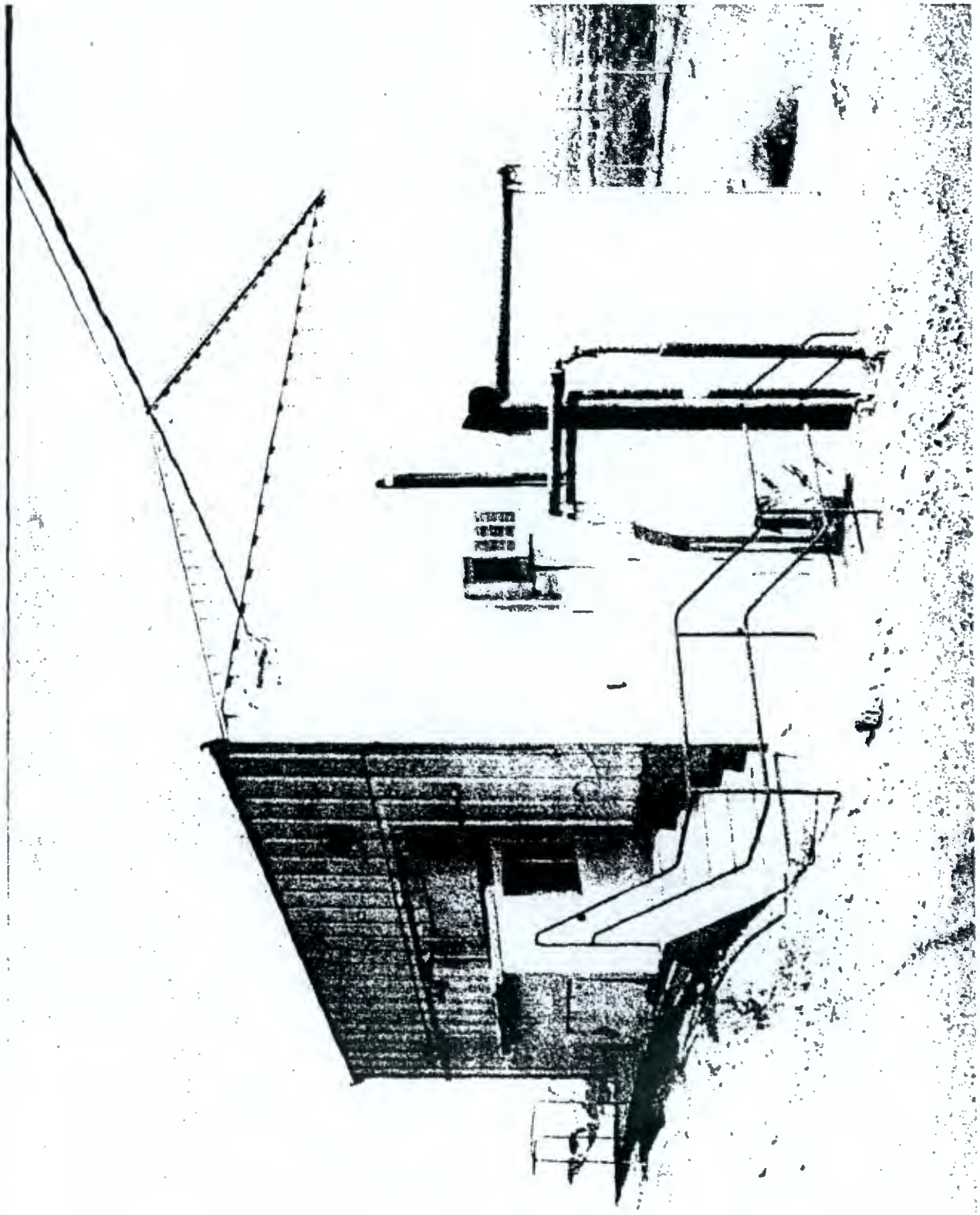
5.3 Radiological Characteristics

5.3.1 Postings: Building is not radiologically posted.

5.3.2 Radionuclide Inventory: 6 curies beta

5.4 Utilities and Safety Systems

	Available			Operability			
	Yes	No	Unk	Yes	No	Unk	Comments/Condition/Type
Intrusion Alarm	☐	■	☐	☐	☐	☐	
Heat	■	☐	☐	■	☐	☐	Compressor & RM storage rms
Ventilation	■	☐	☐	☐	☐	■	
Air Conditioning	■	☐	☐	☐	☐	■	
Electricity	■	☐	☐	■	☐	☐	
Fire Detection	■	☐	☐	☐	☐	■	RM storage room only
Fire Suppression	■	☐	☐	☐	☐	■	" " " "
Compressed Air	■	☐	☐	■	☐	☐	except RM storage room
Vacuum System	☐	■	☐	☐	☐	☐	
Breathing Air	☐	☐	■	☐	☐	☐	
Water	■	☐	☐	☐	☐	■	Air receiver & compressor rms
Drain	■	☐	☐	☐	☐	■	" " " "
Emergency Shower	☐	☐	■	☐	☐	☐	
Exclusion Fence	☐	■	☐	☐	☐	☐	
Air Sampling	☐	☐	☐	☐	☐	☐	



241-C-801: CESIUM LOADOUT BUILDING

241-C-801
Cesium Loadout Building

1.0 LOCATION

200 East Area
N42900 W48100

2.0 REFERENCE DRAWING(s)

H-2-4569

3.0 DESCRIPTION

241-C-801 is a cesium loadout facility in good condition, located within the 241-C tank farm.

The Cesium Loadout Building (see Figure I) is 32 feet long by 26 feet wide by 28 feet high. The bottom 9-1/2 feet of the building is constructed of concrete walls and foundations 1-1/3 to 1-2/3 feet thick. This part of the building is covered with earth. The remainder of the building is a standard prefabricated metal structure with 22 gauge metal walls 32 feet long by 26 feet long by 12 feet high. Main sections include the Loadout Room (32'x 14'x 20'), the Operating Room (14'x 12'x 20'), and the valve pit (8'x 7'x 8'). Visual inspection of the building exterior revealed no deficiencies.

The process equipment consists of two underground waste-storage tanks, one to receive the effluent from the casks and one for cesium-feed storage, a pump and heat-exchanger assembly located in the feed tank; a steam jet for loading operations; a water jet for the ion-exchange resin removal operations; and various valves, jumpers, connectors, and instruments to control and direct the cask loading operations.

241-C-801 (Cont'd)

4.0 HISTORY

241-C-801 was built in 1962 to provide loadout facilities for cesium which were independent of the Purex plant. This freed fission-product equipment in Purex to be devoted to other programs.

This facility is currently unused and considered retired.

5.0 CHARACTERIZATION SUMMARY

5.1 Facility Classification: Exempt

5.2 Fire Fighting Category: Not posted

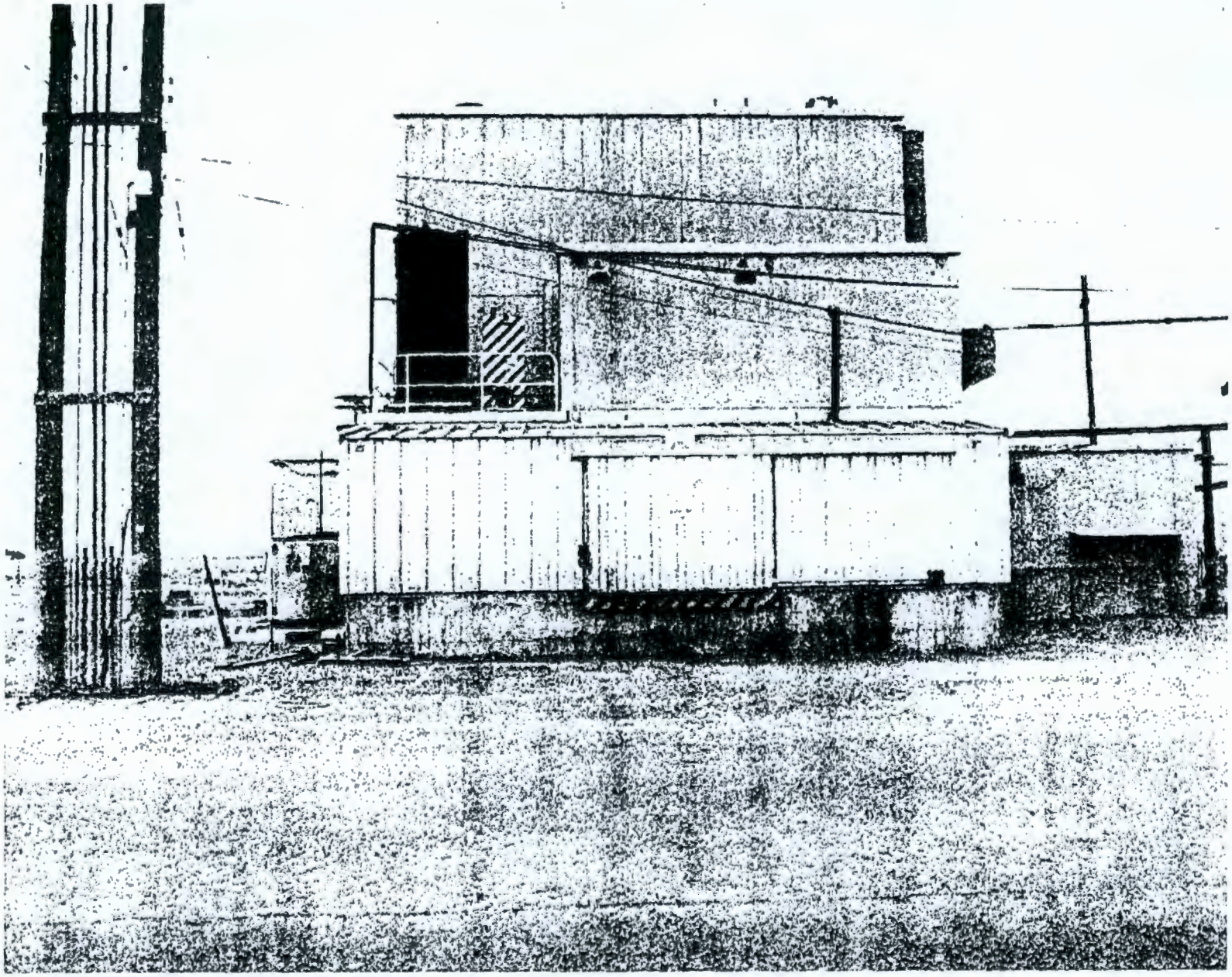
5.3 Radiological Characteristics

5.3.1 Postings: "Radiation Area/Surface Contamination" (on 241-C farm perimeter fence)

5.3.2 Radionuclide Inventory: 30 curies beta

5.4 Utilities and Safety Systems

	Available			Operability			
	Yes	No	Unk	Yes	No	Unk	Comments/Condition/Type
Intrusion Alarm	☐	☐	■	☐	☐	☐	
Heat	☐	☐	■	☐	☐	☐	
Ventilation	☐	■	☐	☐	☐	☐	
Air Conditioning	■	☐	☐	☐	☐	■	
Electricity	■	☐	☐	☐	☐	■	
Fire Detection	☐	■	☐	☐	☐	☐	Room survey unavailable
Fire Suppression	☐	■	☐	☐	☐	☐	" " "
Compressed Air	☐	■	☐	☐	☐	☐	" " "
Vacuum System	☐	■	☐	☐	☐	☐	" " "
Breathing Air	☐	■	☐	☐	☐	☐	" " "
Water	☐	■	☐	☐	☐	☐	" " "
Drain	☐	■	☐	☐	☐	☐	" " "
Emergency Shower	☐	■	☐	☐	☐	☐	" " "
Exclusion Fence	■	☐	☐	■	☐	☐	Around 241-C farm
Air Sampling	☐	■	☐	☐	☐	☐	Room survey unavailable



271-C: AQUEOUS MAKEUP AND CONTROL BUILDING

271-C

Aqueous Makeup and Control Building

1.0 LOCATION

200 East Area
N42300 W50300

2.0 REFERENCE DRAWING(s)

H-2-4282

3.0 DESCRIPTION

271-C Aqueous Makeup and Control Building is in good condition and constructed of steel framing on a concrete foundation with metal siding and a steel roof deck. Visual inspection of the building's exterior revealed minor corrosion of the metal.

271-C is located north of 201-C and is in three sections - with the control room in physical contact with the B Cell wall, followed by a three-story section and then a two story section. The building contains 3200 ft^2. Floors are 4-in. thick concrete slabs.

The building is a three-story structure which contains:

- The center section, a three-story section used for aqueous makeup, contains feed tanks, bulk reagent storage tanks, and aqueous makeup tanks. Second and third floor walls contain removable partitions to allow for entry of large equipment. The first floor is 34.3 by 11.3 ft. the second and third floors are 34.4 by 13.3 ft. Each floor has 10-ft ceilings.

- The control room contains the control panels for the process cells. This room is 56.3 by 18 ft.

271-C (Cont'd)

- The chemical storage room is a two-story north section of the building. The upper floor contains the ventilating equipment and measures 23.3 by 11 ft. The first floor contains tanks and chemical storage facilities and measures 34.3 by 11.7 ft.

The building contains 26 tanks, mostly stainless steel, ranging in size from 30 to 800 gal; 13 assorted pumps, a large amount of service, process, and instrument piping, and control panels with instrumentation.

4.0 HISTORY

The 271-C building contained "cold" aqueous solution makeup facilities and the control center for the radioactive process cells in 201-C.

This building is currently unused and considered retired.

5.0 CHARACTERIZATION SUMMARY

5.1 Facility Classification: Unknown

5.2 Fire Fighting Category: Not posted

5.3 Radiological Characteristics

5.3.1 Postings: "Radiation Area/Surface Contamination" (75% of the building's exterior is chained off and posted, also doors leading into "A" and "C" pipeway are posted)

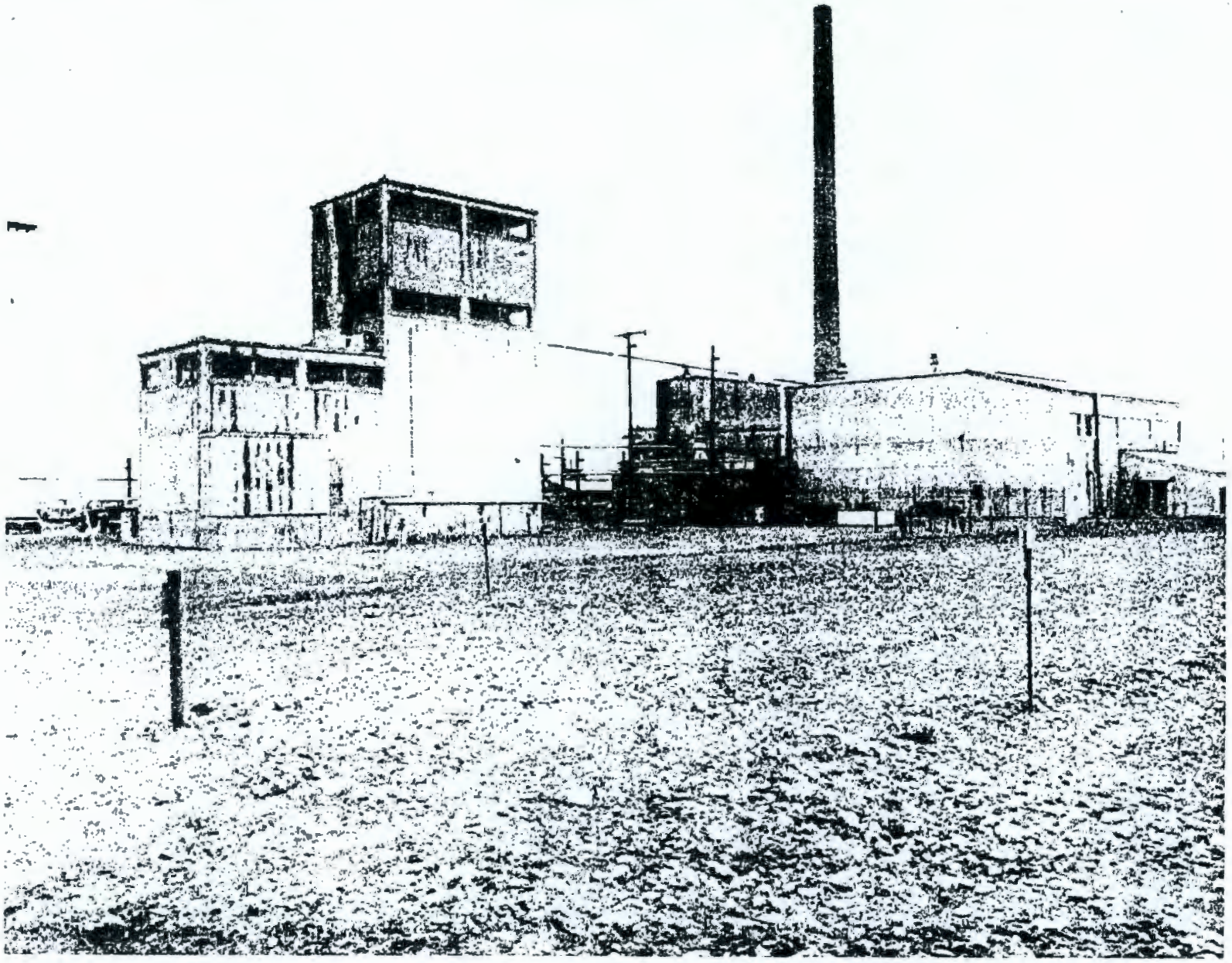
5.3.2 Radionuclide Inventory: 45 curies beta

271-C (Cont'd)

5.4 Utilities and Safety Systems

	Available			Operability			
	Yes	No	Unk	Yes	No	Unk	Comments/Condition/Type
Intrusion Alarm	☐	■	☐	☐	☐	☐	
Heat	■	☐	☐	■	☐	☐	Except 2nd fl. fan room
Ventilation	■	☐	☐	■	☐	☐	" " " " "
Air Conditioning	■	☐	☐	■	☐	☐	" " " " "
Electricity	■	☐	☐	■	☐	☐	" " " " "
Fire Detection	■	☐	☐	☐	■	☐	Except fan rm. & load dock
Fire Suppression	■	☐	☐	☐	■	☐	" " " " "
Compressed Air	■	☐	☐	☐	☐	■	Control rm, main rm, 3rd fl
Vacuum System	■	☐	☐	☐	■	☐	
Breathing Air	☐	■	☐	☐	☐	☐	
Water	■	☐	☐	☐	☐	■	Except loft
Drain	■	☐	☐	☐	☐	■	" "
Emergency Shower	■	☐	☐	☐	☐	■	*
Exclusion Fence	■	☐	☐	■	☐	☐	75%/chain & post
Air Sampling	■	☐	☐	■	☐	☐	Control room

* Sample room & main room, 2nd & 3rd floor



276-C: SOLVENT HANDLING BUILDING

276-C
Solvent Handling Building

1.0 LOCATION

200 East Area
N42300 W50400

2.0 REFERENCE DRAWING(s)

H-2-4220
H-2-4282 Sht. 2

3.0 DESCRIPTION

276-C is a solvent handling building in deteriorated condition. This building is a fireproof structure with steel framework, insulated metal siding, and concrete floors and roof. Overall dimensions are 18 x 49 ft. The east half of the building contains four floor levels extending to 46 ft above grade. The west half rises 24 ft above grade and has 20 ft of head room. A 6 ft wide loading dock runs the full length of the north wall. At the west end of the south side of the structure a 4 x 12 ft lean-to shelter is provided for non-explosion-proof relays and line switches.

Visual inspection of the building's exterior revealed corrosion of the metal and spalling of the concrete. Wooden interior is also deteriorated.

Equipment used for solvent treatment is located in the 49 x 18 x 10 ft first floor; the mezzanine contains the chemical addition weight tanks in a 24 ft 7 in. x 17 ft 11 in. floor area, with 10 ft ceiling; the third floor contains the head tanks for delivering organic feeds, by gravity, to the hot process building. Floors are all 5 in. thick reinforced concrete and roofs are 4 in. thick reinforced concrete slabs. Large equipment entrances are provided at first second, and third floor levels. Floor drains are available on all floors.

276-C (Cont'd)

4.0 HISTORY

276-C contains equipment for the storage and treatment of potentially radioactive process solvent and for storage of aqueous process chemicals.

This building was in service from 1952-1956 for Redox process and from 1960-1967 for Purex process. The first floor is currently used as the rigging loft and is occupied by both personnel and materials. The remaining floors are unused and the building is considered retired.

5.0 CHARACTERIZATION SUMMARY

5.1 Facility Classification: Unknown

5.2 Fire Fighting Category: Not posted

5.3 Radiological Characteristics

5.3.1 Postings: There are no radiological postings on the building's exterior.
"Radiation Zone" (stickers on the filter housing in fan room)
"Radiation" (stickers on sightglass isolation valve on dilutent storage tank on second floor)

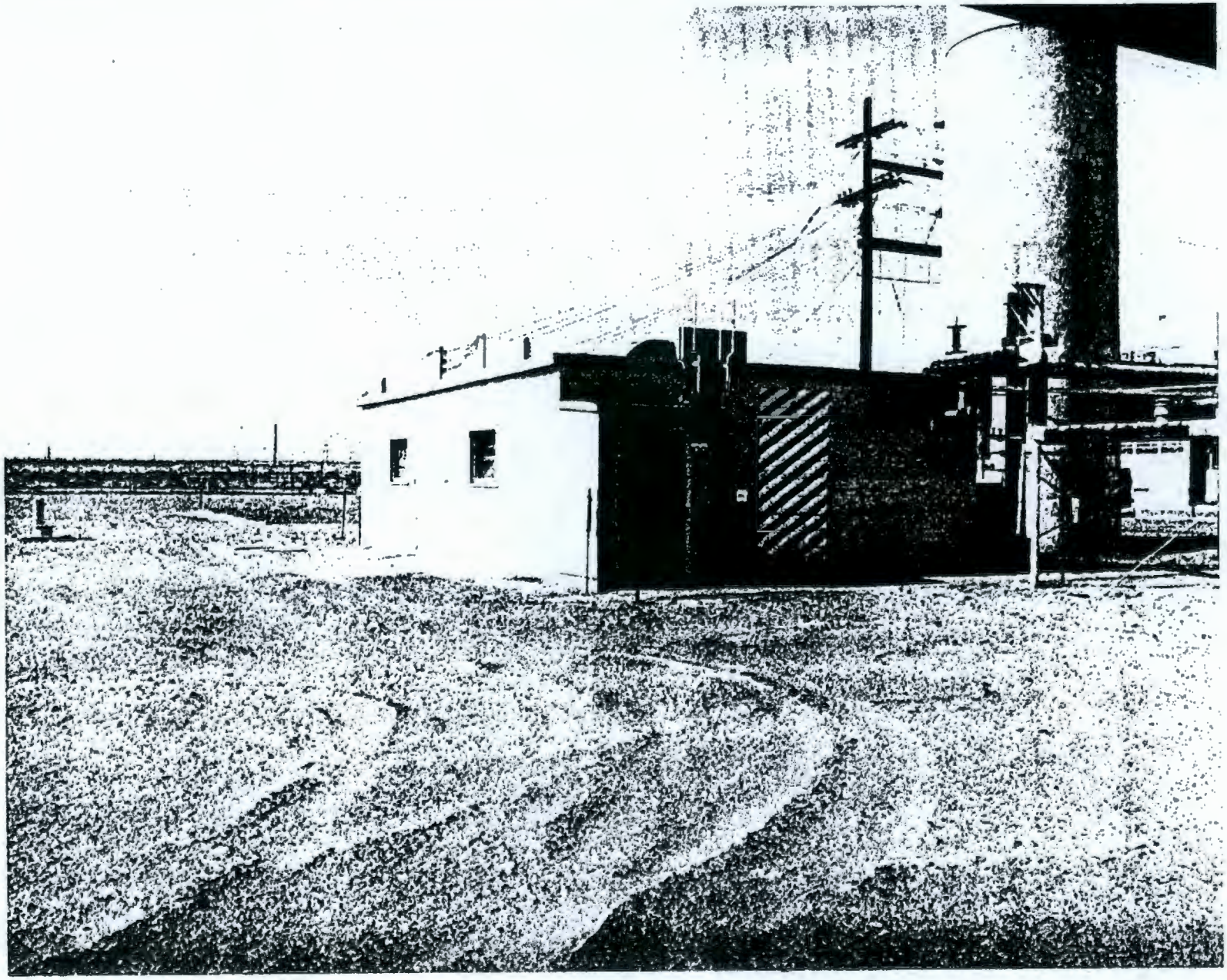
5.3.2 Radionuclide Inventory: 1 curie Pu, 10 curies beta

276-C (Cont'd)

5.4 Utilities and Safety Systems

	Available			Operability			
	Yes	No	Unk	Yes	No	Unk	Comments/Condition/Type
Intrusion Alarm	☐	■	☐	☐	☐	☐	
Heat	■	☐	☐	■	☐	☐	*
Ventilation	■	☐	☐	■	☐	☐	*
Air Conditioning	■	☐	☐	■	☐	☐	*
Electricity	■	☐	☐	■	☐	☐	*
Fire Detection	■	☐	☐	☐	☐	■	*
Fire Suppression	■	☐	☐	☐	☐	■	*
Compressed Air	■	☐	☐	☐	☐	■	Main room 1st fl.
Vacuum System	☐	■	☐	☐	☐	☐	
Breathing Air	☐	■	☐	☐	☐	☐	
Water	■	☐	☐	☐	☐	■	Except compressor room
Drain	■	☐	☐	☐	☐	■	" " "
Emergency Shower	■	☐	☐	☐	■	☐	*
Exclusion Fence	☐	■	☐	☐	☐	☐	
Air Sampling	☐	■	☐	☐	☐	☐	

* Main room 1st fl., 2nd fl., 3rd fl.



291-C, 291-C-1: VENTILATION FILTER, FAN HOUSE, AND STACK

291-C, 291-C-1

Ventilation Filter, Fan House, and Stack

1.0 LOCATION

200 East Area
N42400 W50100

2.0 REFERENCE DRAWING(s)

H-2-4003 Sht. 3 & 4
H-2-4394

3.0 DESCRIPTION

The 291-C complex is made up of an air tunnel from 201-C cells, glass fiber filters, HEPA filters, fan house (291-C) and stack (291-C-1).

The concrete air tunnel has inside dimensions of 44 by 44 in. and is 8 to 10 in. thick. It runs across the north end of A-B-C cells to the glass fiber filters. It is about 200 ft long, with the first 100 ft 20 ft below the grade and second 100 ft 5 ft below grade.

Forty removable aluminum cartridge glass fiber filters (each is 5 by 5 by 4 ft) are contained in an underground concrete cell that is 52 by 27 by 8 ft high. The walls are 8 in. thick, the floor 4 in. thick, and the roof is composed of 26 precast 6 in. thick slabs (two parallel rows of 13), the tops of which are at grade level. An array of 22 HEPA filters (each is 2 by 2 by 1 ft) is contained in a below-grade removable enclosure measuring 13 by 6 by 6½ ft high, the top of which is at grade level.

The fan house is a wood frame building 36 by 21½ by 11 ft high on a 4-in. concrete slab and has an area of 860 ft^2. The building has a flat built-up tar and gravel roof. It contains two 70- and one 30-hp electric fans and one 70-hp

291-C, 291-C-1 (Cont'd)

steam turbine fan for backup. Visual inspection of the buildings exterior revealed slight roof sag and deterioration of the walls. The building is considered to be in fair condition.

The 200-ft high stack is a double-shell structure; the outer shell is made of reinforced concrete and the inner shell is constructed of acid-resisting brick and mortar. Visual inspection of the stack exterior from ground level revealed no deficiencies and the stack is considered to be in good condition.

4.0 HISTORY

The 291-C complex was originally built to provide exhaust air ventilation for operating cells and process vessel vents from 201-C.

This building still serves its original purpose and it is planned to remain in use until 201-C is decommissioned.

5.0 CHARACTERIZATION SUMMARY

5.1 Facility Classification: Unknown

5.2 Fire Fighting Category: Not posted

5.3 Radiological Characteristics

5.3.1 Postings: The building's exterior is not radiologically posted
"Radiation Area/Surface Contamination" (south door fan room, on chain surrounding stack)
"Radiation" or "Radiation Zone" (stickers on contaminated areas in fan room)

5.3.2 Radionuclide Inventory: 100 curies Pu, 600 curies beta.

291-C, 291-C-1 (Cont'd)

5.4 Utilities and Safety Systems

	Available			Operability			
	Yes	No	Unk	Yes	No	Unk	Comments/Condition/Type
Intrusion Alarm	☐	■	☐	☐	☐	☐	
Heat	■	☐	☐	■	☐	☐	Fan Room
Ventilation	■	☐	☐	☐	☐	■	" "
Air Conditioning	■	☐	☐	☐	☐	■	" "
Electricity	■	☐	☐	☐	☐	■	" "
Fire Detection	☐	■	☐	☐	☐	☐	" "
Fire Suppression	☐	■	☐	☐	☐	☐	" "
Compressed Air	■	☐	☐	■	☐	☐	" "
Vacuum System	■	☐	☐	■	☐	☐	" "
Breathing Air	☐	■	☐	☐	☐	☐	" "
Water	■	☐	☐	■	☐	☐	" "
Drain	■	☐	☐	■	☐	☐	" "
Emergency Shower	☐	■	☐	☐	☐	☐	" "
Exclusion Fence	■	☐	☐	■	☐	☐	Around stack
Air Sampling	■	☐	☐	■	☐	☐	E-073 weekly

296-C-2
Stack

1.0 LOCATION

200 East Area
N42300 W50400

2.0 REFERENCE DRAWING(s)

H-2-4415 shts. 1-3

3.0 DESCRIPTION

296-C-2 is a sheet metal stack 2' x 2' x 30' high located on the roof of the annex connecting 271-C and 201-C buildings.

4.0 HISTORY

296-C-2 was originally built to discharge filtered air from A and C sample galleries in the 201-C Building.

This stack is currently blanked off at the end and air from A and C cells is filtered and exhausted by 291-C-1 stack. This stack is considered retired.

5.0 CHARACTERIZATION SUMMARY

5.1 Facility Classification: Unknown

5.2 Fire Fighting Category: N/A

5.3 Radiological Characteristics

5.3.1 Postings: Stack is located within a "surface contamination" posted area.

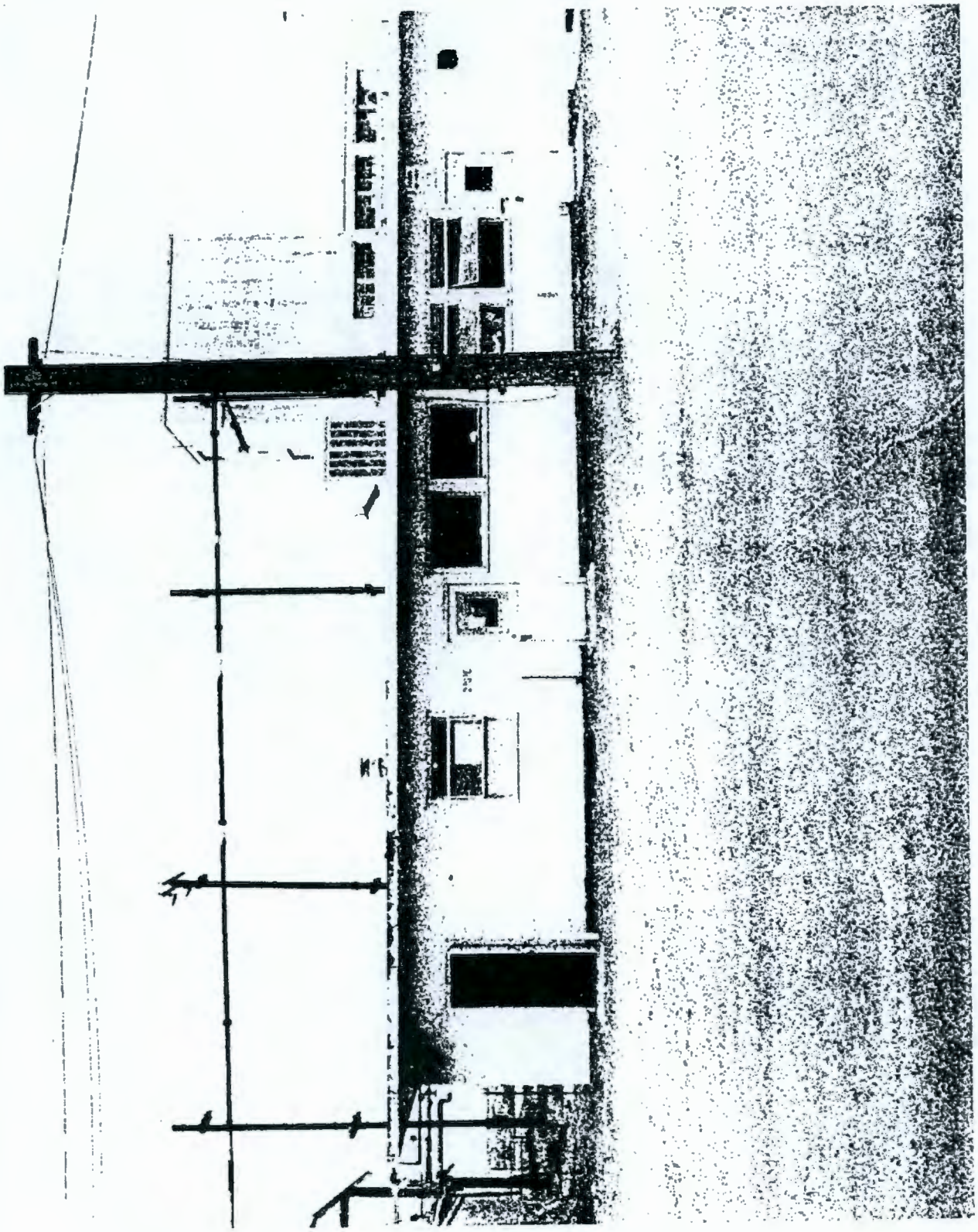
5.3.2 Radionuclide Inventory: 4.4 curies beta

296-C-2 (Cont'd)

5.4 Utilities and Safety Systems

	Available			Operability			
	Yes	No	Unk	Yes	No	Unk	Comments/Condition/Type
Intrusion Alarm	☐	■	☐	☐	☐	☐	N/A
Heat	☐	■	☐	☐	☐	☐	N/A
Ventilation	☐	■	☐	☐	☐	☐	N/A
Air Conditioning	☐	■	☐	☐	☐	☐	N/A
Electricity	☐	■	☐	☐	☐	☐	N/A
Fire Detection	☐	■	☐	☐	☐	☐	N/A
Fire Suppression	☐	■	☐	☐	☐	☐	N/A
Compressed Air	☐	■	☐	☐	☐	☐	
Vacuum System	■	☐	☐	☐	☐	■	
Breathing Air	☐	■	☐	☐	☐	☐	N/A
Water	☐	■	☐	☐	☐	☐	N/A
Drain	☐	■	☐	☐	☐	☐	N/A
Emergency Shower	☐	■	☐	☐	☐	☐	N/A
Exclusion Fence	■	☐	☐	■	☐	☐	*
Air Sampling	■	☐	☐	☐	☐	■	

* Building it is on is in "Surface Contamination" posted area



2707-C: CHANGE HOUSE

2707-C

Storage & Change House

1.0 LOCATION

200 East Area
N42400 W50400

2.0 REFERENCE DRAWING(s)

H-2-4003 Sht. 2

3.0 DESCRIPTION

2707-C is a single story wood frame building in deteriorated condition. Visual inspection of the building's exterior revealed the roof was deteriorating and the shingles on the walls were cracked. Substantial roof loads could lead to collapse.

The building is 60 x 24 with an area of 1440 ft^2. The asbestos shingle walls are insulated with 1 in. blanket-type insulation and the ceiling is 1/4 in. plywood. The flat tar and gravel roof is insulated with 2 in. of blanket-type insulation and the ceiling is 1/2 in. plasterboard. The building is divided into five rooms.

4.0 HISTORY

2707-C was built to provided maintenance shop, instrument shop, hot and cold locker rooms, and toilet and shower room for Hot Semiworks facility.

This building is currently used as a lunch room and change room for the East Area Riggers. The building's interior has been modified to meet the riggers needs including office space and a decontamination room.

This building is considered retired.

2707-C (Cont'd)

5.0 CHARACTERIZATION SUMMARY

5.1 Facility Classification: Unknown

5.2 Fire Fighting Category: Not posted

5.3 Radiological Characteristics

5.3.1 Postings: The building is not radiologically posted

5.3.2 Radionuclide Inventory: .2 curies beta

5.4 Utilities and Safety Systems

	Available			Operability			
	Yes	No	Unk	Yes	No	Unk	Comments/Condition/Type
Intrusion Alarm	☐	■	☐	☐	☐	☐	
Heat	■	☐	☐	■	☐	☐	
Ventilation	■	☐	☐	■	☐	☐	
Air Conditioning	■	☐	☐	■	☐	☐	
Electricity	■	☐	☐	■	☐	☐	
Fire Detection	☐	■	☐	☐	☐	☐	
Fire Suppression	☐	■	☐	☐	☐	☐	
Compressed Air	☐	■	☐	☐	☐	☐	
Vacuum System	☐	■	☐	☐	☐	☐	
Breathing Air	☐	■	☐	☐	☐	☐	
Water	■	☐	☐	■	☐	☐	Except office
Drain	■	☐	☐	■	☐	☐	" "
Emergency Shower	☐	■	☐	☐	☐	☐	
Exclusion Fence	☐	■	☐	☐	☐	☐	
Air Sampling	☐	■	☐	☐	☐	☐	

241-CX-70: TANK

241-CX-70
Tank

1.0 LOCATION

200 East Area
N42100 W50200

2.0 REFERENCE DRAWING(s)

H-2-4319

3.0 DESCRIPTION

241-CX-70 is a concrete high-level process waste storage tank with a 1" thick stainless steel plate liner. The tank is located 11' below grade. Inside dimensions are 20' in diameter by 15' high. Tank sides and top are 1' thick concrete, with the tank bottom thickness varying from 2' at the edges to 9" at the center. Several risers and vent are visable above grade.

4.0 HISTORY

241-CX-70 tank was built to store high level process waste in support of the Hot Semiworks process. This tank currently contains some contaminated sludge and liquid but is not in active use and is considered retired.

5.0 CHARACTERIZATION SUMMARY

5.1 Facility Classification: Isolated

5.2 Fire Fighting Category: N/A

5.3 Radiological Characteristics

5.3.1 Postings: "Radiation Area/Surface Contamination" (posted on chain and post)

241-CX-70 (Cont'd)

5.3.2 Radionuclide Inventory: 3 curies Pu, 6,000 curies beta

5.4 Utilities and Safety Systems

	Available			Operability			
	Yes	No	Unk	Yes	No	Unk	Comments/Condition/Type
Intrusion Alarm	☐	■	☐	☐	☐	☐	N/A
Heat	☐	■	☐	☐	☐	☐	N/A
Ventilation	☐	■	☐	☐	☐	☐	N/A
Air Conditioning	☐	■	☐	☐	☐	☐	N/A
Electricity	☐	■	☐	☐	☐	☐	N/A
Fire Detection	☐	■	☐	☐	☐	☐	N/A
Fire Suppression	☐	■	☐	☐	☐	☐	N/A
Compressed Air	☐	■	☐	☐	☐	☐	N/A
Vacuum System	☐	■	☐	☐	☐	☐	N/A
Breathing Air	☐	■	☐	☐	☐	☐	N/A
Water	☐	■	☐	☐	☐	☐	N/A
Drain	☐	■	☐	☐	☐	☐	N/A
Emergency Shower	☐	■	☐	☐	☐	☐	N/A
Exclusion Fence	■	☐	☐	■	☐	☐	Chain & post
Air Sampling	☐	■	☐	☐	☐	☐	N/A

241-CX-71: TANK

241-CX-71
Tank

1.0 LOCATION

200 East Area
N42200 W50300

2.0 REFERENCE DRAWING(s)

H-2-4420

3.0 DESCRIPTION

241-CX-71 is a stainless steel, underground, neutralization tank. It is 9' in diameter and 9' high. There is a gooseneck vent riser visable above grade.

4.0 HISTORY

241-CX-71 tank was used to neutralize waste from 201-C and the hot shop sink before routing to 216-C-1 crib. This tank is not currently in use and is considered retired.

5.0 CHARACTERIZATION SUMMARY

5.1 Facility Classification: isolated

5.2 Fire Fighting Category: N/A

5.3 Radiological Characterization

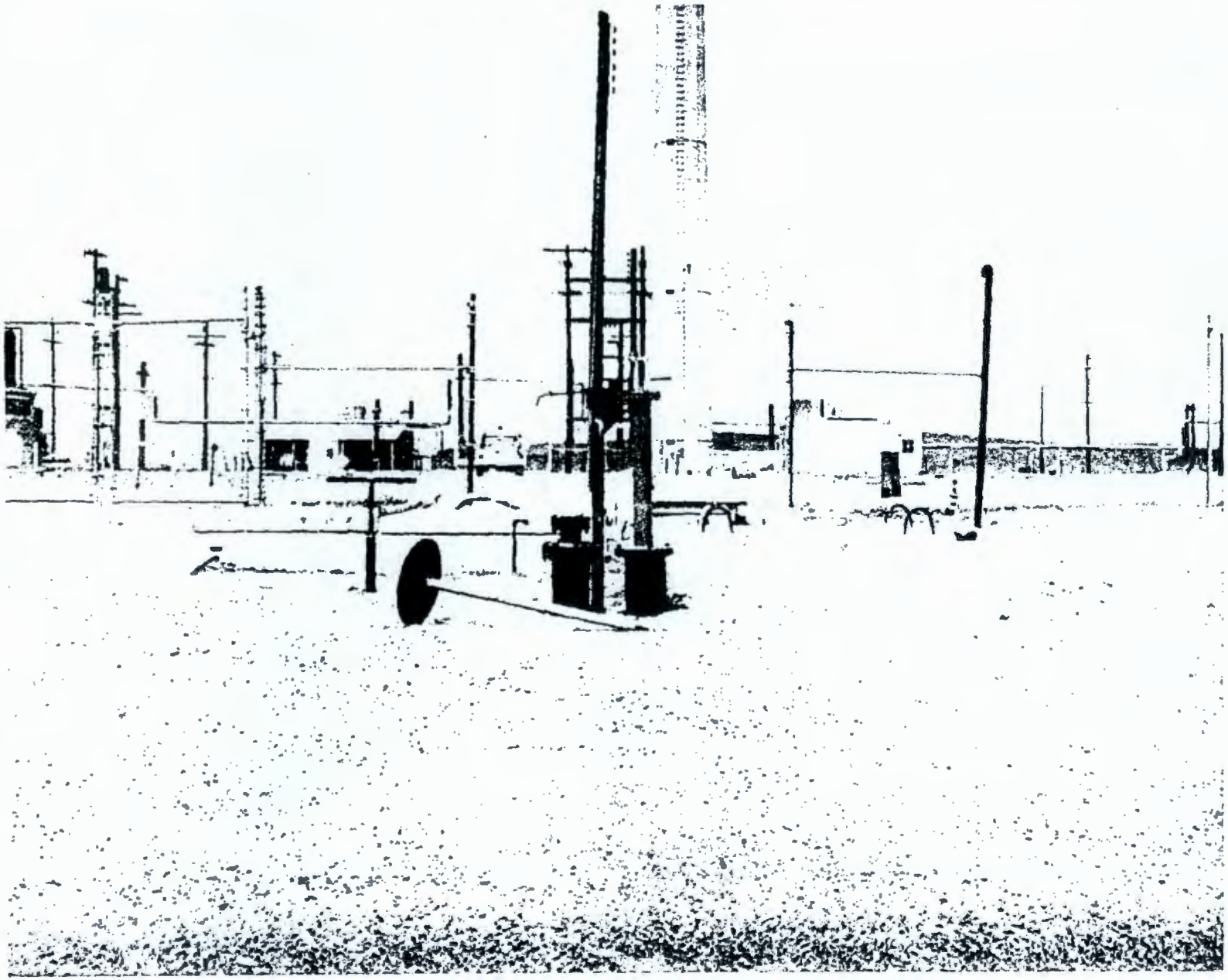
5.3.1 Postings: "Radiation Area/Surface Contamination" (posted on chain and post)

5.3.2 Radionuclide Inventory: 6 curies Pu, 6,000 curies beta

241-CX-71 (Cont'd)

5.4 Utilities and Safety Systems

	Available			Operability			
	Yes	No	Unk	Yes	No	Unk	Comments/Condition/Type
Intrusion Alarm	☐	■	☐	☐	☐	☐	N/A
Heat	☐	■	☐	☐	☐	☐	N/A
Ventilation	☐	■	☐	☐	☐	☐	N/A
Air Conditioning	☐	■	☐	☐	☐	☐	N/A
Electricity	☐	■	☐	☐	☐	☐	N/A
Fire Detection	☐	■	☐	☐	☐	☐	N/A
Fire Suppression	☐	■	☐	☐	☐	☐	N/A
Compressed Air	☐	■	☐	☐	☐	☐	N/A
Vacuum System	☐	■	☐	☐	☐	☐	N/A
Breathing Air	☐	■	☐	☐	☐	☐	N/A
Water	☐	■	☐	☐	☐	☐	N/A
Drain	☐	■	☐	☐	☐	☐	N/A
Emergency Shower	☐	■	☐	☐	☐	☐	N/A
Exclusion Fence	■	☐	☐	■	☐	☐	Chain & post
Air Sampling	☐	■	☐	☐	☐	☐	N/A



241-CX-72: TANK

241-CX-72
Tank

1.0 LOCATION

200 East Area
N41900 W50100

2.0 REFERENCE DRAWING(s)

H-2-4422

3.0 DESCRIPTION

241-CX-72 tank, caisson, and vault make up the Hot Semiworks Waste Self Concentrator facility (the associated control building has been removed).

The 241-CX-72 tank is set inside a caisson which is a carbon steel cylinder 6'1" in diameter and 36'6" in length, buried upright approximately 14' below grade. The tank is approximately 4' in diameter and 35'8" in length and is an agitator tank. Several risers extend from the top of the tank, and are visable above grade.

The 241-CX vault is located below grade next to tank 72. The vault is constructed of reinforced concrete and is divided into two major sections; the instrument section, and the mechanical section, with a smaller sample pit section on the north side. Exterior walls and floor are 1' thick concrete with a 2'6" thick dividing wall. Inside dimensions of the instrument section are 5'6" x 8' x 10'2" deep. Inside dimensions of the mechanical section are 5'6" x 8' x 6'8" deep. There are two pit covers visable above grade with concrete and metal cover blocks and lids respectively.

4.0 HISTORY

The 241-CX-72 waste self concentrator was an experimental project operated in the 1950's by Hanford Labs. It was used for Purex waste, which was then piped to 241-C tank farm. It has not been used since, and is considered retired.

241-CX-72 (Cont'd)

5.0 CHARACTERIZATION SUMMARY

5.1 Facility Classification: Isolated

5.2 Fire Fighting Category: N/A

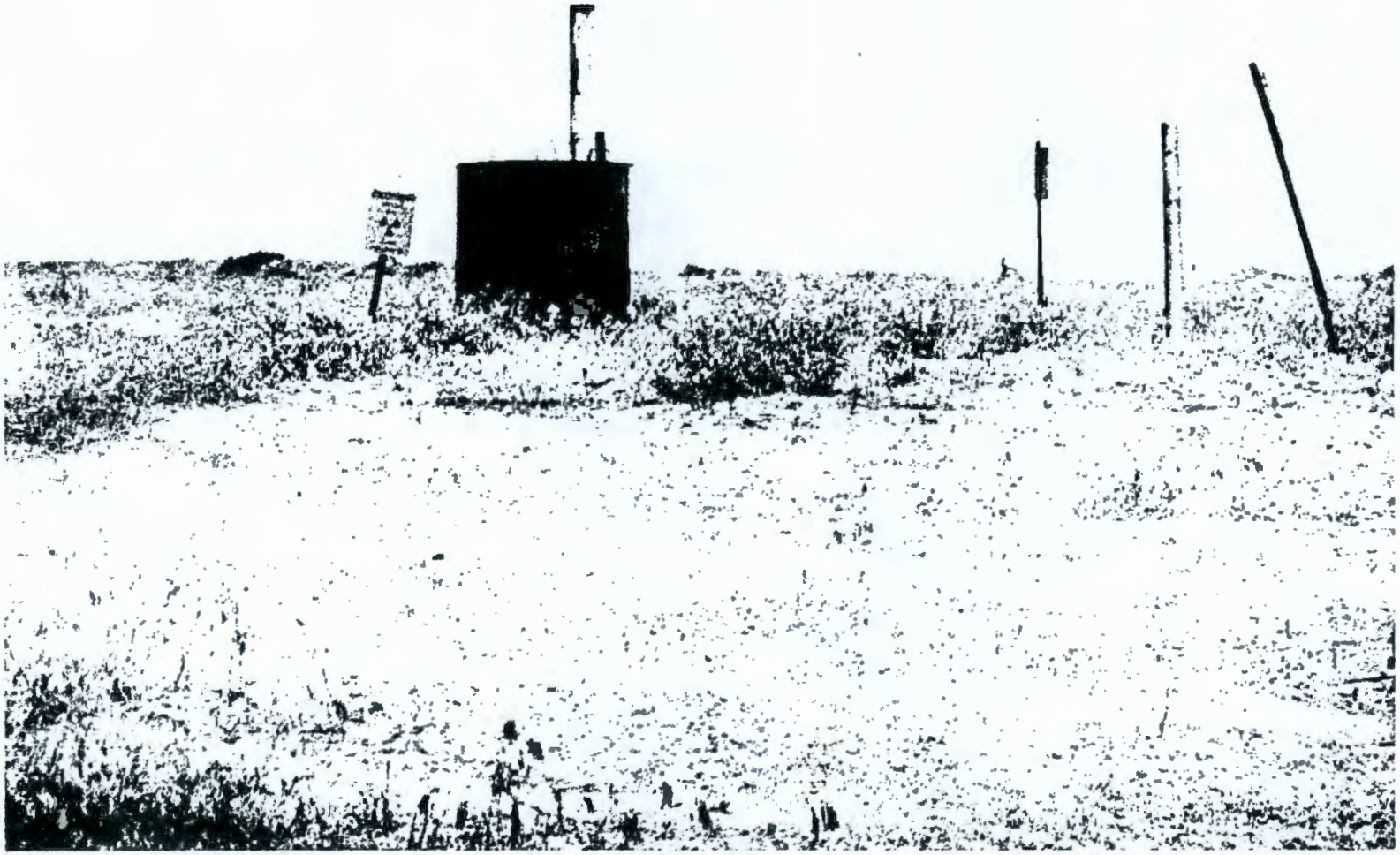
5.3 Radiological Characteristics

5.3.1 Postings: "Radiation Area/Surface Contamination (posted on exclusion fence)

5.3.2 Radionuclide Inventory: 3 curies Pu, 6,000 curies beta

5.4 Utilities and Safety Systems

	Available			Operability			
	Yes	No	Unk	Yes	No	Unk	Comments/Condition/Type
Intrusion Alarm	☐	■	☐	☐	☐	☐	
Heat	☐	■	☐	☐	☐	☐	N/A
Ventilation	☐	■	☐	☐	☐	☐	N/A
Air Conditioning	☐	■	☐	☐	☐	☐	N/A
Electricity	☐	■	☐	☐	☐	☐	N/A
Fire Detection	☐	■	☐	☐	☐	☐	N/A
Fire Suppression	☐	■	☐	☐	☐	☐	N/A
Compressed Air	☐	■	☐	☐	☐	☐	N/A
Vacuum System	☐	■	☐	☐	☐	☐	N/A
Breathing Air	☐	■	☐	☐	☐	☐	N/A
Water	☐	■	☐	☐	☐	☐	N/A
Drain	☐	■	☐	☐	☐	☐	N/A
Emergency Shower	☐	■	☐	☐	☐	☐	N/A
Exclusion Fence	■	☐	☐	■	☐	☐	Chain link w/one opening
Air Sampling	☐	■	☐	☐	☐	☐	



270-E: CONDENSATE NEUTRALIZATION TANK

270-E

Condensate Neutralization Tank

1.0 LOCATION

200 East Area
N42500 W54700

2.0 REFERENCE DRAWING(s)

H-2-43118

3.0 DESCRIPTION

270-E Condensate Neutralization Tank is 9' in diameter, 9' high, and is located 10' below grade. It is constructed of stainless steel and has a 41-1/2" diameter charging riser extending from the top of the tank 13-1/2 ft, with 3-1/2 ft visable above grade. There is also a 6" diameter sample riser which extends 7" above grade.

4.0 HISTORY

The 270-E tank was constructed in 1952 to handle process condensate from B Plant. The tank was built in association with a chemical storage facility which has since been removed. The tank is currently unused and considered retired.

5.0 CHARACTERIZATION SUMMARY

5.1 Facility Classification: Unknown

5.2 Fire Fighting Category: N/A

5.3 Radiological Characteristics

5.3.1 Postings: "Radiation Area/Surface Contamination" (chain and post around risers)

270-E (Cont'd)

5.3.2 Radionuclide Inventory: 20 curies beta

5.4 Utilities and Safety Systems

	Available			Operability			
	Yes	No	Unk	Yes	No	Unk	Comments/Condition/Type
Intrusion Alarm	☐	■	☐	☐	☐	☐	N/A
Heat	☐	■	☐	☐	☐	☐	N/A
Ventilation	☐	■	☐	☐	☐	☐	N/A
Air Conditioning	☐	■	☐	☐	☐	☐	N/A
Electricity	☐	■	☐	☐	☐	☐	N/A
Fire Detection	☐	■	☐	☐	☐	☐	N/A
Fire Suppression	☐	■	☐	☐	☐	☐	N/A
Compressed Air	☐	■	☐	☐	☐	☐	N/A
Vacuum System	☐	■	☐	☐	☐	☐	N/A
Breathing Air	☐	■	☐	☐	☐	☐	N/A
Water	☐	■	☐	☐	☐	☐	N/A
Drain	☐	■	☐	☐	☐	☐	N/A
Emergency Shower	☐	■	☐	☐	☐	☐	N/A
Exclusion Fence	■	☐	☐	■	☐	☐	
Air Sampling	☐	■	☐	☐	☐	☐	

213-J, 213-K: MAGAZINE WASTE STORAGE CAVERN

213-J, 213-K
Magazine Waste Storage Cavern

1.0 LOCATION

213 Area (Gable Mountain)
N5500 W3500

2.0 REFERENCE DRAWING(s)

W-35000

3.0 DESCRIPTION

213-J and 213-K are identical concrete storage vaults, located side by side, 50' apart, and sharing a common retaining wall. Each vault is 40'6" deep (horizontally into the mountain), 12' wide, and 8' high lined on each side with shelves (50 lbs. per ft^2 capacity).

Visual inspection of each buildings' exterior revealed minor cracks and spalling in the concrete.

There are two metal access doors, and a loading dock for each vault. In between the docks is a wooden building housing ventilation equipment. Several vent risers are visable above grade over each vault.

4.0 HISTORY

213-J and 213-K were originally constructed in 1944 for storage of explosives. Currently 213-J contains soil samples belonging to PNL, which are part of an active analytical program. 213-K vault currently stores slightly radioactively contaminated sodium for HEDL.

Both storage situations are short term and this facility is considered retired.

213-J, 213-K (Cont'd)

5.0 CHARACTERIZATION SUMMARY

5.1 Facility Classification: Exempt

5.2 Fire Fighting Category: Not posted

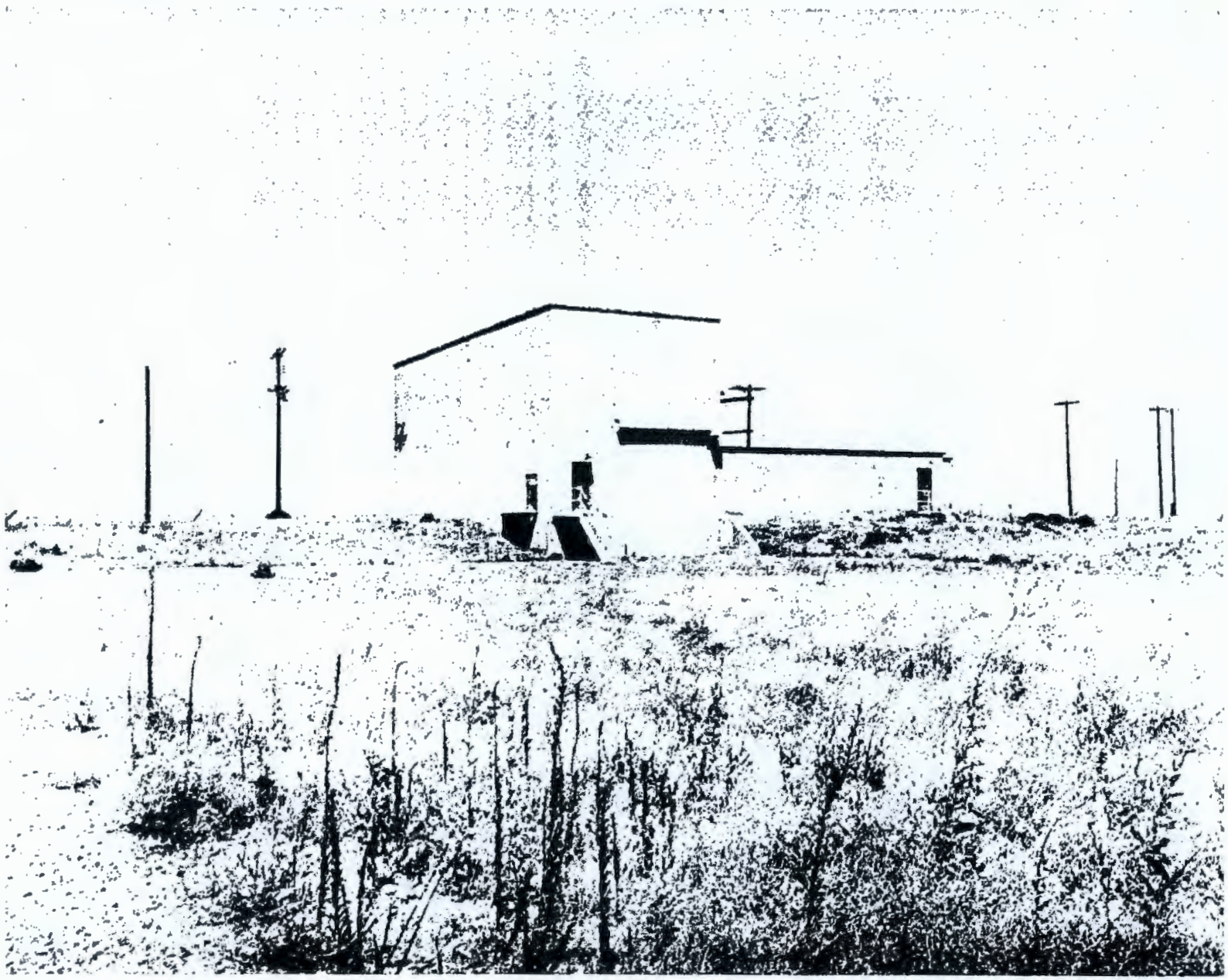
5.3 Radiological Characteristics

5.3.1 Postings: "Radiation Area/Surface Contamination" (posted on each entrance door)

5.3.2 Radionuclide Inventory: 213-J 1 curie Pu, 40 curies beta
213-K 1 curie Pu, 20 curies beta

5.4 Utilities and Safety Systems

	Available			Operability			Comments/Condition/Type
	Yes	No	Unk	Yes	No	Unk	
Intrusion Alarm	☐	☐	■	☐	☐	☐	
Heat	☐	☐	■	☐	☐	☐	
Ventilation	☐	■	☐	☐	☐	☐	Room survey unavailable
Air Conditioning	☐	■	☐	☐	☐	☐	" " "
Electricity	☐	■	☐	☐	☐	☐	" " "
Fire Detection	☐	■	☐	☐	☐	☐	" " "
Fire Suppression	☐	■	☐	☐	☐	☐	" " "
Compressed Air	☐	■	☐	☐	☐	☐	" " "
Vacuum System	☐	■	☐	☐	☐	☐	" " "
Breathing Air	☐	■	☐	☐	☐	☐	" " "
Water	☐	■	☐	☐	☐	☐	" " "
Drain	☐	■	☐	☐	☐	☐	" " "
Emergency Shower	☐	■	☐	☐	☐	☐	" " "
Exclusion Fence	■	☐	☐	■	☐	☐	
Air Sampling	☐	■	☐	☐	☐	☐	Room survey unavailable



212-N, 212-P, 212-R: STORAGE BUILDINGS

212-N, 212-P, 212-R
Storage Buildings

1.0 LOCATIONS

200 North Area

212-N - N55300 W65700
212-P - N55300 W63000
212-R - N55300 W60400

2.0 REFERENCE DRAWING(s)

W71674
W71323

3.0 DESCRIPTION

212-N, P, and R are identical storage structures. Each building is composed of two main sections and a heater room. Each of these sections has a concrete slab and roof and walls constructed of concrete and concrete block. There are no windows.

The high roof, or transfer section, has an opening 15 x 18 foot high for the railroad into the building. The rail into the building penetrates 54 feet. The original 30 ton crane and associated motors, brake, etc., have been removed but the crane rail is in place and centered over the railroad unloading area. The interior height at the unoading area is 35 feet from the top of the railroad rails to the ceiling. Height from the top of the rails to the top of the crane rail is 27 feet. At the rear of the railroad cut are two transfer pits approximately 30 feet deep. There are walkways on each side of this unloading area resembling inside docks. The main walkway is 12 x 74 feet and the walkway on the other side is 5 x 74 feet. The height from the walkways to the ceiling is 28 feet.

212-N, 212-P, 212-R (Cont'd)

The low roof section of the building is 12 feet high above grade and extends 18 feet below grade. It has a 2 inch wood plank floor, level with the walkways in the high roof section. This floor is 20 feet above the floor of the storage basin, and 8 feet from the ceiling. This plank floor is supported by concrete piers 20 feet high.

Adjacent to the low roof section and centered in relation to it, is a space 14 x 26 feet with an 8 foot ceiling. This space at one time housed the fan, heaters, and controls for preventing freeze-up of the water in the basin. Most of the equipment has been removed.

Exterior dimensions of the high roof section are 27 feet by 74 feet by 30 feet high. The low roof section is 49 feet by 72 feet by 12 feet high. The heater room is 14 feet by 26 feet by 12 feet high. Total area is 5970 square feet. The storage basin is 3,300 square feet and the transfer basin is 400 square feet.

Visual inspection of each buildings' exterior revealed 212-N to be in good condition, 212-P is also in good condition with minor cracks in the wall, and 212-R is in fair condition with cracks in the concrete.

4.0 HISTORY

212-N, P, and R were originally built in 1945 to provide underwater storage of irradiated slugs from 100 areas. Slugs were stored in the 20 ft deep reinforced concrete basins, filled with water.

212-N is currently being used by PNL for storage of fifteen large wooden boxes containing contaminated hoods and associated fuel fabrication equipment.

212-P is currently being used by the Utilities & Telecommunications Group to store non-contaminated electrical equipment.

DON'T SAY IT --- Write It!

TO U. Beaver

FROM D Hoge

DATE 3/13/2000

Please Scan the attached SD. It was just cleared for Public. Please Return to me.

SD-DD-FL-001

Thanks,
Dg.

78-81

Where are Pages 79/80?

"TO MAKE LIFE LAST, PUT SAFETY FIRST"

212-N, 212-P, 212-R (Cont'd)

212-R is not currently being used but is being held in laid-away status, meaning that the building could be reactivated for its original purpose within a period of less than 6 months.

5.0 CHARACTERIZATION SUMMARY

5.1 Facility Classification: Exempt

5.2 Fire Fighting Category: Not posted

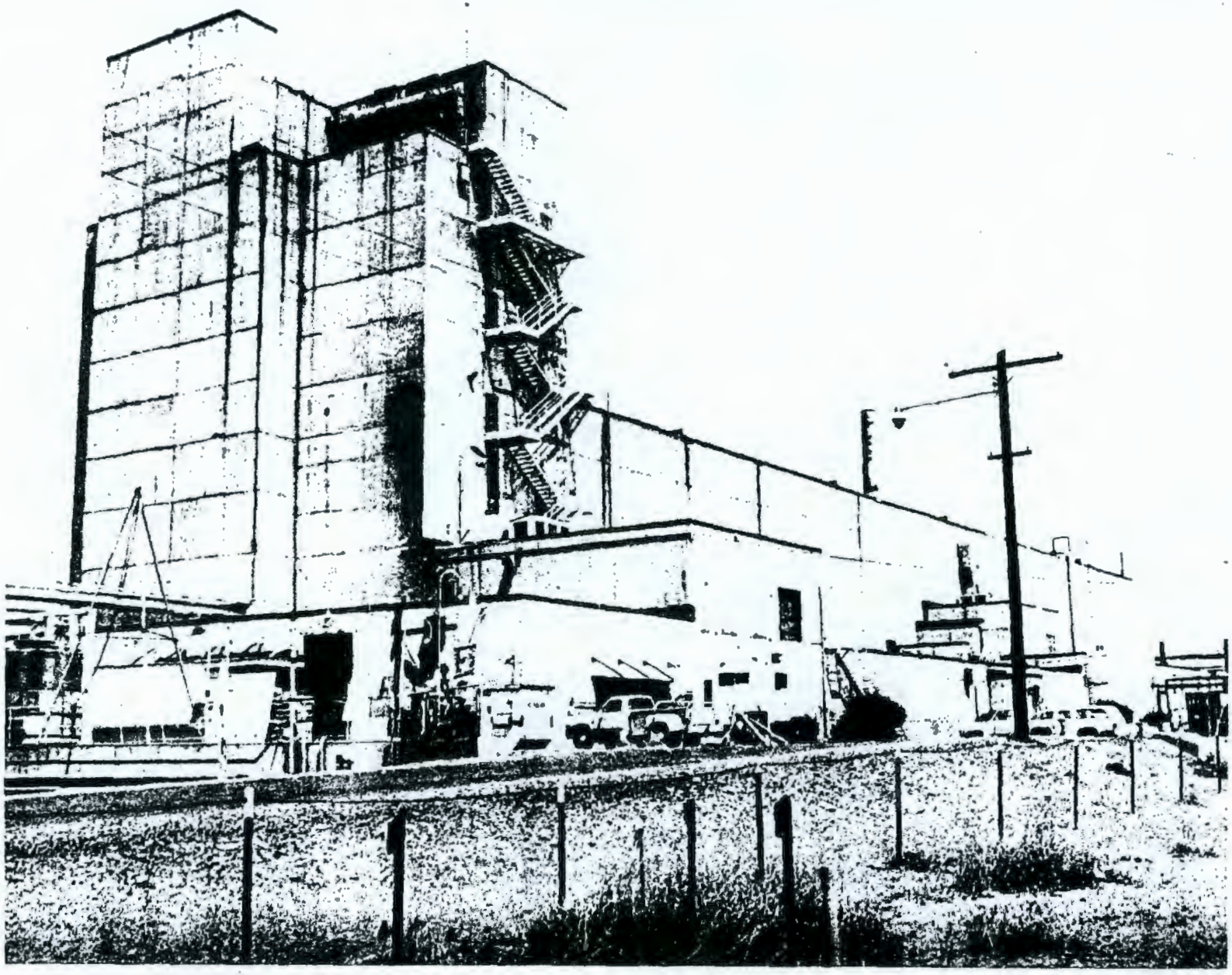
5.3 Radiological Characteristics

5.3.1 Postings: "Radiation Area/Surface Contamination" (on all doors of 212-N and 212-R except roll-up railroad tunnel doors)

5.3.2 Radionuclide Inventory: 212-N 20 curies Pu, 60 curies beta
212-P 300 curies beta
212-R 300 curies beta

5.4 Utilities and Safety Systems

	Available			Operability			
	Yes	No	Unk	Yes	No	Unk	Comments/Condition/Type
Intrusion Alarm	☐	☐	■	☐	☐	☐	
Heat	☐	■	☐	☐	☐	☐	Room survey unavailable
Ventilation	☐	■	☐	☐	☐	☐	" " "
Air Conditioning	☐	■	☐	☐	☐	☐	" " "
Electricity	■	☐	☐	☐	☐	■	
Fire Detection	☐	■	☐	☐	☐	☐	Room survey unavailable
Fire Suppression	☐	■	☐	☐	☐	☐	" " "
Compressed Air	☐	■	☐	☐	☐	☐	" " "
Vacuum System	☐	■	☐	☐	☐	☐	" " "
Breathing Air	☐	■	☐	☐	☐	☐	" " "
Water	☐	■	☐	☐	☐	☐	" " "
Drain	☐	■	☐	☐	☐	☐	" " "
Emergency Shower	☐	■	☐	☐	☐	☐	" " "
Exclusion Fence	☐	■	☐	☐	☐	☐	
Air Sampling	☐	☐	■	☐	☐	☐	Room survey unavailable



202-S: REDOX AND CANYON BUILDING

202-S

Redox and Canyon Building

1.0 LOCATION

200 West Area
N35500 W74000

2.0 REFERENCE DRAWING(s)

H-2-7419
H-2-7420

3.0 DESCRIPTION

Redox processing building is 467 ft 6 in x 161 ft and in good condition. From a process view point, the building is divided into a canyon and a silo area. The canyon is 82 ft 9 in. (60 ft above grade) and consists of nine process cells arranged in two parallel rows running east-west, separated by a pipe tunnel. Five-foot thick concrete shielding walls are located on the north and south faces. One an one half foot concrete walls separate the cells from the pipe gallery. Process cells are separated by 4 ft 6 in. concrete walls.

The silo, located on the west end of the building is 83 ft 6 in. x 41 ft x 131 ft 10 in. high and contains a process area and an operating area. The column shaft is 11 ft 6 in. x 69 ft x 85 ft 9 in. high. The east, west, and south walls are 3 ft 6 in. concrete, the north wall is 1 ft 6 in. There are eight levels in the operating area of the silo. The first five levels are used for chemical make-up; the sixth level is occupied by the silo crane. The seventh level consists of the operating gallery (floor area 2133 ft^2) and the silo sample gallery (floor area 880 ft^2). The eighth level of 1874 ft^2 is an equipment area.

The building galleries consist of:

South Gallery, 12 ft 8 in. wide; floor area, 4000 ft^2.

202-S (Cont'd)

North Operating Gallery 18 ft wide; floor area, 5600 ft^2.
Pipe Gallery, 18 ft; floor area, 5600 ft^2.
Sample Gallery, 19 ft 4 in. wide; floor area, 6000 ft^2.

The South Service Area of the building houses offices, lunch room, conference room, men's locker room, women's lounge, survey room, instrument shop, process blower room, compressor room, and switchgear room. Total area is 107,312 ft^2. There are two 13.8 KVA feeder links; 12 in. raw water, and 12 in. sanitary water lines.

Visual inspection of the building's exterior revealed corrosion and minor spalling of the walls just below the roof.

4.0 HISTORY

202-S was in service from 1952 to 1967. This building contains all of the equipment for the dissolution, separation, and decontamination of uranium and plutonium, as well as the equipment for waste concentration, waste neutralization, and solvent recovery.

Currently the facility is considered retired, but is being used for offices, warehouses, and shops. Also, AMU is used for ongoing experiments and testing.

5.0 CHARACTERIZATION SUMMARY

5.1 Facility Classification: Limited control

5.2 Fire Fighting Category: Not posted

5.3 Radiological Characteristics

5.3.1 Postings: "Radiation Area/Surface Contamination" (decon room, SWP lobby, RR tunnel, canyon, and N & S sample galleries)
"On Mask" (on doors to north and south sample galleries)

202-S (Cont'd)

"Radiation Area" (cable room, N & S operating gallery, pipe gallery, canyon, blower room #2, blower room #1, blower room #3, N & S sample gallery and storage gallery)

"High Radiation Area" (RR tunnel, canyon, N & S sample gallery)

"Radiation Area/Airborne Radioactivity" (RR tunnel, canyon, N & S sample gallery)

5.3.2 Radionuclide Inventory: 1500 curies Pu, 9000 curies beta

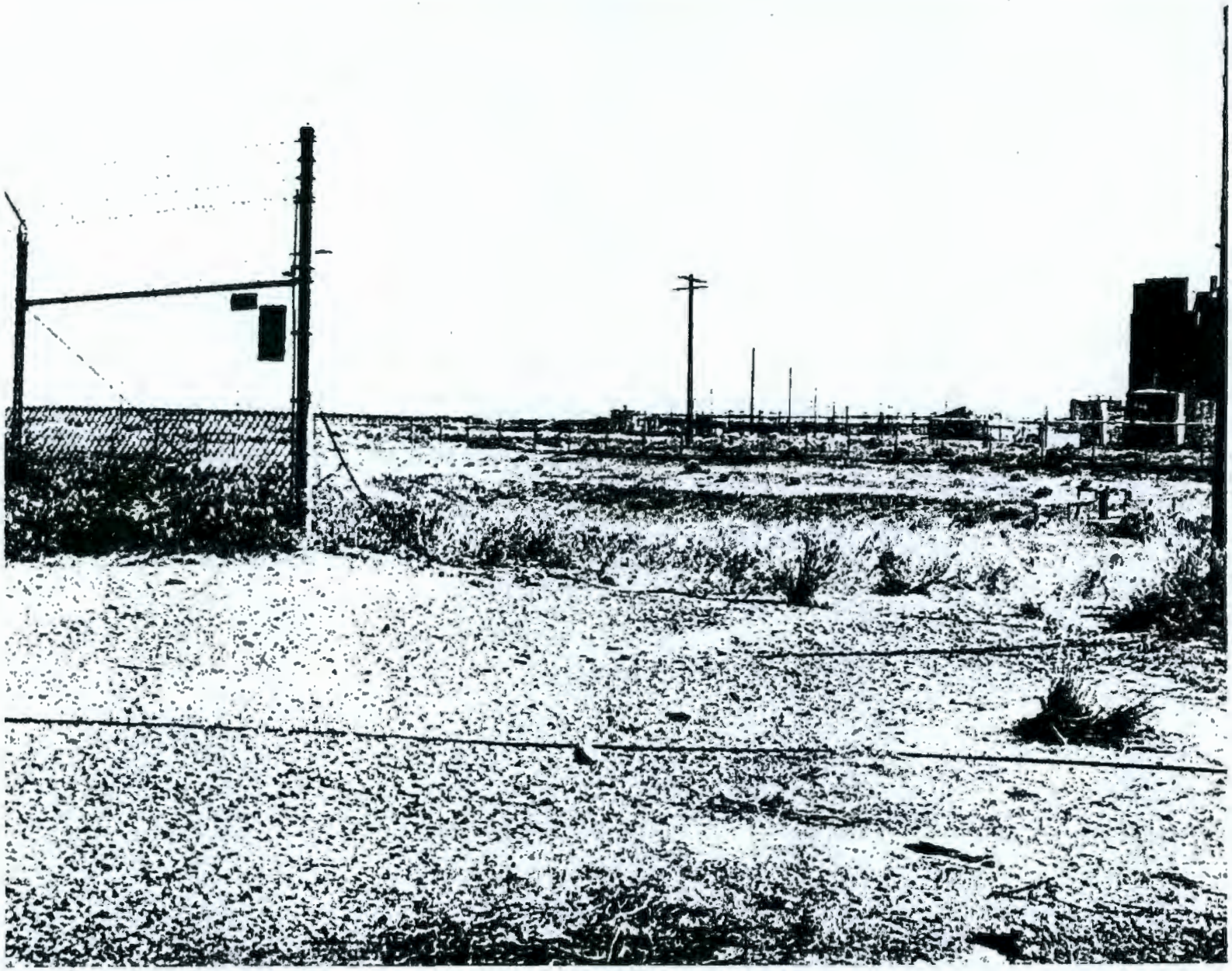
5.4 Utilities and Safety Systems

	Available			Operability			
	Yes	No	Unk	Yes	No	Unk	Comments/Condition/Type
Intrusion Alarm	☐	■	☐	☐	☐	☐	
Heat	■	☐	☐	■	☐	☐	
Ventilation	■	☐	☐	■	☐	☐	
Air Conditioning	■	☐	☐	■	☐	☐	
Electricity	■	☐	☐	■	☐	☐	Except N&S Sample Gallery
Fire Detection	☐	☐	■	☐	☐	☐	
Fire Suppression	■	☐	☐	■	☐	☐	*
Compressed Air	■	☐	☐	☐	☐	■	
Vacuum System	■	☐	☐	■	☐	☐	**
Breathing Air	☐	■	☐	☐	☐	☐	***
Water	■	☐	☐	■	☐	☐	***
Drain	■	☐	☐	■	☐	☐	
Emergency Shower	■	☐	☐	■	☐	☐	Pipe Gallery, AMU
Exclusion Fence	☐	■	☐	☐	☐	☐	
Air Sampling	■	☐	☐	■	☐	☐	In 202-S for N & S sample galleries

* 65 extinguishers throughout building - fire box at front door

**N & S Operating Gallery, Pipe Gallery, N & S Sample Gallery

***N & S Operating Gallery, Pipe Gallery, Blower Room 1, 2, & 3, N & S Sample Gallery, and Storage Gallery



207-S: WATER RETENTION BASIN

207-S

Water Retention Basin

1.0 LOCATION

200 West Area
N34200 W75200

2.0 REFERENCE DRAWING(s)

H-2-5326

3.0 DESCRIPTION

207-S retention basin is an open concrete structure 30'x 30'x 9'6" deep with 8" above grade, 853,000-gal. capacity. Walls are approximately 10" thick, and floor is approximately 8" thick.

The system includes a 24" diameter vitrified clay inlet pipe (with overflow tank) at the north end of the basin, and a 24" diameter vitrified clay outlet pipe (including outlet valve pit) at the south end.

Basin has been backfilled with several feet of soil.

4.0 HISTORY

207-S was built in 1951 to receive process cooling and steam condensate from the 202-S building.

Activity levels were normally low and the water was discharged to 216-S-17 pond. In 1954 a coil leak in the 202-S building contaminated the facility above permissible limits and it was removed from service. The basin was then backfilled.

This facility remains unused and is considered retired.

207-S (Cont'd)

5.0 CHARACTERIZATION SUMMARY

5.1 Facility Classification: Exempt

5.2 Fire Fighting Category: Not posted

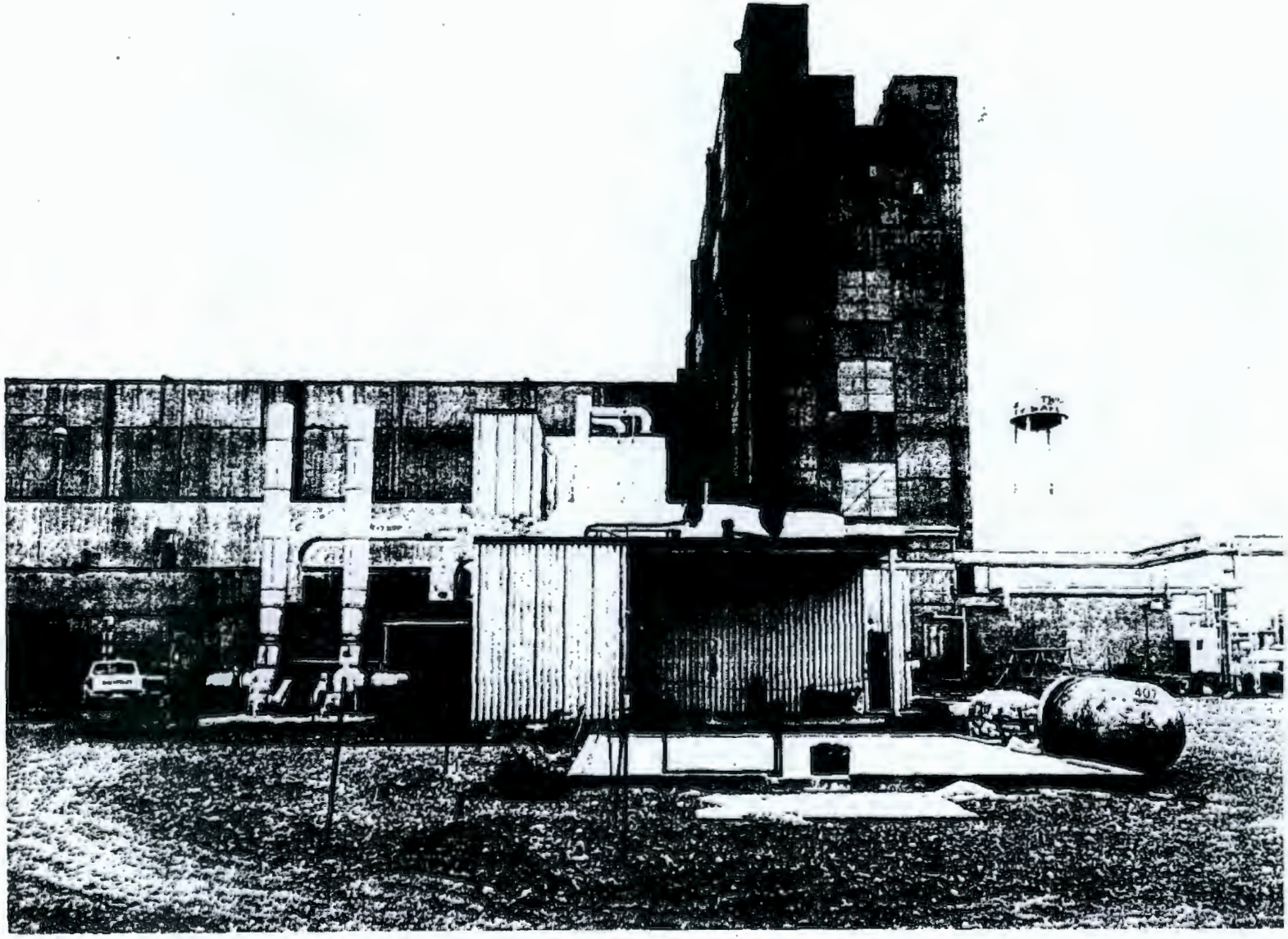
5.3 Radiological Characteristics

5.3.1 Postings: "Radiation Area/Surface Contamination" (on exclusion fence)

5.3.2 Radionuclide Inventory: Unknown

5.4 Utilities and Safety Systems

	Available			Operability			
	Yes	No	Unk	Yes	No	Unk	Comments/Condition/Type
Intrusion Alarm	☐	■	☐	☐	☐	☐	N/A
Heat	☐	■	☐	☐	☐	☐	N/A
Ventilation	☐	■	☐	☐	☐	☐	N/A
Air Conditioning	☐	■	☐	☐	☐	☐	N/A
Electricity	☐	■	☐	☐	☐	☐	N/A
Fire Detection	☐	■	☐	☐	☐	☐	N/A
Fire Suppression	☐	■	☐	☐	☐	☐	N/A
Compressed Air	☐	■	☐	☐	☐	☐	N/A
Vacuum System	☐	■	☐	☐	☐	☐	N/A
Breathing Air	☐	■	☐	☐	☐	☐	N/A
Water	☐	■	☐	☐	☐	☐	N/A
Drain	☐	■	☐	☐	☐	☐	N/A
Emergency Shower	☐	■	☐	☐	☐	☐	N/A
Exclusion Fence	■	☐	☐	■	☐	☐	
Air Sampling	☐	■	☐	☐	☐	☐	N/A



233-S: PLUTONIUM CONCENTRATION FACILITY

233-S

Plutonium Concentration Facility

1.0 LOCATION

200 West Area
N345 W74100

2.0 REFERENCE DRAWING

H-2-30464

3.0 DESCRIPTION

233-S plutonium concentration facility is a reinforced-concrete and corrugated metal structure in good condition, 85'10"x36'10", consisting of eight rooms, plus an air lock and a four-story (32 ft.) high-bay area divided into two zones (a process area and a process viewing area) by a vertical partition of transparent plastic panels reinforced with structural steel.

The viewing room is a maintenance and process viewing area with four working levels, the top three of which have open-grate flooring. Access to these working levels is provided through a sheetmetal-enclosed stairwell adjoining the exterior high-bay walls. The process hood, designed for contact maintenance, contains stainless steel, titanium, and glass process equipment.

4.0 HISTORY

Prior to 1963, the facility provided final purification and concentration of plutonium solutions using an ion-exchange process. In November, 1963, a chemical reaction in the exchange column resulted in a fire which spread plutonium contamination to the equipment used in this process and throughout most of the building. Parts of the building were cleaned of gross contamination and nonsmearable alpha contamination was fixed using an Amercoat* paint. The facility was then used for concentration (by evaporation) of plutonium

* Registered trade name

233-S (Cont'd)

and neptunium nitrate solutions from Redox. In 1967, the building was sealed off and retired from service, although some experiments have been conducted in the can storage room since.

In 1978, 233-S was selected as a demonstration project for dismantlement of retired contaminated facilities. The dismantlement effort continued through 1980.

P. R. can Storage Room, and Can Storage Room were dismantled and exposed surfaces were cleaned and sealed to reduce contamination to levels which would allow supporting work to be performed in these areas with minimal protective clothing. Also, the loadout hood was partially dismantled. These efforts have been deferred until additional funding is received.

The facility is unused and considered retired.

5.0 CHARACTERIZATION SUMMARY

5.1 Facility Classification: Unknown

5.2 Fire Fighting Category: Not posted

5.3 Radiological Characteristics

5.3.1 Postings: "Radiation Area" (on entrance doors)
"Radiation Area/Surface Contamination" (on entrance doors)
"Radiation Area/Airborne Contamination" (on entrance doors)
"Criticality Zone" (On entrance doors)

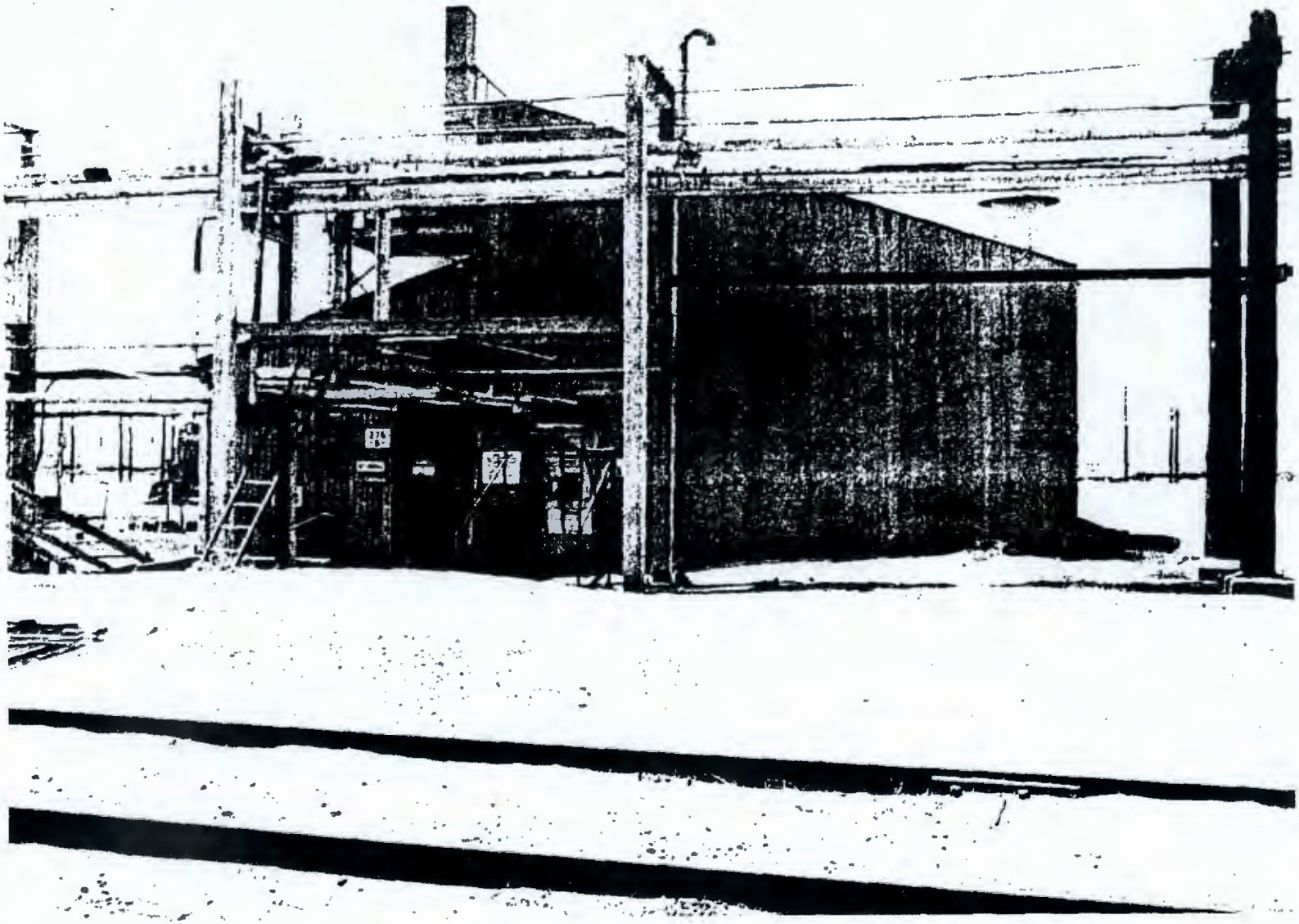
5.3.2 Radionuclide Inventory: 2313 grams Pu

233-S (Cont'd)

5.4 Utilities and Safety Sytems

	Available			Operability			
	Yes	No	Unk	Yes	No	Unk	Comments/Condition/Type
Intrusion Alarm	☐	■	☐	☐	☐	☐	
Heat	■	☐	☐	■	☐	☐	
Ventilation	■	☐	☐	■	☐	☐	
Air Conditioning	■	☐	☐	■	☐	☐	
Electricity	■	☐	☐	■	☐	☐	
Fire Detection	■	☐	☐	■	☐	☐	Alarm to station
Fire Suppression	■	☐	☐	■	☐	☐	*
Compressed Air	☐	■	☐	☐	☐	☐	
Vacuum System	☐	■	☐	☐	☐	☐	
Breathing Air	☐	■	☐	☐	☐	☐	
Water	■	☐	☐	■	☐	☐	
Drain	■	☐	☐	■	☐	☐	
Emergency Shower	■	☐	☐	■	☐	☐	One
Exclusion Fence	☐	■	☐	☐	☐	☐	
Air Sampling	■	☐	☐	■	☐	☐	Weekly

* Smoke detectors, 18 fire extinguishers through building, fire box on outside of building.



276-S: SOLVENT HANDLING BUILDING

276-S

Solvent Handling Building

1.0 LOCATION

200 West Area
N34600 W74200

2.0 REFERENCE DRAWING

H-2-5368

3.0 DESCRPTION

276-S solvent handling building, 58x43ft, is built partly with reinforced concrete walls, partly with steel framing - corrugated asbestos walls.

Visual inspection of the building's exterior revealed no deficiencies and the building is considered in good condition.

The building is divided into two sections, separated by a 2 ft thick concrete wall. The two sections are:

Process Area, 58x26 ft. Two foot thick concrete walls on ends and side next to operating area. Other end covered with corrugated asbestos siding. There are 3 tanks in this area.

Operating Area, 58x15 ft. Steel framework covered with corrugated asbestos siding. No connecting doors with process area. All doors open to the outside. There is 1 tank in the area.

4.0 HISTORY

276-S solvent handling building was in service from 1952 - 1967 and provided chemical treatment of Redox process solvent (hexone). Solvent storage tanks

276-S (Cont'd)

276-S-141 and 276-S-142 are used in conjunction with this facility.

Currently this facility is unused and considered retired.

5.0 CHARACTERIZATION SUMMARY

5.1 Facility Classification: Exempt

5.2 Fire Fighting Category: Not posted

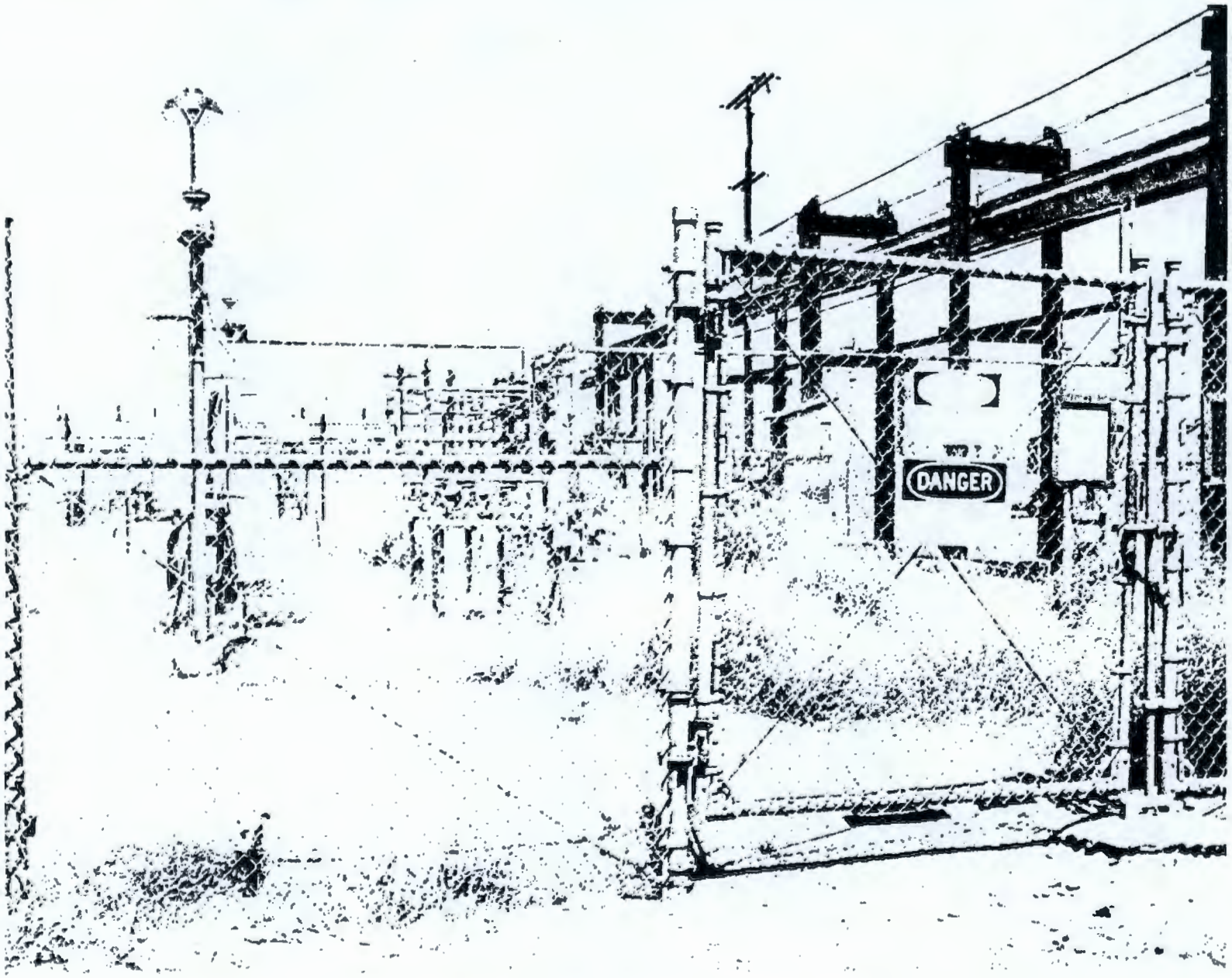
5.3 Radiological Characteristics

5.3.1 Postings: "Radiation Area/Surface Contamination" (on entrance doors)

5.3.2 Radionuclide Inventory: 6 euries beta

5.4 Utilities and Safety Systems

	Available			Operability			
	Yes	No	Unk	Yes	No	Unk	Comments/Condition/Type
Intrusion Alarm	☐	■	☐	☐	☐	☐	
Heat	■	☐	☐	☐	☐	■	
Ventilation	☐	■	☐	☐	☐	☐	
Air Conditioning	☐	■	☐	☐	☐	☐	
Electricity	☐	■	☐	☐	☐	☐	
Fire Detection	☐	■	☐	☐	☐	☐	Room survey unavailable
Fire Suppression	☐	■	☐	☐	☐	☐	" " "
Compressed Air	☐	■	☐	☐	☐	☐	" " "
Vacuum System	☐	■	☐	☐	☐	☐	" " "
Breathing Air	☐	■	☐	☐	☐	☐	" " "
Water	☐	■	☐	☐	☐	☐	" " "
Drain	☐	■	☐	☐	☐	☐	" " "
Emergency Shower	☐	■	☐	☐	☐	☐	
Exclusion Fence	☐	■	☐	☐	☐	☐	
Air Sampling	☐	■	☐	☐	☐	☐	Room survey unavailable



276-S-141, 276-S-142: SOLVENT STORAGE TANKS

276-S-141, 276-S-142
Solvent Storage Tanks

1.0 LOCATION

200 West Area
N34850 W74200

2.0 REFERENCE DRAWING(s)

H-2-5368

3.0 DESCRIPTION

276-S-141, 142 are identical 23,000 gallon solvent storage tanks.

The tanks are constructed of 3/8" carbon steel and placed horizontally, side by side, underground north of the 276-S building.

Tank dimensions are 28' long and 11½ ft in diameter.

Above ground facilities include a pumping station for each tank, emergency shower and water connection.

4.0 HISTORY

276-S-141 & 142 were built for temporary storage of contaminated solvent (hexone) from Redox process, prior to disposal to waste through the 276-S solvent handling building.

Currently this facility is unused and considered retired.

276-S-141, 276-S-142 (Cont'd)

5.0 CHARACTERIZATION SUMMARY

5.1 Facility Classification: Unknown

5.2 Fire Fighting Category: N/A

5.3 Radiological Characteristics

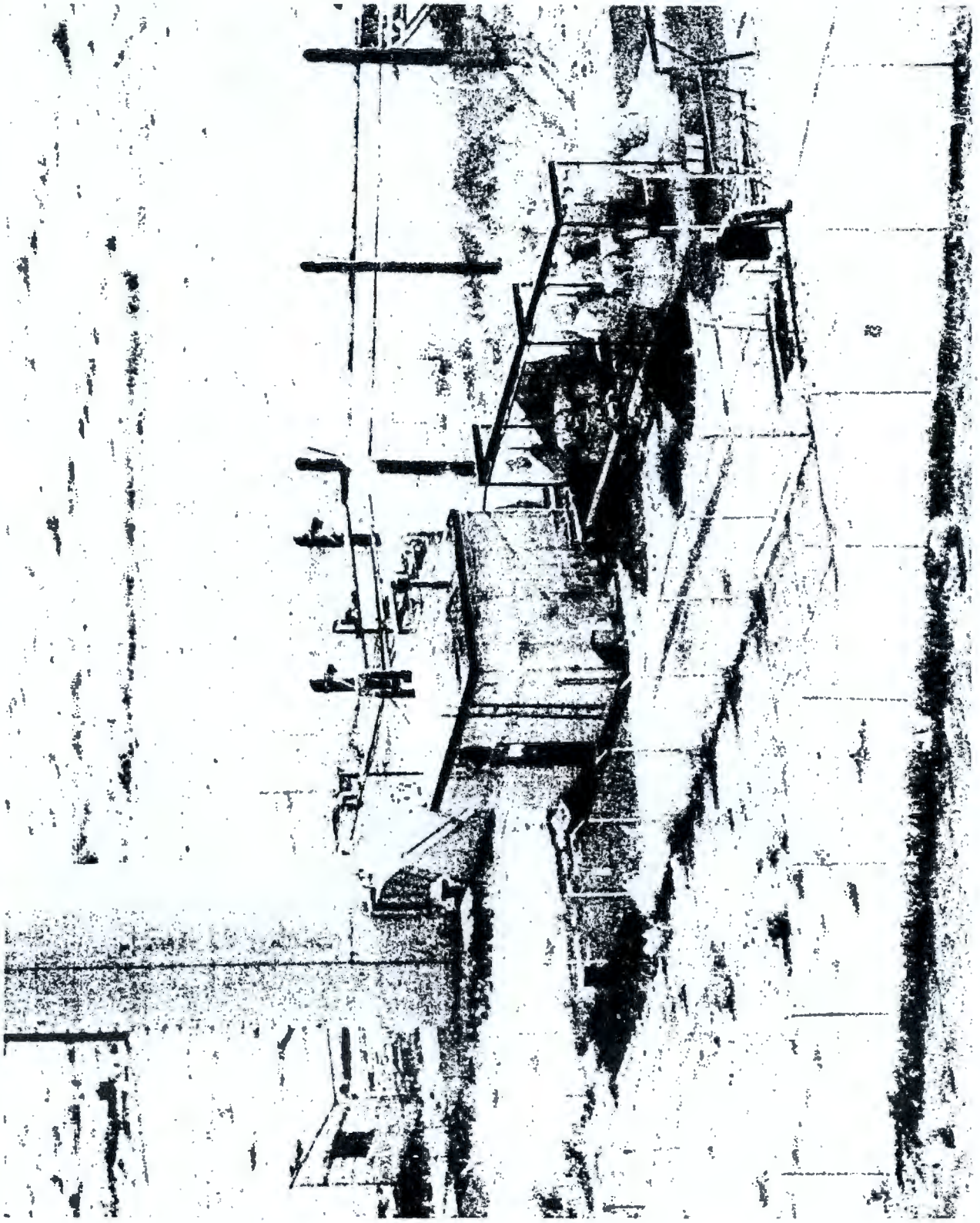
5.3.1 Postings: "Radiation Area/Surface Contamination" (posted on exclusion fence)

5.3.2 Radionuclide Inventory: 2 curies beta

5.4 Utilities and Safety Systems

	Available			Operability			
	Yes	No	Unk	Yes	No	Unk	Comments/Condition/Type
Intrusion Alarm	☐	■	☐	☐	☐	☐	
Heat	☐	■	☐	☐	☐	☐	
Ventilation	☐	■	☐	☐	☐	☐	
Air Conditioning	☐	■	☐	☐	☐	☐	
Electricity	■	☐	☐	☐	☐	■	
Fire Detection	☐	■	☐	☐	☐	☐	N/A
Fire Suppression	■	☐	☐	■	☐	☐	*
Compressed Air	☐	■	☐	☐	☐	☐	N/A
Vacuum System	☐	■	☐	☐	☐	☐	N/A
Breathing Air	☐	■	☐	☐	☐	☐	N/A
Water	☐	■	☐	☐	☐	☐	N/A
Drain	☐	■	☐	☐	☐	☐	N/A
Emergency Shower	☐	■	☐	☐	☐	☐	N/A
Exclusion Fence	■	☐	☐	■	☐	☐	
Air Sampling	☐	☐	■	☐	☐	☐	

* 2 extinguishers-outside fenced area between R.R. tracks



291-S, 291-S-1: FAN HOUSE, SAND FILTER & STACK

291-S, 291-S-1
Fan House, Sand Filter & Stack

1.0 LOCATION

200 West Area
N34600 W73400

2.0 REFERENCE DRAWING(s)

H-2-8883
H-2-8865
H-2-5514
H-2-5517
8-2-8866

3.0 DESCRIPTION

The 291-S complex consists of sand filter, fan house (291-S) exhaust fan, and stack (291-S-1).

The sand filter is a below grade concrete structure with 1' thick walls and roof. Outside dimensions are approximately 85 x 85 x 12'5" deep. Tar and gravel over concrete roof is visable above grade.

Exhaust air leaves the process building (202-S) via the main exhaust duct and passes through the sand filter, the exhaust fans and out the stack.

The 291-S fan house is 216 ft^2. Outside dimensions are 14'x 20'x 10'6" high, with 1' thick concrete walls, 10" thick concrete roof and 5" thick concrete floor.

On the adjacent concrete fan platform are two electric motor driven blowers each having 20,000 cfm capacity. A third standby unit is powered by a direct coupled steam turbine.

291-S, 291-S-1 (Cont'd)

291-S-1 stack is 14' in diameter at the base and 200 ft high. It is a double shell structure; the outer shell is made of reinforced concrete and the inner shell is constructed of acid-resistant brick and mortar.

Visual inspection of the fan house and stack exteriors revealed no deficiencies.

4.0 HISTORY

The 291-S complex was built in 1952 to provide ventilation exhaust for Redox (202-S).

Currently this facility serves its original purpose and is planned to remain in service until 202-S is decommissioned.

5.0 CHARACTERIZATION SUMMARY

5.1 Facility Classification: Unknown

5.2 Fire Fighting Category: Not posted

5.3 Radiological Characteristics

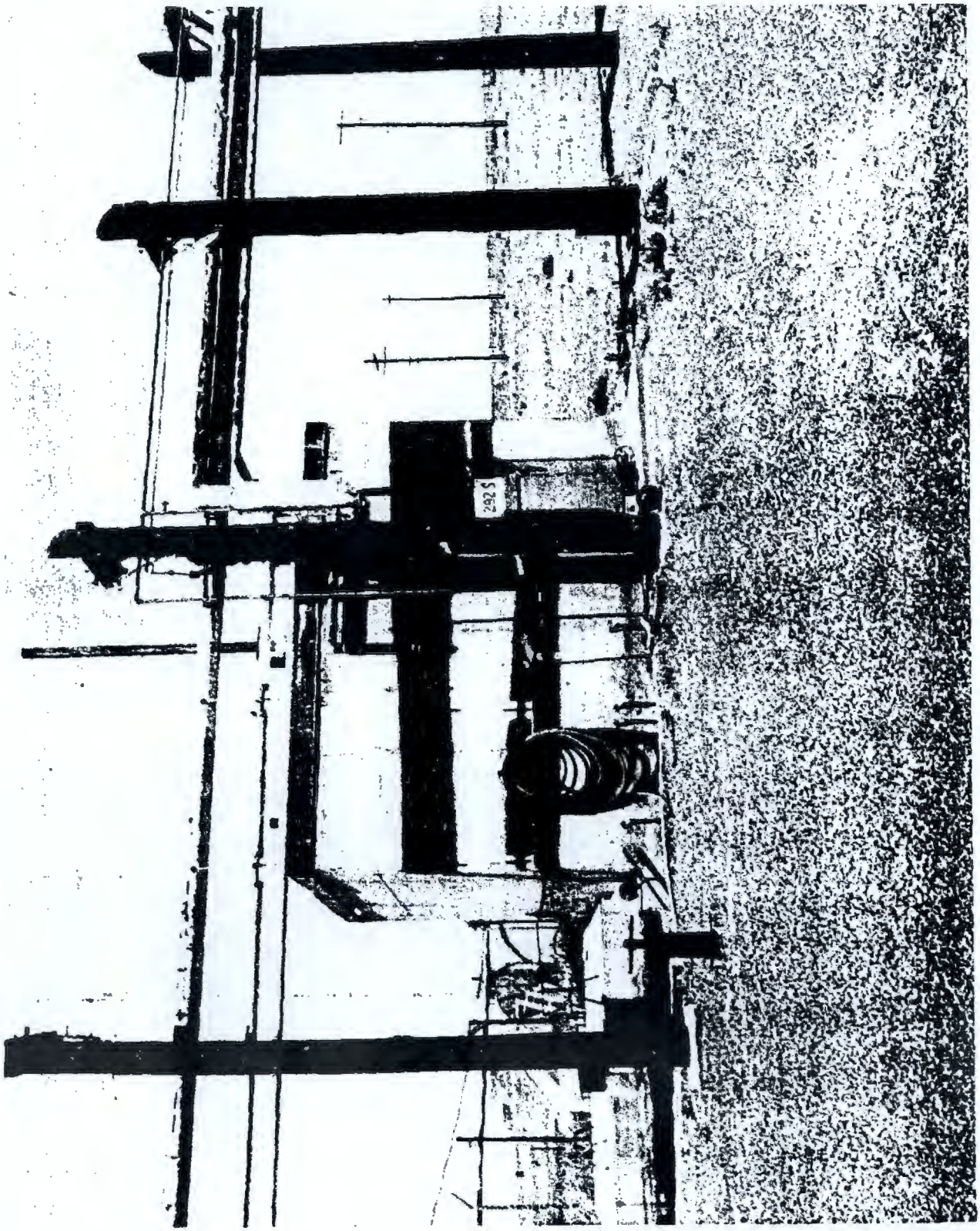
5.3.1 Postings: "Radiation Area/Surface Contamination" (on entrance to fan house & on exclusion fence)

5.3.2 Radionuclide Inventory: Unknown

291-S, 291-S-1 (Cont'd)

5.4 Utilities and Safety Systems

	Available			Operability			
	Yes	No	Unk	Yes	No	Unk	Comments/Condition/Type
Intrusion Alarm	☐	■	☐	☐	☐	☐	
Heat	■	☐	☐	☐	☐	■	
Ventilation	☐	■	☐	☐	☐	☐	
Air Conditioning	■	☐	☐	■	☐	☐	
Electricity	■	☐	☐	■	☐	☐	
Fire Detection	☐	■	☐	☐	☐	☐	Room survey unavailable
Fire Suppression	■	☐	☐	☐	☐	☐	1 extinguisher outside fence
Compressed Air	☐	■	☐	☐	☐	☐	
Vacuum System	☐	■	☐	☐	☐	☐	
Breathing Air	☐	■	☐	☐	☐	☐	
Water	☐	■	☐	☐	☐	☐	
Drain	☐	■	☐	☐	☐	☐	
Emergency Shower	☐	■	☐	☐	☐	☐	
Exclusion Fence	■	☐	☐	■	☐	☐	Around entire complex
Air Sampling	■	☐	☐	■	☐	☐	Stack #006



292-S: JET PIT HOUSE

292-S

Jet Pit House

1.0 LOCATION

200 West Area
N34600 W73500

2.0 REFERENCE DRAWING

H-2-8883

3.0 DESCRIPTION

292-S jet pit house is a concrete building in good condition. Outside dimensions are 15'8"x15'8"x10'6" high.

Located beneath the building is the exhaust jet pit, constructed of concrete. Adjacent to the pit, below garde, is the jet pit itself which is accessible above grade through concrete cover blocks. Average thickness is 10".

4.0 HISTORY

292-S jet pit house was in service from 1952-1967 to provide housing for the jets for the Redox process vessel vent systems.

This facility is currently used to pipe liquid from 191-S sump to 191-S tank. The facility is considered retired.

5.0 CHARACTERIZATION SUMMARY

5.1 Facility Classification: Exempt

5.2 Fire Fighting Category: Not posted

5.3 Radiological Characteristics

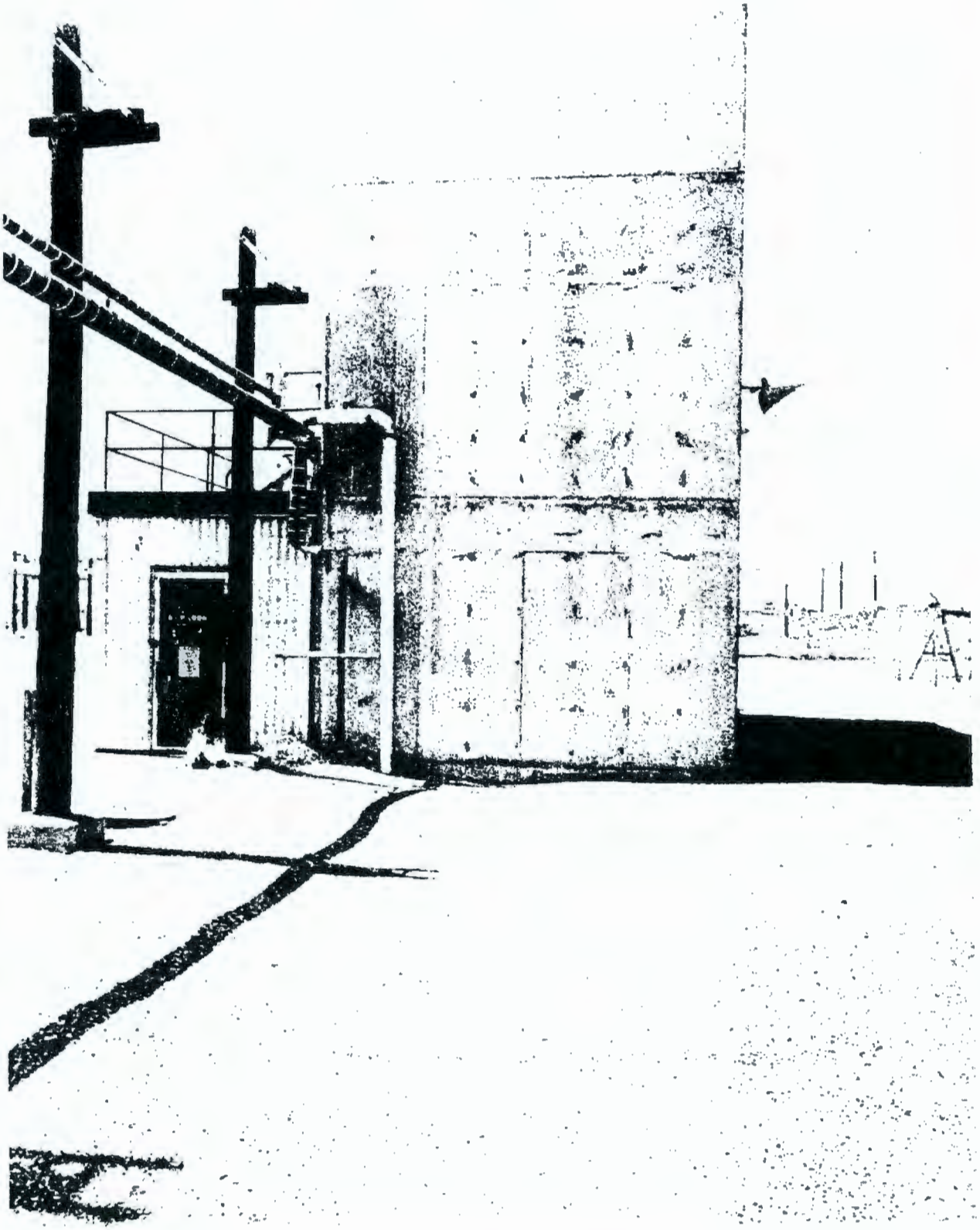
292-S (Cont'd)

5.3.1 Postings: "Radiation Area/Surface Contamination" (on all doors)

5.3.2 Radionuclide Inventory: 4 curies beta

5.4 Utilities and Safety Systems

	Available			Operability			
	Yes	No	Unk	Yes	No	Unk	Comments/Condition/Type
Intrusion Alarm	☐	■	☐	☐	☐	☐	
Heat	☐	☐	■	☐	☐	☐	
Ventilation	☐	☐	■	☐	☐	☐	
Air Conditioning	☐	☐	■	☐	☐	☐	
Electricity	■	☐	☐	☐	☐	■	
Fire Detection	☐	■	☐	☐	☐	☐	Room survey unavailable
Fire Suppression	☐	■	☐	☐	☐	☐	" " "
Compressed Air	☐	■	☐	☐	☐	☐	" " "
Vacuum System	☐	■	☐	☐	☐	☐	" " "
Breathing Air	☐	■	☐	☐	☐	☐	" " "
Water	☐	■	☐	☐	☐	☐	" " "
Drain	☐	■	☐	☐	☐	☐	" " "
Emergency Shower	☐	■	☐	☐	☐	☐	
Exclusion Fence	☐	■	☐	■	☐	☐	
Air Sampling	☐	■	☐	☐	☐	☐	



293-S: OFF-GAS TREATMENT AND RECOVERY

293-S

Off-Gas Treatment and Recovery

1.0 LOCATION

200 West Area
N34700 W73400

2.0 REFERENCE DRAWINGS

H-2-31048
H-2-31049

3.0 DESCRIPTION

293-S dissolver off-gas treatment building is a reinforced concrete structure, in good condition, with a corrugated metal lean-to portion attached to the south wall.

The concrete portion, 29'x16', extends from 12 ft below grade to 30 ft above grade. The main floor houses the absorption towers with a pipe valve pit in the basement.

The lean-to structure, 8'6-3/4"x27'9-1/2", houses control room and SWP with a concrete basement housing control piping.

Underground acid storage, 14'x13', is provided adjacent to the main building west side. Also, ventilation supply equipment is present above ground adjacent to the south end of the lean-to structure.

4.0 HISTORY

293-S building was in service from 1958 thru 1967 to provide absorption of nitrogen oxides and volatile fission products from Redox dissolver off-gas.

293-S (Cont'd)

Currently this facility is unused and considered retired.

5.0 CHARACTERIZATION SUMMARY

5.1 Facility Classification: Exempt

5.2 Fire Fighting Category: Not posted

5.3 Radiological Characteristics

5.3.1 Postings: "Radiation Area/Surface Contamination" (on doors)

5.3.2 Radionuclide Inventory: 1 curie Pu, 4 curies beta

5.4 Utilities and Safety Systems

	Available			Operability			
	Yes	No	Unk	Yes	No	Unk	Comments/Condition/Type
Intrusion Alarm	☐	■	☐	☐	☐	☐	
Heat	■	☐	☐	☐	☐	■	
Ventilation	■	☐	☐	☐	☐	■	
Air Conditioning	■	☐	☐	☐	☐	■	
Electricity	■	☐	☐	☐	☐	■	
Fire Detection	☐	■	☐	☐	☐	☐	Room survey unavailable
Fire Suppression	■	☐	☐	☐	☐	☐	*
Compressed Air	☐	■	☐	☐	☐	☐	Room survey unavailable
Vacuum System	☐	■	☐	☐	☐	☐	" " "
Breathing Air	☐	■	☐	☐	☐	☐	" " "
Water	☐	■	☐	☐	☐	☐	" " "
Drain	☐	■	☐	☐	☐	☐	" " "
Emergency Shower	☐	■	☐	☐	☐	☐	" " "
Exclusion Fence	☐	■	☐	☐	☐	☐	
Air Sampling	☐	☐	■	☐	☐	☐	Room survey unavailable

* One fire extinguisher inside building and one outside on roof of lean-to.

296-S-1
Stack

1.0 LOCATION

200 West Area
N34700 W73700

2.0 REFERENCE DRAWING(s)

H-2-7561

3.0 DESCRIPTION

296-S-1 stack is attached to the outside south wall of the service portion of the south pipe gallery of 202-S.

The metal stack is 14" in diameter and approximately 64' in length, from the fan base, grade level, to 6' above the roof.

4.0 HISTORY

296-S-1 stack was built in 1950 to discharge filtered air from the south sample gallery and sample hoods of 202-S.

Currently this stack is serving its original purpose and is planned to remain in service until 202-S is decommissioned.

5.0 CHARACTERIZATION SUMMARY

5.1 Facility Classification: N/A

5.2 Fire Fighting Category: N/A

296-S-1 (Cont'd)

5.3 Radiological Characteristics

5.3.1 Postings: "Radiation Area/Surface Contamination" (area around fan base is roped off and posted)

5.3.2 Radionuclide Inventory: Unknown

5.4 Utilities and Safety Systems

	Available			Operability			
	Yes	No	Unk	Yes	No	Unk	Comments/Condition/Type
Intrusion Alarm	☐	■	☐	☐	☐	☐	N/A
Heat	☐	■	☐	☐	☐	☐	N/A
Ventilation	☐	■	☐	☐	☐	☐	N/A
Air Conditioning	☐	■	☐	☐	☐	☐	N/A
Electricity	☐	■	☐	☐	☐	☐	N/A
Fire Detection	☐	■	☐	☐	☐	☐	N/A
Fire Suppression	☐	■	☐	☐	☐	☐	N/A
Compressed Air	☐	■	☐	☐	☐	☐	N/A
Vacuum System	☐	■	☐	☐	☐	☐	N/A
Breathing Air	☐	■	☐	☐	☐	☐	N/A
Water	☐	■	☐	☐	☐	☐	N/A
Drain	☐	■	☐	☐	☐	☐	N/A
Emergency Shower	☐	■	☐	☐	☐	☐	N/A
Exclusion Fence	☐	■	☐	☐	☐	☐	N/A
Air Sampling	■	☐	☐	■	☐	☐	S-031 weekly

296-S-2
Stack

1.0 LOCATION

200 West Area
N34900 W73900

2.0 REFERENCE DRAWING(s)

H-2-7490
H-2-5742

3.0 DESCRIPTION

296-S-2 is a metal stack located on the outside north wall of the 202-S building.

This stack is 14" in diameter and approximately 50' high extending from sample gallery level to above the roof.

4.0 HISTORY

296-S-2 was built to provide discharge of filtered air from the north sample gallery and sample hoods of 202-S.

Currently the stack serves its original purpose and it is planned to continue service until 202-S is decommissioned.

5.0 CHARACTERIZATION SUMMARY

5.1 Facility Classification: N/A

5.2 Fire Fighting Category: N/A

296-S-2 (Cont'd)

5.3 Radiological Characteristics

5.3.1 Postings: "Radiation Area/Surface Contamination" (exhauster base is located in posted area).

5.3.2 Radionuclide Inventory: Unknown

5.4 Utilities and Safety Systems

	Available			Operability			
	Yes	No	Unk	Yes	No	Unk	Comments/Condition/Type
Intrusion Alarm	☐	■	☐	☐	☐	☐	N/A
Heat	☐	■	☐	☐	☐	☐	N/A
Ventilation	☐	■	☐	☐	☐	☐	N/A
Air Conditioning	☐	■	☐	☐	☐	☐	N/A
Electricity	☐	■	☐	☐	☐	☐	N/A
Fire Detection	☐	■	☐	☐	☐	☐	N/A
Fire Suppression	☐	■	☐	☐	☐	☐	N/A
Compressed Air	☐	■	☐	☐	☐	☐	N/A
Vacuum System	☐	■	☐	☐	☐	☐	N/A
Breathing Air	☐	■	☐	☐	☐	☐	N/A
Water	☐	■	☐	☐	☐	☐	N/A
Drain	☐	■	☐	☐	☐	☐	N/A
Emergency Shower	☐	■	☐	☐	☐	☐	N/A
Exclusion Fence	☐	■	☐	☐	☐	☐	N/A
Air Sampling	■	☐	☐	■	☐	☐	S-032 weekly

296-S-4
Stack

1.0 LOCATION

200 West Area
N34400 W73600

2.0 REFERENCE DRAWING(s)

H-2-7596
H-2-7709
H-2-7892

3.0 DESCRIPTION

296-S-4 is a metal stack located on the east outside wall of 202-S.

The stack is 18" in diameter and 48' high extending from the fan base, at grade level, to 6' above the roof of 202-S

4.0 HISTORY

296-S-4 was built to discharge filtered air from the decontamination room and regulated shop, and unfiltered air from the regulated tool room, low level decontamination sink and SWP lobby.

Currently the stack serves its original purpose and is planned to remain in service until 202-S is decommissioned.

5.0 CHARACTERIZATION SUMMARY

5.1 Facility Classification: N/A

5.2 Fire Fighting Category: N/A

296-S-4 (Cont'd)

5.3 Radiological Characteristics

5.3.1 Postings: "Radiation Area/Surface Contamination" (fan base is located in posted area)

5.3.2 Radionuclide Inventory: Unknown

5.4 Utilities and Safety Systems

	Available			Operability			
	Yes	No	Unk	Yes	No	Unk	Comments/Condition/Type
Intrusion Alarm	☐	■	☐	☐	☐	☐	N/A
Heat	☐	■	☐	☐	☐	☐	N/A
Ventilation	☐	■	☐	☐	☐	☐	N/A
Air Conditioning	☐	■	☐	☐	☐	☐	N/A
Electricity	☐	■	☐	☐	☐	☐	N/A
Fire Detection	☐	■	☐	☐	☐	☐	N/A
Fire Suppression	☐	■	☐	☐	☐	☐	N/A
Compressed Air	☐	■	☐	☐	☐	☐	N/A
Vacuum System	☐	■	☐	☐	☐	☐	N/A
Breathing Air	☐	■	☐	☐	☐	☐	N/A
Water	☐	■	☐	☐	☐	☐	N/A
Drain	☐	■	☐	☐	☐	☐	N/A
Emergency Shower	☐	■	☐	☐	☐	☐	N/A
Exclusion Fence	☐	■	☐	☐	☐	☐	N/A
Air Sampling	■	☐	☐	■	☐	☐	S-008 weekly

296-S-6
Stack

1.0 LOCATION

200 West Area
N34500 W74100

2.0 REFERENCE DRAWING(s)

H-2-7581
H-2-9071

3.0 DESCRIPTION

296-S-6 is a metal stack located on the roof in the northeast corner of 202-S.

The stack is approximately 30" in diameter and extends from the fan base, in the feed tank area, to a height of 11'6" above the roof.

4.0 HISTORY

296-S-6 was built to discharge unfiltered air from the silo gallery, organic feed tank and sample elevator.

Currently the stack serves its original purpose and it is planned to remain in operation until 202-S is decommissioned.

5.0 CHARACTERIZATION SUMMARY

5.1 Facility Classification: N/A

5.2 Fire Fighting Category: N/A

296-S-6 (Cont'd)

5.3 Radiological Characteristics

5.3.1 Postings: Unknown

5.3.2 Radionuclide Inventory: Unknown

5.4 Utilities and Safety Systems

	Available			Operability			
	Yes	No	Unk	Yes	No	Unk	Comments/Condition/Type
Intrusion Alarm	☐	■	☐	☐	☐	☐	N/A
Heat	☐	■	☐	☐	☐	☐	N/A
Ventilation	☐	■	☐	☐	☐	☐	N/A
Air Conditioning	☐	■	☐	☐	☐	☐	N/A
Electricity	☐	■	☐	☐	☐	☐	N/A
Fire Detection	☐	■	☐	☐	☐	☐	N/A
Fire Suppression	☐	■	☐	☐	☐	☐	N/A
Compressed Air	☐	■	☐	☐	☐	☐	N/A
Vacuum System	☐	■	☐	☐	☐	☐	N/A
Breathing Air	☐	■	☐	☐	☐	☐	N/A
Water	☐	■	☐	☐	☐	☐	N/A
Drain	☐	■	☐	☐	☐	☐	N/A
Emergency Shower	☐	■	☐	☐	☐	☐	N/A
Exclusion Fence	☐	■	☐	☐	☐	☐	N/A
Air Sampling	■	☐	☐	■	☐	☐	S-004 weekly

296-S-7
East and West Stacks

1.0 LOCATION

200 West Area
N34600 W7400

2.0 REFERENCE DRAWING(s)

H-2-17900
H-2-17905

3.0 DESCRIPTION

296-S-7 metal stacks are located on the outside north wall of 233-SA.

Each stack is 24" in diameter and approximately 25' high, extending from the fan base to above roof level.

4.0 HISTORY

296-S-7 E & W were constructed to provide exhaust to 233-S. The systems run one at a time and are alternated weekly.

Currently these stacks serve their original purpose and are planned to remain in operation until 233-S is decommissioned.

5.0 CHARACTERIZATION SUMMARY

5.1 Facility Classification: N/A

5.2 Fire Fighting Category: N/A

296-S-7 (Cont'd)

5.3 Radiological Characteristics

5.3.1 Postings: "Radiation Area/Surface Contamination" (233-SA is located within posted area)

5.3.2 Radionuclide Inventory: Unknown

5.4 Utilities and Safety Systems

	Available			Operability			
	Yes	No	Unk	Yes	No	Unk	Comments/Condition/Type
Intrusion Alarm	☐	■	☐	☐	☐	☐	N/A
Heat	☐	■	☐	☐	☐	☐	N/A
Ventilation	☐	■	☐	☐	☐	☐	N/A
Air Conditioning	☐	■	☐	☐	☐	☐	N/A
Electricity	☐	■	☐	☐	☐	☐	N/A
Fire Detection	☐	■	☐	☐	☐	☐	N/A
Fire Suppression	☐	■	☐	☐	☐	☐	N/A
Compressed Air	☐	■	☐	☐	☐	☐	N/A
Vacuum System	☐	■	☐	☐	☐	☐	N/A
Breathing Air	☐	■	☐	☐	☐	☐	N/A
Water	☐	■	☐	☐	☐	☐	N/A
Drain	☐	■	☐	☐	☐	☐	N/A
Emergency Shower	☐	■	☐	☐	☐	☐	N/A
Exclusion Fence	■	☐	☐	☐	☐	☐	Roped off & posted
Air Sampling	■	☐	☐	■	☐	☐	East S-015, West S-016, both weekly

296-S-12
Stacks

1.0 LOCATION

200 West Area
N34600 W74300

2.0 REFERENCE DRAWING(s)

H-2-5298

3.0 DESCRIPTION

296-S-12 stacks are located on the roof of the 276-S building over the operating gallery.

The 2 stacks are identical. Each is 21" square, and 10½ ft. high.

4.0 HISTORY

296-S-12 stacks were originally built to exhaust the 276-S operating gallery.

Currently these stacks are unused and considered retired.

5.0 CHARACTERIZATION SUMMARY

5.1 Facility Classification: N/A

5.2 Fire Fighting Category: N/A

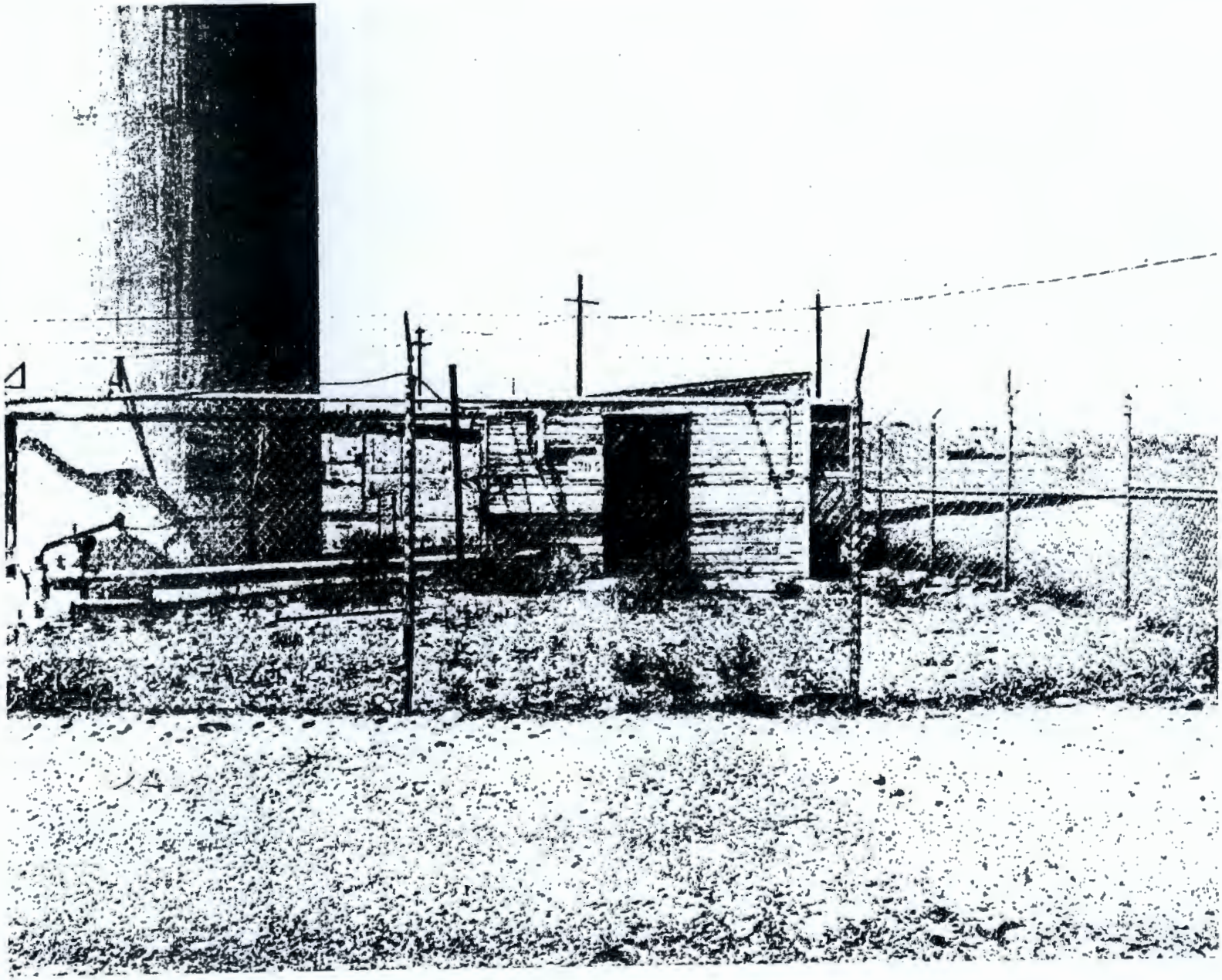
5.3 Radiological Characteristics

5.3.1 Postings: Unknown
5.3.2 Radionuclide Inventory: Unknown

296-S-12 (Cont'd)

5.4 Utilities and Safety Systems

	Available			Operability			
	Yes	No	Unk	Yes	No	Unk	Comments/Condition/Type
Intrusion Alarm	☐	■	☐	☐	☐	☐	N/A
Heat	☐	■	☐	☐	☐	☐	N/A
Ventilation	☐	■	☐	☐	☐	☐	N/A
Air Conditioning	☐	■	☐	☐	☐	☐	N/A
Electricity	☐	■	☐	☐	☐	☐	N/A
Fire Detection	☐	■	☐	☐	☐	☐	N/A
Fire Suppression	☐	■	☐	☐	☐	☐	N/A
Compressed Air	☐	■	☐	☐	☐	☐	N/A
Vacuum System	☐	■	☐	☐	☐	☐	N/A
Breathing Air	☐	■	☐	☐	☐	☐	N/A
Water	☐	■	☐	☐	☐	☐	N/A
Drain	☐	■	☐	☐	☐	☐	N/A
Emergency Shower	☐	■	☐	☐	☐	☐	N/A
Exclusion Fence	☐	■	☐	☐	☐	☐	N/A
Air Sampling	☐	■	☐	☐	☐	☐	



2711-S: STACK GAS MONITORING

2711-S

Stack Gas Monitoring

1.0 LOCATION

200 West Area
N34600 W73400

2.0 REFERENCE DRAWING(s)

H-2-5517
H-2-5515

3.0 DESCRIPTION

2711-S is a wooden stack gas monitoring sample shelter in deteriorated condition.

Dimensions are 12'6"x 14'x 8' high with a sloped roof. Total floor area is 175 ft^2.

Visual inspection of the building's exterior revealed walls deteriorating and roof sagging. Substantial roof loads could lead to collapse. Also, holes are present in windows and walls.

The building contains motor, pump, and instrumentation for 291-S-1 stack gas sampling.

4.0 HISTORY

2711-S stack gas monitoring was built to sample gas from the 291-S-1 stack and to monitor contamination.

Currently this facility serves its original purpose and is planned to remain in service until 291-S-1 stack is decommissioned.

2711-S (Cont'd)

5.0 CHARACTERIZATION SUMMARY

5.1 Facility Classification: Exempt

5.2 Fire Fighting Category: Not posted

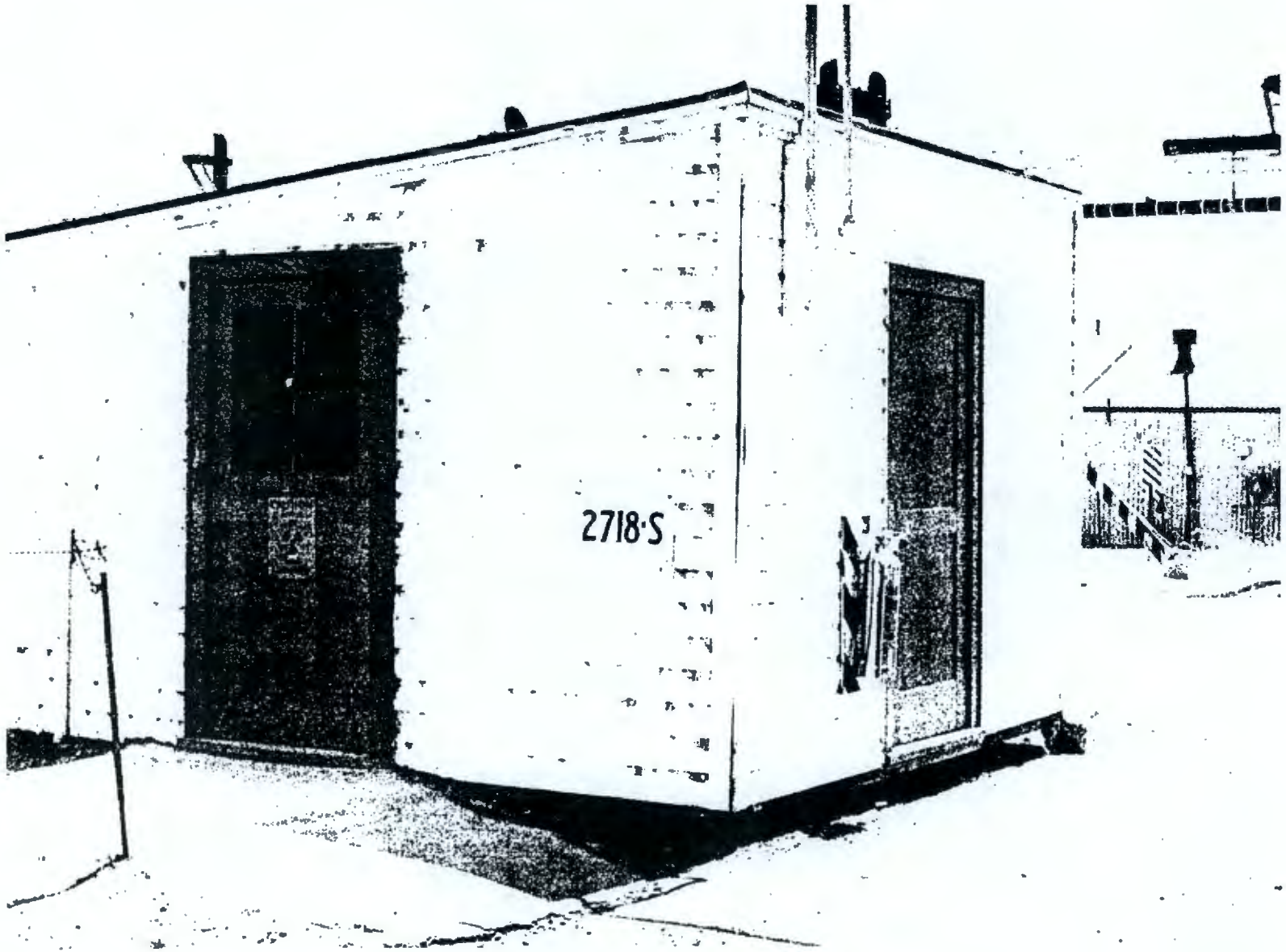
5.3 Radiological Characteristics

5.3.1 Postings: "Radiation Area/Surface Contamination" (on fence surrounding stack & building)

5.3.2 Radionuclide Inventory: 4 curies beta

5.4 Utilities and Safety Systems

	Available			Operability			
	Yes	No	Unk	Yes	No	Unk	Comments/Condition/Type
Intrusion Alarm	☐	■	☐	☐	☐	☐	
Heat	☐	☐	■	☐	☐	☐	
Ventilation	☐	☐	■	☐	☐	☐	
Air Conditioning	■	☐	☐	☐	■	☐	
Electricity	☐	☐	■	☐	☐	☐	
Fire Detection	☐	■	☐	☐	☐	☐	Room survey unavailable
Fire Suppression	■	☐	☐	■	☐	☐	1 extinguisher inside bldg.
Compressed Air	☐	■	☐	☐	☐	☐	Room survey unavailable
Vacuum System	☐	■	☐	☐	☐	☐	" " "
Breathing Air	☐	■	☐	☐	☐	☐	" " "
Water	☐	■	☐	☐	☐	☐	" " "
Drain	☐	■	☐	☐	☐	☐	" " "
Emergency Shower	☐	■	☐	☐	☐	☐	" " "
Exclusion Fence	■	☐	☐	■	☐	☐	Around stack & building
Air Sampling	☐	☐	■	☐	☐	☐	



2718-S: SAND FILTER SAMPLER

2718-S

Sand Filter Sampler

1.0 LOCATION

200 West Area
N34500 W73600

2.0 REFERENCE DRAWINGS

H-2-5514
H-2-5515

3.0 DESCRIPTION

2718-S exhaust air sand filter sampler is a wooden building in fair condition.

Building dimensions are 12'6"x14'x8' high with a sloping roof. Total floor area is 175 ft^2.

Visual inspection of the building's exterior revealed minor wood deterioration.

Equipment contained in the building includes office furniture and a magnahelic with associated vacuum pump, piping and electrical wiring.

4.0 HISTORY

2718-S was built to monitor the performance of the 291-S sand filter.

Currently this facility serves it's original purpose and is planned to continue service until 291-S-1 stack is decommissioned.

2718-S (Cont'd)

5.0 CHARACTERIZATION SUMMARY

5.1 Facility Classification: Exempt

5.2 Fire Fighting Category: Not posted

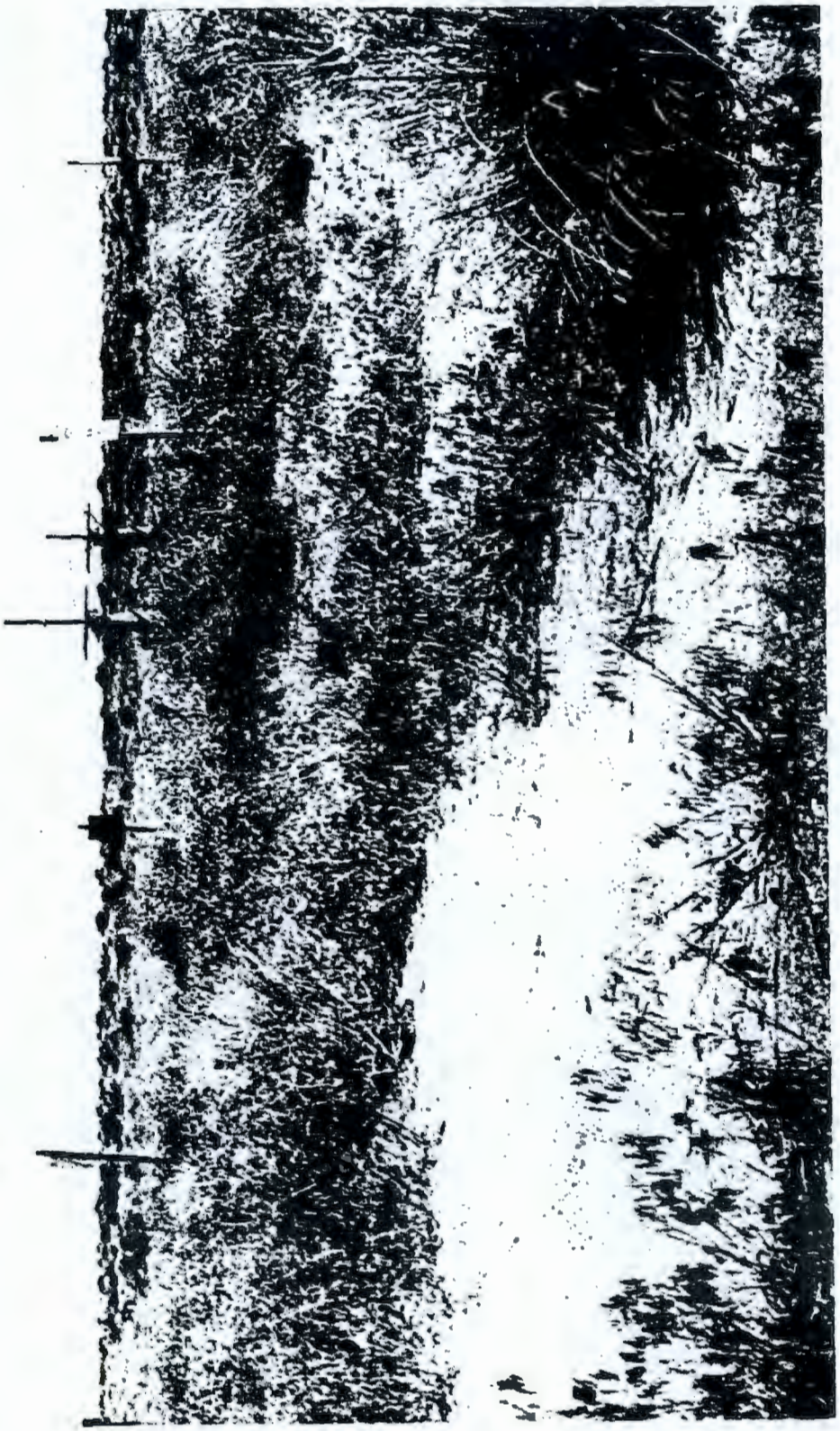
5.3 Radiological Characteristics

5.3.1 Postings: "Radiation Area/Surface Contamination" (on building door)

5.3.2 Radionuclide Inventory: 4 curies beta

5.4 Utilities and Safety Systems

	Available			Operability			Comments/Condition/Type
	Yes	No	Unk	Yes	No	Unk	
Intrusion Alarm	☐	■	☐	☐	☐	☐	
Heat	■	☐	☐	☐	☐	■	
Ventilation	☐	■	☐	☐	☐	☐	
Air Conditioning	☐	■	☐	☐	☐	☐	
Electricity	■	☐	☐	☐	☐	■	
Fire Detection	☐	■	☐	☐	☐	☐	Room survey unavailable
Fire Suppression	☐	■	☐	☐	☐	☐	" " "
Compressed Air	☐	■	☐	☐	☐	☐	" " "
Vacuum System	☐	■	☐	☐	☐	☐	" " "
Breathing Air	☐	■	☐	☐	☐	☐	" " "
Water	☐	■	☐	☐	☐	☐	" " "
Drain	☐	■	☐	☐	☐	☐	" " "
Emergency Shower	☐	■	☐	☐	☐	☐	" " "
Exclusion Fence	☐	■	☐	☐	☐	☐	
Air Sampling	☐	☐	■	☐	☐	☐	



2904-S-160: WEIR

2904-S-160

Weir

1.0 LOCATION

200 West Area
N33450 W76750

2.0 REFERENCE DRAWINGS(s)

H-2-2599

3.0 DESCRIPTION

2904-S-160 weir is a below grade pentagonal structure consisting of 1' thick reinforced concrete walls, floor, and roof. The structure is 9' in height with 2 walls measuring 5'4" and the other walls measuring 5', 6'2", and 4'1" in length.

Piping includes two 24" diameter vitrified clay outlet pipes and one 24" diameter vitrified clay inlet pipe.

There is a manhole, and two hand wheels for sluice gate operation, visable above grade.

4.0 HISTORY

2904-S-160 weir was built in 1954 to divert process vessel cooling water and steam condensate from building 202-S to pond 216-S-17, or 216-S-6, or 216-S-16.

Weir is currently unused and considered retired.

5.0 CHARACTERIZATION SUMMARY

5.1 Facility Classification: Unknown

2904-S-160 (Cont'd)

5.2 Fire Fighting Category: N/A

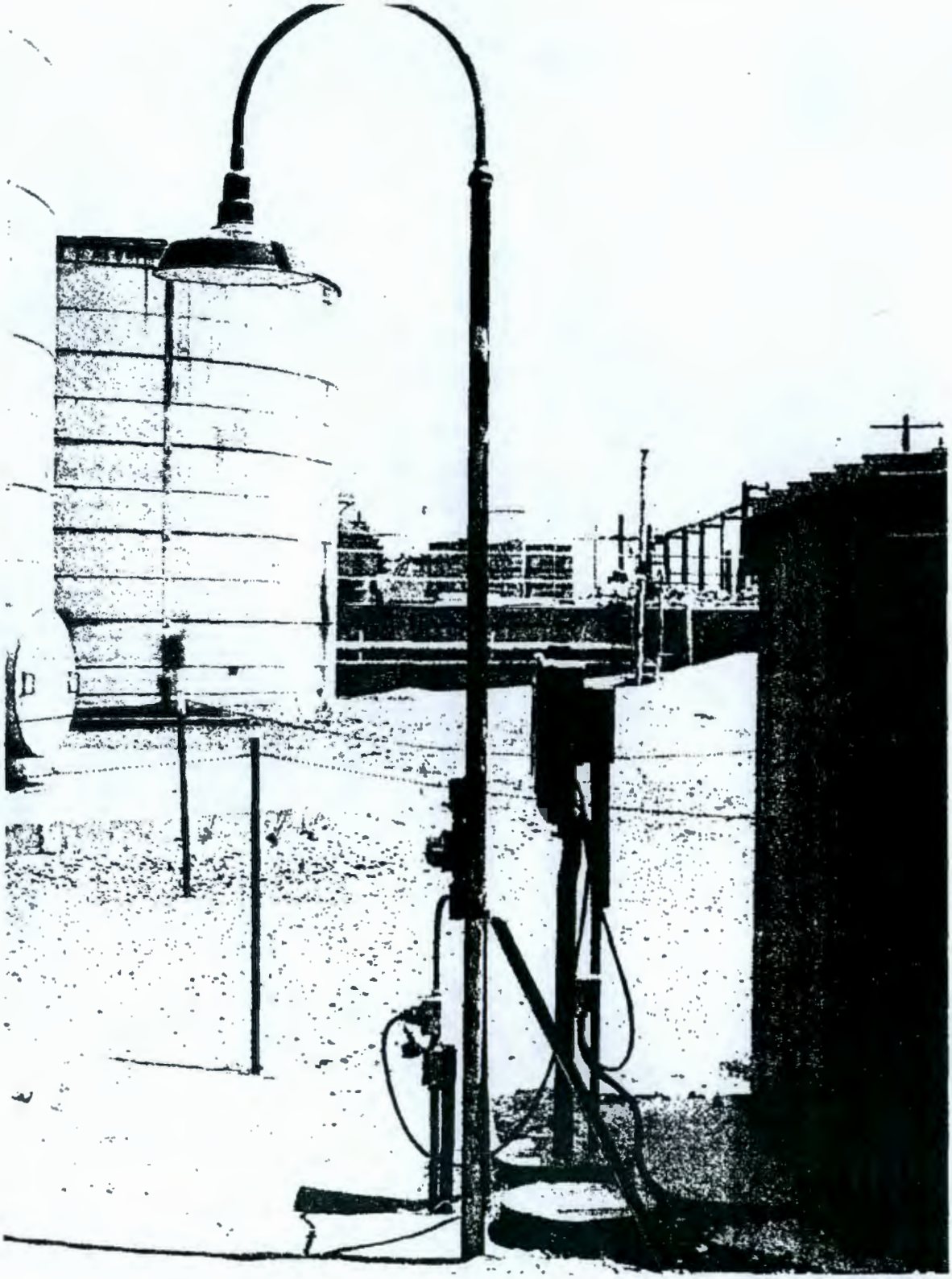
5.3 Radiological Characteristics

5.3.1 Postings: "Radiation Area/Surface Contamination" (on chain and post around weir)

5.3.2 Radionuclide Inventory: Unknown

5.4 Utilities and Safety Systems

	Available			Operability			
	Yes	No	Unk	Yes	No	Unk	Comments/Condition/Type
Intrusion Alarm	☐	■	☐	☐	☐	☐	N/A
Heat	☐	■	☐	☐	☐	☐	N/A
Ventilation	☐	■	☐	☐	☐	☐	N/A
Air Conditioning	☐	■	☐	☐	☐	☐	N/A
Electricity	☐	■	☐	☐	☐	☐	N/A
Fire Detection	☐	■	☐	☐	☐	☐	N/A
Fire Suppression	☐	■	☐	☐	☐	☐	N/A
Compressed Air	☐	■	☐	☐	☐	☐	N/A
Vacuum System	☐	■	☐	☐	☐	☐	N/A
Breathing Air	☐	■	☐	☐	☐	☐	N/A
Water	☐	■	☐	☐	☐	☐	N/A
Drain	☐	■	☐	☐	☐	☐	N/A
Emergency Shower	☐	■	☐	☐	☐	☐	N/A
Exclusion Fence	■	☐	☐	■	☐	☐	
Air Sampling	☐	■	☐	☐	☐	☐	N/A



2904-S-170: WEIR

2904-S-170
Weir

1.0 LOCATION

200 West Area
N34400 W74300

2.0 REFERENCE DRAWING(s)

H-2-2598

3.0 DESCRIPTION

2904-S-170 Weir is an underground concrete structure 15'8"x 4'8"x 10'9" high. Walls, floor, and roof are 10" thick.

Piping includes one inlet and one outlet pipe both of 30" diameter vitrified clay pipe.

Two float well caps, a flow meter, and manhole cover are visable above grade. Building 2904-SA covers 3'2" of the weir's south end.

4.0 HISTORY

2904-S-170 weir was built in 1954 to regulate and measure the process waste flow from S-Plant before routing to liquid waste disposal sites. Currently the weir is unused and considered retired.

5.0 CHARACTERIZATION SUMMARY

5.1 Facility Classification: Unknown

5.2 Fire Fighting Category: N/A

2904-S-170 (Cont'd)

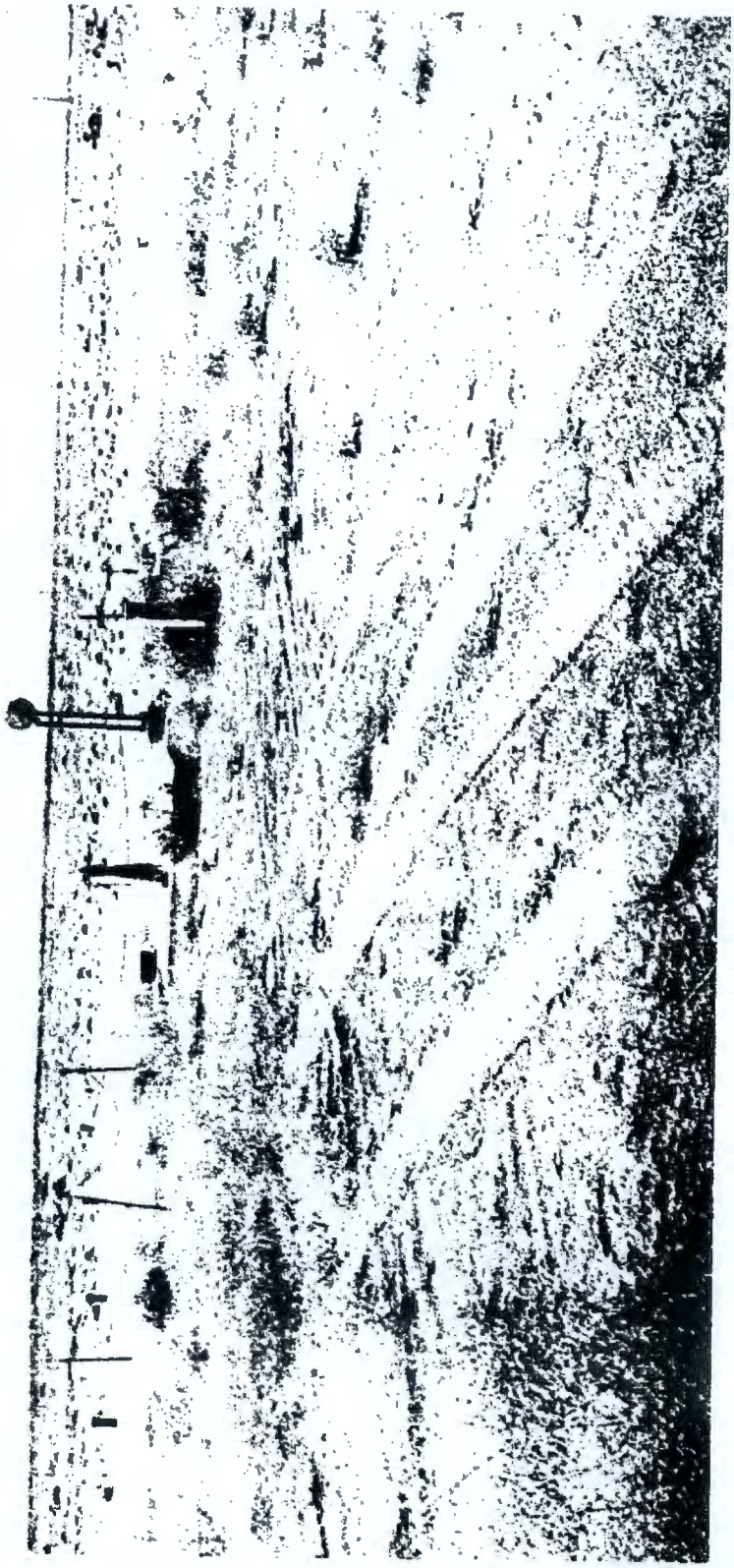
5.3 Radiological Characteristics

5.3.1 Postings: "Caution Underground Radioactive Material" (taped on cover of sample riser)

5.3.2 Radionuclide Inventory: Unknown

5.4 Utilities and Safety Systems

	Available			Operability			
	Yes	No	Unk	Yes	No	Unk	Comments/Condition/Type
Intrusion Alarm	☐	■	☐	☐	☐	☐	
Heat	☐	■	☐	☐	☐	☐	
Ventilation	☐	■	☐	☐	☐	☐	
Air Conditioning	☐	■	☐	☐	☐	☐	
Electricity	■	☐	☐	☐	☐	■	
Fire Detection	☐	■	☐	☐	☐	☐	N/A
Fire Suppression	☐	■	☐	☐	☐	☐	N/A
Compressed Air	☐	■	☐	☐	☐	☐	N/A
Vacuum System	☐	■	☐	☐	☐	☐	N/A
Breathing Air	☐	■	☐	☐	☐	☐	N/A
Water	☐	■	☐	☐	☐	☐	N/A
Drain	☐	■	☐	☐	☐	☐	N/A
Emergency Shower	☐	■	☐	☐	☐	☐	N/A
Exclusion Fence	☐	■	☐	☐	☐	☐	
Air Sampling	☐	☐	■	☐	☐	☐	



2904-S-171: WEIR

2904-S-171
Weir

1.0 LOCATION

200 West Area
N33200 W77800

2.0 REFERENCE DRAWING(s)

H-2-2595

3.0 DESCRIPTION

2904-S-171 Weir is a below grade concrete structure with outside dimensions of 8'4"x 12'8"x 10'1½" high. Walls, floor and roof are 10" thick. There are float wells attached vertically to the north and south outside walls of the weir. Float wells are 16" diameter metal pipes centered in 2'4" square concrete columns.

Piping includes an 18" diameter vitrified clay inlet pipe, and an 18" diameter galvanized corrugated metal outlet pipe.

Visable above grade are the stem gate valve with handwheel to operate weir sluice gate, flow meter, vent riser, and manhole cover.

4.0 HISTORY

2904-S-171 was built in 1954 to measure and regulate flow of process waste being routed to 216-S-6 crib.

This weir is unused and considered retired.

2904-S-171 (Cont'd)

5.0 CHARACTERIZATION SUMMARY

5.1 Facility Classification: Unknown

5.2 Fire Fighting Category: N/A

5.3 Radiological Characteristics

5.3.1 Postings "Radiation Area/Surface Contamination" (on chain and post barrier)

5.3.2 Radionuclide Inventory: Unknown

5.4 Utilities and Safety Systems

	Available			Operability			
	Yes	No	Unk	Yes	No	Unk	Comments/Condition/Type
Intrusion Alarm	☐	■	☐	☐	☐	☐	
Heat	☐	■	☐	☐	☐	☐	
Ventilation	☐	■	☐	☐	☐	☐	
Air Conditioning	☐	■	☐	☐	☐	☐	
Electricity	☐	■	☐	☐	☐	☐	
Fire Detection	☐	■	☐	☐	☐	☐	N/A
Fire Suppression	☐	■	☐	☐	☐	☐	N/A
Compressed Air	☐	■	☐	☐	☐	☐	N/A
Vacuum System	☐	■	☐	☐	☐	☐	N/A
Breathing Air	☐	■	☐	☐	☐	☐	N/A
Water	☐	■	☐	☐	☐	☐	N/A
Drain	☐	■	☐	☐	☐	☐	N/A
Emergency Shower	☐	■	☐	☐	☐	☐	N/A
Exclusion Fence	■	☐	☐	■	☐	☐	Chain & post
Air Sampling	☐	☐	■	☐	☐	☐	

2904-S-172: WEIR

2904-S-172

Weir

1.0 LOCATION

200 West Area
N33200 W76800

2.0 REFERENCE DRAWING(s)

H-2-30268

3.0 DESCRIPTION

2904-S-172 Weir is an underground concrete structure 13'8"x 7'4"x 7'4" high. Walls, floors and roof are 10" thick.

Float wells, consisting of 16" diameter pipe centered in 2'4" concrete columns, are attached vertically to the north and south outside walls of the structure.

Piping includes one 10" inlet pipe, three 12" outlet pipes, and a 24" vitrified clay inlet pipe which enters from the floor.

Visable above grade, are two float well covers, three handwheels for operating sluice gates, a Stevens recorder, and a manhole cover.

4.0 HISTORY

2904-S-172 Weir was built in 1956 to divert 202-S process vessel cooling water and steam condensate to ditch 216-S-16.

Currently the weir is unused and considered retired.

5.0 CHARACTERIZATION SUMMARY

5.1 Facility Classification: Unknown

2904-S-172 (Cont'd)

5.2 Fire Fighting Category: N/A

5.3 Radiological Characteristics

5.3.1 Postings: "Radiation Area/Surface Contamination" (on chain and post around weir)

5.3.2 Radionuclide Inventory: Unknown

5.4 Utilities and Safety Systems

	Available			Operability			
	Yes	No	Unk	Yes	No	Unk	Comments/Condition/Type
Intrusion Alarm	☐	■	☐	☐	☐	☐	
Heat	☐	■	☐	☐	☐	☐	
Ventilation	☐	■	☐	☐	☐	☐	
Air Conditioning	☐	■	☐	☐	☐	☐	
Electricity	■	☐	☐	☐	☐	☐	
Fire Detection	☐	■	☐	☐	☐	☐	N/A
Fire Suppression	☐	■	☐	☐	☐	☐	N/A
Compressed Air	☐	■	☐	☐	☐	☐	N/A
Vacuum System	☐	■	☐	☐	☐	☐	N/A
Breathing Air	☐	■	☐	☐	☐	☐	N/A
Water	☐	■	☐	☐	☐	☐	N/A
Drain	☐	■	☐	☐	☐	☐	N/A
Emergency Shower	☐	■	☐	☐	☐	☐	N/A
Exclusion Fence	■	☐	☐	■	☐	☐	Chain & post
Air Sampling	☐	☐	■	☐	☐	☐	

233-SA
Exhaust Filter Building

1.0 LOCATION

200 West Area
N34500 W74100

2.0 REFERENCE DRAWING

H-2-45490

3.0 DESCRIPTION

233-SA is a one story reinforced concrete structure in good condition.

Outside dimensions are 24'x27'x8-1/2' high. The building houses two banks of double High Efficiency Particulate Air (HEPA) filters; each with it's own exhaust fan, stack, and radiation monitoring instrumentation.

4.0 HISTORY

233-SA was built adjacent to 233-S in 1967 to handle ventilation for 233-S. Currently this building performs it's original function and it is planned to remain in service until 233-S is dismantled.

5.0 CHARACTERIZATION SUMMARY

5.1 Facility Classification: Unknown

5.2 Fire Fighting Category: Not posted

233-SA (Cont'd)

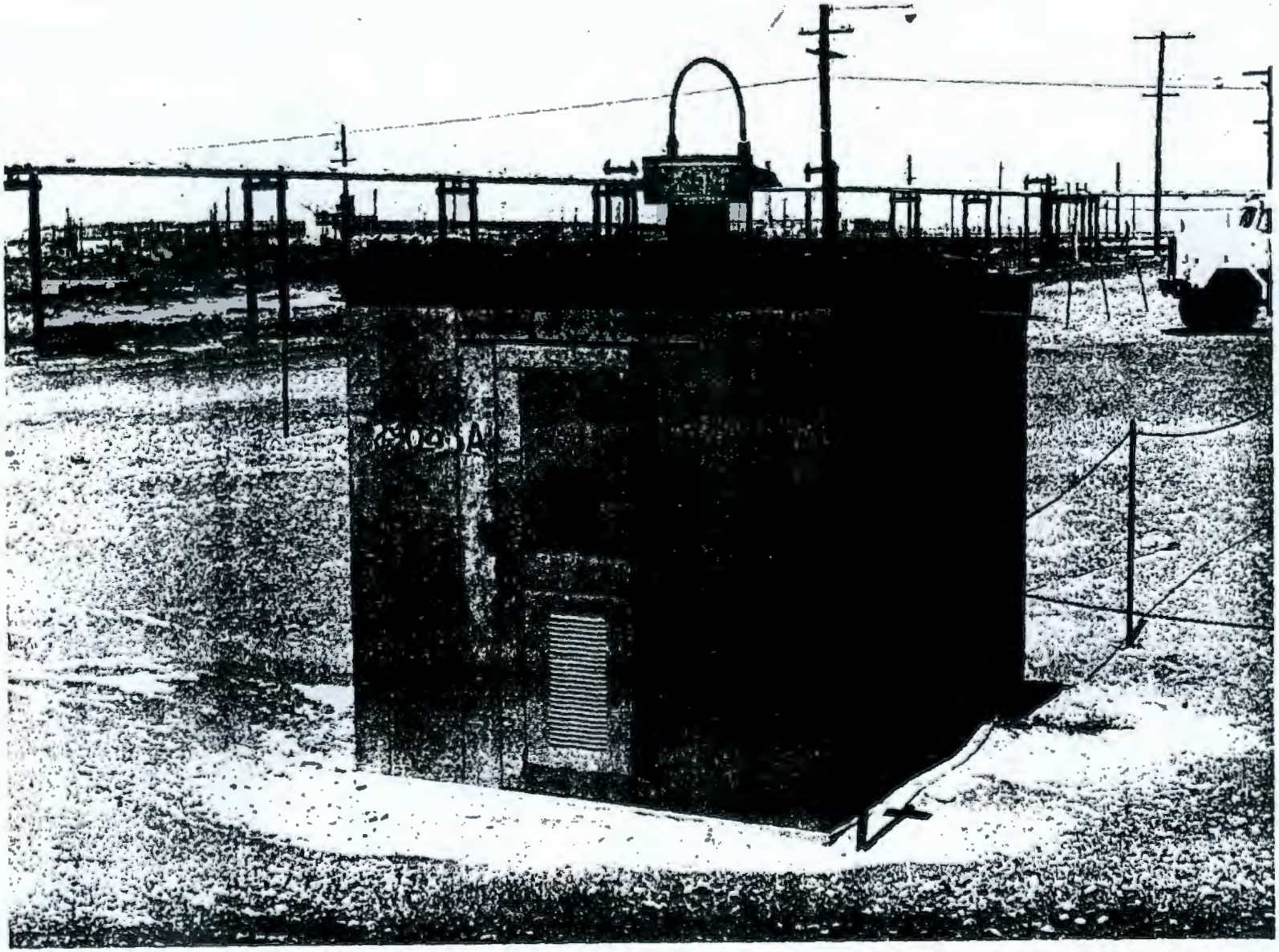
5.3 Radiological Characteristics

5.3.1 Postings: "Radiation Area/Surface Contamination" (on chain and post around stack & posted on door to building)
"Airborne Contamination" (on each inside door to filter banks)

5.3.2 Radionuclide Inventory: 1 curie Pu

5.4 Utilities and Safety Systems

	Available			Operability			
	Yes	No	Unk	Yes	No	Unk	Comments/Condition/Type
Intrusion Alarm	☐	■	☐	☐	☐	☐	
Heat	■	☐	☐	■	☐	☐	
Ventilation	☐	☐	■	☐	☐	☐	
Air Conditioning	☐	☐	■	☐	☐	☐	
Electricity	■	☐	☐	■	☐	☐	
Fire Detection	■	☐	☐	■	☐	☐	Smoke detector
Fire Suppression	☐	■	☐	☐	☐	☐	Room survey unavailable
Compressed Air	☐	■	☐	☐	☐	☐	" " "
Vacuum System	☐	■	☐	☐	☐	☐	" " "
Breathing Air	☐	■	☐	☐	☐	☐	" " "
Water	☐	■	☐	☐	☐	☐	" " "
Drain	■	☐	☐	☐	☐	☐	" " "
Emergency Shower	☐	■	☐	☐	☐	☐	" " "
Exclusion Fence	☐	■	☐	☐	☐	☐	
Air Sampling	■	☐	☐	■	☐	☐	Weekly



2904-SA: COOLING WATER SAMPLER BUILDING

2904-SA

Cooling Water Sampler Building

1.0 LOCATION

200 West Area
N34400 W14300

2.0 REFERENCE DRAWING(s)

H-2-30293

3.0 DESCRIPTION

2904-SA Sample Building is a prefabricated metal building 8'x 8'x 7' high in good condition resting on a concrete foundation.

Visual inspection of the building's exterior revealed no deficiencies.

Sample equipment inside the building consists of a pump, a 2' diameter 3' high stainless steel tank below grade with sample riser coming up through the building floor and associated piping.

The Sample Building extends 3'2" over the south end of 2904-S-170 weir. Samples are taken of S-Plant process effluents routed through the weir.

4.0 HISTORY

2904-SA Sample Building was built in 1956 to provide sampling of process waste flowing from S-Plant through 2904-S-170 weir to liquid waste disposal sites.

Currently the sample building is unused and considered retired.

5.0 CHARACTERIZATION SUMMARY

5.1 Facility Classification: Unknown

2904-SA (Cont'd)

5.2 Fire Fighting Category: Not posted

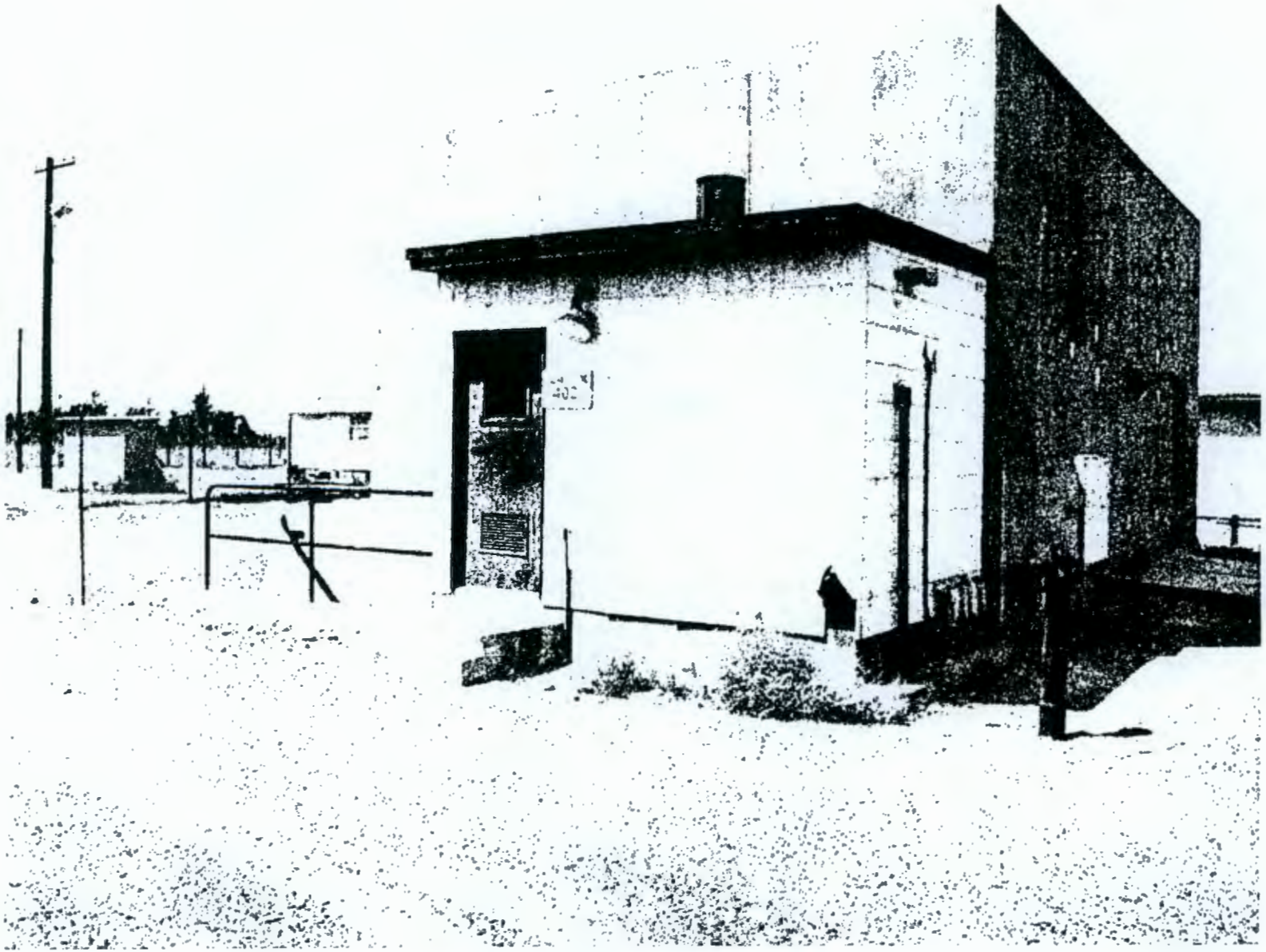
5.3 Radiological Characteristics

5.3.1 Postings: "Radiation Area/Surface Contamination" (posted on entrance door)

5.3.2 Radionuclide Inventory: 4 curies beta

5.4 Utilities and Safety Systems

	Available			Operability			
	Yes	No	Unk	Yes	No	Unk	Comments/Condition/Type
Intrusion Alarm	☐	■	☐	☐	☐	☐	
Heat	☐	■	☐	☐	☐	☐	
Ventilation	☐	■	☐	☐	☐	☐	
Air Conditioning	☐	■	☐	☐	☐	☐	
Electricity	■	☐	☐	☐	☐	■	
Fire Detection	☐	■	☐	☐	☐	☐	N/A
Fire Suppression	☐	■	☐	☐	☐	☐	N/A
Compressed Air	☐	■	☐	☐	☐	☐	N/A
Vacuum System	☐	■	☐	☐	☐	☐	N/A
Breathing Air	☐	■	☐	☐	☐	☐	N/A
Water	☐	■	☐	☐	☐	☐	N/A
Drain	☐	■	☐	☐	☐	☐	N/A
Emergency Shower	☐	■	☐	☐	☐	☐	N/A
Exclusion Fence	☐	■	☐	☐	☐	☐	
Air Sampling	☐	☐	■	☐	☐	☐	



241-SX-401, 241-SX-402: WASTE DISPOSAL CONDENSER HOUSES

241-SX-401, 241-SX-402
Waste Disposal Condenser Houses

1.0 LOCATION

200 West Area
241-SX-401 N35500 W76000
241-SX-402 N35450 W76000

2.0 REFERENCE DRAWING(s)

241-SX-401 H-2-39580, H-2-39581
241-SX-402 H-2-39917, H-2-39918

3.0 DESCRIPTION

241-SX-401 and 402 Waste Disposal Condenser Houses are identical structures except that 402 contains additional instrumentation.

Each building is constructed of concrete with walls varying from 1 to 2-1/2 feet thick for shielding purposes. The buildings are 36' long, 24' wide and 24' high with 7 ft below grade. Attached to the south end of each building is a single storied 12'x 8' control room made of wood and plaster board.

Visual inspection of each building's exterior revealed building 401 to be in fair condition with cracks on all walls and spalling of the concrete. Building 402 is in good condition with one horizontal crack around the structure.

4.0 HISTORY

241-SX-401 and 402 were built in 1954 to provide condensation for the 241-SX tank farm off-gasses. 241-SX-402 was used very little and is contaminated only to very low levels as compared to 241-SX-401.

These structures are currently unused and considered retired.

241-SX-401, 241-SX-402 (Cont'd)

5.0 CHARACTERIZATION SUMMARY

5.1 Facility Classification: Unknown

5.2 Fire Fighting Category: Not posted

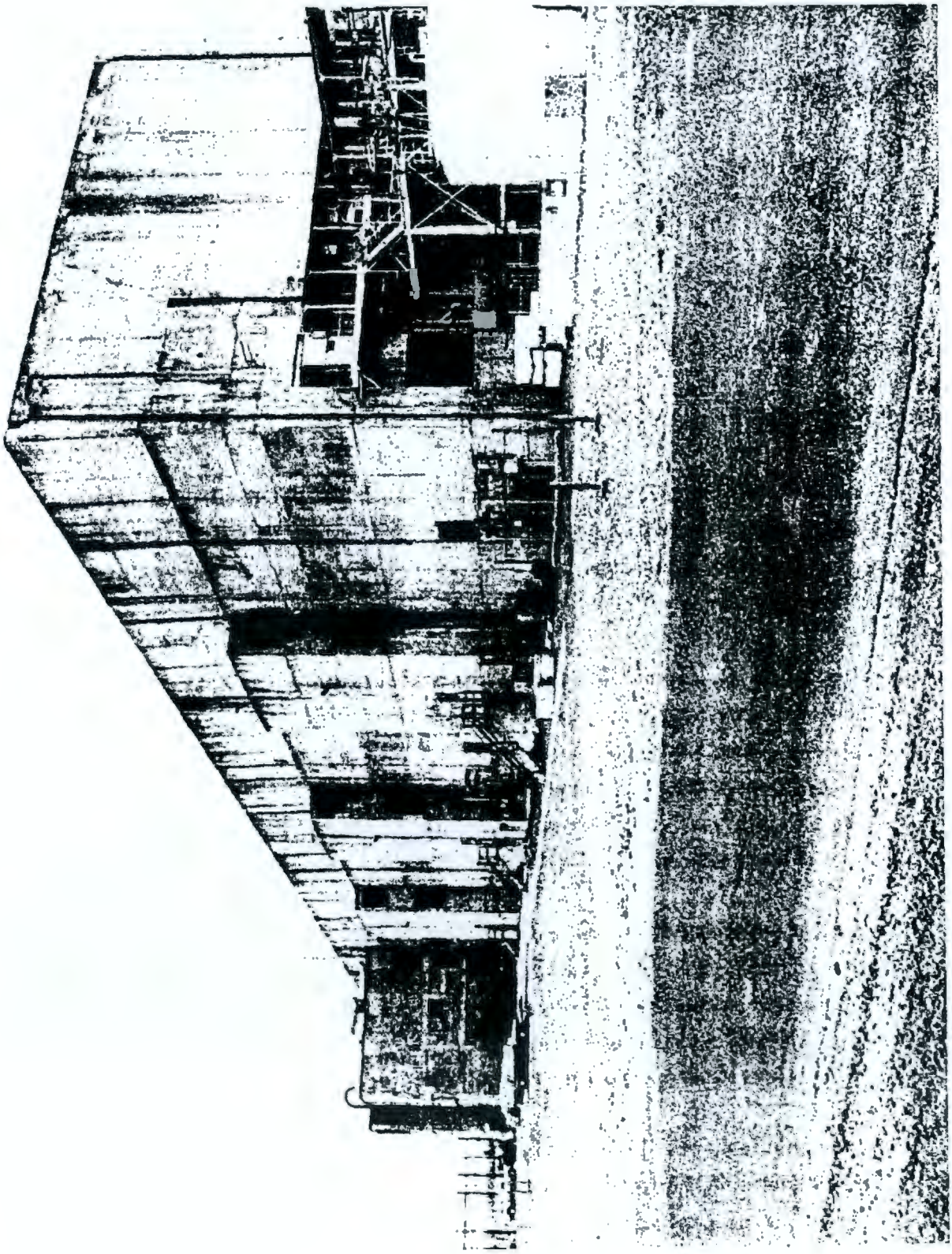
5.3 Radiological Characteristics

5.3.1 Postings: "Radiation Area/Surface Contamination" (on 241-SX perimeter fence)
"High Radiation Area" (area just north of building 401 is roped off)

5.3.2 Radionuclide Inventory: 8 curies beta

5.4 Utilities and Safety Systems

	Available			Operability			
	Yes	No	Unk	Yes	No	Unk	Comments/Condition/Type
Intrusion Alarm	☐	☐	■	☐	☐	☐	
Heat	☐	■	☐	☐	☐	☐	Room survey unavailable
Ventilation	☐	■	☐	☐	☐	☐	" " "
Air Conditioning	☐	■	☐	☐	☐	☐	" " "
Electricity	■	☐	☐	☐	☐	■	" " "
Fire Detection	☐	■	☐	☐	☐	☐	
Fire Suppression	☐	■	☐	☐	☐	☐	Room survey unavailable
Compressed Air	☐	■	☐	☐	☐	☐	" " "
Vacuum System	☐	■	☐	☐	☐	☐	" " "
Breathing Air	☐	■	☐	☐	☐	☐	" " "
Water	☐	■	☐	☐	☐	☐	" " "
Drain	☐	■	☐	☐	☐	☐	" " "
Emergency Shower	☐	■	☐	☐	☐	☐	" " "
Exclusion Fence	■	☐	☐	■	☐	☐	Uses 241-SX perimeter
Air Sampling	☐	■	☐	☐	☐	☐	Room survey unavailable



221-U: PROCESS CANYON

221-U

Process Canyon

1.0 LOCATION

200 West Area
N38500 W73400

2.0 REFERENCE DRAWING(s)

H-2-41529

3.0 DESCRIPTION

This is a reinforced concrete canyon type building in fair condition. Visual inspection of the building's exterior revealed corrosion and cracking of the walls. Outside dimensions are 810' x 66' x 77' (26' below grade) with 83,500 ft^2 of floor area.

The building is built in 20 sections, with expansion joints between each section. These sections, numbered 1-20, are each 40 ft long. The building is divided lengthwise into the gallery side and process canyon side by a wall that runs the full length of the building. Typical wall thickness are: floor - 6 ft; roof - 3 to 4 ft; outside wall, process side - 5 ft; outside wall, galleryside - 3 ft; and dividing wall - 5 to 9 ft (See Figure 3).

The gallery side, 14 ft wide (inside dimensions), has four floors. From bottom to top these are: electrical gallery, pipe gallery, operating gallery, and the crane cabway which has no ceiling and is open to the process side. The galleries contain the electrical distribution centers, almost all cold piping, instrumentation and controls for cell processes.

The process canyon side, 37 ft wide (inside dimension), contains process cells, hot pipe trench, and the air tunnel. The cells are in the middle of the building next to the galleries; the trench and tunnel are between the cells and the

221-U (Cont'd)

outside wall. There are 40 process cells arranged two per section in a single row. They are separated from the pipe trench, air tunnel, and each other by 7 ft thick walls and from the electrical and pipe galleries by 9 ft thick walls.

Typical cells, 18 x 13 x 28 ft are closed by removable 6 ft thick concrete cover blocks. Cell 10 is 45 ft deep and is used to collect cell drainage from the pipe trench and other cells via a concrete encased 24 inch tile sewer underneath the cell floors that runs the building length. Cells, designed for remote operation and maintenance, contain all hot process vessels and equipment. Lines entering the cells are embedded in the cell wall and terminate on the inside of the cell with remote connectors. All intracell piping is remotely removable pipe jumpers. Cell equipment and vessels are remotely removable. The hot pipe trench, which runs parallel to the cells from section 3 through 20, is 8 ft wide and 10 ft deep (from the top of the blocks) and is closed by 2 ft thick removable concrete cover blocks. The trench contains most intercell process and waste transfer piping.

The air tunnel, located directly beneath the pipe trench and separated from it and the cells by 7 ft thick walls, is 10.7 ft high by 10.5 ft wide and runs from section 3 through 20. It provides exhaust ventilation for the cells and pipe trench and connects to the 291-U ventilation system outside the building.

The top of the cell and pipe trench cover blocks, which are level with the floor of the operating gallery, form the canyon deck. From the canyon deck to the ceiling there is 40 ft of open space. This space provides access to the cells for remote maintenance work performed by the overhead traveling bridge crane. The crane spans the width and travels the length. It is equipped with 75 and 10-ton hoists and auxiliaries with electric impact wrenches. The crane cab, suspended from the bridge travels in the crane cabway, protected from the canyon by the 5 ft thick wall of the cabway.

A reinforced concrete railroad tunnel, 216 x 26 x 31 ft, with walls 2.8 to 4.5 ft thick, enters the building at section 2, cell 3 and runs the building width. Access to the tunnel is provided by removing the cell 3 cover blocks. Personnel

access to the building is by concrete enclosed stairwells on both sides of the building at all odd numbered sections. The gallery side of the building is butted up to and joined with the 271-U office/service building.

The galleries and cells still contain most of the uranium recovery process equipment.

4.0 HISTORY

221-U was originally constructed in 1944-45 as an integral part of the U-Plant fuel separations facility, but was never used for that purpose. From 1950 to 1952, U-Plant was extensively modified for the uranium metal recovery program. Modifications included all new cell process equipment in the 221-U canyon building.

The 221-U canyon building, from 1952-58, recovered uranium from high-level waste underground storage (UGS) tanks containing liquid waste from the B&T (bismuth phosphate process) fuel separation plants. Solvent extraction with tributyl phosphate (TBP) separated and decontaminated uranium from the UGS tank's waste. The recovered uranium, uranyl nitrate hexahydrate (UNH), was sent to 224-U.

Since shutdown, in 1958, 221-U has been used to store deactivated equipment. Support facilities (change rooms, showers, lavatories) are not used, except change room by RM when taking samples of canyon air. Canyon crane is intact and used as needed in conjunction with equipment storage. The galleries and cells contain most of the original process equipment that was installed for the metal recovery program. Empty 55 gallon drums are stored inside the radiation zone of the pipe gallery. The railroad runnel is vacant.

5.0 CHARACTERIZATION SUMMARY

5.1 Facility Classification: Isolated

221-U (Cont'd)

5.2 Fire Fighting Category: Not Posted

5.3 Radiological Characteristics

5.3.1 Postings: "Radioactive Materials" (posted on all doors leading to canyon)
"Radiation Area" (posted in operating gallery, pipe gallery, and on all entrances to crane cab)
"On Mask" (posted on 221-U canyon entrance)

5.3.2 Radionuclide inventory: 10,015 curies beta

5.4 Utilities and Safety Systems

	Available			Operability			
	Yes	No	Unk	Yes	No	Unk	Comments/Condition/Type
Intrusion Alarm	☐	☐	■	☐	☐	☐	
Heat (steam, other)	■	☐	☐	■	☐	☐	Steam
Ventilation (specify type)	■	☐	☐	■	☐	☐	Forced air/HEPA & Sand
Air Conditioning	■	☐	☐	■	☐	☐	Water evaporation
Electricity	■	☐	☐	■	☐	☐	
Fire Detection	☐	☐	■	☐	☐	☐	Room survey unavailable
Fire Suppression	■	☐	☐	■	☐	☐	*
Compressed Air	☐	☐	■	☐	☐	☐	Room survey unavailable
Vacuum System	☐	☐	■	☐	☐	☐	" " "
Breathing Air	☐	☐	■	☐	☐	☐	" " "
Water	☐	☐	■	☐	☐	☐	" " "
Drain	■	☐	☐	■	☐	☐	" " "
Emergency Shower	☐	☐	■	☐	☐	☐	" " "
Exclusion Fence	☐	☐	■	☐	☐	☐	
Air Sampling	■	☐	☐	■	☐	☐	

* 35 extinguishers throughout canyon building - 4 extinguishers inside canyon building

241-U-361: SETTLING TANK

241-U-361
Settling Tank

1.0 LOCATION

200 West Area
N37900 W74200

2.0 REFERENCE DRAWING(s)

H-2-72902

3.0 DESCRIPTION

The 241-U-361 tank is an underground settling tank constructed of reinforced concrete 6" thick. The tank is 20' in diameter and 15' deep. There are several risers visable above grade, one equipped with manual tape, and one with two dip tubes for liquid level measurement.

4.0 HISTORY

The 241-U-361 settling tank was active from 1951 to 1957 and was used to receive and settle 224-U process and decon solutions. Overflow from this settling tank was routed to 216-U-1 and 216-U-2 cribs. This tank is currently retired and unused.

5.0 CHARACTERIZATION SUMMARY

5.1 Facility Classification: Unknown

5.2 Fire Fighting Category: N/A

5.3 Radiological Characteristics

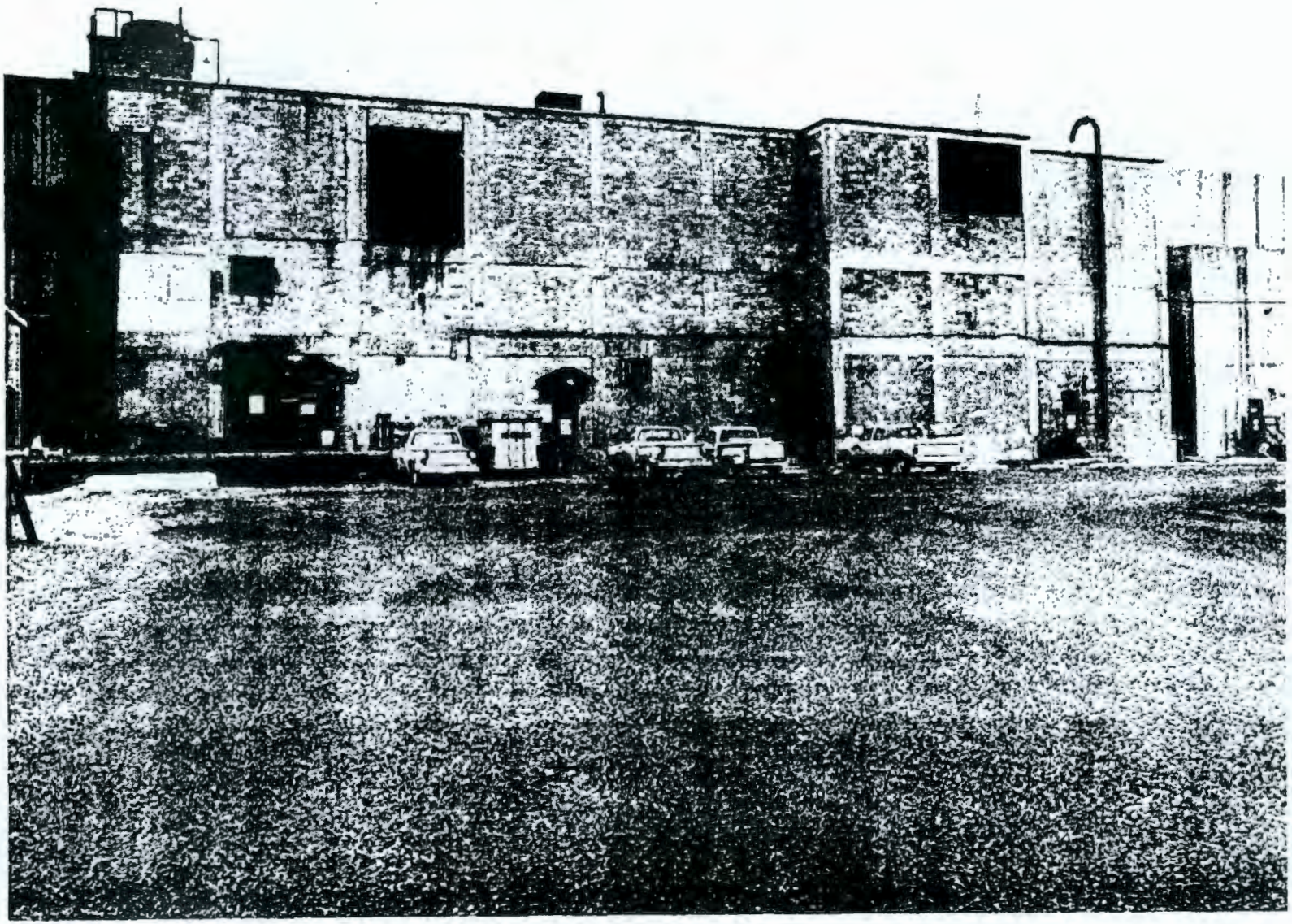
5.3.1 Postings: "Radiation Area/Surface Contamination" (on posts supporting barrier)

241-U-361 (Cont'd)

5.3.2 Radionuclide inventory: 60 curies beta

5.4 Utilities and Safety Systems

	Available			Operability			
	Yes	No	Unk	Yes	No	Unk	Comments/Condition/Type
Intrusion Alarm	☐	■	☐	☐	☐	☐	N/A
Heat (steam, other)	☐	■	☐	☐	☐	☐	N/A
Ventilation (specify type)	☐	■	☐	☐	☐	☐	N/A
Air Conditioning	☐	■	☐	☐	☐	☐	N/A
Electricity	☐	■	☐	☐	☐	☐	N/A
Fire Detection	☐	■	☐	☐	☐	☐	N/A
Fire Suppression	☐	■	☐	☐	☐	☐	N/A
Compressed Air	☐	■	☐	☐	☐	☐	N/A
Vacuum System	☐	■	☐	☐	☐	☐	N/A
Breathing Air	☐	■	☐	☐	☐	☐	N/A
Water	☐	■	☐	☐	☐	☐	N/A
Drain	☐	■	☐	☐	☐	☐	N/A
Emergency Shower	☐	■	☐	☐	☐	☐	N/A
Exclusion Fence	■	☐	☐	☐	☐	☐	Chain & Post
Air Sampling	☐	■	☐	☐	☐	☐	N/A



271-U: OFFICE BUILDING

271-U
Office Building

1.0 LOCATION

200 West Area
N38500 W73400

2.0 REFERENCE DRAWING(s)

H-2-43231

3.0 DESCRIPTION

271-U is an office/service building in good condition consisting of a reinforced concrete foundation, floors, pillars, pumice block walls, and a builtup asphalt and gravel roof. Visual inspection of the building's exterior has revealed no deficiencies. Outside dimensions are 160' x 48' x 67'10" (10'6" below grade) with 30,720 ft^2 area.

This is a four story structure including basement, and is physically attached to the gallery side of the 221-U Canyon building. Access to the 221-U galleries is provided through double doors at section 11 and 13 of 271-U or stairwell entrances at each odd numbered section.

The basement contains compressors, ventilation supply equipment, offices and shops. The first and second floors contain offices and storage. The third floor contains chemical makeup facilities, and a plutonium storage area which is secured through combination lock.

4.0 HISTORY

271-U was originally built, in 1944-45, as a support facility for 221-U operations. The third floor was designated for plutonium storage.

271-U (Cont'd)

Currently this facility is retired but is being used for offices. The plutonium storage area on the third floor has been used since 1975 as a storage area for archiving contaminated sediments to support low level waste management. There are approximately twenty-five to thirty 55 gallon drums in storage now.

5.0 CHARACTERIZATION SUMMARY

5.1 Facility Classification: Isolated

5.2 Fire Fighting Category: Not posted

5.3 Radiological characteristics

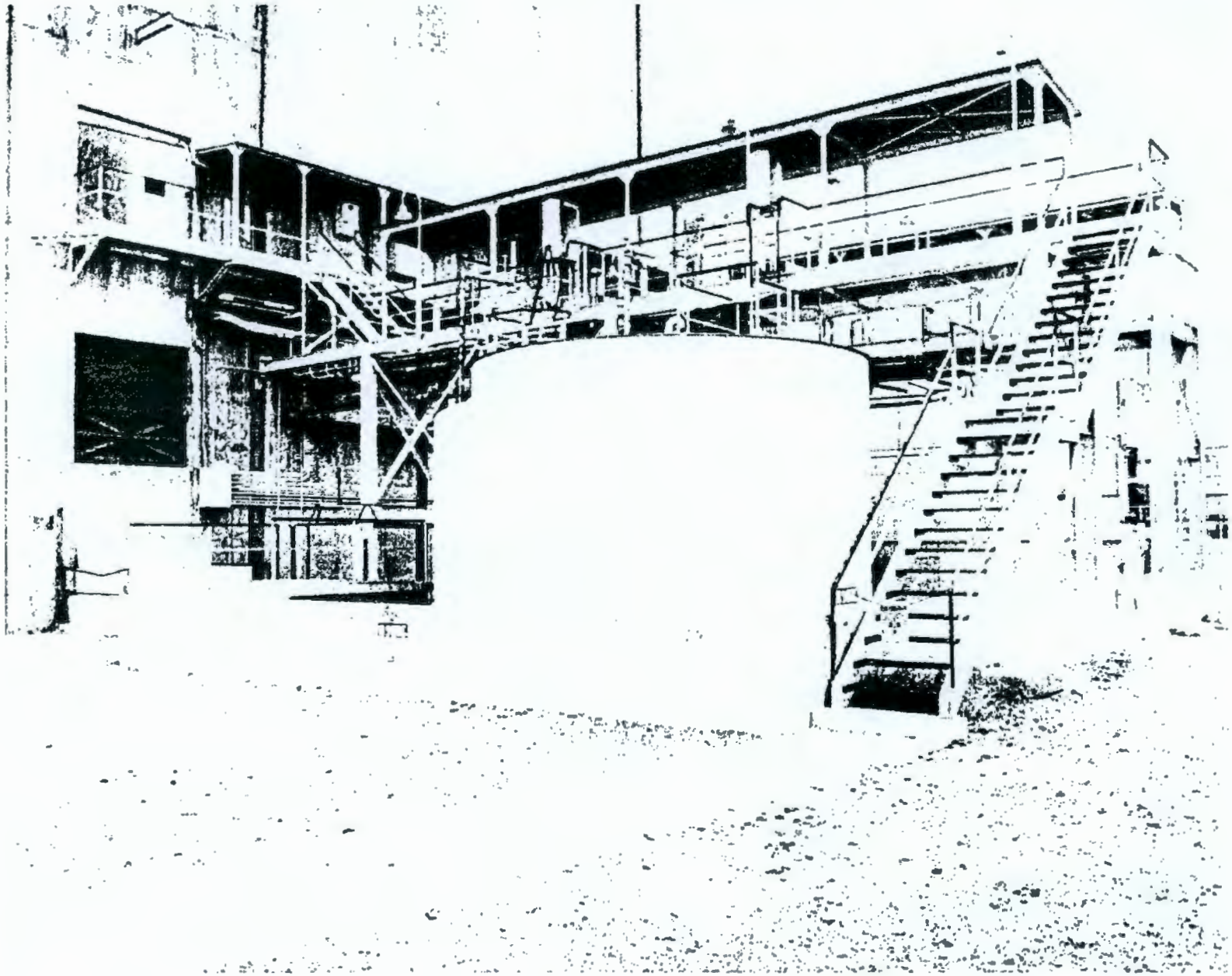
5.3.1 Postings: There are no radiological postings on building's exterior.

5.3.2 Radionuclide inventory: Unknown

5.4 Utilities and Safety Systems

	Available			Operability			
	Yes	No	Unk	Yes	No	Unk	Comments/Condition/Type
Intrusion Alarm	☐	■	☐	☐	■	☐	
Heat (steam, other)	■	☐	☐	■	☐	☐	Steam
Ventilation (specify type)	■	☐	☐	■	☐	☐	Forced air
Air Conditioning	■	☐	☐	■	☐	☐	Water evaporation
Electricity	■	☐	☐	■	☐	☐	
Fire Detection	☐	☐	■	☐	☐	☐	Room survey unavailable
Fire Suppression	■	☐	☐	■	☐	☐	*
Compressed Air	☐	☐	■	☐	☐	☐	Room survey unavailable
Vacuum System	☐	☐	■	☐	☐	☐	" " "
Breathing Air	☐	☐	■	☐	☐	☐	" " "
Water	■	☐	☐	■	☐	☐	" " "
Drain	■	☐	☐	■	☐	☐	" " "
Emergency Shower	☐	☐	■	☐	☐	☐	" " "
Exclusion Fence	☐	☐	■	☐	☐	■	" " "
Air Sampling	☐	■	☐	☐	☐	☐	

* 23 extinguishers throughout building



276-U: SOLVENT RECOVERY FACILTIY

276-U

Solvent Recovery Facility

1.0 LOCATION

200 West Area
N38500 W73400

2.0 REFERENCE DRAWING(s)

H-2-42231
H-2-41207

3.0 DESCRIPTION

276-U solvent handling facility is an above ground concrete basin, 66'x54'x8' with 5' below grade. It is physically attached to the south end wall of 221-U.

The basin contains three tanks and three vacant concrete tank pads. Tank-380 is 17' in diameter and 17-1/2' high made of carbon steel with a 29,000 gallon capacity. Tank-381 is 8' in diameter and 17-1/2' high made of black iron with a 6,000 gallon capacity. Tank-388 is 6' in diameter and 14-1/2' high made of black iron with a 2,500 gallon capacity.

There are also stairs, platforms, catwalks, piping and utilities for service at the tank tops.

4.0 HISTORY

276-U was built for T.B.P. (tri-butyl phosphate) and diluent storage, and for makeup and treatment of the organic solutions used in 221-U.

Three of six tanks have been removed and only tank pads remain. Piping above the vacant tank pads is cut and covered with tape and plastic.

The remaining tanks are unused and this facility is considered retired.

276-U (Cont'd)

5.0 CHARACTERIZATION SUMMARY

5.1 Facility Classification: Unknown

5.2 Fire Fighting Category: Not posted

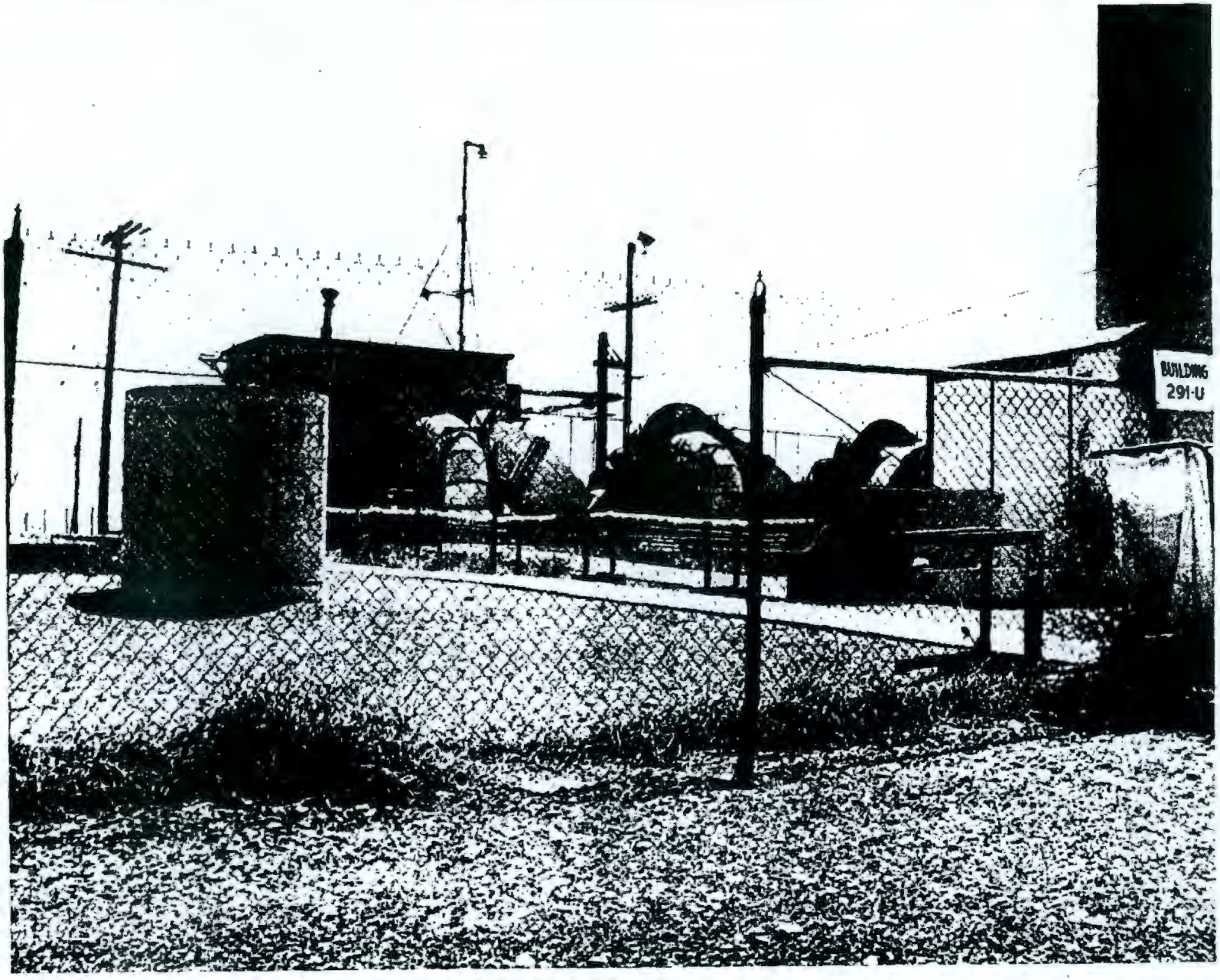
5.3 Radiological Characteristics

5.3.1 Postings: "Radiation Area/Surface Contamination" (on basin walls and across stairway entrance)

5.3.2 Radionuclide Inventory: 11 curies beta

5.4 Utilities and Safety Systems

	Available			Operability			
	Yes	No	Unk	Yes	No	Unk	Comments/Condition/Type
Intrusion Alarm	☐	■	☐	☐	☐	☐	
Heat	☐	■	☐	☐	☐	☐	
Ventilation	☐	■	☐	☐	☐	☐	
Air Conditioning	☐	■	☐	☐	☐	☐	
Electricity	■	☐	☐	☐	☐	■	
Fire Detection	☐	■	☐	☐	☐	☐	
Fire Suppression	☐	■	☐	☐	☐	☐	
Compressed Air	☐	☐	■	☐	☐	☐	Room survey unavailable
Vacuum System	☐	☐	■	☐	☐	☐	" " "
Breathing Air	☐	☐	■	☐	☐	☐	" " "
Water	■	☐	☐	☐	☐	■	
Drain	■	☐	☐	☐	☐	■	
Emergency Shower	■	☐	☐	☐	☐	■	
Exclusion Fence	☐	■	☐	☐	☐	☐	Basin walls posted
Air Sampling	☐	■	☐	☐	☐	☐	



291-U, 291-U-1: EXHAUST FAN CONTROL HOUSE, STACK, SAND FILTER AND VESSEL VENT PIT

291-U, 291-U-1

Exhaust Fan Control House, Stack,
Sand Filter and Vessel Vent Pit

1.0 LOCATION

200 West Area
N38500 W72900

2.0 REFERENCE DRAWING(s)

H-2-41655
H-2-42269

3.0 DESCRIPTION(s)

The 291-U complex is madeup of an Exhaust Fan Control House (291-U), Stack (291-U-1), Sand Filter and Vessel Vent Pit. There are also several hundred feet of underground concrete air tunnels, some smaller blower pits and filter pits plus various utilities and services.

The exhaust fan control house (291-U) is in good condition and consists of reinforced concrete foundation and floor, concrete and block walls, and a concrete slab roof covered with asphalt and gravel, trimmed in wood. Visual inspection of the buildings exterior revealed deterioration of the roofs wooden edge. No inspection was made of the rooftop. The block walls showed no deficiencies. Outside dimensions of the building are 18 x 19 x 14' high with 330 ft^2 area. This is a one story, one room, building with wooden doors. The building houses stack ventilation instrumentation and is equipped with two electric fans on the outside.

The exhaust stack (291-U-1) is in good condition and consists of reinforced concrete, lined with acid resistant brick. The stack rests on an octogonal, two tiered, foundation of brick and concrete. Visual inspection of the stack

291-U, 291-U-1 (Cont'd)

at ground level revealed no deficiencies. The stack is 14' in diameter at the base and 200' high. The foundation measures 23 feet across and 7 feet thick at its greatest points.

The associated sand filter is a partially below grade, reinforced concrete box structure, 96 x 96 x 22 ft deep, with an asphalt covered concrete slab roof.

The vessel vent pit is a below grade reinforced concrete pit, 19 x 15 x 10.5 ft deep with 2 ft thick walls and floor and closed by 2 ft thick ground level blocks. It contains two exhaust fans that provide vessel ventilation. They exhaust through a duct to the main 291-U air tunnel.

4.0 HISTORY

The 291-U complex was originally built in 1944-45 to provide exhaust ventilation for the 221-U canyon building. The 221-U building is retired, however, the 291-U exhaust ventilation system still serves its original purpose and is planned to remain in operation until the 221-U Building is decommissioned.

5.0 CHARACTERIZATION SUMMARY

5.1 Facility Classification: Unknown

5.2 Fire Fighting Category: Not posted

5.3 Radiological Characteristics

5.3.1 Postings: "Radiation Area/Surface Contamination" (posted on exclusion fence)
Buildings exterior is not radiologically posted.

5.3.2 Radionuclide inventory: Unknown

291-U, 291-U-1 (Cont'd)

5.4 Utilities and Safety Systems

	Available			Operability			
	Yes	No	Unk	Yes	No	Unk	Comments/Condition/Type
Intrusion Alarm	☐	■	☐	☐	☐	☐	
Heat	■	☐	☐	■	☐	☐	
Ventilation	■	☐	☐	☐	☐	■	
Air Conditioning	■	☐	☐	☐	☐	■	Swamp cooler
Electricity	■	☐	☐	■	☐	☐	
Fire Detection	☐	☐	■	☐	☐	☐	Room survey unavailable
Fire Suppression	☐	☐	■	☐	☐	☐	" " "
Compressed Air	☐	☐	■	☐	☐	☐	" " "
Vacuum System	☐	☐	■	☐	☐	☐	" " "
Breathing Air	☐	☐	■	☐	☐	☐	" " "
Water	☐	☐	■	☐	☐	☐	" " "
Drain	☐	☐	■	☐	☐	☐	" " "
Emergency Shower	☐	☐	■	☐	☐	☐	" " "
Exclusion Fence	■	☐	☐	■	☐	☐	
Air Sampling	■	☐	☐	■	☐	☐	H U-771 Weekly

296-U-6
Stack

1.0 LOCATION

200 West Area
N38900 W72900

2.0 REFERENCE DRAWING(s)

H-2-40965
H-2-40744

3.0 DESCRIPTION

The 296-U-6 vault exhauster stack is in good condition and consists of a carbon steel stack mounted on a concrete foundation. The electric fan and motor, permanently wired to the stack, rest on a separate concrete foundation. The stack is 18" in diameter and 48' high, with a 3'8" diameter octagonal foundation which is 5' thick, partially below grade.

4.0 HISTORY

The 296-U-6 stack was built to discharge unfiltered ventilation air from the cold side of the 241-WR vault. The stack first exhausted air from the storage of UNH for feed to 221-U, then from HNO_3 storage, and finally during thorium storage. This stack is currently retired and unused, as is the 241-WR vault it exhausts.

5.0 CHARACTERIZATION SUMMARY

5.1 Facility Classification: N/A

5.2 Fire Fighting Category: N/A

296-U-6 (Cont'd)

5.3 Radiological Characteristics

5.3.1 Postings: "Radiation Area/Surface Contamination" (on exclusion fence which surrounds 241-WR vault where 296-U-6 stack is located)

5.3.2 Radionuclide inventory: Unknown

5.4 Utilities and Safety Systems

	Available			Operability			
	Yes	No	Unk	Yes	No	Unk	Comments/Condition/Type
Intrusion Alarm	☐	■	☐	☐	☐	☐	N/A
Heat	☐	■	☐	☐	☐	☐	N/A
Ventilation	☐	■	☐	☐	☐	☐	N/A
Air Conditioning	☐	■	☐	☐	☐	☐	N/A
Electricity	☐	■	☐	☐	☐	☐	N/A
Fire Detection	☐	■	☐	☐	☐	☐	N/A
Fire Suppression	☐	■	☐	☐	☐	☐	N/A
Compressed Air	☐	■	☐	☐	☐	☐	N/A
Vacuum System	☐	■	☐	☐	☐	☐	N/A
Breathing Air	☐	■	☐	☐	☐	☐	N/A
Water	☐	■	☐	☐	☐	☐	N/A
Drain	☐	■	☐	☐	☐	☐	N/A
Emergency Shower	☐	■	☐	☐	☐	☐	
Exclusion Fence	■	☐	☐	☐	☐	☐	Around 241-WR Vault
Air Sampling	■	☐	☐	■	☐	☐	

296-U-10

Stack

1.0 LOCATION

200 West Area
N38500 W73400

2.0 REFERENCE DRAWING(s)

H-2-50611
SK-2-22005

3.0 DESCRIPTION

The 296-U-10 Pu storage area exhaust stack is in good condition and is constructed of carbon steel. This stack rests on the rooftop of the 271-U building and is supported by the 221-U building wall. The stack is 24" in diameter and extends 10' above the roof. The electric motor and fan enclosure, associated with the stack, are also mounted on the rooftop, and rest on a 9'10" x 8' wide metal foundation.

4.0 HISTORY

The 296-U-10 stack was originally built to ventilate the 271-U, third floor, Pu storage area. Currently, the stack continues to ventilate this area, however, Pu is no longer stored there. This area is now used for storage of contaminated sediment.

5.0 CHARACTERIZATION SUMMARY

5.1 Facility Classification: N/A

5.2 Fire Fighting Category: Unknown

296-U-10 (Cont'd)

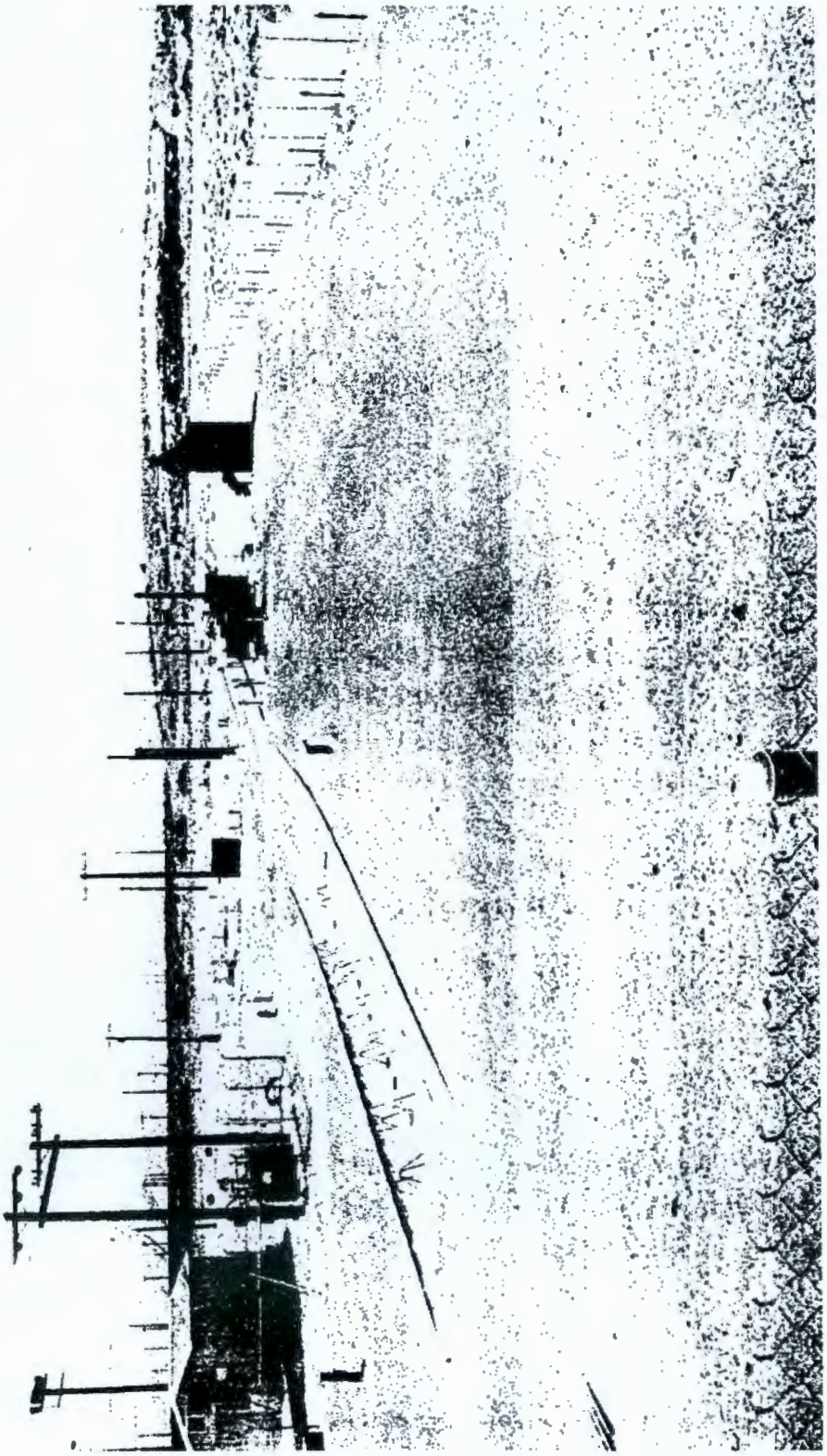
5.3 Radiological Characteristics

5.3.1 Postings: "Radiation Zone" (stickers are affixed to the fan housing)

5.3.2 Radionuclide inventory: Unknown

5.4 Utilities and Safety Systems

	Available			Operability			
	Yes	No	Unk	Yes	No	Unk	Comments/Condition/Type
Intrusion Alarm	☐	■	☐	☐	☐	☐	
Heat	☐	■	☐	☐	☐	☐	
Ventilation	■	☐	☐	☐	☐	☐	Exhaust fan
Air Conditioning	☐	■	☐	☐	☐	☐	
Electricity	■	☐	☐	☐	☐	☐	For fan operation
Fire Detection	☐	☐	■	☐	☐	☐	N/A
Fire Suppression	☐	☐	■	☐	☐	☐	N/A
Compressed Air	☐	☐	■	☐	☐	☐	N/A
Vacuum System	☐	☐	■	☐	☐	☐	N/A
Breathing Air	☐	☐	■	☐	☐	☐	N/A
Water	☐	☐	■	☐	☐	☐	N/A
Drain	☐	☐	■	☐	☐	☐	N/A
Emergency Shower	☐	☐	■	☐	☐	☐	N/A
Exclusion Fence	☐	■	☐	☐	☐	☐	N/A
Air Sampling	■	☐	☐	☐	☐	☐	Daily/in stairwell



244-UR: WASTE DISPOSAL VAULT

244-UR

Waste Disposal Vault

1.0 LOCATION

200 West Area
N38400 W75800

2.0 REFERENCE DRAWING(s)

H-2-40199
H-2-40108

3.0 DESCRIPTION

The 244-UR Process Tank Vault is an underground concrete structure divided vertically into four sections. Each section houses a stainless steel tank and is further divided horizontally to provide pump pits above the tanks. Pump pits contain pumps and piping used during liquid transfer. Walls, floors, horizontal divisions, and roofs (ground level) are constructed of 2' thick reinforced concrete. Sumps are located in the sections occupied by tanks TK-UR-001, TK-UR-002, and TK-UR-003. Approximate overall dimensions of the vault are 90' x 26' wide with depth ranging from 32' to 45'.

TK-UR-001 is a 50,000 gallon slurry accumulator tank 20' in diameter. TK-UR-002 and TK-UR-003 are identical 15,000 gallon blend tanks 14' in diameter. TK-UR-004 is a process tank 10' in diameter and 14' high.

There are also above ground service facilities which include four instrument shelters, an inlet filter enclosure and six risers used to measure liquid level in tanks and sumps.

4.0 HISTORY

The 244-UR vault was built to hold up waste from U-Plant operations. This facility is currently retired and unused.

244-UR (Cont'd)

5.0 CHARACTERIZATION SUMMARY

5.1 Facility Classification: Unknown

5.2 Fire Fighting Category: Not posted

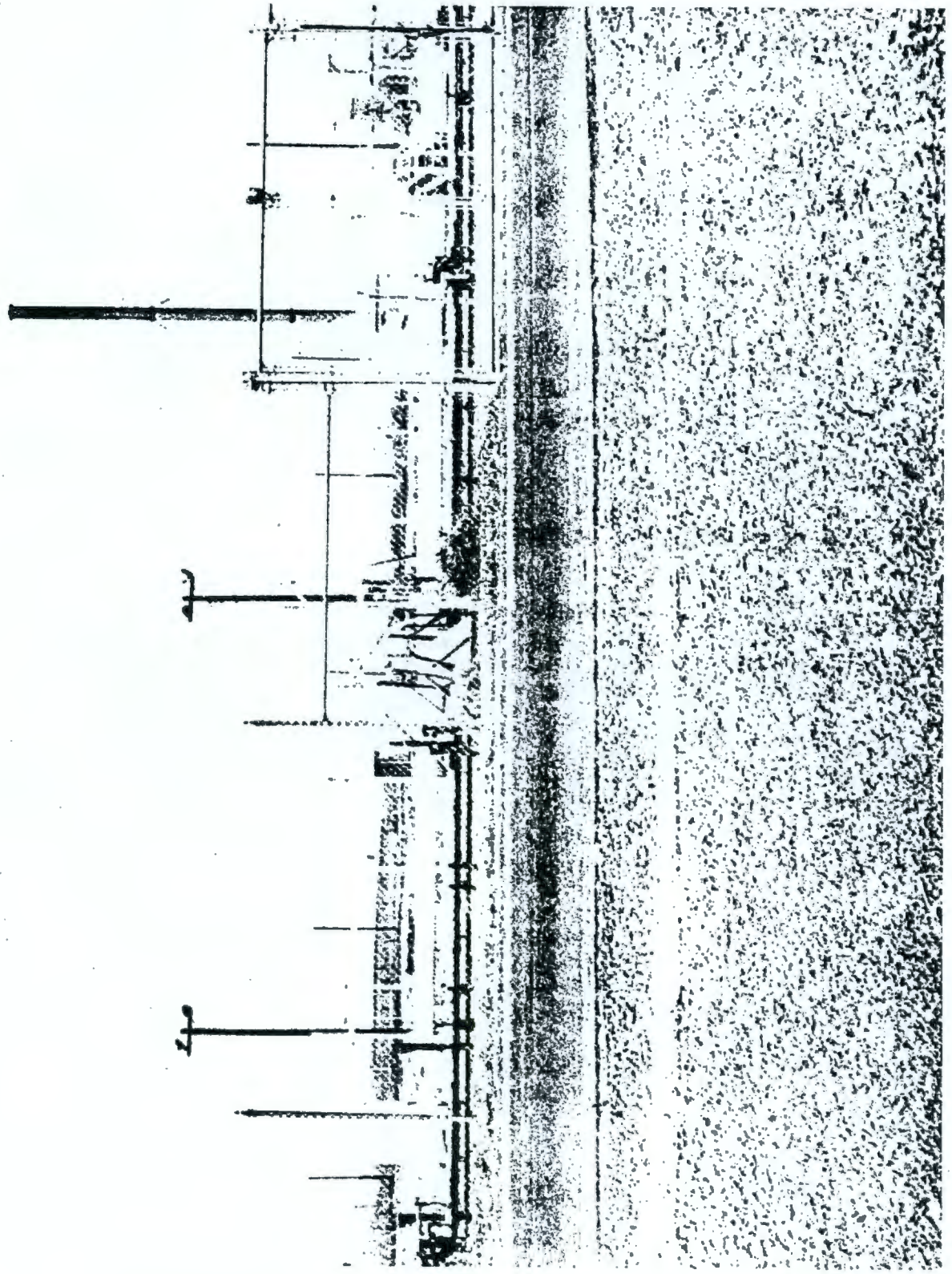
5.3 Radiological Characteristics

5.3.1 Postings: "Radiation Area/Surface Contamination" (posted on 241-U perimeter fence)

5.3.2 Radionuclide inventory: 50 curies beta

5.4 Utilities and Safety Systems

	Available			Operability			
	Yes	No	Unk	Yes	No	Unk	Comments/Condition/Type
Intrusion Alarm	☐	■	☐	☐	☐	☐	
Heat	☐	☐	■	☐	☐	☐	
Ventilation	☐	☐	■	☐	☐	☐	
Air Conditioning	☐	☐	■	☐	☐	☐	
Electricity	■	☐	☐	☐	☐	■	
Fire Detection	☐	☐	■	☐	☐	☐	Room survey unavailable
Fire Suppression	☐	☐	■	☐	☐	☐	" " "
Compressed Air	☐	☐	■	☐	☐	☐	" " "
Vacuum System	☐	☐	■	☐	☐	☐	" " "
Breathing Air	☐	☐	■	☐	☐	☐	" " "
Water	☐	☐	■	☐	☐	☐	" " "
Drain	☐	☐	■	☐	☐	☐	" " "
Emergency Shower	☐	☐	■	☐	☐	☐	" " "
Exclusion Fence	☐	☐	■	☐	☐	☐	
Air Sampling	■	☐	☐	☐	☐	☐	Utilizes 241-U Perimeter fence



241-WR: VAULT

241-WR
Vault

1.0 LOCATION

200 West Area
N38900 W72900

2.0 REFERENCE DRAWING(s)

H-2-40061
H-2-40109

3.0 DESCRIPTION

The 241-WR Diversion Station Vault is an underground concrete vault, 218' x 66', with approximately 10,235 ft^2 area. The outside walls, floor and roof (ground level) are 2 ft. thick reinforced concrete.

The vault divides lengthwise into three sections; the hot tank section, 48 ft deep and separated from the low-level waste sections by a 3 ft thick wall, the low-level waste tank section, 29 ft deep, and the pump pit section, 29 ft deep and separated from the low-level section by a 2 ft. thick wall. The hot tank section is divided into five cells (24 x 24) by 1 ft. thick walls each containing a 50,000 gal. SS tank. The area above the hot tanks is divided into a pipe tunnel, equipment pit and sample pit. The low-level section is divided into 4 cells (24 x 24) by 1 ft. thick walls, each containing a 50,000 gal. SS tank. The pump pit section contains pumps and piping for the low-level tanks.

There are also above ground ventilation and service facilities. The above ground structures include four sample stations with shelters to cover them, and two air inlet filter buildings. The 296-U-6 stack is located in the vault area also.

241-WR (Cont'd)

4.0 HISTORY

The 241-WR Vault was built for storage of uranyl nitrate hexahydrate (UNH) for feed to 221-U and temporary storage for recovered HNO_3 and waste before routing to tank farms and cribs. It was also used for thorium storage. This vault is currently retired and unused.

5.0 CHARACTERIZATION SUMMARY

5.1 Facility Classification: Unknown

5.2 Fire Fighting Category: Not posted

5.3 Radiological Characteristics

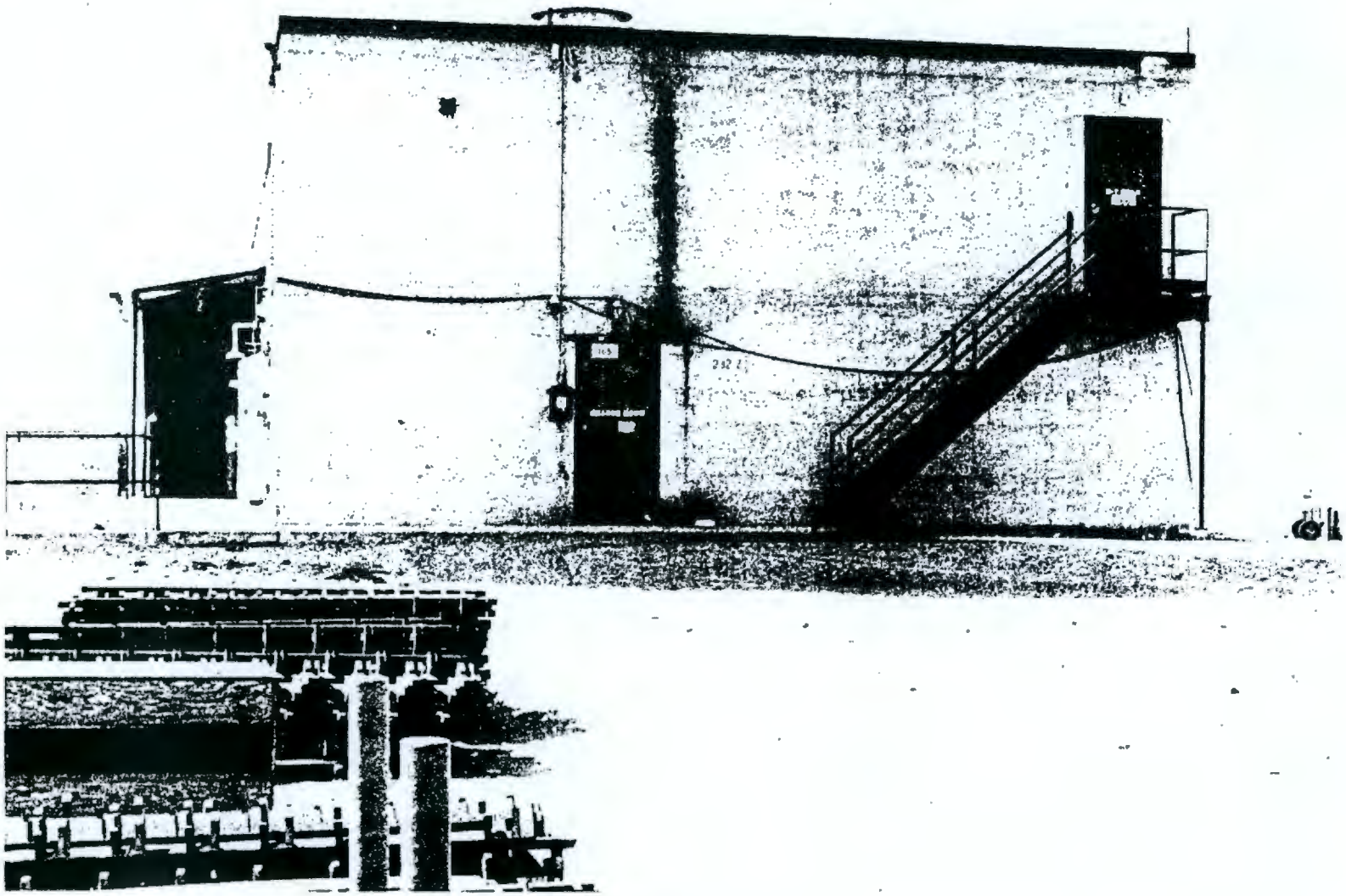
5.3.1 Postings: "Radiation Area/Surface Contamination" (posted on exclusion fence)
"Radiation Zone" (sticker on door at stairwell entrance to vault)
"On Mask" (instructions posted at gate entrance to vault area states mask must be worn)

5.3.2 Radionuclide inventory: 60 curies beta

241-WR (Cont'd)

5.4 Utilities and Safety Systems

	Available			Operability			
	Yes	No	Unk	Yes	No	Unk	Comments/Condition/Type
Intrusion Alarm	☐	☐	■	☐	☐	☐	
Heat	☐	☐	■	☐	☐	☐	
Ventilation	■	☐	☐	☐	☐	■	Steam
Air Conditioning	☐	☐	■	☐	☐	☐	
Electricity	■	☐	☐	☐	☐	■	
Fire Detection	☐	☐	■	☐	☐	☐	Room survey unavailable
Fire Suppression	☐	☐	■	☐	☐	☐	" " "
Compressed Air	☐	☐	■	☐	☐	☐	" " "
Vacuum System	☐	☐	■	☐	☐	☐	" " "
Breathing Air	☐	☐	■	☐	☐	☐	" " "
Water	☐	☐	■	☐	☐	☐	" " "
Drain	☐	☐	■	☐	☐	☐	" " "
Emergency Shower	■	☐	☐	☐	☐	■	
Exclusion Fence	■	☐	☐	■	☐	☐	
Air Sampling	☐	☐	■	☐	☐	☐	



232-Z: WASTE INCINERATION FACILITY

232-Z

Waste Incineration Facility

1.0 LOCATION

200 West Area
N38500 W77900

2.0 REFERENCE DRAWING(s)

H-2-23105
H-2-23106

3.0 DESCRIPTION

232-Z Waste Incineration Facility is a concrete block structure in good condition with slightly sloped concrete over metal decking roofs. Visual inspection of the building's exterior revealed no deficiencies.

The building is divided into areas for process, storage, change room, chemical preparation, ventilation and electrical equipment. Outside dimensions are 56'8" in length by 36'8" in width. The building is 19'3½" high at the two storied north end over the service area, and is 15'8½" high over the remaining one storied process and storage area. There is also a small opened-end CO_2 enclosure attached to the east wall measuring approximately 7'x 8'x 10' high.

4.0 HISTORY

232-Z was built in 1959 to provide facilities for removing plutonium from contaminated solid waste by incineration and leaching. An enclosed system of glove boxes was provided for sorting the wastes, leaching the noncombustibles and burning combustibles.

Currently the facility is occasionally used as a laboratory. This facility is considered retired.

232-Z (Cont'd)

5.0 CHARACTERIZATION SUMMARY

5.1 Facility Classification: Fissile

5.2 Fire Fighting Category: C

C HOODS

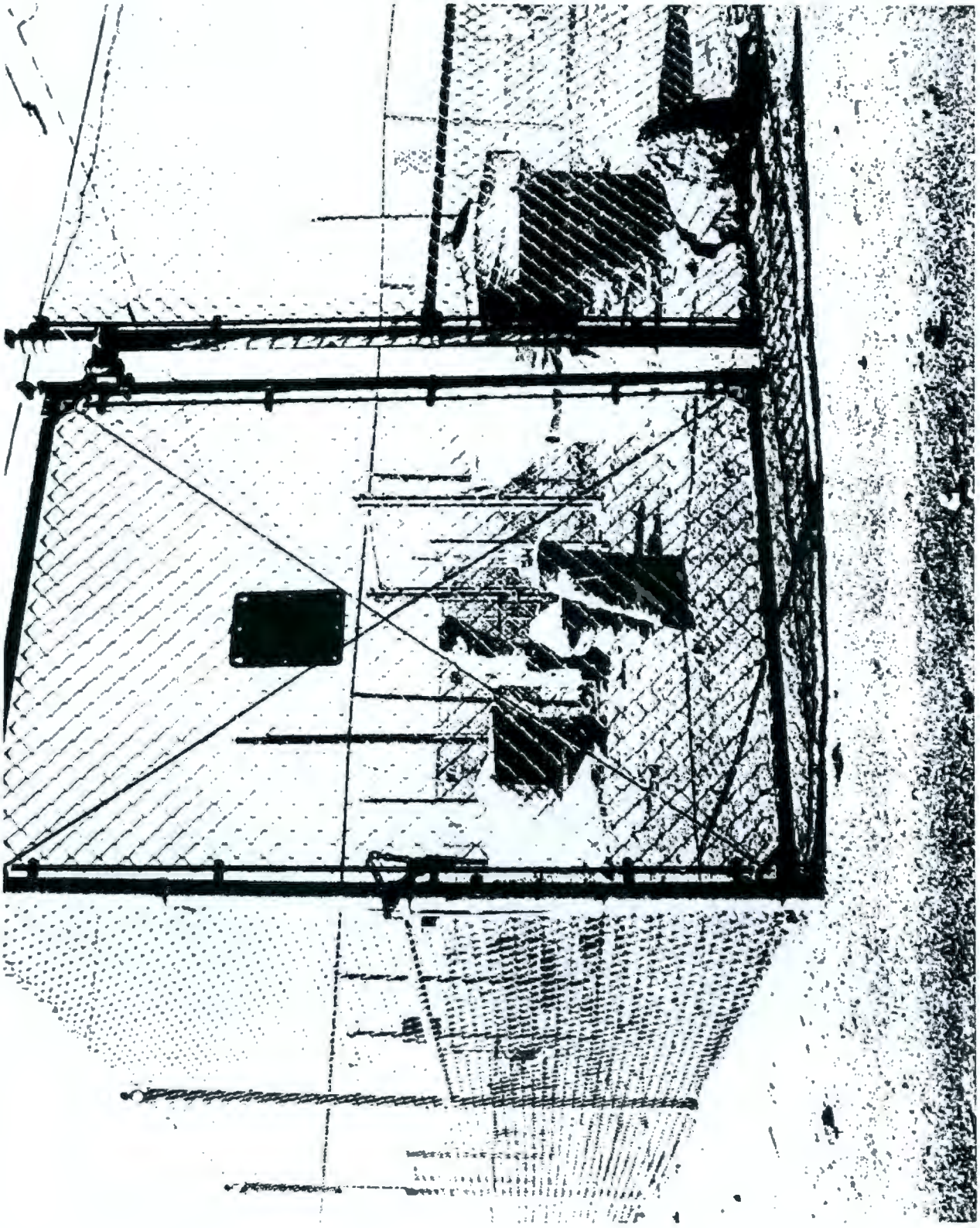
5.3 Radiological Characteristics

5.3.1 Postings: "Fissile" (East side to work area)

5.3.2 Radionuclide Inventory: 200 curies beta

5.4 Utilities and Safety Systems

	Available			Operability			
	Yes	No	Unk	Yes	No	Unk	Comments/Condition/Type
Intrusion Alarm	☐	■	☐	☐	☐	☐	
Heat	■	☐	☐	■	☐	☐	
Ventilation	■	☐	☐	■	☐	☐	
Air Conditioning	■	☐	☐	■	☐	☐	
Electricity	■	☐	☐	■	☐	☐	
Fire Detection	☐	■	☐	☐	☐	☐	Room survey unavailable
Fire Suppression	☐	■	☐	☐	☐	☐	
Compressed Air	☐	■	☐	☐	☐	☐	
Vacuum System	☐	■	☐	☐	☐	☐	
Breathing Air	☐	■	☐	☐	☐	☐	
Water	☐	■	☐	☐	☐	☐	
Drain	☐	■	☐	☐	☐	☐	
Emergency Shower	☐	■	☐	☐	☐	☐	
Exclusion Fence	☐	■	☐	☐	☐	☐	Inside Z Plant fence
Air Sampling	☐	■	☐	☐	☐	☐	Room survey unavailable



241-Z-361: SETTLING TANK

241-Z-361
Settling Tank

1.0 LOCATION

200 West Area
N39500 W76600

2.0 REFERENCE DRAWING(s)

H-2-16024

3.0 DESCRIPTION

241-Z-361 Settling tank is an underground concrete structure lined with steel. Concrete reinforcement walls are 2' thick. Inside dimensions are 26'x 13'x 18' high. There are two manhole covers and frames, and several risers visable above grade.

4.0 HISTORY

241-Z-361 tank was built in 1949 to settle waste from Z-Plant process, analytical lab and development lab before routing to 216-Z cribs.

Currently, tank is not in use and risers and manholes are covered with plastic and taped. This facility is considered retired.

5.0 CHARACTERIZATION SUMMARY

5.1 Facility Classification: Limited control

5.2 Fire Fighting Category: Not posted

5.3 Radiological Characteristics

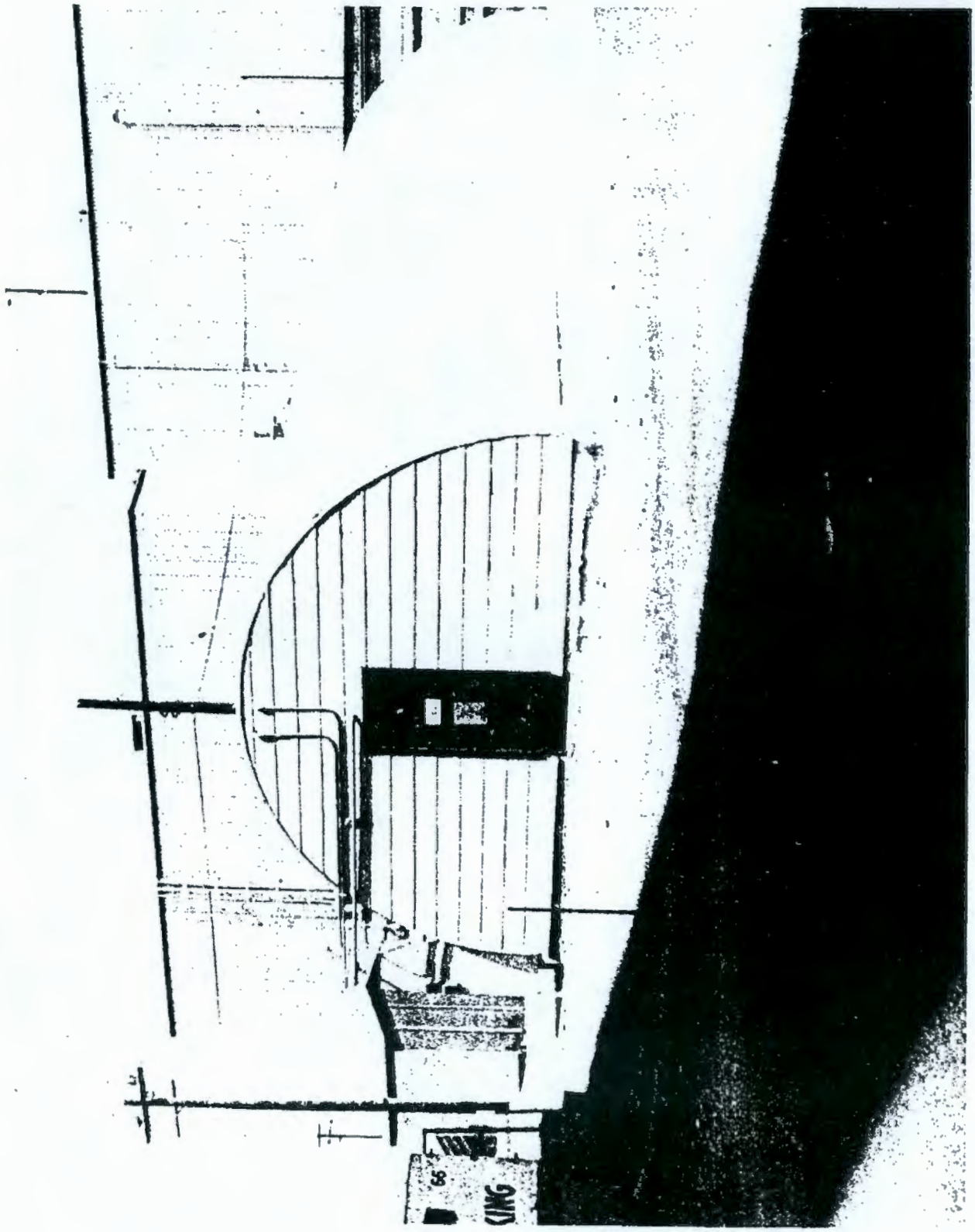
5.3.1 Postings: "Radiation Zone" (posted on exclusion fence)

241-Z-361 (Cont'd)

5.3.2 Radionuclide Inventory: 1839 curies Pu, 1 curie beta

5.4 Utilities and Safety Systems

	Available			Operability			
	Yes	No	Unk	Yes	No	Unk	Comments/Condition/Type
Intrusion Alarm	☐	■	☐	☐	☐	☐	
Heat	■	☐	☐	☐	☐	■	
Ventilation	■	☐	☐	☐	☐	■	
Air Conditioning	■	☐	☐	☐	☐	■	
Electricity	■	☐	☐	☐	■	☐	
Fire Detection	☐	■	☐	☐	☐	☐	N/A
Fire Suppression	☐	■	☐	☐	☐	☐	N/A
Compressed Air	☐	■	☐	☐	☐	☐	N/A
Vacuum System	☐	■	☐	☐	☐	☐	N/A
Breathing Air	☐	■	☐	☐	☐	☐	N/A
Water	☐	■	☐	☐	☐	☐	N/A
Drain	☐	■	☐	☐	☐	☐	N/A
Emergency Shower	☐	■	☐	☐	☐	☐	N/A
Exclusion Fence	■	☐	☐	■	☐	☐	
Air Sampling	☐	☐	■	☐	☐	■	



234-ZB: WASTE STORAGE FACILITY

234-ZB

Waste Storage Facility

1.0 LOCATION

200 West Area
N39800 W76900

2.0 REFERENCE DRAWING(s)

H-2-15283

3.0 DESCRIPTION

234-ZB is a Quonset hut type building constructed of sheet metal with insulation, a painted plaster-board interior and concrete floor.

The building is 49'2" long by 22'8" wide and approximately 9' high at its peak. Walls are 4 inches thick. The building is single storied and consists of a single storage room with an area of 1127 square feet.

4.0 HISTORY

234-ZB was built to store packaged radioactive wastes from Z-Plant.

Currently, the building has been relocated to the southwest of its original position and is being used by J. A. Jones Construction. A new building is being erected on the old site.

5.0 CHARACTERIZATION SUMMARY

5.1 Facility Classification: Limited control

5.2 Fire Fighting Category: Not posted

234-ZB (Cont'd)

5.3 Radiological Characteristics

5.3.1 Postings: "Radiation Area/Surface Contamination" (on doors)

5.3.2 Radionuclide Inventory: .5 curies Pu

5.4 Utilities and Safety Systems

	Available			Operability			
	Yes	No	Unk	Yes	No	Unk	Comments/Condition/Type
Intrusion Alarm	☐	■	☐	☐	☐	☐	
Heat	☐	■	☐	☐	☐	☐	
Ventilation	☐	■	☐	☐	☐	☐	
Air Conditioning	☐	■	☐	☐	☐	☐	
Electricity	■	☐	☐	■	☐	☐	
Fire Detection	☐	■	☐	☐	☐	☐	
Fire Suppression	☐	■	☐	☐	☐	☐	
Compressed Air	☐	■	☐	☐	☐	☐	
Vacuum System	☐	■	☐	☐	☐	☐	
Breathing Air	☐	■	☐	☐	☐	☐	
Water	☐	■	☐	☐	☐	☐	
Drain	☐	■	☐	☐	☐	☐	
Emergency Shower	☐	■	☐	☐	☐	☐	
Exclusion Fence	☐	■	☐	☐	☐	☐	
Air Sampling	☐	■	☐	☐	☐	☐	

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18. T.B.P - U03 Information Manual.

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20. Letter #72710-80-111, May 20, 1980, W. H. Price to A. W. Graves, "Request for Extended Storage Capability for Low Level Contaminated Sediments - Third Floor 271-U Building".