

Control #: D4-300-013

Acrobat 8.0

FACILITY STATUS CHANGE FORM

Date Submitted: 4/20/2009	Area: 300	Control #: D4-300-013
Originator: David Warren	Facility ID: 303A, 303B, 303C, and 303E	
Phone: 554-9368	Action Memorandum: #1 for the 300 Area	

This form documents agreement among the parties listed below on the status of the facility D&D operations and the disposition of underlying soil in accordance with the applicable regulatory decision documents.

Section 1: Facility Status

- All D4 operations required by action memo complete.
- D4 operations required by action memo partially complete, remaining operations deferred.

Description of Completed Activities and Current Conditions:

Deactivation: Utility isolations were performed on the facility prior to beginning facility decontamination.

Decontamination and Decommissioning: The following hazardous materials were removed prior to facility demolition: oils, asbestos containing material, grease, mercury, freon, and miscellaneous construction materials. Hazardous material removal and waste disposition was performed in accordance with *Removal Action Work Plan #1 for the 300 Area*, DOE/RL-2004-77, Revision 1 (RAWP). Fixative was applied to the inside of the buildings to lock down any remaining radiological or chemical contamination prior to demolition.

Demolition: Demolition of the above-grade structures were completed on the following dates: 303A-Feb. 2006, 303B-Apr. 2006, 303C-Jul. 2006, and 303E-Mar. 2006. The building debris were removed and disposed of at ERDF. Due to the facility histories, the demolition was performed under radiological controls.

Description of Deferral (as applicable):

The 303A, 303B, and 303C, and 303E building foundations and any potential soil excavations will be deferred to the UPR-300-40 WIDS Site remedial action. The foundations are located directly above and adjacent to documented waste sites. Removal of the foundations prior to waste site remediation could result in potential exposure of contaminants from the underlying soil.

Section 2: Underlying Soil Status

- No waste site(s) present. No additional actions anticipated.
- Documented waste site(s) present. Cleanup and closeout to be addressed under Record of Decision.
- Potential waste site discovered during D4 operations. Waste site identification number <to be> assigned.
Cleanup and closeout to be addressed under Record of Decision.

Description of Current/As-Left Conditions:

All that remains of the buildings is the slabs and below grade structures. All four structures are posted as FCA (Fixed Contamination Area), and URMA (Underground Radioactive Material Area). There are currently no IH postings associated with the building sites.

Identification of Documented Waste Site(s) or Nature of Potential Waste Site Discovery (as applicable):

See attachment 2.

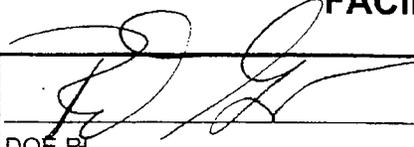
Section 3: List of Attachments

1. Facility information (building history and characterization)
2. Identification of Documented Waste Sites
3. Project photographs

RECEIVED
OCT 29 2009

EDMC

FACILITY STATUS CHANGE FORM

		<u>4/21/09</u>
DOE-FL		Date
<u>Larry Gadbois</u>		<u>April 27, 2009</u>
Lead Regulator	<input checked="" type="checkbox"/> EPA <input type="checkbox"/> Ecology	Date

DISTRIBUTION:

EPA: Larry Gadbois, B1-46
 Ecology: Rick Bond, H0-57
 DOE: Rudy Guercia, A3-04
 Document Control, H0-30
 Administrative Record, H6-08

SIS Coordinator: Sheri Harshberger, H4-22
 D4 EPL: Chris Strand, L1-07
 Sample Design/Cleanup Verification: Megan Proctor, H4-22
 FR Engineering: Rich Carlson, X4-08
 FR EPL: Darrin Faulk, L6-06

Attachment 1: Facility Information

Building History:

The 303 buildings were constructed during World War II to store fresh, unirradiated uranium billets, chemicals, and uranium scrap. Nine 303 series buildings were built identically to store uranium, prior to fabrication of fuel rods. Construction of the nine "magazines" was begun on July 7, 1943 and completed on April 28, 1944. They were built on the same design with 1288 square feet. The "igloo" buildings were roughly 50 feet by 27 feet by 13.5 feet (high). They were constructed with concrete block walls, concrete foundations, slab floors, and reinforced concrete roofs. The buildings had electrical power, but lacked connections to both process sewer and water. Many spontaneous fires occurred in uranium scrap barrels and in concreted uranium scrap billets. These autoignition events, along with oxide conversion activities, produced particulate contamination that settled in soils adjacent to the buildings.

Building Characterization:

Table 1 summarizes the industrial hygiene, radiological control, and asbestos samples collected in the 303 Buildings. Table 2 summarizes the contaminants of concern for facility demolition and the Management Practices implemented to minimize spread of those contaminants.

Table 1. Summary of Samples Collected for 303A, B, C, and E

Type	Quantity	Method Detection Limits	Results
Radiological Scoping surveys	Numerous surveys with multiple direct reading and smear locations	Beta-gamma – 1,000 removable/ 5,000 fixed ^a Alpha – 20 removable/ 100 fixed ^a	With the exception of 303A and 303C, all surveys for fixed contamination were less than the method detection limit. A 303A outdoor survey found fixed contamination levels of 23.5K and 25K dpm Beta-gamma. A 303C indoor survey found fixed contamination levels of 29K and 13K dpm Beta-gamma. One indoor survey in 303C found removable contamination levels of 190 dpm alpha. All other survey levels were less than method detection limits.
Radiological Surveys - In Process and Post Demolition	Numerous surveys with multiple direct reading and smear locations	Beta-gamma – 1,000 removable/ 5,000 fixed ^a Alpha – 20 removable/ 100 fixed ^a	With the exception of 303C, all surveys for fixed contamination were less than the method detection limit. 303C surveys found fixed contamination levels of 48.6K, 17.1K, 10.6K, and 7.5K dpm Beta-gamma. With the exception of 303C, all surveys for removable contamination were less than the method detection limit. 303C surveys found removable contamination levels of 1690 and 1720dpm Beta-gamma. These surveys also found removable alpha contamination of 23, 29, and 38 dpm.

Type	Quantity	Method Detection Limits	Results
Radiological Downposting Surveys	Numerous surveys with multiple direct reading and smear locations	Beta-gamma – 1,000 removable/ 5,000 fixed ^a Alpha – 20 removable/ 100 fixed ^a	Prior to backfill around the slabs, surveys for 303A, 303B and E found fixed contamination levels on the ground surrounding the slabs ranging from 5 to 40k dpm Beta-gamma and 335dpm alpha. Fixed contamination levels on the 303A and 303E slabs ranged from 7 to 80K Beta-gamma fixed and 100 to 2680 dpm alpha fixed. All of the slabs are currently posted FCA/URMA. All other survey levels were less than method detection limits.
Tritium Smears	13 total for all buildings	10,000 ^a	Results were less than detection limit/action level
Industrial Hygiene Scoping Surveys for Beryllium (Air and Wipe Samples)	41	Beryllium – Wipe Sampling- 0.01 µg/100cm ² Air Sampling - 0.01 µg/sample	Of the 28 samples, 6 were found to be above the release criteria of 0.20 µg/100cm ²
	7		All results were less than the method detection limit.
Industrial Hygiene Wipe Sampling for Beryllium- In Process and Post Demolition	28	Beryllium – Wipe Sampling- 0.01 µg/100cm ²	All samples were below the release criteria of 0.20µg/100cm ²
Asbestos – Thermal System Insulation and Miscellaneous Material	4 samples for 303C only	1% weight	Of the four samples taken, two were found to be at levels requiring removal.
^a – dpm/100 cm ²			

Table 2. Contaminants of Concern for Facility Demolition

Contaminant of Concern	Management Practice
Radionuclides	The buildings were demolished under radiological controls. After the above grade structures were removed, the slabs and surrounding areas were surveyed and downposted to FCA (Fixed Contamination Area)/URMA (Underground Radioactive Material Area).
Beryllium, Cadmium, and Lead.	Building interior was locked down prior to demolition. Visual inspection of the demolition area was performed.

Attachment 2: Status of WIDS Sites Associated with the Building Sites

There are five WIDS sites associated with the 303A building. These sites, and their current status, are listed in Table 1.

Table 1 – 303-A WIDS Site Summary

Site No.	Description	Status
300-250	Valve pit for a sanitary water line located southeast of 303A	This site was rejected in WIDS prior to D4 work in the building. It is not an injection well as there are no drains in the pit. This is not an accepted waste site, however, it is located within the boundaries of an accepted waste site. It will likely be removed by the FR project during the 300-43 Waste Site remedial action.
300-60	303A Building Steam Condensate, Miscellaneous Stream #339, F.D. #26 is an injection well that received steam condensate	This site was rejected in WIDS prior to D4 work in the building. This site was removed during an electrical upgrade prior to demolition of the building.
300-43	Uranium contaminated soil around the 304 Building	These sites are addressed under the 300-FF-2 CERCLA documentation, and will be remediated by the FR project.
300-16	Solid Waste Near 314 Building, contamination discovered during telephone pole removal.	
300-15	300 Area Process Sewer	

There are six WIDS sites associated with the 303B building. These sites, and their current status, are listed in Table 2.

Table 2 – 303-B WIDS Site Summary

Site No.	Description	Status
300-193	3732 Building Steam Condensate	This site was rejected in WIDS prior to D4 work in the building. The well was plugged prior to demolition of the building. The top three feet of structure will need to be removed in order satisfy full closure requirements under WAC 173-218. The Washington State Department of Ecology will be notified of the closure via the annual Injection Well Closure Report
300-61	303B Building Steam Condensate, Miscellaneous Stream #444, Injection Well #12	This site was rejected in WIDS prior to D4 work in the building. WIDS mentions attempts to verify the existence of the site were unsuccessful.
300-67	Steam Condensate from 300 Area Main Steam Header, Miscellaneous Stream #414	This site is addressed under the 300-FF-2 CERCLA documentation, and will be remediated by the FR project.
304-CF	Concretion Facility	304-CF was the TSD associated with the 300 Area Waste Acid Treatment System. The TSD was clean closed in November 1995. No further action is required for this waste site.
300-249	304 Building Residual Radiological Contamination	These sites are addressed under the 300-FF-2 CERCLA documentation, and will be remediated by the FR project.
300-15	300 Area Process Sewer	

There are two WIDS sites associated with the 303C building. These sites, and their current status, are listed in Table 3.

Table 3 – 303-C WIDS Site Summary

Site No.	Description	Status
300-062	Steam Condensate French Drain, Miscellaneous Stream #495	Rejected WIDS site 300-062, a steam condensate french drain located inside the North corner of the building perimeter fence. The well has been grouted. The top three feet of structure will need to be removed in order satisfy full closure requirements under WAC 173-218. The Washington State Department of Ecology will be notified of the closure via the annual Injection Well Closure Report
300-237	Steam Condensate French Drain, Miscellaneous Stream #773	Rejected WIDS site 300-237, a steam condensate french drain that is located southeast of the southeast corner of 303C, on the west side of Wisconsin street. Site Information System lists the site as not having an engineered structure evident in the ground. The above grade piping was removed prior to demolition of the building.

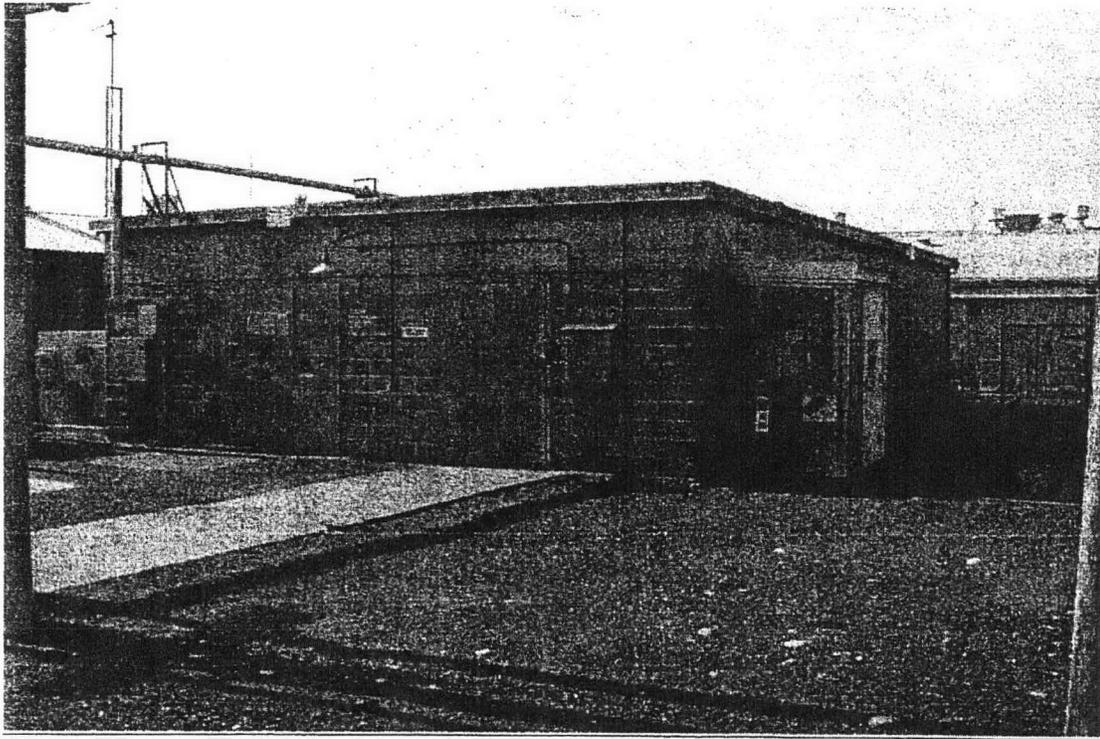
There are two WIDS sites associated with the 303E building. These sites, and their current status, are listed in Table 4.

Table 4 – 303-E WIDS Site Summary

Site No.	Description	Status
300-176	3715 Building Steam Condensate, Miscellaneous Stream #678)	This site was rejected in WIDS prior to D4 work in the building. The well was plugged by D4 as part of demolition of the building. The top three feet of structure will need to be removed in order satisfy full closure requirements under WAC 173-218. The Washington State Department of Ecology will be notified of the closure via the annual Injection Well Closure Report
300-28	Contamination Found Along Ginko Street, Solid Waste Site Near 303-G Building and 303-F	This site is addressed under the 300-FF-2 CERCLA documentation, and will be remediated by the FR project.

Attachment 3: Project Photographs

303A Building

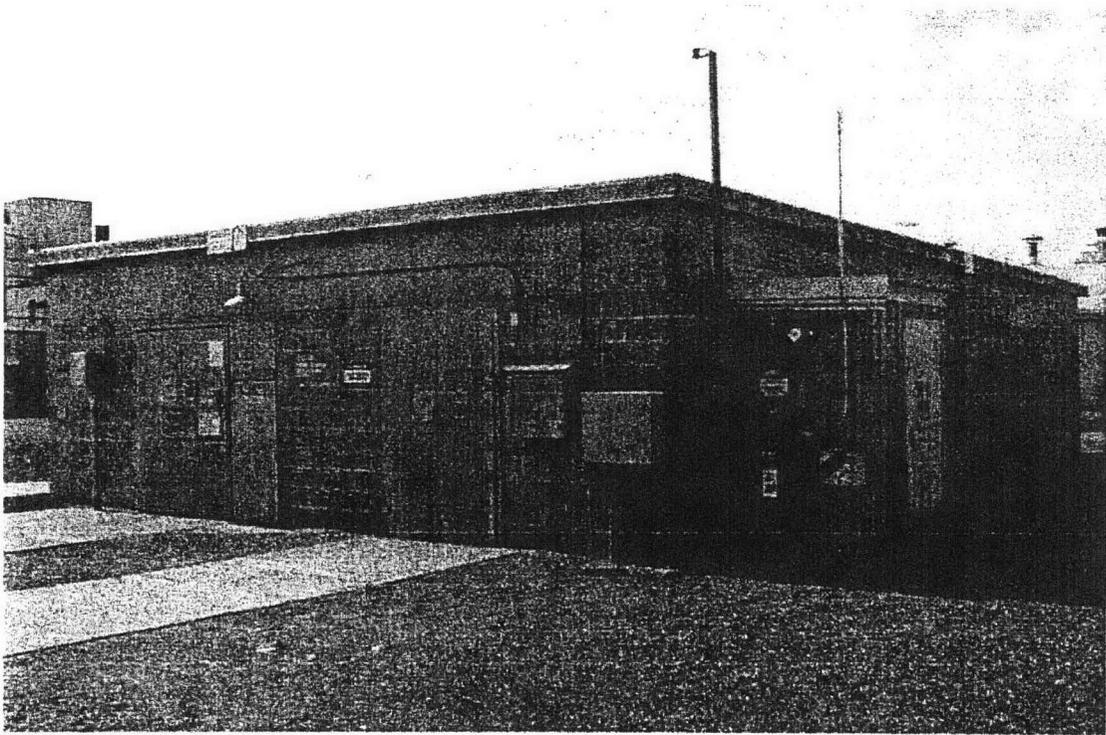


303A Building Complex Site after Demolition

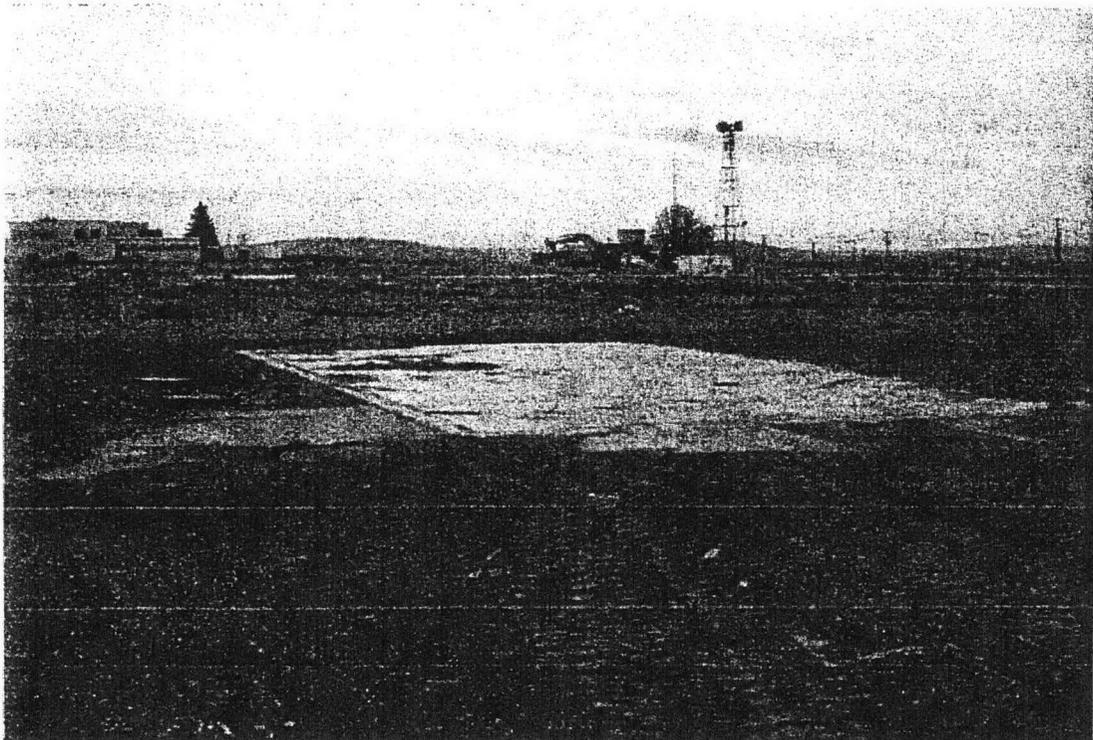


303 FACILITY COMPLETION

303B Building

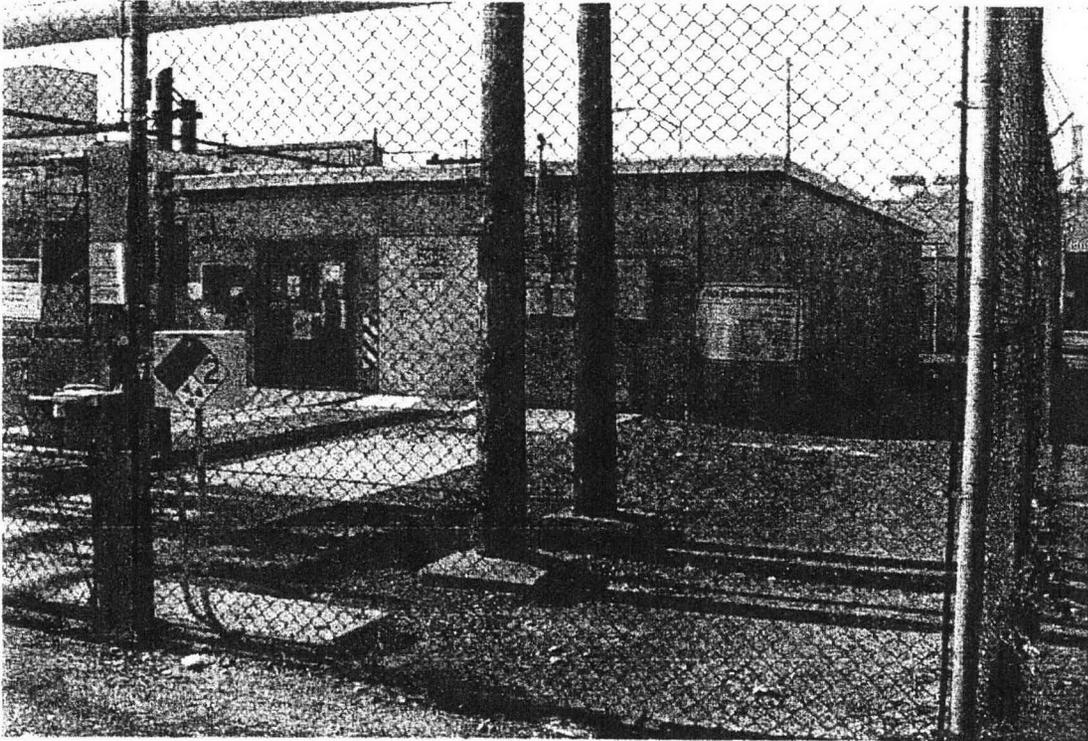


303B Building Complex Site after Demolition

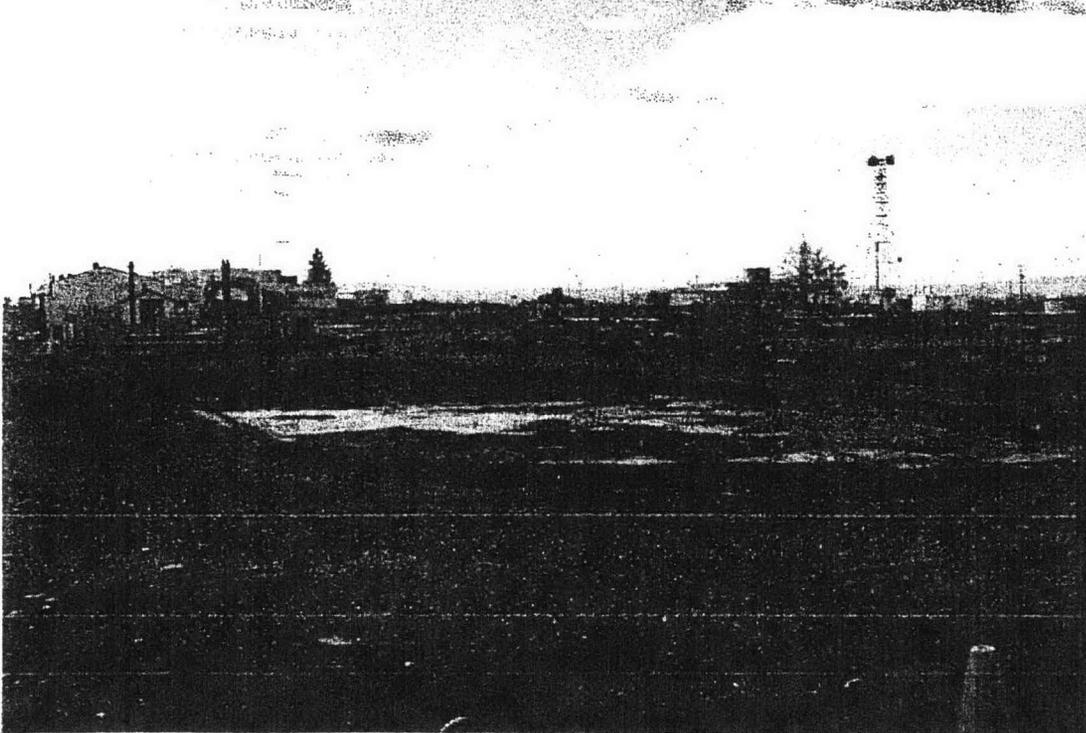


303 FACILITY COMPLETION

303C Building

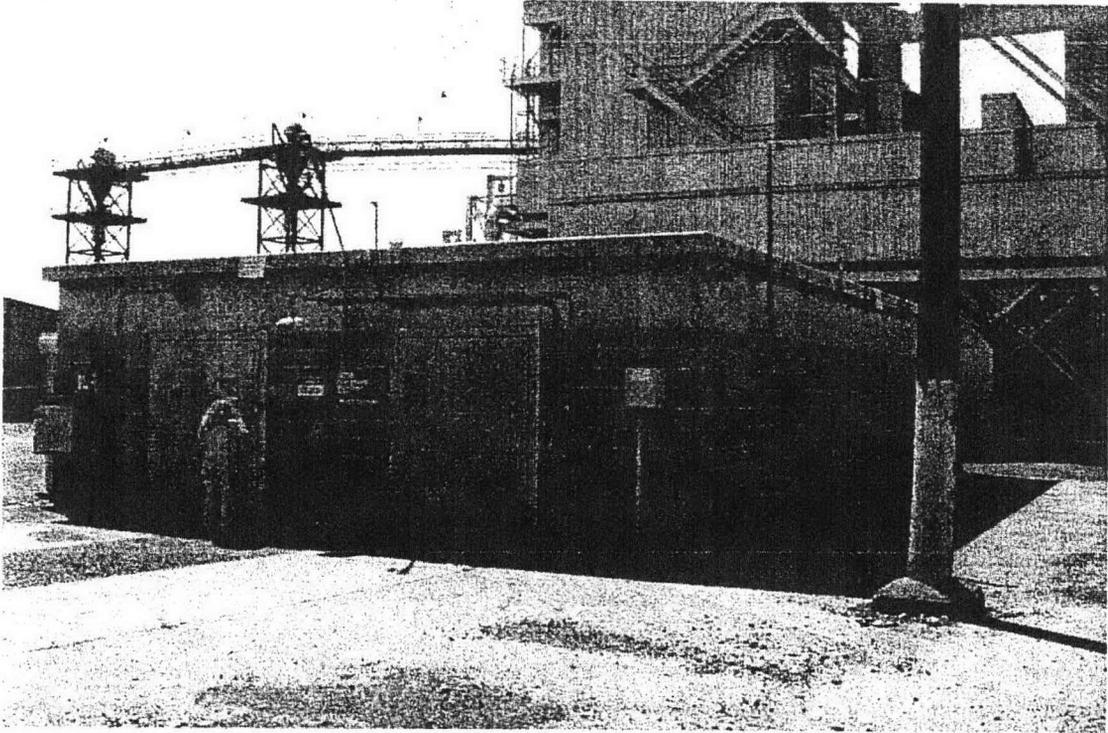


303C Building Complex Site after Demolition

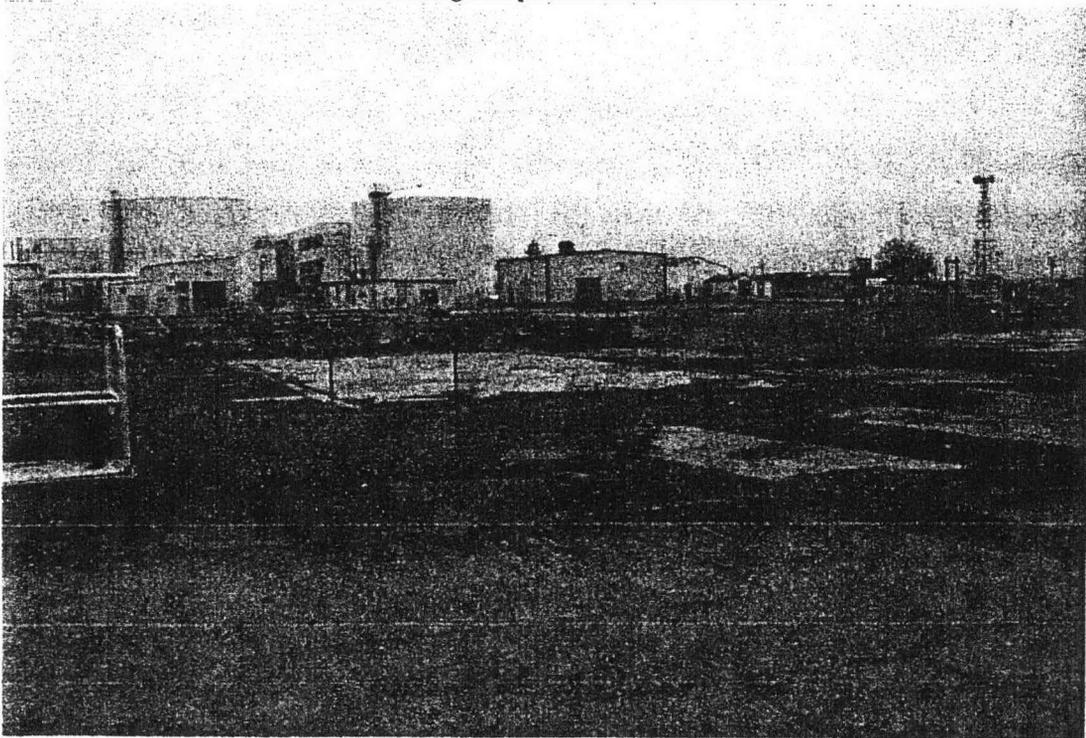


303 FACILITY COMPLETION

303E Building



303E Building Complex Site after Demolition



303 FACILITY COMPLETION