



0043197

Department of Energy
Richland Operations Office
P.O. Box 550
Richland, Washington 99352

MAR 13 1996

96-PCA-147

Mr. Moses N. Jaraysi
200 Area Unit Supervisor
Nuclear Waste Program
State of Washington
Department of Ecology
1315 West Fourth Avenue
Kennewick, Washington 99336

Mr. Joseph J. Witczak
Unit Supervisor
Regulatory and Technical Support
State of Washington
Department of Ecology
P.O. Box 47600
Olympia, Washington 98504-7600



Dear Messrs. Jaraysi and Witczak:

HANFORD FACILITY DANGEROUS WASTE PART A PERMIT APPLICATION, FORM 3,
REVISION 4, FOR THE 300 AREA WASTE ACID TREATMENT SYSTEM (WA7890008967)
(TSD: TS-3-1)

Enclosed is the Hanford Facility Dangerous Waste Part A Permit Application (Part A) Form 3, Revision 4, for the 300 Area Waste Acid Treatment System (WATS). The 300 Area WATS is located in the 300 Area of the Hanford Facility and was used for the treatment and storage of mixed waste generated during fuel fabrication operations. This treatment, storage, and/or disposal (TSD) unit will be closed in accordance with the 300 Area WATS closure plan soon to be negotiated with the State of Washington Department of Ecology (Ecology).

The 300 Area WATS Part A, Form 3, has been revised to remove dangerous waste numbers U123 (formic acid), P120 (vanadium pentoxide), and D011 (silver). Dangerous waste numbers U123 and P120 were never actually managed at the 300 Area WATS during its operations as a Resource Conservation and Recovery Act (RCRA) of 1976 TSD unit and were inappropriately added to Revision 0 of the Part A. Solutions of formic acid and vanadium pentoxide were each added only once and in small quantity in 1975 and 1976, respectively, to Tanks 9 and 10 located in the 313 Building. Tanks 9 and 10 did not begin operating as 300 Area WATS components until November 1985, which is approximately nine years after the subject chemical additions. Tanks 9 and 10 were used to retain clear liquids until being pumped to Tank 40 of the 311 Tank Farm which is the last component of the 300 Area WATS. Tank 40 received these chemical additions approximately four years before the November 19, 1980, date when the RCRA regulations became effective. In the four years between the last addition of these chemicals (1976) and the effective date of RCRA regulations (1980), approximately 2,650,000 liters of neutralized waste acid effluent was processed through Tank 40. Because formic acid and vanadium pentoxide are

Messrs. Jaraysi and Witczak
96-PCA-147

-2-

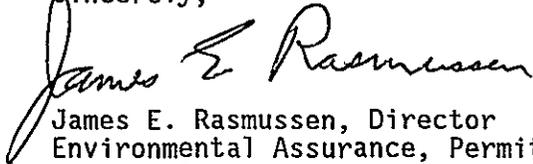
highly soluble, they would have remained in solution in Tanks 9, 10, and 40 until being flushed from the system by subsequent neutralized waste acid effluent processing. This flushing process completely removed these chemicals from Tanks 9, 10, and 40.

Dangerous waste number D011 also has been removed because the highest concentration of silver added to the system was two parts per million (ppm) in 1979, while the designation level for silver as a dangerous waste is five ppm.

Also included is a brief discussion in Section III.C of the Form 3, of Tanks 5 and 11 located in the 313 Building that were used to hold waste before entering the filter press or centrifuge, respectively. The 300 Area WATS Part A, Form 3, also has been revised to convert all English-based measures to metric.

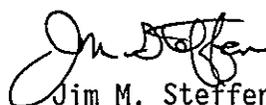
Should you have any questions regarding the 300 Area WATS Part A, Form 3, please contact Ms. E. M. Mattlin, U.S. Department of Energy, Richland Operations Office, RL, on (509) 376-2385 or Mr. I. L. Metcalf, Westinghouse Hanford Company, WHC, on (509) 376-7675.

Sincerely,



James E. Rasmussen, Director
Environmental Assurance, Permits,
and Policy Division
DOE Richland Operations Office

EAP:EMM



Jim M. Steffen, Manager
Fuel Fab Facilities Transition Project
Transition Projects
Westinghouse Hanford Company

Enclosure:
300 Area Waste Acid Treatment System
Part A Permit Application
Form 3, Revision 4

cc w/encl:
EDMC, H6-08
R. Bowman, WHC
R. Jim, YIN
D. Powaukee, NPT
D. Sherwood, EPA
J. Wallace, Ecology
J. Wilkinson, CTUIR
M. Wilson, Ecology

cc w/o encl:
R. Bliss, WHC
W. Dixon, WHC
S. Johansen, MACTEC
S. Price, WHC

ENCLOSURE

Please print or type in the unshaded areas only
(fill-in areas are spaced for elite type, i.e., 12 character/inch).

FORM 3	DANGEROUS WASTE PERMIT APPLICATION	1. EPA/STATE I.D. NUMBER WA 7890008967
------------------	------------------------------------	--

FOR OFFICIAL USE ONLY		COMMENTS
APPLICATION APPROVED	DATE RECEIVED (mo., day, & yr.)	

II. FIRST OR REVISED APPLICATION
Place an "X" in the appropriate box in A or B below (mark one box only) to indicate whether this is the first application you are submitting for your facility or a revised application. If this is your first application and you already know your facility's EPA/STATE I.D. Number, or if this is a revised application, enter your facility's EPA/STATE I.D. Number in Section I above.

A. FIRST APPLICATION (place an "X" below and provide the appropriate date)

<input type="checkbox"/> 1. EXISTING FACILITY (See Instructions for definition of "existing" facility. Complete item below.) <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:10%; text-align:center;">MO.</td> <td style="width:10%; text-align:center;">DAY</td> <td style="width:10%; text-align:center;">YR.</td> <td style="width:70%; font-size:0.8em;">FOR EXISTING FACILITIES, PROVIDE THE DATE (mo., day, & yr.) OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED (use the boxes to the left)</td> </tr> <tr> <td style="text-align:center;">04</td> <td style="text-align:center;"></td> <td style="text-align:center;">73</td> <td></td> </tr> </table>	MO.	DAY	YR.	FOR EXISTING FACILITIES, PROVIDE THE DATE (mo., day, & yr.) OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED (use the boxes to the left)	04		73		<input type="checkbox"/> 2. NEW FACILITY (Complete item below) <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:10%; text-align:center;">MO.</td> <td style="width:10%; text-align:center;">DAY</td> <td style="width:10%; text-align:center;">YR.</td> <td style="width:70%; font-size:0.8em;">FOR NEW FACILITIES, PROVIDE THE DATE, (mo., day, & yr.) OPERATION BEGAN OR IS EXPECTED TO BEGIN</td> </tr> <tr> <td style="text-align:center;"></td> <td style="text-align:center;"></td> <td style="text-align:center;"></td> <td></td> </tr> </table>	MO.	DAY	YR.	FOR NEW FACILITIES, PROVIDE THE DATE, (mo., day, & yr.) OPERATION BEGAN OR IS EXPECTED TO BEGIN				
MO.	DAY	YR.	FOR EXISTING FACILITIES, PROVIDE THE DATE (mo., day, & yr.) OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED (use the boxes to the left)														
04		73															
MO.	DAY	YR.	FOR NEW FACILITIES, PROVIDE THE DATE, (mo., day, & yr.) OPERATION BEGAN OR IS EXPECTED TO BEGIN														

B. REVISED APPLICATION (place an "X" below and complete Section I above)

<input checked="" type="checkbox"/> 1. FACILITY HAS AN INTERIM STATUS PERMIT	<input type="checkbox"/> 2. FACILITY HAS A FINAL PERMIT
--	---

III. PROCESSES - CODES AND CAPACITIES

A. PROCESS CODE - Enter the code from the list of process codes below that best describes each process to be used at the facility. Ten lines are provided for entering codes. If more lines are needed, enter the code(s) in the space provided. If a process will be used that is not included in the list of codes below, then describe the process (including its design capacity) in the space provided on the (Section III-C).

B. PROCESS DESIGN CAPACITY - For each code entered in column A enter the capacity of the process.

1. AMOUNT - Enter the amount.
2. UNIT OF MEASURE - For each amount entered in column B(1), enter the code from the list of unit measure codes below that describes the unit of measure used. Only the units of measure that are listed below should be used.

PROCESS	PRO-CESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY	PROCESS	PRO-CESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
Storage:			Treatment:		
CONTAINER (barrel, drum, etc)	S01	GALLONS OR LITERS	TANK	T01	GALLONS PER DAY OR LITERS PER DAY
TANK	S02	GALLONS OR LITERS	SURFACE IMPOUNDMENT	T02	GALLONS PER DAY OR LITERS PER DAY
WASTE PILE	S03	CUBIC YARDS OR CUBIC METERS	INCINERATOR	T03	TONS PER HOUR OR METRIC TONS PER HOUR; GALLONS PER HOUR OR LITERS PER HOUR
SURFACE IMPOUNDMENT	S04	GALLONS OR LITERS	OTHER (Use for physical, chemical, thermal or biological treatment processes not occurring in tanks, surface impoundments or incinerators. Describe the processes in the space provided; Section III-C.)	T04	GALLONS PER DAY OR LITERS PER DAY
Disposal:					
INJECTION WELL	D80	GALLONS OR LITERS			
LANDFILL	D81	ACRE-FEET (the volume that would cover one acre to a depth of one foot) OR HECTARE-METER			
LAND APPLICATION	D82	ACRES OR HECTARES			
OCEAN DISPOSAL	D83	GALLONS PER DAY OR LITERS PER DAY			
SURFACE IMPOUNDMENT	D84	GALLONS OR LITERS			
UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEASURE	UNIT OF MEASURE CODE
GALLONS	G	LITERS PER DAY	V	ACRE-FEET	A
LITERS	L	TONS PER HOUR	D	HECTARE-METER	F
CUBIC YARDS	Y	METRIC TONS PER HOUR	W	ACRES	B
CUBIC METERS	C	GALLONS PER HOUR	E	HECTARES	Q
GALLONS PER DAY	U	LITERS PER HOUR	H		

EXAMPLE FOR COMPLETING SECTION III (shown in line numbers X-1 and X-2 below): A facility has two storage tanks, one tank can hold 200 gallons and the other can hold 400 gallons. The facility also has an incinerator that can burn up to 20 gallons per hour.

LINE NUMBER	A. PROCESS CODE (from list above)	B. PROCESS DESIGN CAPACITY			FOR OFFICIAL USE ONLY	LINE NUMBER	A. PROCESS CODE (from list above)	B. PROCESS DESIGN CAPACITY			FOR OFFICIAL USE ONLY
		1. AMOUNT (specify)	2. UNIT OF MEASURE (enter code)					1. AMOUNT (specify)	2. UNIT OF MEASURE (enter code)		

* 300 Area WATS and Tank 40 began operations 04-73; Tank 50, auxiliary equipment and centrifuge began operations 11-85.

300 Area Waste Acid Treatment System						311 Tanks					
1	T	0	1	V		1	T	0	1	L	
14,006						18,927					
2	S	0	2	L		2	S	0	2	L	
16,504						34,069					
3	T	0	4	V							
15,899											

Continued from the front.

III. PROCESSES (continued)

C. SPACE FOR ADDITIONAL PROCESS CODES OR FOR DESCRIBING OTHER PROCESS (code "T04"). FOR EACH PROCESS ENTERED HERE INCLUDE DESIGN CAPACITY.

REFER TO ATTACHMENT

IV. DESCRIPTION OF DANGEROUS WASTES

A. DANGEROUS WASTE NUMBER - Enter the four digit number from Chapter 173-303 WAC for each listed dangerous waste you will handle. If you handle dangerous wastes which are not listed in Chapter 173-303 WAC, enter the four digit number(s) that describes the characteristics and/or the toxic contaminants of those dangerous wastes.

B. ESTIMATED ANNUAL QUANTITY - For each listed waste entered in column A estimate the quantity of that waste that will be handled on an annual basis. For each characteristic or toxic contaminant entered in column A estimate the total annual quantity of all the non-listed waste(s) that will be handled which possess that characteristic or contaminant.

C. UNIT OF MEASURE - For each quantity entered in column B enter the unit of measure code. Units of measure which must be used and the appropriate codes are:

ENGLISH UNIT OF MEASURE	CODE	METRIC UNIT OF MEASURE	CODE
POUNDS	P	KILOGRAMS	K
TONS	T	METRIC TONS	M

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure taking into account the appropriate density or specific gravity of the waste.

D. PROCESSES

1. PROCESS CODES:

For listed dangerous waste: For each listed dangerous waste entered in column A select the code(s) from the list of process codes contained in Section III to indicate how the waste will be stored, treated, and/or disposed of at the facility.

For non-listed dangerous wastes: For each characteristic or toxic contaminant entered in Column A, select the code(s) from the list of process codes contained in Section III to indicate all the processes that will be used to store, treat, and/or dispose of all the non-listed dangerous wastes that possess that characteristic or toxic contaminant.

Note: Four spaces are provided for entering process codes. If more are needed: (1) Enter the first three as described above; (2) Enter "000" in the extreme right box of Item IV-D(1); and (3) Enter in the space provided on page 4, the line number and the additional code(s).

2. PROCESS DESCRIPTION: If a code is not listed for a process that will be used, describe the process in the space provided on the form.

NOTE: DANGEROUS WASTES DESCRIBED BY MORE THAN ONE DANGEROUS WASTE NUMBER - Dangerous wastes that can be described by more than one Waste Number shall be described on the form as follows:

- Select one of the Dangerous Waste Numbers and enter it in column A. On the same line complete columns B, C, and D by estimating the total annual quantity of the waste and describing all the processes to be used to treat, store, and/or dispose of the waste.
- In column A of the next line enter the other Dangerous Waste Number that can be used to describe the waste. In column D(2) on that line enter "included with above" and make no other entries on that line.
- Repeat step 2 for each other Dangerous Waste Number that can be used to describe the dangerous waste.

EXAMPLE FOR COMPLETING SECTION IV (shown in line numbers X-1, X-2, X-3, and X-4 below) - A facility will treat and dispose of an estimated 900 pounds per year of chrome shavings from leather tanning and finishing operation. In addition, the facility will treat and dispose of three non-listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

LINE NO.	A. DANGEROUS WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES	
				1. PROCESS CODES (enter)	2. PROCESS DESCRIPTION (if a code is not entered in D(1))
X-1	K 0 5 4	900	P	T 0 3 D 8 0	
X-2	D 0 0 2	400	P	T 0 3 D 8 0	
X-3	D 0 0 1	100	P	T 0 3 D 8 0	
X-4	D 0 0 2			T 0 3 D 8 0	included with above

Section III.C - Processes

T01, S02, T04 - The 300 Area Waste Acid Treatment System was used for the treatment and storage of mixed waste generated during fuel fabrication operations in the 300 Area of the Hanford Facility. The system also was used for disposing of used and/or unneeded chemicals for all Hanford Facility contractors. A portion of the waste initially was treated in two tanks (tanks 7 and 11) in the 333 Building to reduce the chromium (VI) to chromium (III) from May 1983 to January 1987. Tanks 7 and 11 were used twice a year to treat up to 757 liters (200 gallons) per day of waste (T01). This waste, along with all other waste acid generated in the 333 Building, was drained to the 334-A Building and stored in two storage tanks (tanks B and C) (S02) with a combined volume of 15,142 liters (4,000 gallons). Previously, waste entered the 334-A Building passing through a settling tank [tank A, volume 1,363 liters (360 gallons)] before entering tanks B and C. Tank A ceased receiving waste in August 1984 when piping was disconnected to the tank and waste was routed directly to Tanks B and C. Tank A was cleaned out and the polyvinyl chloride liner removed in 1988.

From startup in April 1973 until August 1973, the waste acids from the 333 Building were collected in a plastic-lined steel underground 14,385 liter (3,800 gallon) tank and a plastic-lined steel aboveground 22,712 liter (6,000 gallon) tank (tank 4) in the 334 Tank Farm. At that time, the underground tank developed a leak and was removed from service. The 334-A Building storage tanks replaced this underground tank in December 1974. Tank 4 was retained for emergency storage when the 313 Building neutralization activities were down for maintenance or revisions. Tank 4 usually was empty and, when the tank was filled in January 1986, developed a leak near the top of the tank. Tank 4 was emptied and abandoned at that time. Tank 4 was removed, cleaned, and disposed of onsite in 1988.

The waste acid was pumped from the 334-A Building to the 313 Building where the waste acid underwent pH adjustment in a waste acid neutralization tank (tank 2) (T01). Tank 2 was capable of treating a maximum of 13,249 liters (3,500 gallons) per day of waste acid. The waste acid was pumped from tank 2 to tank 11 and then to a centrifuge where the waste acid underwent further treatment to separate the liquid and solid phases of the waste acid (T04). A maximum of 11,356 liters (3,000 gallons) of waste acid per day could be treated in the centrifuge. The solid waste from the centrifuge was collected in containers and transferred to the 303-K Storage Unit. The liquid effluent was pumped from the centrifuge to tank 5 and then to a filter press for additional treatment to remove fine solids (T04), which remained following treatment in the centrifuge. The filter press treated a maximum of 4,542 liters (1,200 gallons) per day. Solids collected in the filter press were sent to the uranium recovery system or to the 303-K Storage Unit. The filtered liquid effluent was drained into effluent collection tanks (tanks 9 and 10) where the liquid effluent was stored temporarily before being pumped to the 311 Tank Farm.

Section III.C - Processes (continued)

T01.S02 - The 311 Tank Farm was used for storage of treated liquid effluents from both the 300 Area Waste Acid Treatment System and the uranium recovery process. Storage occurred in two tanks (tanks 40 and 50) with capacities of 15,142 and 18,927 liters (4,000 and 5,000 gallons), respectively. Tanks 40 and 50 are constructed of stainless steel. Tank 50, the 18,927 liter (5,000 gallon) tank, occasionally was used for decanting waste when the centrifuge in the 313 Building was down for maintenance. Tank 50 was capable of treating up to 18,927 liters (5,000 gallons) per day, but was used for decanting infrequently (total of five times between January 1986 and December 1987).

Auxiliary equipment (two pumps, two cartridge filters, and two sample ports) are housed in the adjacent 303-F Building. Auxiliary equipment was used to filter solutions and to recirculate the solutions between tanks and the 313 Building for reprocessing.

Continued from page 2.
 NOTE: Photocopy this page before completing if you have more than 26 wastes to list.

I.D. NUMBER (entered from page 1)										
W A 7 0 9 0 0 0 8 9 0 7										
IV. DESCRIPTION OF DANGEROUS WASTES (continued)										
LINE NO.	A. DANGEROUS WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES						
				1. PROCESS CODES (enter)				2. PROCESS DESCRIPTION (if a code is not entered in D(1))		
1	300 Area Waste Acid Treatment System									
2	D 0 0 1	2,086,525	K	T01	S02	T04				pH Adjustments/Storage/
3	D 0 0 2									Phase Separation
4	W T 0 2									
5	D 0 0 4									
6	through									
7	D 0 0 9									Included With Above
8	D 0 0 7	907	K	T01						Chemical Treatment
9	311 Tanks									
10	W T 0 2	2,086,525	K	T01	S02					Decanting/Storage
11	D 0 0 2									
12	D 0 0 4									
13	through									
14	D 0 0 9									Included With Above
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										

Continued from the front.

IV. DESCRIPTION OF DANGEROUS WASTES (continued)

E. USE THIS SPACE TO LIST ADDITIONAL PROCESS CODES FROM SECTION D(1) ON PAGE 3.

The 300 Area Waste Acid Treatment System was used to treat both mixed and dangerous waste from fuels fabrication operations in the 333 Building and from nonroutine waste additions. Treatment was performed to make the waste more amenable for further treatment and for storage. The 333 Building waste primarily consisted of hydrofluoric acid, nitric acid, sulfuric acid, and copper nitrate. These routine waste types exhibited the dangerous waste characteristics of corrosivity (D002) and ignitability (D001) as the nitric acid is considered an oxidizer in accordance with 49 Code of Federal Regulations, Part 173.127(a) and Washington Administrative Code 173-303-090(5)(a)(iv). Routine waste also was considered state-only toxic (WT02). Additionally, some of the routine waste was designated extraction procedure toxic waste due to chromium (D007). Nonroutine waste added to the system included extraction procedure toxic waste due to arsenic (D004), barium (D005), cadmium (D006), lead (D008), and mercury (D009). Approximately 2,086,525 kilograms (4,600,000 pounds) of waste were treated and stored in this system yearly. Approximately 907 kilograms (2,000 pounds) of waste (D007, chromium IV to chromium III) were treated per year.

The 311 tanks were used for the treatment and storage of waste. This waste was effluent from the waste acid treatment and uranium recovery process. This waste, depending on the variations in the treatment process, was considered mixed waste due to toxicity (WT02). Routine and nonroutine waste added to the waste acid treatment system included extraction procedure toxic waste due to arsenic (D004), barium (D005), cadmium (D006), chromium (D007), lead (D008), and mercury (D009). The waste frequently had a pH greater than 12.5, which exhibits the dangerous waste characteristic of corrosivity (D002). Approximately 2,086,525 kilograms (4,600,000 pounds) of waste were treated and stored in the 311 tanks per year.

V. FACILITY DRAWING Refer to attached drawing.

All existing facilities must include in the space provided on page 5 a scale drawing of the facility (see instructions for more detail).

VI. PHOTOGRAPHS Refer to attached photographs.

All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage, treatment or disposal areas (see instructions for more detail).

VII. FACILITY GEOGRAPHIC LOCATION This information is provided on the attached drawings and photos.

LATITUDE (degrees, minutes, & seconds)	LONGITUDE (degrees, minutes, & seconds)

VIII. FACILITY OWNER

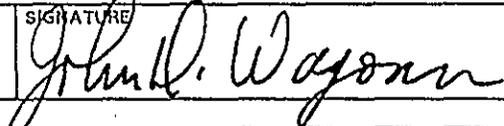
A. If the facility owner is also the facility operator as listed in Section VII on Form 1, "General Information", place an "X" in the box to the left and skip to Section IX below.

B. If the facility owner is not the facility operator as listed in Section VII on Form 1, complete the following items:

1. NAME OF FACILITY'S LEGAL OWNER				2. PHONE NO. (area code & no.)			
3. STREET OR P.O. BOX		4. CITY OR TOWN		5. ST.		6. ZIP CODE	

IX. OWNER CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

NAME (print or type) John D. Wagoner, Manager U.S. Department of Energy Richland Operations Office	SIGNATURE 	DATE SIGNED 3/13/96
---	---	------------------------

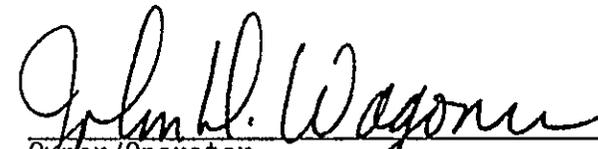
X. OPERATOR CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

NAME (print or type) SEE ATTACHMENT	SIGNATURE	DATE SIGNED
--	-----------	-------------

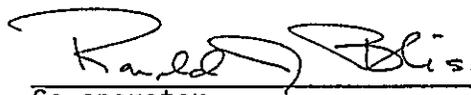
X. OPERATOR CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.



Owner/Operator
John D. Wagoner, Manager
U.S. Department of Energy
Richland Operations Office

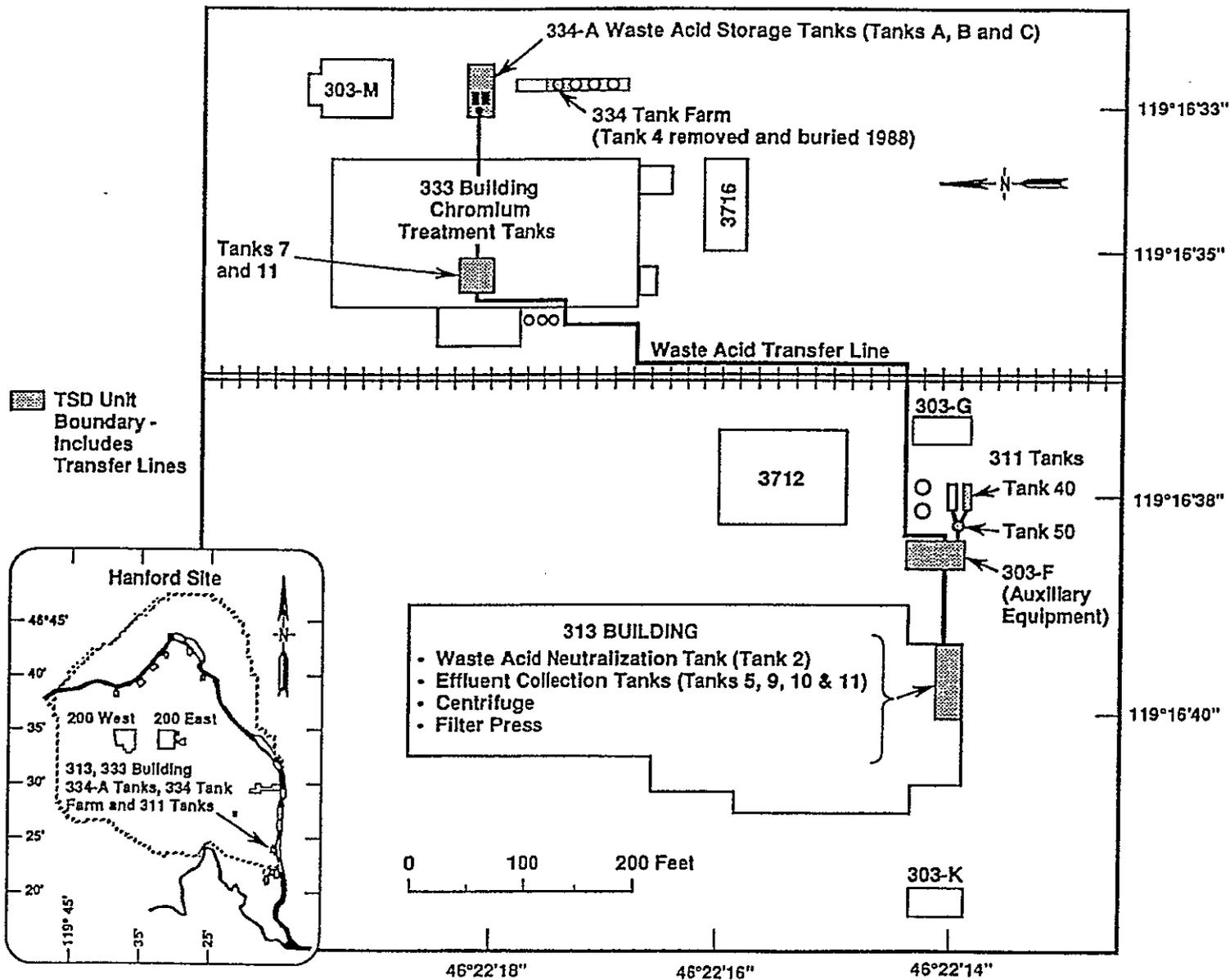
3/13/96
Date



Co-operator
R. J. Bliss, Vice President and Manager
Transition Projects
Westinghouse Hanford Company

2/22/96
Date

300 Area Waste Acid Treatment System



H9509015.1

WA7890008967

300 Area Waste Acid Treatment System
Rev. 4, 03/13/96, Page 8 of 20

300 AREA WASTE ACID TREATMENT SYSTEM--333 BUILDING

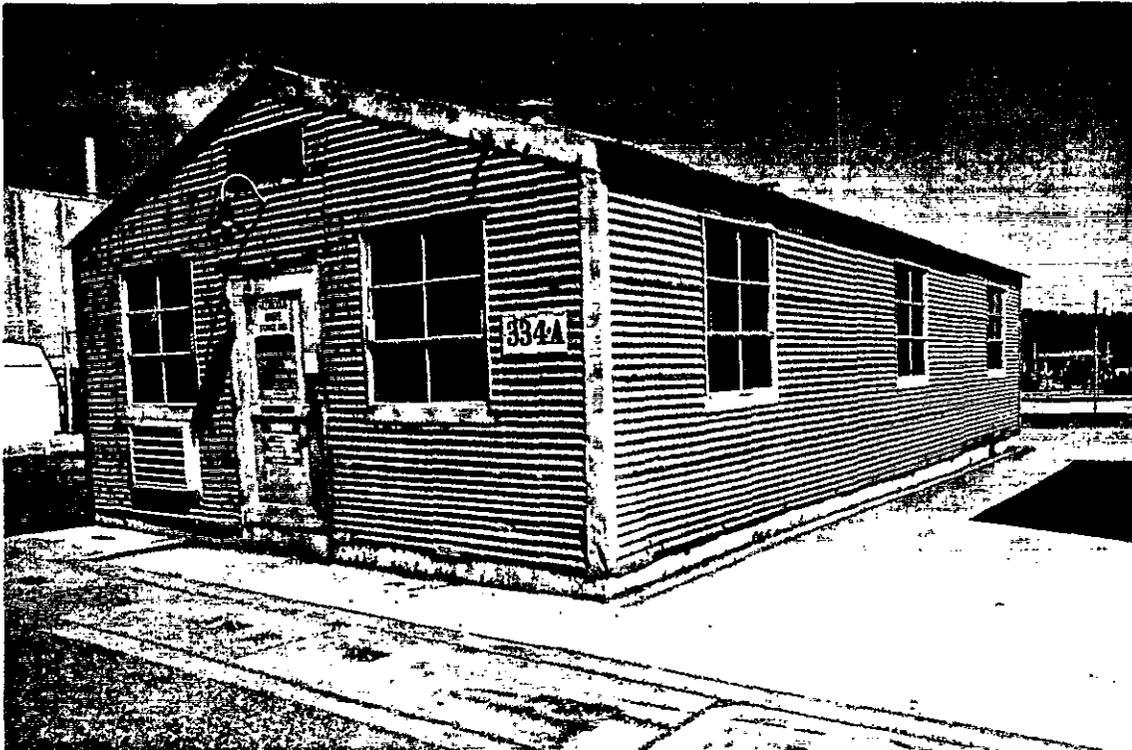


TANKS 7 AND 11--CHROMIUM (IV) REDUCTION

46°22'18"
119°16'35"

95080690-2CN
(PHOTO TANK 1987)

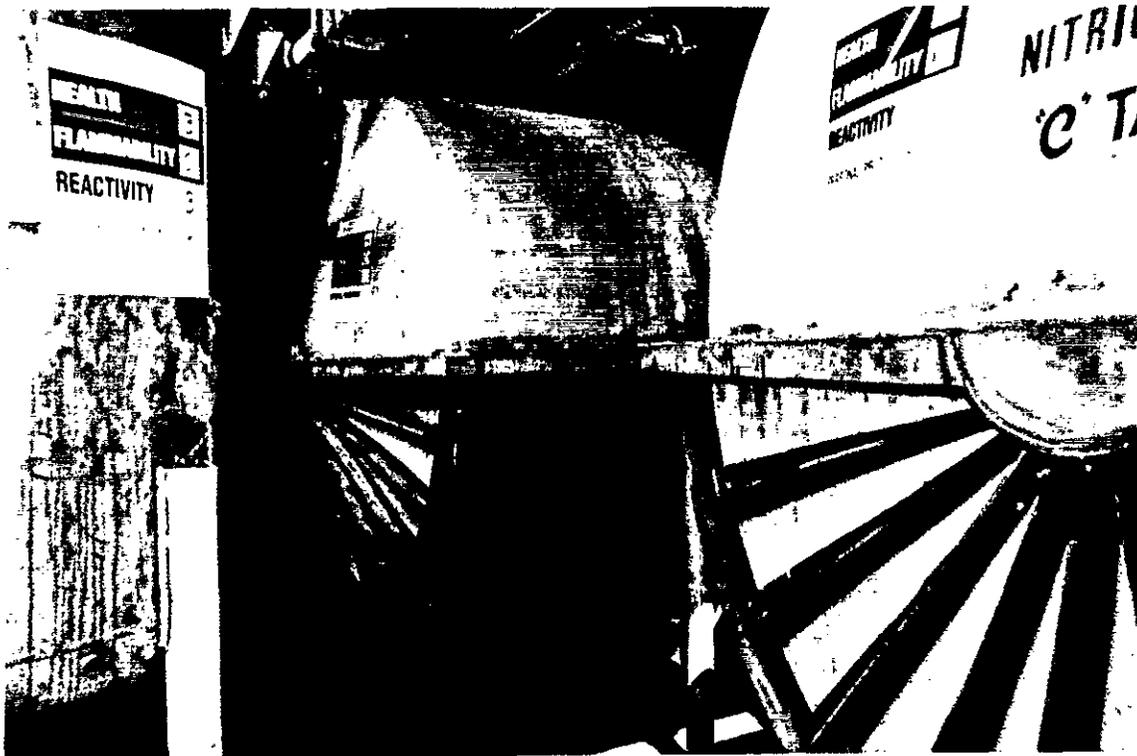
300 AREA WASTE ACID TREATMENT SYSTEM--334-A BUILDING



46°22'18"
119°16'33"

95080690-12CN
(PHOTO TANK 1995)

300 AREA WASTE ACID TREATMENT SYSTEM--334-A WASTE ACID STORAGE TANKS

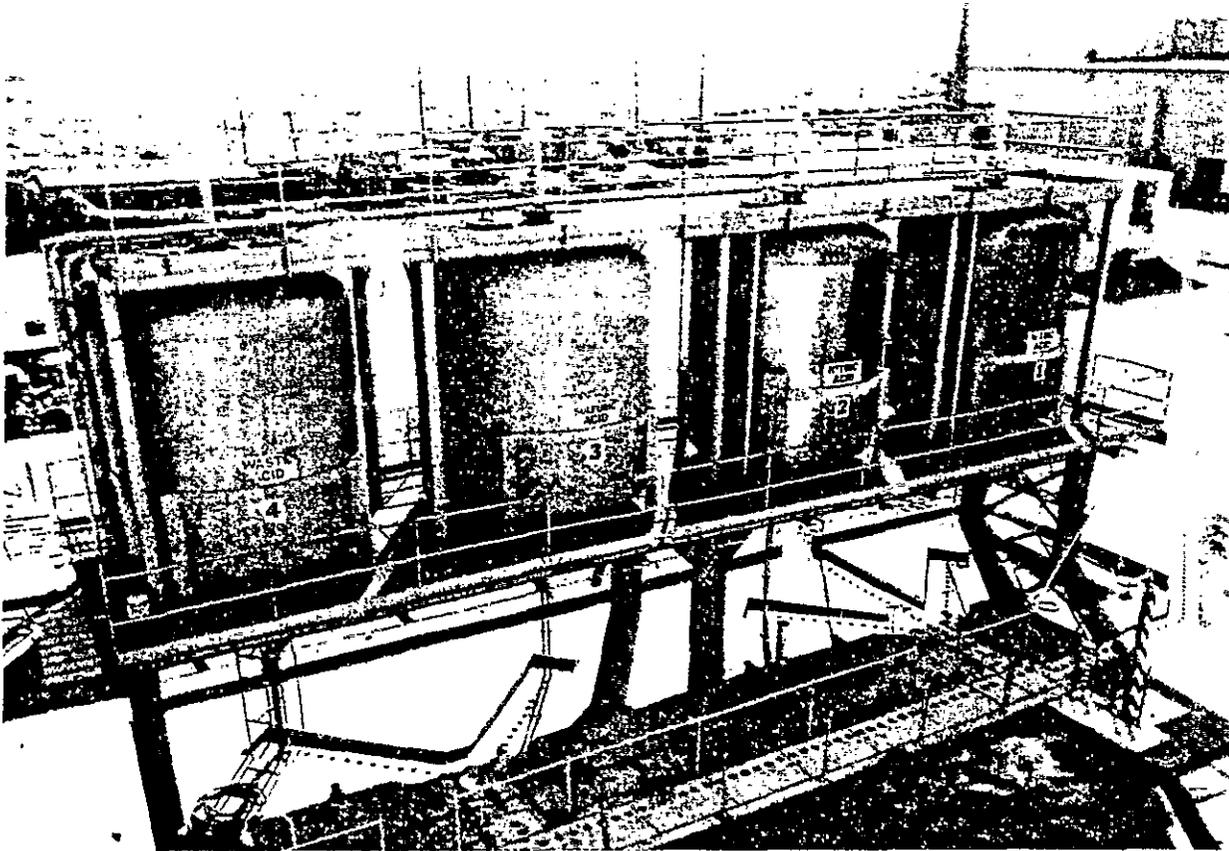


TANKS A, B, AND C
(TANK A OUT OF SERVICE 1988)

46°22'18"
119°16'33"

95080690-22CN
(PHOTO TANK 1995)

300 AREA WASTE ACID TREATMENT SYSTEM--334 TANK FARM



WASTE ACID TANK 4 (REMOVED, CLEANED, AND BURIED 1988)

46°22'18"
119°16'35"

8306387-6CN
(PHOTO TANK 1983)

300 AREA WASTE ACID TREATMENT SYSTEM--313 BUILDING WASTE ACID NEUTRALIZATION TANK

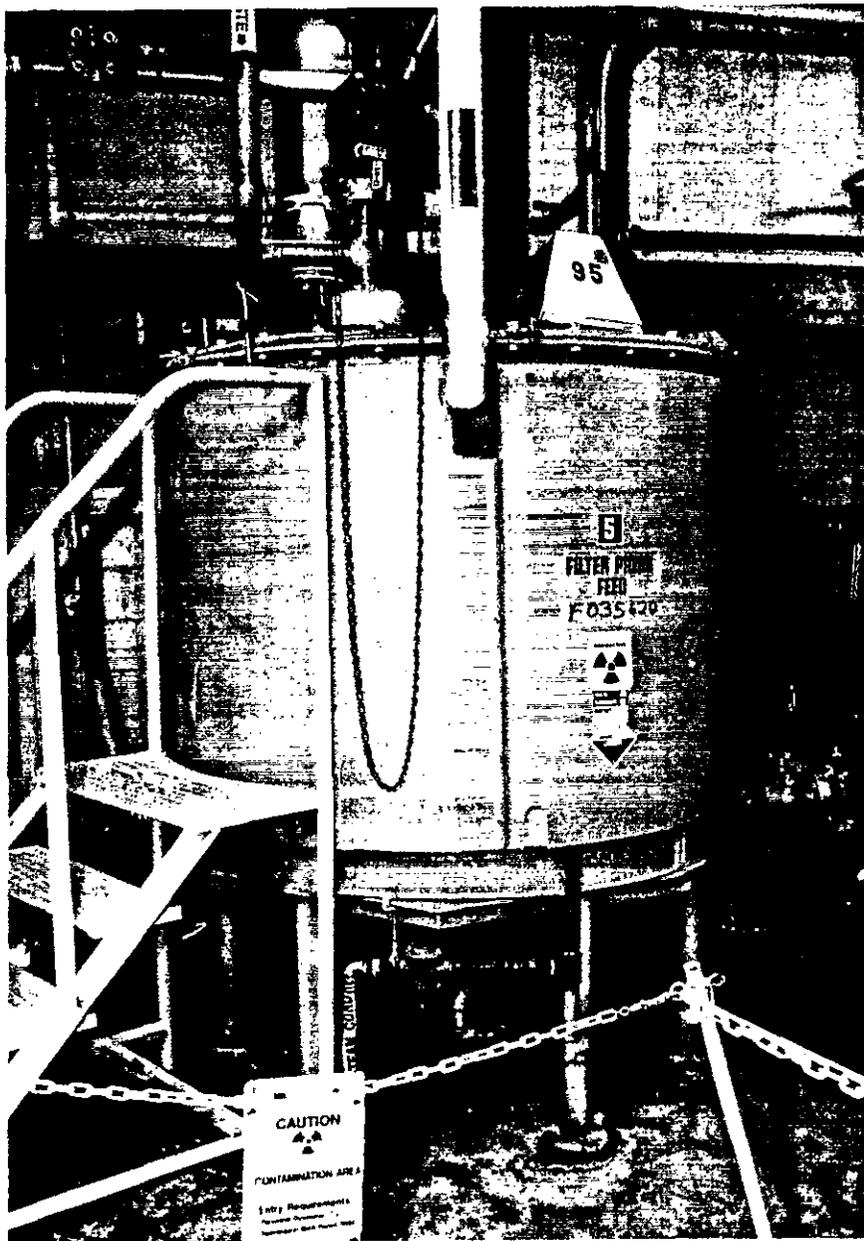


TANK 2

46°22'14"
119°16'40"

8704479-6CN
(PHOTO TAKEN 1987)

300 AREA WASTE ACID TREATMENT SYSTEM-- 313 BUILDING

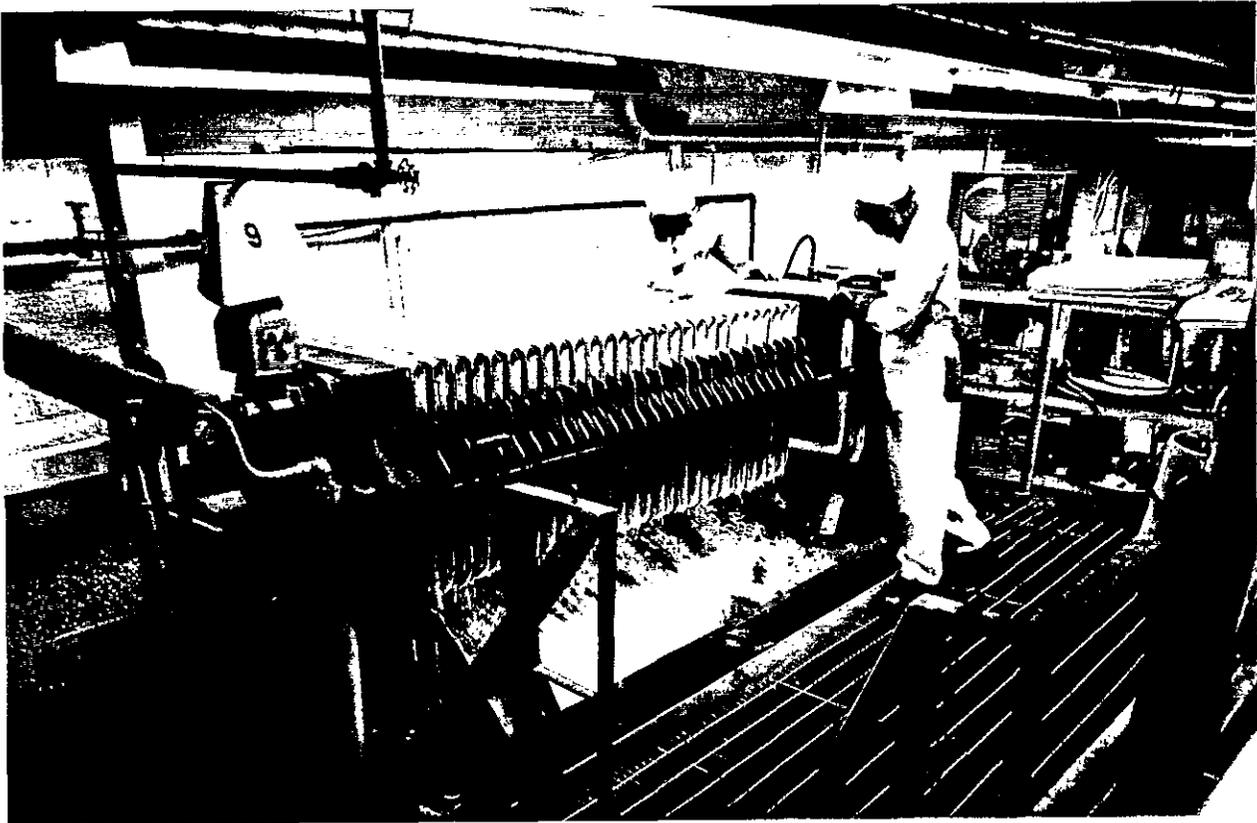


TANK 5

46°22'14"
119°16'40"

95080690-26CN
(PHOTO TAKEN 1987)

300 AREA WASTE ACID TREATMENT SYSTEM--313 BUILDING

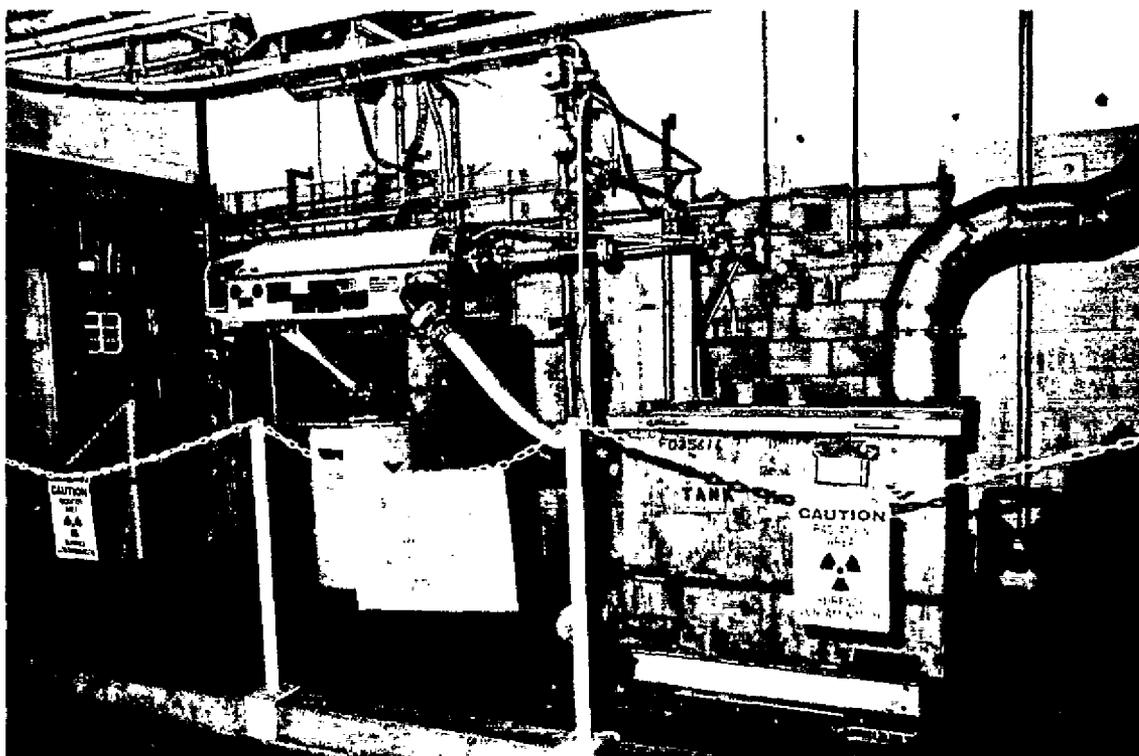


FILTER PRESS

46°22'14"
119°16'40"

7510170-19CN
(PHOTO TANK 1975)

300 AREA WASTE ACID TREATMENT SYSTEM--313 BUILDING

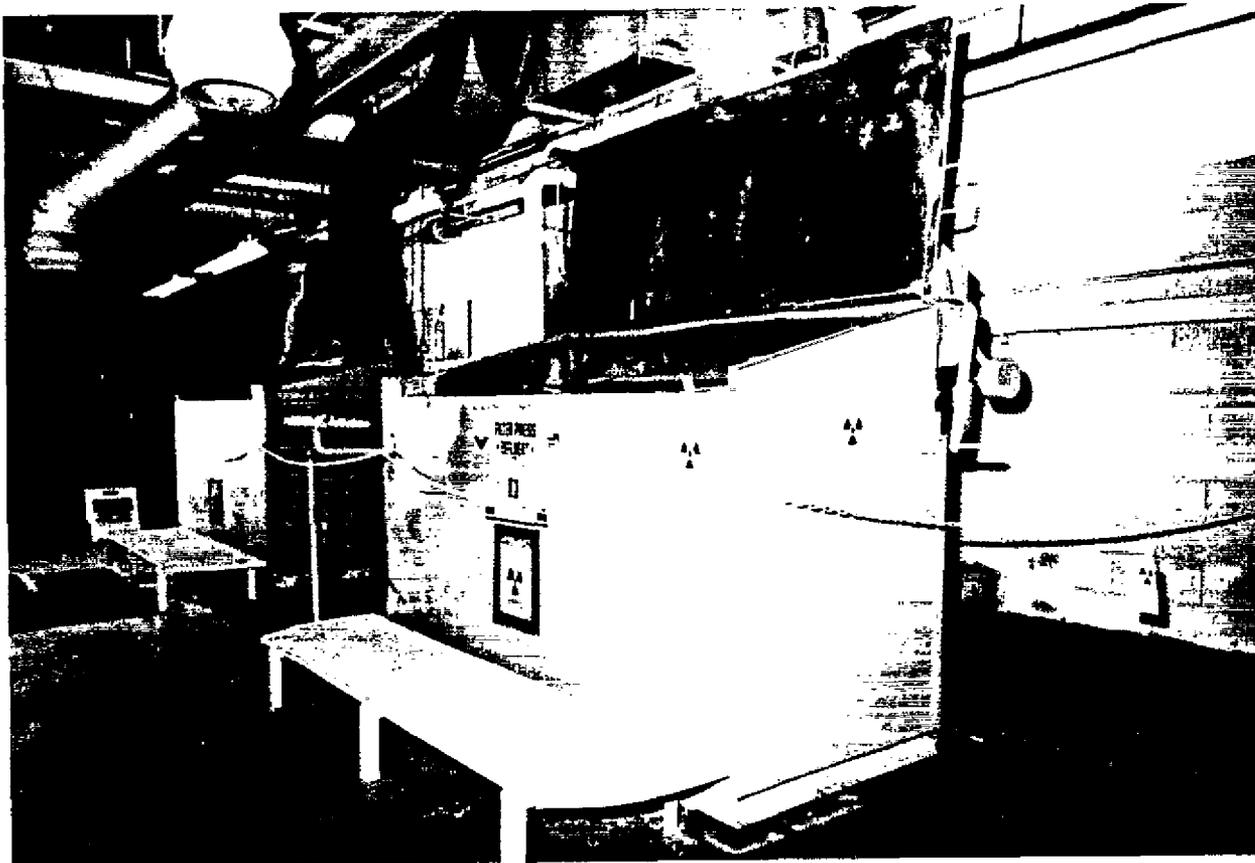


CENTRIFUGE WITH LIQUID RECEIVING TANK 11

46°22'14"
119°16'40"

90022759- 5CN
(PHOTO TANK 1989)

300 AREA WASTE ACID TREATMENT SYSTEM--313 BUILDING



TANKS 9 AND 10--EFFLUENT COLLECTION TANKS

46°22'14"
119°16'40"

9022759-7CN
(PHOTO TANK 1990)

300 AREA WASTE ACID TREATMENT SYSTEM--311 TANK FARM

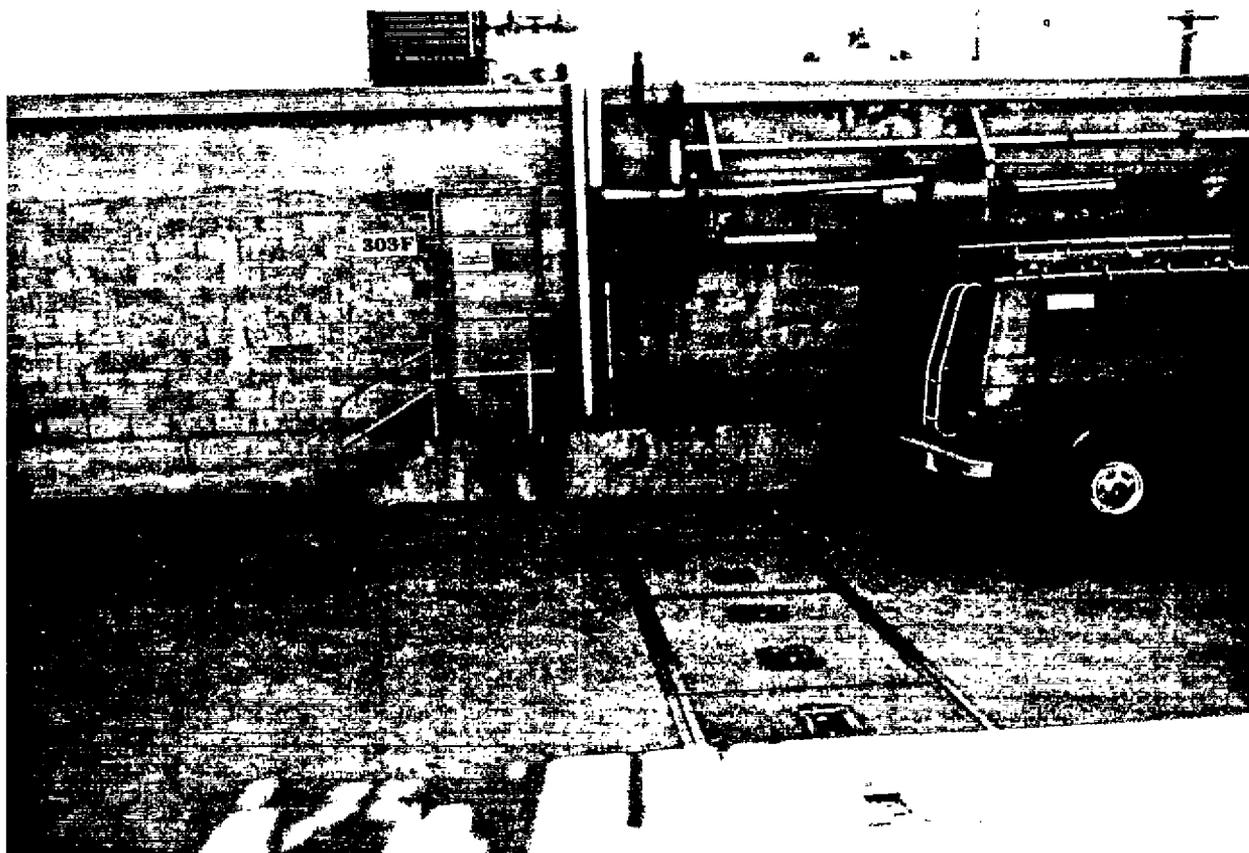


TANKS 40 AND 50

46°12'14"
119°16'38"

85050353-9CN
(PHOTO TANK 1985)

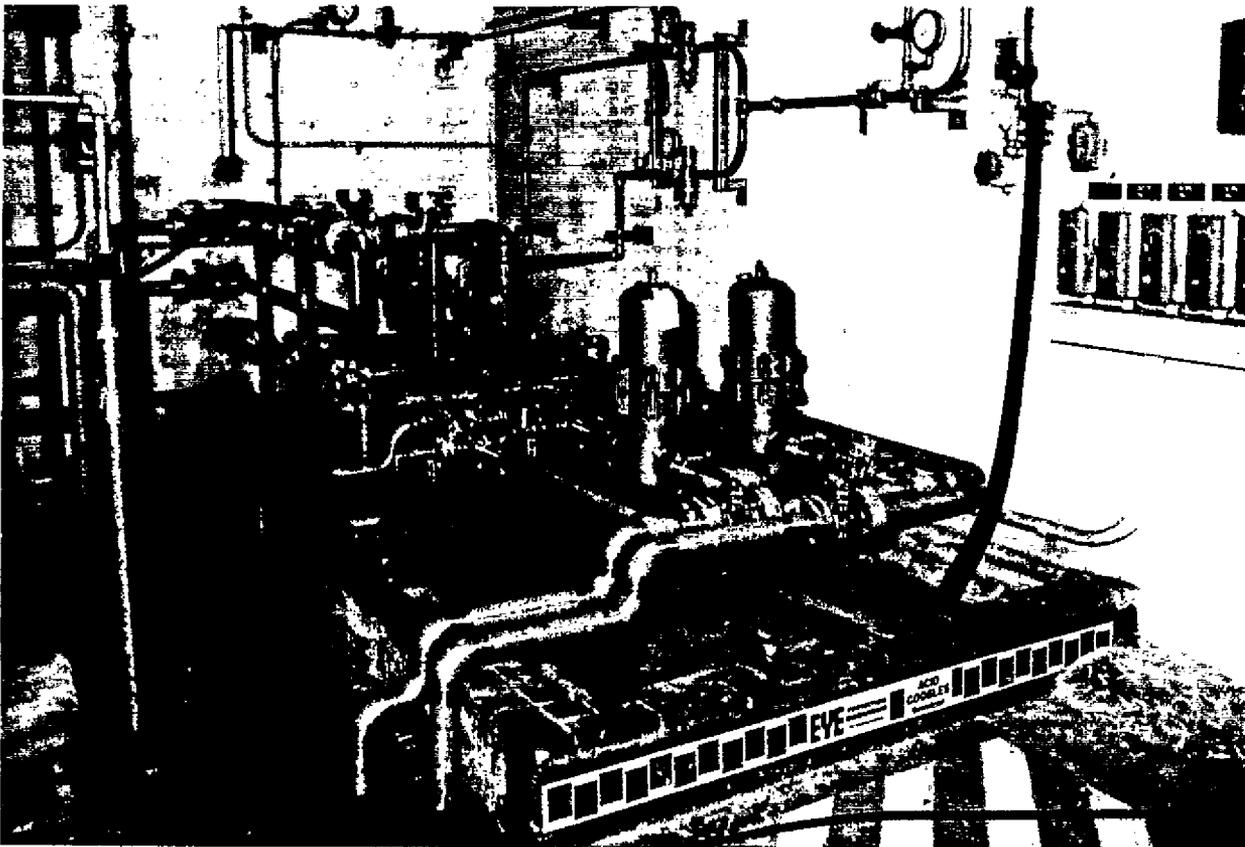
300 AREA WASTE ACID TREATMENT SYSTEM--303-F BUILDING



46°22'14"
119°16'38"

89050353-8CN
(PHOTO TANK 1989)

300 AREA WASTE ACID TREATMENT SYSTEM--303-F BUILDING



AUXILIARY EQUIPMENT (PUMPS, FILTERS, AND SAMPLE PORTS)

46°22'14"
119°16'38"

89050353-7CN
(PHOTO TANK 1989)