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RADIOACTIVE LIQUID WASTES DISCHARGED TO GROUND IN THE 200 AREAS DURING 1970

by

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Operations Analysis
Waste Management Section
Contract AT(45-1)-2130, Item I-23

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CONTENTS

	Table	Page
INTRODUCTION		1
SUMMARY		2
DISCUSSION		3
SUMMARY OF RADIOACTIVE WASTES DISCHARGED WITHIN THE CHEMICAL SEPARATIONS AREA CONTROL ZONE DURING 1970		
To Ponds and Ditches	1-A	5
To Cribs	1-B	6
To Specific Retention Sites	1-C	9
SUMMARY OF RADIOACTIVE WASTES DISCHARGED WITHIN THE CHEMICAL SEPARATIONS AREA CONTROL ZONE THROUGH 1970		
To Ponds and Ditches	2-A	10
To Cribs	2-B	12
To Specific Retention	2-C	22
DATA FOR INDIVIDUAL ACTIVE DISPOSAL SITES		
Cribs and Specific Retention		
216-A-6 Purex Steam Cond.	3	26
216-A-8 Tank Farm Cond.	4	27
216-A-10 Purex Process Cond.	5	28
216-A-27 Lab and Stack Wastes	6	29
216-A-30 Purex Steam Cond.	7	30
216-A-36B Dissolver (Ammonia) Scrubber Wastes	8	31
216-B-10b B Plant R-13 Change House Waste	9	32
216-B-12 B Plant Process Cond.	10	33
216-B-50 ITS-1 Condensate	11	34
216-B-55 B Plant Steam Cond.	12	35

0 2 3 0 8 7 0 9 9 1

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CONTENTS

(Contd.)

		Table	Page
216-B-57	ITS-2 Condensate	13	36
216-C-7	209-E Critical Mass Lab	14	37
216-S-6	Redox Steam Cond.	15	38
216-S-21	Tank Farm Cond.	16	39
216-S-23	Redox Process Cond.	17	40
216-T-19	242-T Evaporator Cond.	18	41
216-T-36	221-T Decon. Facility Waste	19	42
216-U-4A	222-U Waste	20	43
216-U-12	UO_3 Plant Process Cond.	21	44
216-Z-12	234-5 Process and Lab Waste	22	45
216-Z-16	231 Waste	23	46
216-Z-18	Plutonium Reclamation Waste	24	47
Ponds and Ditches			
216-A-25	Gable Mountain Pond & Ditches (Summary)	25	48
216-A-25	Purex Cooling Water	26	49
216-A-25	AR Vault Cooling Water	27	50
216-B-2-2 East	Ditch to [illegible]-B-3 Pond	28	51
216-B-2-2 West	Ditch to 216-B-3 Pond (Summary)	29	52
216-B-2-2 West	B Plant Chem Sewer	30	53
216-B-2-2 West	ITS-1 Cooling Water	31	54
216-B-2-2 West	ITS-2 Cooling Water	32	55
216-B-3	B Pond and Ditches (Summary)	33	56

0 0 0 3 0 3 7 0 0 9 2

CONTENTS
(Contd.)

		Table	Page
216-B-3	B Plant Chem Sewer	34	57
216-B-3	B Plant Cooling Water	35	58
216-B-3	CR Vault Cooling Water	36	59
216-B-3	ITS-1 Cooling Water	37	60
216-B-3	ITS-2 Cooling Water	38	61
216-B-3	Purex Chemical Sewer	39	62
216-B-63	B Plant Emergency Trench (Summary)	40	63
216-B-63	B Plant Chem Sewer	41	64
216-B-63	B Plant Cooling Water	42	65
216-B-63	ITS-2 Cooling Water	43	66
216-S-11	Redox Chem Sewer Ditch	44	67
216-S-16	Redox Pond #2	45	68
216-S-19	222-S Lab Pond	46	69
216-T-4	T Pond	47	70
216-U-10	U Pond and Ditches (Summary)	48	71
216-U-10	Laundry	49	72
216-U-10	U Plant	50	73
216-U-10	241-SX Cooling Water	51	74
216-U-10	234-5 & 231-Z Waste Water	52	75
1970 AVERAGE CONCENTRATION OF LIQUID WASTES TO CRIBS AND PONDS		53	76
1970 MAXIMUM CONCENTRATION OF LIQUID WASTES TO CRIBS AND PONDS		54	77
BIBLIOGRAPHY			78
APPENDIX			
200 Area Radioactive Liquid Waste Disposal Sites			80

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INTRODUCTION

This document is issued annually for the purpose of summarizing the radioactive liquid wastes that have been discharged to ground in the 200 Areas. In addition to data for 1970, cumulative data since plant startup are presented. Previous publications of this series are listed in the Bibliography and may be referred to for specific information concerning liquid waste discharged prior to 1970.

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SUMMARY

The radioactive liquid wastes discharged to ground during 1970 and through 1970 were:

During 1970	To Ponds And Ditches	To Cribs	To Specific Retention Sites	Total
Volume (n x 10^6 gallons)	5,081(1)	154	0.211	5,235
Uranium (lbs)	<175	83.7	---	< 259
Plutonium (g)	<21.8	694	5,005	5,721
Total Beta Emitters*(Ci)	1,706	12,445	---	14,151
Co-60 (Ci)	<2.32	< 8.92	---	< 11.2
Sr-90 (Ci)	1,005	267	---	1,272
Cs-137 (Ci)	< 20.3	228	---	248
Ru-106 (Ci)	< 33.6	1,720	---	1,754
Uranium-233 (g)	<373	348	---	< 721

Through 1970 (from start-up)				
Volume (n x 10^6 gallons)	118,599(1)	7,053	37.1	125,689
Uranium (lbs)	13,908	131,122	113,296	258,326
Plutonium (g)	9,062	194,356	76,143	279,561
Total Beta Emitters*(Ci)	115,931	2,167,815	921,908	3,205,654
Co-60 (Ci)	< 76.6(2)	500	144	< 721
Sr-90 (Ci)	< 1,772	31,499	11,802	45,073
Cs-137 (Ci)	641	17,174	32,208	50,023
Ru-106 (Ci)	3,779	248,984	301,419	554,182

(1) Includes waste water from Power Houses
(2) Total since 1-1-67

* As a hypothetical nonvolatile isotope of long half-life emitting a monoenergetic beta particle of 0.3 MEV.

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DISCUSSION

A summary is presented in Tables 1-A, 1-B, and 1-C of the radioactive liquid wastes discharged to individual ponds, cribs, and specific retention sites within the Chemical Processing Division control zone (200 Area plateau) during 1970. The volume of liquid discharged to ponds also includes major nonradioactive streams. The waste discharges during 1970 to each site are detailed on a month-to-month basis in Tables 3 through 52.

An estimate is presented in Tables 2-A, 2-B, and 2-C of the radioactivity discharged to individual ponds, cribs, and specific retention sites from start-up through 1970. These tables have Item No. 21 of the Bibliography as a basis.

Besides the aforementioned data, which have made up the format of the past three annual reports, this report includes three additional items: (1) the average discharge of specific radioisotopes and of the total beta activity to active sites, (2) similarly, the maximum discharge to active sites, and (3) identification of each site by coordinates and by blueprint references. These are presented in Table 53, Table 54, and the Appendix, respectively.

Three sites were activated during 1970:

216-B-2-3 West Ditch (New)	Western end (head) of the B Plant ditch to 216-B-3 Pond
216-B-2-3 East Ditch (New)	Eastern end (terminus) of the B Plant ditch to 216-B-3 Pond
216-B-63 Trench (New)	B Plant Chemical Sewer; B Plant Retention Basin (emergency)

During 1970, one crib and two sections of the ditch between the B Plant retention basins and the 216-B-3 Pond were removed from service. These were:

216-A-6 Crib	Purex Steam Condensate
216-B-2-2 West Ditch	Western end (head) of the 216-B-2 ditch
216-B-2-2 East Ditch	Eastern end (terminus) of the 216-B-2 ditch

There were six sites that, although not removed from service, were not used:

216-A-39 Trench	244-AR Cooling Water (emergency)

216-B-59 Trench	B Plant Cooling Water (emergency)
216-S-21 Crib	241-SX Tank Farm Condensate
216-T-35 Crib	BNW-340 Facility
216-T-36 Crib	T Plant Waste
216-U-4B French Drain	BNW - 222-U Bldg. Hot Cell

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TABLE 1-A

SUMMARY OF RADIOACTIVE WASTES

DISCHARGED TO PONDS AND DITCHES DURING 1970

Disposal Site	Volume ($n \times 10^6$ gallons)	Uranium (lbs)	Plutonium (grams)	Total Beta Emitters (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)	U-233 (gm)
216-A-25 (Gable Mountain)	2,996	<128	<15.1	<31.3	< 2.06	<.84	< 3.91	<29.6	< 347.8
216-B-2-2 East (Ditch to B Pond)	---	---	---	1,120	---	710	0.5	---	---
216-B-2-2 West (Ditch to B Pond)	13.1	<.104	<.042	380	---	242	0.5	---	---
216-B-3 (B Pond & Ditches)	961	<19.5	<2.35	170	<.26	50.7	14.9	< 3.93	< 25
216-B-63 (B Plant Trench)	64.5	<1.55	<.047	<1.34	$< 4.4^{-3}$ (1)	1.44	<.358	< .082	---
216-S-11 (Redox Chem. Sewer Ditch)	12.2	<.117	<.032	< .016	---	---	---	---	---
216-S-16 (Redox Pond #2)	222	<2.26	< .318	.398	---	7.7^{-3}	.117	---	---
216-S-19 (Redox Lab Pond)	9.12	<.355	<.043	.03	---	---	9.3^{-3}	8.5^{-4}	---
216-T-1 (T Plant Head End Ditch)	6.5	---	---	---	---	---	---	---	---
216-T-4 (T Plant Pond)	133	< 1.22	<.093	.219	---	---	---	---	---
216-U-10 ("U" Pond & Ditches)	664	<21.9	<3.8	<3.12	---	---	---	---	---
Total	5,081	<175	<21.8	1,706	<2.32	1,005	<20.3	<33.6	<373

(1) $5^{-3} = 5 \times 10^{-3}$

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TABLE 1-B

SUMMARY OF RADIOACTIVE WASTES

DISCHARGED TO ACTIVE CRIBS DURING 1970

Disposal Site	Volume ($n \times 10^6$ gallons)	Uranium (lbs)	Plutonium (grams)	Total Beta Emitters (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)	U-233 (gm)
216-A-6 Purex Steam Cond.	.776	.02	.02	.08	$<6^{-3}$(1)	---	$<8^{-3}$	.668	---
216-A-8 Tank Farm Cond.	3.05	<.135	$<9.9^{-4}$	3.2	$<1.3^{-3}$	.134	.899	.621	---
216-A-10 Purex Process Cond.	12.9	6.12	26.7	254	<.216	2.96	3.99	19.7	277
216-A-27 Lab & Stack Wastes	.277	8.48	8.52	640	<1.62	28	38.2	7.77	48.3
216-A-30 Purex Steam Cond.	47.9	<3.59	<1	83.1	<.168	3.4	4.16	9.11	<6.9
216-A-36B Dissolver (ammonia) Scrubber Wastes	2.59	57.7	3.49	11,330	6.3	229	131	1,669	15.6
216-B-10b B Plant R-13 Change House wastes	.002	$<1.1^{-3}$	$<1.9^{-5}$	4.8^{-4}	---	8.3^{-5}	$<6.7^{-5}$	---	---
216-B-12 B Plant Process Cond.	5.94	<1.4	.407	41.4	<.527	2.32	14.2	<1.79	---
216-B-50 ITS Condensate	2.23	<.089	$<1.7^{-3}$	.594	$<4^{-4}$	.011	.299	.024	---
216-B-55 B Plant Steam Cond.	23.4	<1.04	<.022	2.74	$<5.3^{-3}$	.088	1.17	<.056	---
216-B-57 ITS-2 Condensate	5.11	<.228	$<3^{-3}$	52.4	<.015	.091	32.2	.974	---

(1) $x^{-n} = x \times 10^{-n}$

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TABLE 1-B (Continued) Discharge to Cribs During 1970

Disposal Site	Volume ($n \times 10^6$ gallons)	Uranium (lbs)	Plutonium (grams)	Total Beta Emitters (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)	U-233 (gm)
216-C-7 209-E Critical Mass Lab	2.6^{-4}(1)	---	---	---	---	---	---	---	---
216-S-6 Redox Steam Cond.	32.2	<1.48	<.151	1.16	$<6.2^{-3}$	.09	.159	.214	---
216-S-21 Tank Farm Condensate	None	---	---	---	---	---	---	---	---
216-S-23 Redox Process Cond.	2.33	<.181	.287	33.[illegible]	<.053	.687	.477	10.3	---
216-T-19 242-T Evaporator Cond.	8.06	<.156	$<1.9^{-3}$	2.75	$<9.9^{-4}$	.04	1.61	<.03	---
216-T-35 300 Area Lab Waste	None	---	---	---	---	---	---	---	---
216-T-36 221-T Decon. Facility Waste	None	---	---	---	---	---	---	---	---
216-U-4A 222-U Waste	.018	---	---	$<1.2^{-3}$	---	$<6.2^{-4}$	$<1.4^{-4}$	$<1.4^{-4}$	---
216-U-4B 222-U Waste	None	---	---	---	---	---	---	---	---
216-U-12 UO_3 Plant Process Cond.	.811	3.1	---	.011	---	---	---	---	---

(1) $N^{-n} = N \times 10^{-n}$

TABLE 1-B (Continued) Discharge to Cribs During 1970

Disposal Site	Volume ($n \times 10^6$ gallons)	Uranium (lbs)	Plutonium (grams)	Total Beta Emitters (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)	U-233 (gm)
216-Z-12 234-5 Process & Lab Waste	.911	---	650	---	---	---	---	---	---
216-Z-16 231-Waste	5.06	---	<3.1	<.078	---	---	---	---	---
Total	154	83.7	694	12,445	<8.92	267	228	1,720	348

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ARH-2015 Rev
Page 8

TABLE 1-C

SUMMARY OF RADIOACTIVE WASTES

DISCHARGED TO ACTIVE SPECIFIC RETENTION SITES DURING 1970

Disposal Site	Volume ($n \times 10^6$ gallons)	Uranium (lbs)	Plutonium (grams)	Total Beta Emitters (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)
216-A-39 AR Vault Cooling Water (Emergency Diversion)	None	---	---	---	---	---	---	---
216-B-59 B Plant Cooling Water (Emergency Diversion)	None	----	---	---	---	---	---	---
216-Z-18 Plutonium Reclamation Waste	.211	---	5,005	---	---	---	---	---
Total	.211	---	5,005	---	---	---	---	---

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TABLE 2-A

SUMMARY OF RADIOACTIVE WASTES DISCHARGED TO PONDS AND DITCHES WITHIN THE CHEMICAL SEPARATION AREA CONTROL ZONE THROUGH 1970

Disposal Site	Placed In Use	Removed From Service	Volume (n x 10^6 gallons)	Uranium (lbs)	Plutonium (grams)	Total Beta Emitters (Ci)	Co-60(1) (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)
216-A 25 Gable Mountain Pond	12/57	*	40,596	<1,070	396	94,364	<42.2	481	359	731
216-B-2-2 East Terminus of B-2-2 ditch	---	*	---	---	---	1,120	---	710	0.5	---
216-B-2-2 West Head of B-2-2 ditch	---	*	13.1	<.104	<.042	380	---	242	0.5	---
216-B 3 B Pond and Ditches	4/45	*	22,501	614	230	15,447	<19.7	<152	<145	2,317
216-B-63 Trench B Plant Chem Sewer, etc.	3/70	*	64.5	<1.55	<.047	<1.34	<4.4-3(2)	1.44	<.358	<.082
216-C-9 Semiworks Pond	6/53	9/69	272	<2.02	<.338	56.7	<.385	5.14	1.2	5.2
216-N 1 200 North N-Pond	/44	6/52	250	10	1	500	---	5	5	5
216-N 4 200 North P-Pond	/44	6/52	250	10	1	500	---	5	5	5
216-N 6 200 North R-Pond	/44	6/52	250	10	1	500	---	5	5	5
216-S 10 Redox Chem Sewer Ditch	2/54	5/54	.053	5	.1	20	---	1	1	19

* Active in 1970 (1) Total from 1-1-67 (2) $N^{-n} = N \times 10^{-n}$

Table 2-A (Continued) Discharge to Ponds Through 1970

Disposal Site	Placed In Use	Removed From Service	Volume (n x 10^6 gallons)	Uranium (lbs)	Plutonium (grams)	Total Beta Emitters (Ci)	Co-60(1) (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)
216-S 11 Redox Chem Sewer Ditch	5/54	*	716	51.5	.218	50.4	<.133	1.11	<1.11	10.1
216-S 16 Redox Pond #2	4/54	*	10,349	6,961	368	1,034	<5.89	91.5	58.4	218
216-S 17 Redox Pond #1	3/52	4/54	1,700	300	3	1,100	---	40	30	50
216- S 19 222-S Lab Pond	1/52	*	667	236	20.5	24	<.563	<2.46	2.27	6.82
216-T 1 221-T (Head End) Ditch	/45	*	46.9	9.91	<.1	5	---	<.1	<.1	1
216-T 4 T Plant Pond	3/47	*	10,730	1,508	<3.66	125	<3.38	<6.17	10.9	106
216-U 9 U pond Overflow Ditch	3/52	3/54	Not Used							
216-U 10 U Pond and Ditches	3/52	*	30,193	3,119	8,037	704	<4.35	22.6	15.7	309
216-U 11 U Pond Overflow Pond	3/52		Not Used							
Total			118,599	13,908	9,062	115,931	<76.6	<1,772	641	3,719

*Active in 1970

(1) Total since 1-1-67

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TABLE 2-B

SUMMARY OF RADIOACTIVE WASTES DISCHARGED TO CRIBS WITHIN THE CHEMICAL SEPARATIONS AREA CONTROL ZONE THROUGH 1970

Disposal Site	Placed In Use	Removed From Service	Volume ($n \times 10^6$ gallons)	Uranium (lbs)	Plutonium (grams)	Total Beta Emitters (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)
216-A 3 203-A silica Gel Wastes	3/56	***	.740	3,700	.2	490	< .1	<.1	< .1	350
216-A 4 Lab and Stack Drain	12/55	12/58	1.64	880	140	270	1	10	15	400
216-A 5 Process Cond.	11/55	11/61	476	580	65	3,405	110	90	25	150
216-A 6 Steam Cond.	11/55 3/66	1/61 1/70*	901	364	35.6	4,443	1.86	91.1	211	223
216-A 7 241-A-152 Box Drain	11/55	7/59	.063	15	1	20	< .1	1	5	30
216-A 8 Tank Farm Condensate	11/55 4/66	5/58 *	333	811	49.9	11,326	<1.76	<111	1,080	993
216-A 9 N-Reactor Wastes & Acid Fractionator	3/56	**	370	.5	.5	172	.14	25	10	50.3
216-A 10 Process Cond.	11/61	*	722	439	235	122,912	179	114	106	7,161

* Active in 1970
** Inactive in 1970
*** Data through 1966

Table 2-B (Continued) Discharge to Cribs Through 1970

Disposal Site	Placed In Use	Removed From Service	Volume (n x 10^6 gallons)	Uranium (lbs)	Plutonium (grams)	Total Beta Emitters (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)
216-A 21 Ammonia Scrubber & Lab Wastes	12/58	6/65	23.2	430	150	2,800	10	15	150	200
216-A 24 Tank Farm Cond.	5/58	4/66	211	110	5	4,900	.5	6.4	500	400
216-A 27 Lab, Scrubber & Stack Drain	8/65	*	6.19	150	<96.5	1,574	<2.67	41.3	52.6	63.2
216-A 30 Steam Cond.	1/61	*	815	68.6	65.4	5,130	16.4	134	213	172
216-A 36B Ammonia Scrubber Wastes	3/66	*	13	253	114	23,245	25.7	427	321	2,554
216-A 37 Steam Cond.	Not Used									
216-A 38 Process Cond.	Not Used									
216-B 7 224-B Wastes and 5-6 Cell Drain & 221-B Construction Waste Water	9/46	/67	13.3	401	4,300	10,103	1	5,600	100	600
216-B 8 224-B, 5-6 & 2nd Cycle Wastes	/45	/52	7.13	100	30	710	1	15	50	50

*Active in 1970

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Table 2-B (Continued) Discharge to Cribs Through 1970

Disposal Site	Placed In Use	Removed From Service	Volume ($n \times 10^6$ gallons)	Uranium (lbs)	Plutonium (grams)	Total Beta Emitters (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)
216-B 9 5-6 & 2nd Cycle Wastes	8/48	7/51	9.51	100	170	7,800	.1	15	10	100
216-B 10 222-B & 292-B Wastes	12/49	/58	2.64	20	10	50	.1	5	1	10
216-B 10b B Plant R-13 Waste	6/69	*	.0024	$<1.2^{-3}$ (1)	$<2^{-5}$	1^{-3}	---	3.2^{-4}	$<8.7^{-5}$	---
216-B 11 242-B Cond.	12/51	11/54	7.93	30	4	39	.1	5	50	50
216-B 12 U Plant Cond. & B Plant Cond.	11/52 5/67	1957 *	117	46,043	374	10,989	<1.05	134	1,159	300
216-B 14 U Plant Scavenged Waste	1/56	2/56	2.3	480	25	140,000	5	400	250	59,000
216-B 15 U Plant Scavenged Waste	4/56	12/57	1.66	230	5	69,000	5	200	200	22,000
216-B 16 U Plant Scavenged Waste	4/56	8/56	1.48	710	10	54,000	5	700	650	13,000
216-B 17 Tank Farm Scavenged Wastes	1/56	1/56	.90	780	10	2,000	1	160	220	250
216-B 18 U Plant Scavenged Wastes	3/56	4/56	2.25	520	10	51,000	5	190	250	19,000

*Active in 1970 (1) $N^{-n} = N \times 10^{-n}$

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0 0 2 3 0 8 7 0 9 0 3

Table 2-B (Continued) Discharge to Cribs Through 1970

Disposal Site	Placed In Use	Removed From Service	Volume ($n \times 10^6$ gallons)	Uranium (lbs)	Plutonium (grams)	Total Beta Emitters (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)
216-B 19 U Plant & Tank Farm Scavenged Waste	2/57	10/57	1.69	400	10	9,300	5	200	270	5,100
216-B 43 U Plant Scavenged Waste	11/54	11/54	.56	30	.5	3,200	1	1,400	300	50
216-B 44 U Plant Scavenged Waste	11/54	3/55	1.48	5	15	22,000	5	2,900	700	5,500
216-B 45 U Plant Scavenged Waste	4/55	6/55	1.30	15	10	53,000	5	2,800	1,500	17,000
216-B 46 U Plant Scavenged Waste	9/55	12/55	1.77	420	20	120,000	5	1,500	200	28,000
216-B 47 U Plant Scavenged Waste	9/55	9/55	.98	15	5	45,000	1	620	150	19,000
216-B 48 U Plant Scavenged Waste	11/55	7/57	1.08	5	5	61,000	1	1,300	450	6,800
216-B 49 U Plant Scavenged Waste	11/55	12/55	1.77	700	15	110,000	5	2,700	410	24,000
216-B 50 First ITS Waste	1/65	*	11.8	<.499	<.237	139	<.333	<5.97	86	11

*Active in 1970

~~OFFICIAL USE ONLY~~

Table 2-B (Continued) Discharge to Cribs Through 1970

0 0 2 3 0 8 7 0 9 0 9

Disposal Site	Placed In Use	Removed From Service	Volume (n x 10^6 gallons)	Uranium (lbs)	Plutonium (grams)	Total Beta Emitters (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)
216-B 55 B Plant Steam Condensate	9/67	*	56.8	< 2.76	< .396	29.2	<.202	3.21	12.7	< 1.03
216-B 57 Second ITS Waste	2/68	*	13.7	<1.53	<.179	583	<.125	3.11	332	7.93
216-C 1 201-C Process Condensate	1/53	6/57	8.72	650	8	11,000	< .1	200	<.1	400
216-C 3 271-C Chemical Waste	1/53	3/54	1.32	100	1	200	<.1	20	< .1	10
216-C 5 201-C High Salt Waste	3/55	6/55	.010	120	1	94	< .1	10	< .1	5
216-C 7 209-E Critical Mass Lab	/59	*	.013	<.22	1	20	<.1	<.1	<.1	1
216-C 10 Strontium Process Condensate	11/64	5/67	.237	<.1	<.15	73	< .15	62.8	<.15	1.5
216-S 1 & 2 Redox Process Condensate	1/52	1/56	42.3	5,000	1,200	750,000	10	3,000	2,500	3,000
216-S 3 241-S Tk-101 & 104 Condensate	8/53	8/53	1.11	840	.5	270	1	1	50	50

*Active in 1970

DECLASSIFIED
ARH-2015 R03
Page 16

Table 2-B (Continued) Discharge to Cribs Through 1970

Disposal Site	Placed In Use	Removed From Service	Volume (n x 10^6 gallons)	Uranium (lbs)	Plutonium (grams)	Total Beta Emitters (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)
216-S 5 Steam Condensate	3/54	3/57	1,083	600	580	960	< .1	130	60	30
216-S 6 Steam Condensate	11/54	*	1,141	598	473	3,089	<2.9	412	212	133
216-S 7 Process Cond.	1/56	7/65	103	5,700	440	281,000	25	3,100	1,470	1,500
216-S 9 Process Cond.	7/65	1/69	13.3	74.7	65	13,501	25.5	175	507	2,627
216-S 12 291-S Stack Wash	7/54	7/54	.053	<.1	<.1	10	< .1	1	1	5
216-S 18 Steam Clean. Pit	10/54	10/54	.026	<.1	< .1	< .1	<.1	<.1	<.1	<.1
216-S 20 222-S & 300-A Lab Wastes	3/52	1/69	34.3	82.9	171	6,620	1.41	45.1	110	100
216-S 21 241-SX Cond.	11/54	**	23.0	9.23	2.08	603	< .41	<42.9	162	43.7
216-S 22 293-S Caustic Scrubber	/57	** ***	<.026	<.11	<.1	10	<.1	1	1	5
216-S 23 Process Cond.	1/69	*	5.68	< .383	<.698	127	< .174	1.18	1.21	51.8

* Active in 1970
** Inactive in 1970
*** Data through 1966

~~UNCLASSIFIED~~ ~~INTERNAL USE ONLY~~ 8/1/71

Table 2-B (Continued) Discharge to Cribs Through 1970

Disposal Site	Placed In Use	Removed From Service	Volume ($n \times 10^6$ gallons)	Uranium (lbs)	Plutonium (grams)	Total Beta Emitters (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)
216-T 6 224-T 5 & 6 Wastes	8/46	6/51	11.9	50	390	18,000	5	360	300	600
216-T 7 224-T 5-6 & Second Cycle	4/48	/56	29.1	20	130	3,100	1	60	50	100
216-T 8 222-T Lab Wastes	4/50	/56	.132	10	5	100	<.1	1	1	5
216-T 9 Equipment Decontamination	2/51	3/54	.053	<.1	<.1	50	<.1	5	5	20
216-T 10 Equipment Decontamination	6/51	3/54	.053	<.1	< .1	50	<.1	5	5	20
216-T 11 Equipment Decontamination	6/51	3/54	.053	< .1	<.1	50	<.1	5	5	20
216-T 13 Equipment Decontamination	6/54	** ***	.026	< .1	<.1	60	<.1	1	1	40
216-T 19 224-T, 242-T, 5-6, Second Cycle Waste Evap.	9/51	*	84.5	<17.2	< 14.3	2,055	1.05	61.2	363	1,003
216-T 26 Scavenged Wastes	8/55	11/56	3.17	330	59	29,000	1	670	170	2,600
216-T 27 Decontamination, Scavenged Waste 300 Area	9/65	11/65	1.90	16	13	2,000	1	140	100	1,500

*Active in 1970 ** Inactive in 1970 *** Data through 1966

DECLASSIFIED

OFFICIAL USE ONLY

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Table 2-B (Continued) Discharge to Cribs Through 1970

Disposal Site	Placed In Use	Removed From Service	Volume (n x 10^6 gallons)	Uranium (lbs)	Plutonium (grams)	Total Beta Emitters (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)
216-T 28 Decontamination & 300 Area	10/63	9/65	3.17	340	70	58,500	5	200	350	1,000
216-T 33 224-T Wastes	4/48	6/52	7.66	50	3,200	1,500	1	30	25	50
216-T 33 2706-T Bldg. Wastes	1/63	** ***	.5	10	5	50	1	.5	.5	10
216-T 34 300 Area Lab Wastes	5/66	3/67	4.57	9.07	107	26,240	7.33	323	275	105
216-T 35 300 Area Lab Wastes	3/67	**	1.51	108	66.2	929	3.41	<20	19.9	131
216-T 36	5/67	**	.138	2.6	2.48	93.5	<.514	7.71	6.42	46.1
216-U 1 & 2 224-U, Decontamination Waste	3/52	5/67	4.20	533	42.6	1,217	<.1	5	10	500
216-U 3 241-U Tk-110 Condensate	5/54	/59	.209	40	< .1	5	< .1	< .1	1	1
216-U-4A 222-U Waste	1/60	*	.144	---	.009	1.55	---	.033	<.369	<1.05
216-U-4B 222-U Waste	1/60	**	.008	---	.054	.971	---	.003	.334	---
216-U 8 Process Cond. & Stack Drain	6/52	3/60	100	53,000	370	2,700	<.1	<.1	<.1	230

*Active in 1970 ** Inactive in 1970 *** Data through 1966

Table 2-B (Continued) Discharge to Cribs Through 1970

Disposal Site	Placed In Use	Removed From Service	Volume (n x 10^6 gallons)	Uranium (lbs)	Plutonium (grams)	Total Beta Emitters (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)
216-U 12 Process Cond. & Stack Drain	4/60	*	32.5	3,988	1	853	< .1	104	< .1	80
216-U 13 241-UR Steam Cleaning Pit	/52	** ***	.003	1	< .1	50	< .1	<.1	< .1	10
216-Z 1 & 2(1) D-6 Wastes	6/49 3/68	6/52 5/69								
216-Z 1A Overflow From Z1, 2, 3	6/49	3/59	.264	<.1	50	20	<.1	< .1	<.1	10
216-Z 3 D-6 Wastes	6/52	3/59	55.5	< .1	5,700	50	<.1	<.1	<.1	40
216-Z 4 231-Z Lab Waste	6/45	6/45	< .003	<.1	2	1	<.1	< .1	< .1	1
216-Z 5 231-Z Process Wastes	6/45	2/47	8.19	<.1	340	250	.5	5	10	100
216-Z 6 231-Z Process Wastes	6/45	6/45	<.026	<.1	5	1	<.1	< .1	< .1	1
216-Z 7 231-Z Lab Waste & 300 Area Waste	2/47	1/67	21.1	9.91	2,000	2,500	1	370	360	100

* Active in 1970
** Inactive in 1970
*** Data through 1966

(1) 216-Z 1 crib received waste on a specific retention basis since March, 1968: receipts were changed to Table 2-C

Table 2-B (Continued) Discharge to Cribs Through 1970 0 0 3 0 0 7 0 - 1 4

Disposal Site	Placed In Use	Removed From Service	Volume (n x 10^6 gallons)	Uranium (lbs)	Plutonium (grams)	Total Beta Emitters (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)
216-Z 9 Recuplex CAW Waste	7/55	6/62	1.08	.1	150,000	30	.1	.1	.1	20
216-Z 12 D-6 Wastes	3/59	*	68.1	<.11	22,792	150	.1	.1	.1	100
216-Z 16 231-Z Waste	3/68	*	14.8	---	< 9.48	<.422	---	---	---	---
216-Z 17 231-Z Waste	2/67	3/68	9.71	---	50.2	1.04	---	---	---	---
Total			7,053	131,122	194,356	2,167,815	500	31,499	17,174	248,984

*Active in 1970

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TABLE 2-C

SUMMARY OF RADIOACTIVE WASTES DISCHARGED TO SPECIFIC RETENTION CRIBS WITHIN THE CHEMICAL SEPARATIONS CONTROL ZONE THROUGH 1970

Disposal Site	Placed In Use	Removed From Service	Volume ($n \times 10^6$ gallons)	Uranium (lbs)	Plutonium (grams)	Beta Emitters (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)
216-A-1 Start-up Wastes	11/55	12/55	.026	340	< .1	1	< .1	< .1	< .1	< .1
216-A 2 Purex Organic	5/56	1/63	.042	91	130	590	1	2	3	150
216-A 18 Start-Up Wastes	11/55	12/55	.129	3,100	< .1	10	< .1	< .1	< .1	< .1
216- A 19 Start-Up Wastes	11/55	12/55	.291	86,000	< .1	1	< .1	< .1	< .1	< .1
216-A 20 Start-Up Wastes	11/55	12/55	.254	890	< .1	1	< .1	< .1	< .1	< .1
216-A 31 Purex Organic	1/63	**	.008	65	9	95,000	.1	2	150	95,000
216-A 36A Ammonia Scrubber Wastes	9/65	3/66	.291	320	80	147,100	10	1,800	1,500	3,000
216-A39 (Trench) 244-AR Emergency Coil Diversion	4/68	**	.250	(Water only - no activity)						
216-B 20-34 U Plant & Tank Farm Scavenged	8/56	10/57	18.8	8,600	63	600,000	84	5,600	7,100	190,000
216-B 35-36 First Cycle Supernatant	2/54	4/54	.793	72	2	2,600	< .1	720	1,200	700

**Inactive in 1970

Table 2-C (Continued) Discharge to Specific Retention Sites Through 1970

Disposal Site	Placed In Use	Removed From Service	Volume (n x 10^6 gallons)	Uranium (lbs)	Plutonium (grams)	Beta Emitters (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)
216-B 34 Evaporator Bottoms	8/54	9/54	1.14	8	2	3,200	1	16	3,100	500
216-B 38-41 First Cycle Supernatant	12/53	11/54	1.58	200	4	5,200	<.1	2,200	2,200	1,000
216-B 42 U Plant Scavenged Waste	2/55	3/55	.396	1,500	10	4,800	10	1,100	96	1,500
216-B 52 Scavenged Waste	12/57	1/58	.845	66	19	15,000	4.5	11	340	8,600
216-B 53A PRTR Waste	10/65	11/65	.145	50	100	50	.5	<.1	<.1	5
216-B 53B 300 Area Waste	11/62	3/63	.004	20	5	15	1	10	7	4
216-B 54 300 Area Waste	3/63	/65	.264	20	5	2,400	.1	.1	.1	10
216-B 56 221-B Organic Crib		Not Used								
216-B 58 300 Area Waste	/65	6/57	.109	20.1	6.7	25.8	2.4	10.1	7.7	7
216-B 59 221-B Emergency Coil Diversion	3/68	**	.126	---	---	5	---	.05	.02	---
216-B 60 221-B Cell Drain Cleanout	11/67	11/67	.005	1,580	.08	1,550	---	---	8	---

**Inactive in 1970

Table 2-C (Continued) Discharge to Specific Retention Sites Through 1970

Disposal Site	Placed In Use	Removed From Service	Volume ($n \times 10^6$ gallons)	Uranium (lbs)	Plutonium (grams)	Beta Emitters (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)
216-C 4 276-C Organic Waste	7/55	5/65	.045	7,500	1	120	<.1	28	<.1	15
216-C 6 241-CX Cond.	9/55	9/64	.140	<.1	<.1	2,000	<.1	65	<.1	25
216-S 8 Start-Up Wastes	11/51	2/52	2.64	430	2	1,500	<.1	1	12	50
216-S 12 291-S Stack Wash	7/54	7/54	.018	11	1	5	<.1	1	1	1
216-S 13 Redox Organic	2/51	**	1.32	200	3	630	<.1	.04	5	100
216-S 14 Organic Start-Up Wastes	1/52	1/52	.018	1	<.1	1	<.1	<.1	<.1	<.1
216-T 12 Retention Basin Sludge	11/54	11/54	.132	100	1	50	2	5	10	10
216-T 15 Second Cycle Supernatant	5/55	5/55	.687	10	180	130	5	1	70	30
216-T 14-17 First Cycle Supernatant	1/54	6/54	1	220	3	3,300	5	38	2,400	50
216-T 18 Scavenged Waste	11/53	11/53	.264	60	1,800	840	10	7	57	200
216-T 21-24 First Cycle Supernatant	6/54	8/54	1.32	27	6	20,000	5	140	5,000	150

**Inactive in 1970

ARH-2015 Pt 3
Page 24

Table 2-C (Continued) Discharge to Specific Retention Sites Through 1970

Disposal Site	Placed In Use	Removed From Service	Volume ($n \times 10^6$ gallons)	Uranium (lbs)	Plutonium (grams)	Beta Emitters (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)
216-T 25 First Cycle Bottoms	9/54	9/54	.793	2	1	15,000	<.1	4	8,900	100
216-T 30 TX-154 Diversion Box	/53	/53	.005	10	1	500	1	40	40	50
216-U 5-6 Cold Start-Up Uranium	/52	/52	1.19	1,600	<.1	1	<.1	<.1	<.1	<.1
216-U 15 Contaminated Solvent	/57	/57	.018	5	<.1	7	<.1	.1	.1	1
216-Z 1 & 2(1) D-6 Wastes 236 & 242-Z	6/49 3/68	6/52 5/69	.053	178	7,027	50	<.1	<.1	<.1	10
216-Z 1A-a 236 & 242 Waste	6/64	5/66	.502	<.1	30,000	150	<.1	<.1	<.1	100
216-Z 1A-b 236 & 242-Z Wastes	5/66	10/67	.502	<.1	16,600	75	<.1	<.1	<.1	50
216-Z 1A-c 236 & 242-Z	10/67	5/69	.559	---	10,802	---	---	---	---	---
216-Z 18 236 & 242-Z	3/69	*	.362	---	9,273	---	---	---	---	---
Total			37.1	113,296	76,143	921,908	144	11,802	32,208	301,419

*Active in 1970
(1) Received plutonium reclamation wastes since March, 1968 on a specific retention basis.

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TABLE 3

Disposal Site: 216-A-6 Crib
Waste Stream Description: Purex coil and steam condensate from November 1955 to January 1961: one-half of Purex coil and steam condensate flow from March 1966 to January 1970.

1970	Volume ($n \times 10^6$ gal)	U (lbs)	Pu (gm)	Beta (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)
January	.776	.02	.02	.08	$<6^{-3}$ (1)	--	$<8^{-3}$	.668
February		Removed from service in January						
March								
April								
May								
June								
July								
August								
September								
October								
November								
December								
12-month total	.776	.02	.02	.08	$<6^{-3}$	--	$<8^{-3}$	.668
Previous total	900.4	363.8	35.6	4,443	1.85	91.1	210.8	222.
Total to Date	901.2	363.8	35.6	4,443	1.86	91.1	210.8	222.7

(1) $N^{-n} = N \times 10^{-n}$

TABLE 4

Disposal Site: 216-A-8 Crib
Waste Stream Description: 241-A Tank Farm condensate from 11/55 to 5/58: A-AX Farm condensate from 4/66 to date

1970	Volume ($n \times 10^6$ gal)	U (lbs)	Pu (gm)	Beta (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)
January	.453	<.02	$<8.83^{-5}$(1)	.475	$<2.63^{-4}$	.014	.095	.109
February	.18	$<7.96^{-3}$	$<2.93^{-5}$	.472	$<6.05^{-5}$	6^{-3}	.124	.116
March	.378	< .017	$<1.48^{-4}$	.767	$<2.99^{-4}$	.013	.217	.197
April	.194	$<8.62^{-3}$	$<4.12^{-5}$	.253	$<1.73^{-4}$	6.73^{-3}	.078	.063
May	.424	< .019	$<8.99^{-5}$	.298	$<1.4^{-4}$	.016	.095	.056
June	.2	$<8.91^{-3}$	$<6.84^{-5}$	.134	$<5.8^{-5}$	9.84^{-3}	.04	.017
July	.177	$<7.88^{-3}$	$<4.04^{-5}$	.107	$<1.63^{-5}$	8.51^{-3}	.043	.02
August	.216	$<9.61^{-3}$	$<4.66^{-5}$	.073	$<1.86^{-5}$	4.29^{-3}	.024	8.52^{-3}
September	.137	$<6.1^{-3}$	$<5.58^{-5}$	.051	$<9.32^{-6}$	7.04^{-3}	.017	5.01^{-3}
October	.232	< .01	$<2.15^{-4}$	.138	$<6.38^{-5}$	.014	.054	.013
November	.211	$<9.41^{-3}$	$<8.26^{-5}$	.18	4.18^{-5}	.014	7.78^{-3}	4.56^{-3}
December	.248	< .011	$<8.46^{-5}$	.25	$<1.26^{-4}$	.021	.104	.012
12-Month Total	3.05	< .135	$<9.9^{-4}$	3.2	$<1.27^{-3}$	.134	.899	.621
Previous Total	329.7	810.8	49.86	11,323	<1.76	<111.1	1,079	992.2
Total to Date	332.8	810.9	49.86	11,326	<1.76	<111.2	1,080	992.8

(1) $N^{-n} = N \times 10^{-n}$

TABLE 5

Disposal Site: 216-A-10 Crib
Waste Stream Description: Purex F-Cell process condensate from January 1955 to date.

1970	Volume ($n \times 10^6$ gal)	U (lbs)	Pu (gm)	Beta (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)	U-233* (gm)
January	.907	.4	.9	35.2	.06	--	.47	.015	
February	.907	.4	.8	35.2	.05	--	.46	.015	
March	.351	< .1	1.5	2.4	$<1.^{-3}$ (1)	.05	< .03	.31	
April	1.72	.9	9.0	25.8	< .01	.48	< .34	3.95	
May	.738	.7	6.4	26.6	.01	.5	.33	2.66	
June	.83	1.	7.6	40.8	< .01	.59	.68	3.66	
July	.05	.06	.48	2.15	$<1.^{-3}$	.03	.04	.22	
August	.251	< .27	--*	12.3	$<8.^{-3}$	.14	.2	1.11	15.3*
September	2.08	1.89	--*	62.6	< .06	1.02	1.23	6.68	155*
October	1.02	< .21	--*	7.22	$<4.^{-3}$	.13	.14	.73	72.6*
November	2.57	.13	--*	3.45	$<2.^{-3}$	.02	.06	.29	29.4*
December	1.43	<.06	--*	.29	$<2.^{-4}$	--	$7.^{-3}$	.04	4.54*
12-Month Total	12.9	6.12	26.7	254	< .216	2.96	3.99	19.7	277*
Previous Total	709.3	432.8	208.6	122,658	179.2	110.7	102	7,141	--
Total to Date	722.2	438.9	235.3	122,912	179.4	113.7	106	7,161	

(1) $N^{-n} = N \times 10^{-n}$

* Thorium campaign

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TABLE 6

Disposal Site: 216-A-27
Waste Stream Description: Purex Laboratory waste and 291-A and 293-A Building waste from June 1965 to date.

1970	Volume ($n \times 10^6$ gal)	U (lbs)	Pu (gm)	Beta (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)	U-233 (gm)
January	.025	.025	$<5.^{-5}$ (1)	$<2.5^{-3}$	$<1.5^{-3}$	--	<.01	$<5.^{-3}$	
February	.025	.025	$<5.^{-5}$	$<2.5^{-3}$	$<1.5^{-3}$	--	<.01	$<5.^{-3}$	
March	.029	<.01	.2	2.25	$<1.^{-3}$	.05	.06	.33	
April	.021	3.	.2	2.12	$3.^{-4}$	$5.^{-4}$	$1.^{-3}$	.46	
May	.024	1.8	.1	5.56	$<9.^{-3}$	.48	.49	.19	
June	.033	2.3	.9	29.5	< .04	2.66	2.68	.38	
July	.036	.55	7.12	195	< .51	8.69	12	3.26	
August	.056	.59	--*	165	< .25	3.97	10.7	.09	17.2*
September	.028	.18	--*	241	< .802	12.1	12.2	3.05	31.1*
October	No additions			Streams going to 216-A-27 crib were routed to underground storage starting in September 1970					
November	No additions								
December	No additions								
12-Month Total	.277	8.48	8.52	640.4	<1.62	27.95	38.15	7.77	48.3
Previous Total	5.91	141.7	<88	933.5	1.05	13.34	14.45	55.47	--
Total to Date	6.19	150.2	<96.5	1,574	<2.67	41.29	52.6	63.24	

(1) $N^{-n} = N \times 10^{-n}$

* Thorium campaign - No Pu in process

TABLE 7

Disposal Site: 216-A-30 Crib
Waste Stream Description: Purex coil and steam condensate from January 1961 to date. (1)

1970	Volume ($n \times 10^6$ gal)	U (lbs)	Pu (gm)	Beta (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)	U-233* (gm)
January	3.1	.08	.08	.32	<.024	--	<.032	2.67	
February	3.88	.1	.1	.4	<.03	--	<.04	3.34	
March	1.72	<.1	<.1	35.7	<.08	2.12	2.83	2.	
April	5.25	1.7	<.3	10.	$5.^{-3}$ (2)	.89	.56	.57	
May	4.18	.2	<.2	2.34	$<2.^{-3}$	.15	.13	.15	
June	3.95	<.2	<.2	.64	$<1.^{-3}$	.05	.05	.07	
July	.598	.03	<.02	.05	$<1.^{-4}$	$4.^{-3}$	$2.^{-3}$	$4.^{-3}$	
August	1.59	<.08	--*	.09	$<3.^{-4}$	<.01	$5.^{-3}$	$9.^{-3}$	<.4*
September	5.5	.27	--*	.54	$<2.^{-3}$	.04	.03	.06	<1.37*
October	4.6	<.22	--*	.49	$<1.^{-3}$	.03	.02	.05	<1.15*
November	7.36	.33	--*	2.55	$3.^{-3}$	.11	.07	.1	<1.73*
December	6.13	<.28	--*	30	<.02	--	.39	<.09	2.25*
12-Month Total	47.9	<3.59	<1	83.1	<.168	3.4	4.16	9.11	<6.9
Previous Total	766.7	65	64.4	5,047	16.24	130.5	209.1	163	--
Total to Date	814.6	68.6	65.4	5,130	16.41	133.9	213.3	172.1	

(1) In January 1970, 216-A-6 crib was removed from service and this portion of the condensate stream was also routed to 216-A-30 crib.

(2) $N^{-n} = N \times 10^{-n}$

* Thorium campaign

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TABLE 8

Disposal Site: 216-A-36-B Crib
Waste Stream Description: Purex dissolver and E-Cell ammonia scrubber waste from March 11, 1966 to date

1970	Volume ($n \times 10^6$ gal)	U (lbs)	Pu (gm)	Beta (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)	U-233 (gm)
January	.083	.1	$< 2^{-4}$(1)	2.5	.015	--	$< 1^{-3}$	4.9	
February	.082	.1	$< 2^{-4}$	2.4	.015	--	$< 1^{-3}$	4.9	
March	.493	2.3	1.7	99.6	.26	2.62	< 2.3	3.7	
April	.136	.9	< .35	17.8	<.05	.73	< .7	7.82	
May	1.11	48.9	1.31	10,840	4.85	218	77.2	1,413	
June	.016	.1	< .13	11.4	.02	<.19	< .24	3.91	
July	No addition	--	---	---	---	---	---	---	
August	.117	.11	--*	9.54	.05	6.25	25.2	10.4	<.8*
September	.173	1.62	--*	92.9	<.09	.69	24	79.9	9.97*
October	.083	< .02	--*	49.2	$<7^{-3}$	<.06	< .04	10.7	.99*
November	.228	1.69	--*	80.2	.1	.26	.68	55.4	3.43*
December	.069	1.84	--*	124	.839	.08	< .68	73.9	.41*
12-Month Total	2.59	57.7	3.49	11,330	6.3	228.9	131	1,669	15.6
Previous Total	10.44	195.3	110.5	11,915	19.4	197.8	190	885.4	--
Total to Date	13.03	253	114	23,245	25.7	426.7	321	2,554	

(1) $N^{-n} = N \times 10^{-n}$

*Thorium campaign

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TABLE 9

Disposal Site: 216-B-10b Crib
Waste Stream Description: B Plant R-13 change house decontamination sink and shower waste from June 1969 to date

1970	Volume ($n \times 10^6$ gal)	U (lbs)	Pu (gm)	Beta (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)
January	2^{-4}(1)	---	---	1.15^{-4}	---	---	---
February	None						
March	6^{-4}	$<5.13^{-4}$	9.42^{-7}	1.58^{-5}	---	---	$<6.54^{-7}$
April	2^{-4}	4.14^{-4}	$<3.14^{-7}$	1.3^{-5}	---	---	2.92^{-7}
May	2^{-4}	$<4.23^{-5}$	1.56^{-5}	1.88^{-4}	---	---	1.04^{-5}
June	None						
July	2^{-4}	3.4^{-5}	6.52^{-7}	6.28^{-5}	---	---	2.48^{-5}
August	None						
September	4^{-4}	$<6.79^{-5}$	1.08^{-6}	5.52^{-5}	---	5.52^{-5}	2.08^{-5}
October	None						
November	2^{-4}	$<3.4^{-5}$	5.4^{-7}	2.76^{-5}	---	2.76^{-5}	1.04^{-5}
December	None	———	———	———		———	———
12-Month Total	.002	$<1.11^{-3}$	$<1.91^{-5}$	4.77^{-4}	---	8.28^{-5}	$<6.73^{-5}$
Previous Total	.0004(2)	9×10^{-5}	$<1^{-6}$	5.5^{-4}	---	$<2.4^{-4}$	$<2^{-5}$
Total to Date	.0024	$<1.2^{-3}$	$<2.0^{-5}$	1.03^{-3}	---	$<3.2^{-4}$	$<8.7^{-5}$

(1) $N^{-n} = N \times 10^{-n}$
(2) Correction

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ARH-2015 PT3
PAGE 32

TABLE 10

Disposal Site: 216-B-12 Crib
Waste Stream Description: 221-B Building process and steam condensate from 1952 through 1957. B Plant construction water from May 12, 1967 to October 1967. B Plant process condensate from November 1967 to date

1970	Volume ($n \times 10^6$ gal)	U (lbs)	Pu (gm)	Beta (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)
January	.224	< .011	$<4.75^{-4}$(1)	.166	$<5.85^{-6}$	5.58^{-3}	6.19^{-3}	4.55^{-3}
February	.214	$<9.92^{-3}$	2.68^{-3}	4.16	$<7.5^{-5}$	.021	.077	.021
March	.263	< .013	$<1.2^{-3}$	.176	$<1.34^{-4}$	1.75^{-3}	.09	1.36^{-3}
April	.278	.121	.247	6.66	---	.144	3.48	8.08^{-3}
May	.422	.077	.148	4.72	---	.024	1.86	.019
June	.483	< .083	1.43^{-3}	4.06	---	.073	1.76	8.46^{-3}
July	.276	< .047	2.28^{-3}	2.72	---	3.17^{-3}	.284	.097
August	.619	< .105	6.93^{-5}	3.51	< .02	.06	.171	<.06
September	.473	.104	1.58^{-4}	.08	$<2.27^{-6}$	.071	.014	$<3.85^{-3}$
October	.913	< .158	5.68^{-4}	1.46	< .028	.05	.785	< .071
November	.985	.15	$<2.48^{-3}$	6.34	$<6.6^{-4}$	1.83	1.38	< .112
December	.795	.526	3.36^{-4}	7.3	< .478	.066	4.31	<1.38
12-Month Total	5.94	<1.4	.407	41.4	< .527	2.32	14.2	<1.79
Previous Total	111.39	46,041.6	373.2	10,948	< .527	131.2	1,145	298.1
Total to Date	117.33	46,043	373.6	10,989	<1.054	133.5	1,159	299.9

(1) $N^{-n} = N \times 10^{-n}$

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TABLE 11

Disposal Site: 216-B-50 Crib
Waste Stream Description: In-Tank Solidification No. 1 condensate from January 1965 to date.

1970	Volume ($n \times 10^6$ gal)	U (lbs)	Pu (gm)	Beta (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)
January	.245	< .011	$<1.16^{-4}$(1)	.024	$<2.34^{-5}$	3.63^{-4}	.011	1.56^{-3}
February	.196	$<8.8^{-3}$	$<1.21^{-4}$	.022	---	1.86^{-3}	.013	1.25^{-3}
March	.26	---	$<2.71^{-4}$	.058	$<3.07^{-5}$	3.1^{-4}	.024	2.16^{-3}
April	None							
May	None							
June	.2	$<9.06^{-3}$	$<9.8^{-5}$	.029	$<2.06^{-5}$	2.49^{-4}	.018	3.01^{-3}
July	.252	< .011	$<1.93^{-4}$	.098	$<8.28^{-5}$	4.36^{-4}	.045	4.24^{-3}
August	.2	$<9.01^{-3}$	$<1.21^{-4}$	.047	$<5.15^{-5}$	3.26^{-4}	.03	1.84^{-3}
September	.146	$<6.61^{-3}$	$<1.31^{-4}$	.062	$<2.6^{-5}$	3.62^{-4}	.038	2.05^{-3}
October	.256	< .011	$<2.46^{-4}$	.106	$<9.46^{-5}$	5.68^{-3}	.066	4.12^{-3}
November	.237	< .011	$<2.84^{-4}$	.075	$<4.13^{-5}$	4.98^{-4}	5.41^{-3}	1.68^{-3}
December	.242	< .011	$<1.42^{-4}$	.073	$<3.29^{-5}$	8.94^{-4}	.049	1.98^{-3}
12-Month Total	2.23	< .089	$<1.72^{-3}$	.594	$<4.04^{-4}$	.011	.299	.024
Previous Total	9.55	< .410	< .235	138.5	< .333	<5.96	85.68	11.02
Total to Date	11.78	< .499	< .237	139.1	< .333	<5.97	85.98	11.04

(1) $N^{-n} = N \times 10^{-n}$

TABLE 12

Disposal Site: 216-B-55 Crib
Waste Stream Description: B Plant steam condensate from September, 1967 to date

1970	Volume ($n \times 10^6$ gal)	U (lbs)	Pu (gm)	Beta (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)
January	.87	<.039	$<5.66^{-4}$ (1)	.25	$<1.9^{-4}$	7.31^{-4}	.01	$<1.95^{-3}$
February	.705	<.032	$<4.82^{-4}$	.082	$<3.36^{-4}$	1.4^{-3}	7.01^{-3}	$<1.42^{-3}$
March	1.03	<.046	$<3.85^{-4}$	.302	$<4.01^{-4}$	2.3^{-3}	.216	1.33^{-4}
April	1.41	.063	$<9.42^{-4}$	.925	5.78^{-4}	.022	.587	1.23^{-3}
May	1.92	<.086	< .012	.169	$<4.6^{-4}$	.027	.055	5.29^{-3}
June	1.94	<.087	$<1.3^{-3}$	.05	$<6.3^{-4}$	2.08^{-3}	.014	7.2^{-3}
July	1.01	<.045	$<6.75^{-4}$	.196	$<2.6^{-4}$	1.96^{-3}	.025	3.31^{-3}
August	2.46	<.111	$<1.6^{-3}$	.034	$<1.85^{-4}$	4.36^{-3}	2.84^{-3}	---
September	1.91	<.084	$<6.21^{-4}$	.057	3.92^{-4}	3.52^{-3}	.013	2.38^{-3}
October	3.42	<.151	$<1.11^{-3}$	.137	$<3.38^{-4}$	6.08^{-3}	$<1.84^{-3}$	$< 3.24^{-3}$
November	3.70	<.167	$<1.33^{-3}$	.404	1.24^{-3}	.012	.195	.026
December	2.98	<.132	$<5.34^{-4}$	.131	$<3.22^{-4}$	4.53^{-3}	.046	$<3.43^{-3}$
12-Month Total	23.36	<1.043	< .022	2.74	$<5.33^{-3}$	.088	1.17	<.056
Previous Total	33.48	<1.721	< .374	26.47	< .197	3.126	11.5	<.976
Total to Date	56.84	<2.764	< .396	29.21	< .202	3.214	12.67	<1.032

(1) $N^{-n} = N \times 10^{-n}$

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TABLE 13

Disposal Site: 216-B-57 Crib
Waste Stream Description: In-Tank Solidification No. 2 condensate from February 1968 to date

1970	Volume ($n \times 10^6$ gal)	U (lbs)	Pu (gm)	Beta (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)
January	.418	<.019	$<1.97^{-4}$ (1)	2.19	$<6.44^{-5}$	.023	1.13	.054
February	.432	<.019	$<2.25^{-4}$	1.25	6.91^{-5}	6.61^{-3}	.782	.034
March	.366	<.016	$<3.91^{-4}$	2.1	$<1.87^{-4}$	1.63^{-3}	1.36	.052
April	.315	<.014	$<1.64^{-4}$	1.96	6.68^{-3}	3.53^{-3}	1.24	.052
May	.433	<.019	$<1.98^{-4}$	1.72	$<5.24^{-4}$	4.29^{-3}	1.13	.029
June	.348	<.016	$<1.7^{-4}$	2.05	$<1.82^{-4}$	3.48^{-3}	1.36	.063
July	.453	<.02	$<1.99^{-4}$	5.62	9.7^{-4}	.01	3.27	.196
August	.472	<.021	$<3.53^{-4}$	2.5	$<3.68^{-4}$	.013	1.47	.054
September	.378	<.017	$<2.03^{-4}$	1.18	$<6.2^{-4}$	3.14^{-3}	.647	.019
October	.409	<.018	$<3.8^{-4}$	9.9	$<2.72^{-3}$	.013	6.14	.148
November	.531	<.024	$<2.16^{-4}$	21.4	$<2.36^{-3}$	7.12^{-3}	13.3	.273
December	.552	<.025	$<3.06^{-4}$	.569	$<1.56^{-4}$	2.21^{-3}	.365	5.63^{-4}
12-Month Total	5.107	<.228	$<3^{-3}$	52.4	< .015	.091	32.2	.974
Previous Total	8.606	<1.299	< .176	530.3	< .11	3.02	299.5	6.96
Total to Date	13.713	<1.527	< .179	582.7	< .125	3.11	331.7	7.93

(1) $N^{-n} = N \times 10^{-n}$

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TABLE 14

Disposal Site: 216-C-7 Crib
Waste Stream Description: Critical Mass Laboratory wastes from 1960 to date

1970	Volume ($n \times 10^6$ gal)	U (lbs)	Pu (gm)	Beta (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)
January	1^{-5}(1)	(No activity)						
February	1^{-5}	(No activity)						
March	1^{-5}	(No activity)						
April	1^{-5}	(No activity)						
May	1^{-5}	(No activity)						
June	4^{-5}	(No activity)						
July	1^{-4}	(No activity)						
August	1^{-5}	(No activity)						
September	1^{-5}	(No activity)						
October	1^{-5}	(No activity)						
November	3^{-5}	(No activity)						
December	1^{-5}	(No activity)						
12-Month Total	2.6^{-4}							
Previous Total	.013	<.22	1	20.03	<.1	< .1	< .1	1
Total to Date	.0133	<.22	1	20.03	<.1	< .1	< .1	1

(1) $N^{-n} = N \times 10^{-n}$

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TABLE 15

Disposal Site: 216-S-6 Crib
Waste Stream Description: Redox process vessel cooling water and steam condensate from October 1954 to date

1970	Volume (n x 10^6 gal)	U (lbs)	Pu (gm)	Beta (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)
January	2.23(1)	<.098	4.87^{-3}(2)	.079	$<3.79^{-4}$	.02	.04	.022
February	2.02	<.089	7.56^{-3}	.087	---	.027	.011	2.86^{-3}
March	2.23	<.103	< .021	.216	$<6.23^{-4}$	2.79^{-3}	.015	.026
April	3	<.139	4.59^{-3}	.06	8.4^{-4}	5.25^{-3}	.011	.011
May	2.23	<.103	$<4^{-3}$	.024	$<2.46^{-4}$	2.05^{-3}	$<8.93^{-4}$	$<2.9^{-3}$
June	2.16	<.099	$<3.13^{-3}$	.024	$<8.62^{-4}$	$<1.5^{-3}$	$<8.38^{-4}$	$<4.82^{-3}$
July	2.23	<.103	$<7.99^{-3}$	<.024	$<5.87^{-4}$	9.44^{-4}	$<9.6^{-4}$	.042
August	2.23	<.103	$<4^{-3}$	.018	$<4.51^{-4}$	$<1.2^{-3}$	$<1.36^{-3}$	$<1.72^{-3}$
September	2.16	<.096	$<6.33^{-3}$	.02	$<4.88^{-4}$	1.07^{-3}	$<4.17^{-4}$	$<7.13^{-3}$
October	5.06	<.234	.022	.087	$<6.43^{-4}$	8.05^{-3}	.014	.02
November	4.1	<.19	.021	.164	$<5.74^{-4}$	1.88^{-3}	.018	.025
December	2.53	<.12	< .045	.354	$<4.98^{-4}$	.018	.046	.049
12-Month Total	32.2	<1.48	<.151	1.16	$<6.19^{-3}$	.09	.159	.214
Previous Total	1,108.8	597.0	473.2	3,088.2	<2.891	412.0	212.0	133.1
Total to Date	1,141	598.5	473.4	3,089.4	<2.897	412.1	212.2	133.3

(1) Volume during 1970 includes water from injection system to cool the steam condensate.

(2) $N^{-n} = N \times 10^{-n}$

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TABLE 16

Disposal Site: 216-S-21 Crib
Waste Stream Description: SX Tank Farm condensate from November 1954 to date

1970	Volume (n x 10^6 gal)	U (lbs)	Pu (gm)	Beta (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)
January								
February								
March		All condensate was recycled to the storage tanks.						
April		No discharges were made to 216-S-21 crib during						
May		1970.						
June								
July								
August								
September								
October								
November								
December								
12-Month Total								
Previous Total	22.95	9.23	2.08	602.9	<.41	<42.9	162.3	43.7
Total to Date	22.95	9.23	2.08	602.9	<.41	<42.9	162.3	43.7

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TABLE 17

Disposal Site: 216-S-23 Crib
Waste Stream Description: D-2 process condensate wastes from February 1, 1969 to date

1970	Volume ($n \times 10^6$ gal)	U (lbs)	Pu (gm)	Beta (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)
January	.089	4.07^{-3}(1)	.055	.811	2.32^{-4}	4.99^{-3}	2.05^{-3}	.085
February	.138	.016	.036	4.28	.01	.046	.109	2.46
March	.151	.019	.037	5.75	.014	.07	.084	1.92
April	.077	5.86^{-3}	.019	1.3	6.11^{-3}	.014	.012	.513
May	.113	.012	.011	7.89	2.31^{-3}	.108	.028	.678
June	.268	.044	.087	5.05	6.56^{-3}	.217	.122	1.55
July	.246	.013	.011	2.46	$<2.61^{-3}$	.062	.03	1.19
August	.093	$< 4.18^{-3}$	3.19^{-3}	.85	6.35^{-4}	.019	.011	.374
September	.067	$< 3.04^{-3}$	3.07^{-3}	.545	1.02^{-3}	.019	.011	.203
October	.34	< .017	.013	1.5	2.38^{-3}	.036	.022	.694
November	.464	< .028	6.49^{-3}	1.08	$<5.14^{-3}$	.067	.027	.346
December	.287	< .015	$<5.59^{-3}$	.754	1.96^{-3}	.024	.019	.304
12-Month Total	2.333	< .181	.287	33.1	< .053	.687	.477	10.3
Previous Total	3.35	< .202	< .411	93.4	<.121	.497	.732	41.5
Total to Date	5.68	<.383	<.698	126.5	<.174	1.184	1.209	51.8

(1) $N^{-n} = N \times 10^{-n}$

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TABLE 18

Disposal Site: 216-T-19 Crib
Waste Stream Description: 242-T Evaporator condensate from December 1964 to date

1970	Volume ($n \times 10^6$ gal)	U (lbs)	Pu (gm)	Beta (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)
January	.212	< .019	8.65^{-4} (1)	.548	$<7.86^{-5}$	6.99^{-3}	.204	2.55^{-3}
February	.19	< .017	$<8.99^{-5}$	.137	$<4.23^{-5}$	1.6^{-3}	.088	3.54^{-3}
March	.128	$<7.05^{-3}$	$<1.93^{-4}$	.187	$<8.06^{-5}$	2.47^{-3}	.114	3.71^{-3}
April	.188	$<8.65^{-3}$	$<1.04^{-4}$	.186	$<8.82^{-5}$	3.62^{-3}	.106	1.43^{-3}
May	.476	< .022	$<1.85^{-4}$	.418	$<2.9^{-4}$	.014	.264	2.76^{-3}
June	.435	<.02	7.79^{-5}	.205	$<2.22^{-5}$	1.87^{-3}	.137	2.22^{-3}
July	.308	< .014	$<5.02^{-6}$	.548	$<2.28^{-4}$	3.08^{-3}	.376	7.52^{-3}
August	.279	< .012	$<4.55^{-5}$	.109	$<6.42^{-6}$	1.2^{-3}	.071	2.08^{-3}
September	.14	$<9.54^{-4}$	3.64^{-5}	.042	$<3.63^{-5}$	1.86^{-3}	.045	$<6^{-4}$
October	.247	< .011	$<1.04^{-4}$	.059	$<3.11^{-5}$	8.1^{-4}	.043	$<8.39^{-4}$
November	.28	< .012	$<7.75^{-5}$	.135	$<3.64^{-5}$	6.55^{-4}	.066	$<9.68^{-4}$
December	.264	< .012	$<6.44^{-5}$	.173	$<4.7^{-5}$	2.16^{-3}	.1	$<1.39^{-3}$
12-Month Total	3.15 (2) 4.78 (3) .13 (4)	< .156	$<1.85^{-3}$	2.75	$<9.87^{-4}$	.04	1.61	<.03
1970 Total	8.06							
Previous Total	76.42	<17.01	<14.33	2,052	1.05	61.17	361.1	1,003.2
Total to Date	84.48	<17.17	<14.33	2,055	1.051	61.21	362.7	1,003.2

(1) $N^{-n} = N \times 10^{-n}$
(2) Process condensate
(3) Steam condensate
(4) Vacuum jet water (jet removed from service in January 1970)

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TABLE 19

Disposal Site: 216-T-36 Crib
Waste Stream Description: T Plant (Decontamination Facility) wastes from May 16, 1967 to date

1970	Volume ($n \times 10^6$ gal)	U (lbs)	Pu (gm)	Beta (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)
January								
February								
March		No discharges were made to 216-T-36 crib						
April		during 1970						
May								
June								
July								
August								
September								
October								
November								
December								
12-Month Total								
Previous Total	.138	2.60	2.48	93.5	<.514	7.71	6.42	46.1
Total to Date	.138	2.60	2.48	93.5	<.514	7.71	6.42	46.1

TABLE 20

Disposal Site: 216-U-4A French Drain
Waste Stream Description: Water and Wastewater Research Laboratory (BNW) wastes from the 222-U Building decontamination sink from January 1960 to date

1970	Volume ($n \times 10^6$ gal)	U (lbs)	Pu (gm)	Beta (Ci)	Sr-85 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)	Other (Ci)
January									
February									
March									
April									
May									
June									
July	.018*			$<1.2^{-3}$*(1)	---	$<6.2^{-4}$*	$<1.4^{-4}$*	$<1.4^{-4}$*	$<2.8^{-4}$*
August		BNW operation terminated in July 1970							
September									
October									
November									
December									
12-Month Total	.018	---	---	$<1.2^{-3}$	---	$<6.2^{-4}$	$<1.4^{-4}$	$<1.4^{-4}$	$<2.8^{-4}$
Previous Total	.126	---	.009	1.546	<.007	.032	<.369	<1.05	.574
Total to Date	.144	---	.009	1.547	<.007	<.033	<.369	<1.05	.574

*Total BNW discharge during 1970

(1) $N^{-n} = N \times 10^{-n}$

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TABLE 21

Disposal Site: 216-U-12 Crib
Waste Stream Description: 244-U Plant concentrator condensate from April 1960 to date

1970	Volume ($n \times 10^6$ gal)	U (lbs)	Pu (gm)	Beta (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)
January	.177	1.95		2.25^{-3}(1)				
February	.147	.573		1.87^{-3}				
March	.086	.482		9.47^{-4}				
April	.168	.054		2.65^{-3}				
May	.092	.016		1.17^{-3}				
June	.089	.015		1.15^{-3}				
July	.052	8.84^{-3}		6.6^{-4}				
August	None							
September	None							
October	None							
November	None							
December	None							
12-Month Total	.811	3.1	*	.011	*	*	*	*
Previous Total	31.66	3,985	1	853.1	<.1	104	<.1	80
Total to Date	32.47	3,988	1	853.1	<.1	104	<.1	80

*No significant addition during 1970

(1) $N^{-n} = N \times 10^{-n}$

TABLE 22

Disposal Site: 216-Z-12 Crib
Waste Stream Description: 234-5, 236, and Laboratory wastes (D-6) from March 1959 to date

1970	Volume ($n \times 10^6$ gal)	U (lbs)	Pu (gm)	Beta (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)
January	.092		64.6					
February	.091		54.3					
March	.094		48					
April	.113		15.8					
May	.032		24.7					
June	.035		28.2					
July	.054		19.5					
August	.048		38.5					
September	.079		57.5					
October	.098		107.2					
November	.123		88.7					
December	.052		103					
12-Month Total	.911	*	650	*	*	*	*	*
Previous Total	67.14	<.11	22,142	150	<.1	<.1	<.1	100
Total to Date	68.05	<.11	22,792	150	<.1	<.1	<.1	100

*No significant addition during 1970

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TABLE 23

Disposal Site: 216-Z-16 Crib
Waste Stream Description: 231-Z Building waste from March 1, 1968 to date

1970	Volume ($n \times 10^6$ gal)	U (lbs)	Pu (gm)	Beta (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)
January	.36		.044	$<4.78^{-3}$ (1)				
February	.36		.019	$<5.08^{-3}$				
March	.45		.022	$<6.45^{-3}$				
April	.43		.05	$<8.37^{-3}$				
May	.55		<1.42	< .027				
June	.42		< .786	$<4.98^{-3}$				
July	.376		< .124	$<3.29^{-3}$				
August	.501		< .073	$<2.16^{-3}$				
September	.39		< .108	$<3.03^{-3}$				
October	.387		< .092	$<1.59^{-3}$				
November	.498		< .26	$<6.41^{-3}$				
December	.338		< .101	$<5.06^{-3}$				
12-Month Total	5.06		<3.099	< .078				
Previous Total	9.715		6.380	.344				
Total to Date	14.775		<9.479	<.422				

(1) $N^{-n} = N \times 10^{-n}$

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TABLE 24

Disposal Site: 216-Z-18 Crib (Specific Retention)
Waste Stream Description: Plutonium Reclamation wastes (236-Z & 242-Z) from April 4, 1969 to date

1970	Volume ($n \times 10^6$ gal)	U (lbs)	Pu (gm)	Beta (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)
January	.02		274					
February	.017		472					
March	.014		326					
April	.018		807					
May	.016		406					
June	.018		508					
July	.015		332					
August	.015		342					
September	.024		320					
October	.023		531					
November	.016		256					
December	.015		431					
12-Month Total	.211		5,005					
Previous Total	.151		4,268					
Total to Date	.362		9,273					

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TABLE 25

Disposal Site: 216-A-25 Gable Mountain Pond and Ditches - Summary
Waste Stream Description: AR Vault cooling water and Purex process cooling water

1970	Volume (n x 10^6 gal)	U (lbs)	Pu (gm)	Beta (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)	U-233 (gm)
January	104	< .449	< .307	1.3	<.79	---	<.95	<7.0	
February	103	< .337	< .206	1.3	<.79	---	<.94	<6.9	
March	111	< 5.34	<4.2	.222	<.03	<.01	<.06	1.84	
April	150	< 6.96	<5.61	< .356	<.05	<.03	<.05	< .29	
May	211	<19.2	<1.92	<1.45	<.05	---	1.68	< .89	
June	226	<11.1	<1.7	<1.32	<.03	---	<.06	< .36	
July	184	< 2.41	<1.83	< .284	<.03	.08	<.03	< .41	
August	316	<26.5	< .028	.166	<.07	.03	<.1	< .63	<20.4
September	337	<15.5	< .03	<6.61	.08	<.18	<.06	<3.34	<85.8
October	398	<19.3	< .022	<7.97	.1	<.22	<.07	<3.79	<104
November	312	<14.6	< .026	<6.24	.08	<.17	<.05	<2.96	<81
December	285	<13.5	< .012	<5.76	.07	<.16	<.05	<2.74	<74.9
12-Month Total	2,737	<135.2	<15.9	<33.0	<2.17	<.88	<4.12	<31.15	<366.1
Other Sources(1)	417								
Diverted to B-3 Pond(2)	(158)	(<6.8)	(<.8)	(<1.7)	(<.11)	(<.04)	(<.21)	(<1.56)	(<18.3)
1970 Total	2,996	<128.4	<15.1	<31.3	<2.06	<.84	<3.91	<29.6	<347.8
Previous Total	37,600	941.2	381	94,333	<40.17(3)	480.2	354.6	701.2	---
Total to Date	40,596	<1,069.6	396.1	94,364	<42.23(3)	481	358.5	730.8	---

(1) Water from 200-E Power House
(2) Based upon an estimated 5 percent diversion of Gable Mountain flow to B-3 pond during 1970
(3) Total since 1-1-67

ARH-2015 Pt 3

TABLE 26

Disposal Site: 216-A-25 Gable Mountain Pond
Waste Stream Description: Purex process cooling water from December 1957 to date

1970	Volume (n x 10^6 gal)	U (lbs)	Pu (gm)	Beta (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)	U-233 (gm)
January	96.6	.4	.3	1.3	<.79	---	<.95	<7.0	
February	96.5	.3	.2	1.3	<.79	---	<.94	<6.9	
March	104	5.3	<4.2	.22	<.03	<.01	<.08	1.84	
April	142	6.9	<5.6	< .35	<.05	<.03	<.05	< .29	
May	196	<19.1	<1.9	1.43	<.05	---	<.68	< .89	
June	204	<11	<1.7	1.31	<.03	---	<.06	< .36	
July	170	2.32	<1.83	.28	<.03	.08	<.03	< .41	
August	300	<26.4	---*	.16	<.07	.03	<.1	< .63	<20.4*
September	317	<15.4	---*	<6.6	.08	< .18	<.06	<3.34	<85.8*
October	383	<18.6	---*	<7.97	.1	< .22	<.07	<3.79	<104*
November	299	<14.5	---*	<6.22	.08	< .17	<.05	<2.96	<81*
December	277	<13.4	---*	<5.76	.07	< .16	<.05	<2.74	<74.9*
12-Month Total	2,585	<133.6	<15.7	<32.9	<2.17	< .88	<4.12	<31.15	<366.1*
Previous Total	36,324	940.5	380.6	94,333	<40.13 (2)	480.1	354.5	701	---
Total to Date	38,909	<1,074.1	<396.3	94,366	<42.3 (2)	481	358.6	732.2	

(1) $N^{-n} = N \times 10^{-n}$
(2) Total since 1-1-67
*Thorium campaign

TABLE 27

Disposal Site: 216-A-25 Gable Mountain Pond
Waste Stream Description: AR Vault cooling water since February, 1968

1970	Volume ($n \times 10^6$ gal)	U (lbs)	Pu (gm)	Beta (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)
January	7.69	<.049	$<6.89^{-3}$(1)	2.38^{-3}	*	*	*	*
February	6.75	<.037	$<5.93^{-3}$	8.57^{-4}	*	*	*	*
March	7.36	<.039	$<5.15^{-3}$	1.99^{-3}	*	*	*	*
April	7.66	<.062	< .01	$<6.2^{-3}$	*	*	*	*
May	15.3	<.098	<.025	< .024	*	*	*	*
June	22.2	<.137	$<3.06^{-3}$	$<7.72^{-3}$	*	*	*	*
July	13.8	<.091	< .025	$<3.[illegible]^{-3}$	*	*	*	*
August	15.7	<.104	< .028	5.97^{-3}	*	*	*	*
September	20	<.123	< .03	$<6.87^{-3}$	*	*	*	*
October	15.1	<.693	< .022	$<2.24^{-3}$	*	*	*	*
November	13.4	<.088	< .026	.02	*	*	*	*
December	7.93	<.065	< .012	$<5^{-3}$	*	*	*	*
12-Month Total	152.89	<1.586	< .199	< .087				
Previous Total (Since 1-1-69)(2)	137.44	<.715	<.45	<.157	<.039	<.049	<.087	<.231
Total to Date (Since 1-1-69)	290.3	<2.301	<.649	<.244	<.039	<.049	<.087	<.231

(1) $N^{-n} = N \times 10^{-n}$

(2) Data prior to January 1, 1969 are included in Table 25.

*Based on measured beta concentration, this fission product is less than AEC Manual Chapter-0524 Table 2 limits

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TABLE 28

Disposal Site: 216-B-2-2 East
Waste Stream Description: Streams to 216-B-3 Pond

1970	Volume ($n \times 10^6$ gal)	U (lbs)	Pu (gm)	Beta (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)
Estimated activity retained in the eastern portion (terminus) of the 216-B-2-2 ditch from the B Plant release on 3/22/70								
March		---		1,120		710	0.5	
April								
May								
June		The eastern portion of the ditch was backfilled						
July		during November 1970. The site was then						
August		identified as 216-B-2-2 East.						
September								
October								
November								
December								
12-Month Total		---		1,120		710	0.5	
Previous Total								
Total to Date				1,120		710	0.5	

TABLE 29

Disposal Site: 216-B-2-2 West, Summary(1)
Waste Stream Description: ITS-1 cooling water, ITS-2 cooling water, and B Plant chemical sewer

1970	Volume (n x 10^6 gal)	U (lbs)	Pu (gm)	Beta (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)
January								
February								
March	6.17	<.061	< .031	375		240	0.5	
April	6.99	<.011	< .012	4.49		1.8		
May	.713	<.032	$<2.2^{-4}$	.11		.046		
June								
July								
August								
September								
October								
November								
December								
12-Month Total	13.12	<.104	< .042	380		242	0.5	
Previous Total	---	---	-----	---		---	---	
Total to Date	13.12	< .104	< .042	380		242	0.5	

(1) See page 53 for explanation of site
(2) $N^{-n} = N \times 10^{-n}$

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TABLE 30

Disposal Site: 216-B-2-2 West
Waste Stream Description: B Plant chemical sewer from March 22, 1970 to May 7, 1970

1970	Volume ($n \times 10^6$ gal)	U (lbs)	Pu (gm)	Beta (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)
Estimated activity retained in the western portion of the 216-B-2-2 ditch from the B Plant release on 3/22/70. Ditch was dammed on 3/23/70		---		375		240	0.5	
March - from 3/23/70	1.06	$<6.79^{-4}$ (1)	$<1.73^{-3}$	$<1.14^{-3}$				
April	6.24	$<3.99^{-3}$	< .01	4.49		1.8		
May	.713	<.032	$<2.2^{-4}$	.11		.046		
June		The western portion of the 216-B-2-2 ditch was backfilled by 5/11/70. The site was then identified as 216-B-2-2 West.						
July								
August								
September								
October								
November								
December								
12-Month Total	8.01	< .037	< .012	380		242	0.5	
Total to Date	8.01	< .037	< .012	380		242	0.5	

(1) $N^{-n} = N \times 10^{-n}$

TABLE 31

Disposal Site: 216-B-2-2 West
Waste Stream Description: In-Tank Solidification No.1cooling water from March 23, 1970 to April 1, 1970

1970	Volume ($n \times 10^6$ gal)	U (lbs)	Pu (gm)	Beta (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)
January								
February								
March	2.19	<.022	$<9^{-3}$	.08		1.49^{-3}(1)	.047	
April								
May								
June								
July								
August								
September								
October								
November								
December								
12-Month Total	2.19	<.022	$<9^{-3}$	.08		1.49^{-3}	.047	
Previous Total	---	---	---	---		---	---	
Total to Date	2.19	<.022	$<9^{-3}$	.08		1.49^{-3}	.047	

(1) $N^{-n} = N \times 10^{-n}$

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0 0 0 3 0 8 7 0 0 4 8

TABLE 32

Disposal Site: 216-B-2-2 West
Waste Stream Description: In-Tank Solidification No. 2 cooling water from March 22, 1970 to April 2, 1970

1970	Volume ($n \times 10^6$ gal)	U (lbs)	Pu (gm)	Beta (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)
January								
February								
March	2.92	<.038	<.02	5^{-3}(1)				
April	.75	<.007	$<1.6^{-3}$	$<9.3^{-4}$				
May								
June								
July								
August								
September								
October								
November								
December								
12-Month Total	3.67	<.045	<.022	5.9^{-3}				
Previous Total	---	---	---	---				
Total to Date	3.67	<.045	<.022	5.9^{-3}				

(1) $N^{-n} = N \times 10^{-n}$

TABLE 33

Disposal Site: 216-B-3, B Pond and Ditches - Summary
Waste Stream Description: B Plant cooling water and chemical sewer, CR Vault cooling water, Purex chemical sewer, ITS-1 and ITS-2 cooling water.

1970	Volume (n x 10^6 gal)	U (lbs)	Pu (gm)	Beta (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)	U-233 (gm)
January	71.55	< .608	< .18	.33	< .07	---	<.08	<.58	
February	59.03	< .504	< .13	.291	< .06	---	<.08	<.57	
March	51.74	< .538	< .118	154	$<1^{-3}$(1)	50	13	<.01	
April	51.1	< .912	< .621	<.103	$<6^{-3}$	$<2^{-3}$	$< 8^{-3}$	<.07	
May	68.91	<1.181	< .136	<.352	$<3^{-3}$	$<3^{-3}$	$< 3^{-3}$	<.02	
June	72.18	<1.294	< .151	<.147	$<1^{-3}$	---	$< 3^{-3}$	<.01	
July	67	< .874	< .07	<.039	$<2^{-5}$	$<1^{-4}$	$< 1^{-4}$	$<6^{-4}$	
August	67.35	< .429	< .028	<5.65	$<4.68^{-4}$	<.223	$< 6.56^{-3}$	< .091	< .07
September	67.52	< .664	< .043	1.06	$<3.03^{-3}$	.01	< .269	.225	<1.84
October	70.96	<3.538	< .024	<.392	$<1^{-3}$	1^{-3}	$< 1^{-3}$	< .01	<1.2
November	78.55	<1.216	< .017	<4.33	$<2^{-3}$	.502	< 1.27	.311	<2.18
December	76.71	< .904	< .036	<.842	3^{-3}	---	$< 3^{-4}$	.47	<1.38
12-Month Total	802.6	<12.662	<1.554	168	< .151	50.7	14.7	<2.37	<6.67
Diverted from Gable Mt. Flow	158	<6.8	< .8	<1.7	< .11	<.04	<.21	< 1.56	<18.3
1970 Total	960.6	<19.5	<2.35	169.7	< .26	50.7	14.9	<3.93	<25
Previous Total	21,540	594.6	227.3	15,277	<19.45	<100.8	<130.3	2,313.4	---
Total to Date	22,501	614.1	229.7	15,447	<19.71	<151.5	<145.2	2,317.3	---

(1) $N^{-n} = N \times 10^{-n}$

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TABLE 34

Disposal Site: 216-B-3 Pond
Waste Stream Description: B Plant chemical sewer(1)

1970	Volume ($n \times 10^6$ gal)	U (lbs)	Pu (gm)	Beta (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)
January	2.91	<.026	<.011	4.22^{-3}(2)	*	*	*	*
February	3.13	<.031	$<1.48^{-3}$	4.07^{-3}	*	*	*	*
March	3.05	$<1.95^{-3}$	$<4.97^{-3}$	154(3)		50(3)	13(3)	
April								
May								
June								
July								
August	1.19	<.054	$<4.08^{-4}$	.02	$<2.68^{-4}$	.026	$<4.84^{-4}$	$<2.16^{-3}$
September	.22	$<9.75^{-3}$	$<9.68^{-5}$	8.36^{-3}	$<3.32^{-5}$	2.66^{-3}	6.56^{-5}	$<2.38^{-4}$
October								
November								
December								
12-Month Total	10.5	<.123	<.018	154	$<3.01^{-4}$	50	13	$<2.4^{-3}$
Previous Total(4) (Since 1-1-69)	34.8	<.907	<.111	<.429	<.005	< .038	<.226	<.031
Total to Date (Since 1-1-69)	45.3	<1.03	<.129	154	<.0053	50	13	<.033

(1) The 216-B-2 ditch was dammed on March 23, 1970. Between this date and May 7, 1970, the B Plant chem sewer flow was retained in the ditch, and the data are included in Table 30 . On May 7, 1970, the chem sewer was diverted to the 216-B-63 trench and the data are included in Table 41 . The flow was temporarily returned to the B-3 pond between August 20 and September 2.

(2) $N^{-n} = N \times 10^{-n}$

(3) Estimate of activity from the B Plant release on 3/22/70.

(4) Data prior to January 1, 1969 are included in Table 33.

*Based on measured beta concentration, this fission product is less than AEC Manual Chapter-0524 Table 2 limits.

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TABLE 35

Disposal Site: 216-B-3 Pond
Waste Stream Description: B Plant cooling water

1970	Volume ($n \times 10^6$ gal)	U (lbs)	Pu (gm)	Beta (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)
January	40.5	.189	$<5.42^{-3}$(1)	.024	*	*	*	*
February	29.2	<.138	$<5.69^{-3}$	5.42^{-3}	*	*	*	*
March	29.5(2)	.144	$<4.82^{-3}$	.023	*	*	*	*
April	32.8(2)	<.156	$<4.53^{-3}$	<.03	*	*	*	*
May	48.1	<.284	$<6.64^{-3}$	.25	*	*	*	*
June	42.6	<.212	$<6.95^{-3}$	.053	*	*	*	*
July	43.5	<.203	$<6.31^{-4}$	.022	*	*	*	*
August	47.3	<.219	$<8.46^{-3}$	5.48	*	.196	5.58^{-3}	8.98^{-3}
September	40.2	<.187	$<7.19^{-3}$	.11	*	*	*	*
October	47	<2.42	$<7.67^{-3}$	.323	*	*	*	*
November	50.4	<.233	$<6.25^{-3}$	3.58	*	.5	1.27	.091
December	46.4	<.215	$<6.82^{-3}$	.129	*	*	*	*
12-Month Total	497.5	<4.6	<.071	10.03	---	.696	1.276	.1
Previous Total (Since 1-1-68)(3)	1,238	<19.24	<7.79	14.41	3.752	1.799	<5.526	<3.787
Total to Date (Since 1-1-68)	1,736	<23.84	<7.86	<24.44	3.752	2.495	<6.802	<3.887

(1) $N^{-n} = N \times 10^{-n}$
(2) B Plant cooling water was diverted to 216-B-63 trench from March 22, 1970 to April 8, 1970. These data are included in Table 42
(3) Data prior to January 1, 1968 are included in Table 33.
* Based on estimated beta concentration, this fission product is less than AEC Manual Chapter 0524 Table 2 limits

~~OFFICIAL USE ONLY~~
2/1/11
ARH-2015 P43
Page 58

TABLE 36

Disposal Site: 216-B-3 Pond
Waste Stream Description: CR-Vault cooling water

1970	Volume ($n \times 10^6$ gal)	U (lbs)	Pu (gm)	Beta (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)
January	None							
February	None							
March	1.35	<.017	$<4.83^{-3}$(1)	$<9.32^{-4}$	*	*	*	*
April	4.5	<.056	<.016	$<3.1^{-3}$	*	*	*	*
May	4.65	<.057	<.017	$<3.21^{-3}$	*	*	*	*
June	4.5	<.028	<.016	$<4.1^{-3}$	*	*	*	*
July	4.65	<.057	<.017	$<3.21^{-3}$	*	*	*	*
August	.5	$<6.17^{-3}$	$<3.5^{-3}$	$<3.45^{-4}$	*	*	*	*
September	None							
October	None							
November	None							
December	None							
12-Month Total	20.15	<.221	<.074	<.015				
Previous Total (Since 1-1-68)(2)	30.7	<.311	.428	.638	<.149	<.057	<.208	<.404
Total to Date (Since 1-1-68)	50.85	<.532	<.502	.653	<.149	<.057	<.208	<.404

* Based on measured beta concentration, this fission product is less than AEC Manual Chapter-0524 Table 2 limits

(1) $N^{-n} = N \times 10^{-n}$

(2) Data prior to January 1, 1968 are included in Table 33

~~OFFICIAL USE ONLY~~ PSA 2/4/11

TABLE 37

Disposal Site: 216-B-3 Pond
Waste Stream Description: In-Tank Solidification No. 1 cooling water

1970	Volume ($n \times 10^6$ gal)	U (lbs)	Pu (gm)	Beta (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)
January	7.84	<.102	<.052	4.39^{-3}(1)	*	*	*	*
February	8	.079	<.031	.014	*	*	*	*
March	6.31(2)	<.064	<.024	.229	*	4.29^{-3}	.137	*
April	None	(ITS-1 scheduled down)			*	*	*	*
May	None	(ITS-1 scheduled down)			*	*	*	*
June	7.56	<.178	<.027	5.25^{-3}	*	*	*	*
July	7.81	<.105	<.028	$<5.44^{-3}$	*	*	*	*
August	5.25	<.031	$<2.65^{-3}$	2.84^{-3}	*	*	*	*
September	7.56	<.067	<.018	.406	*	3^{-3}	.266	.025
October	7.82	<.357	<.01	$<1.04^{-3}$	*	*	*	*
November	7.56	<.046	$<8.62^{-4}$	$<1.04^{-3}$	*	*	*	*
December	12.4	<.076	<.014	$<1.71^{-3}$	*	*	*	*
12-Month Total	78.11	<1.105	<.208	<.671	---	7.29^{-3}	.403	.025
Previous Total (Since 1-1-69)(3)	85.47	<2.84	<.469	<.331	<.016	<.027	<.028	<.063
Total to Date (Since 1-1-69)	163.58	<3.945	<.677	<1.002	<.016	<.034	<.431	<.088

* Based on measured beta concentration, this fission product is less than AEC Manual Chapter-0524 Table 2 limits
(1) $N^{-n} = N \times 10^{-n}$
(2) The 216-B-2-2 ditch was dammed on March 23, 1970. Between this date and April 1, 1970 the ITS-1 cooling water was retained in the ditch, the the data are included in Table 31 . Upon ITS-1 start-up in June, the flow was returned to the 216-B-3 pond.
(3) Data prior to January 1, 1969 are included in Table 33

TABLE 38

Disposal Site: 216-B-3 Pond
Waste Stream Description: In-Tank Solidification No. 2 cooling water

1970	Volume (n x 10^6 gal)	U (lbs)	Pu (gm)	Beta (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)
January	12.3	<.141	<.062	.047	*	*	*	*
February	10.7	.106	<.042	.018	*	*	*	*
March	8.38(1)	<.111	<.059	.015	*	*	*	*
April	None							
May	9.64	<.44	<.012	.039	*	*	*	*
June	10.4	<.476	<1.48^{-3}(2)	.045	*	*	*	*
July	10.9	<.499	<.014	4.23^{-3}	*	*	*	*
August	12.1	<.069	<.013	6.12^{-3}	*	*	*	*
September	13	<.08	< .018	.129	*	*	*	*
October	12	<.541	<5.88^{-3}	.038	*	*	*	*
November	11.2	<.507	<.01	<1.36^{-3}	*	*	*	*
December	12.2	<.073	<.015	<1.48^{-3}	*	*	*	*
12-Month Total	122.8	<3.043	<.252	<.344				
Previous Total (Since 1-1-69)(3)	133.6	<4.45	<.789	1.1	<.018	<.056	<.813	<.162
Total to Date (Since 1-1-69)	256.4	<7.493	<1.041	<1.444	<.018	<.056	<.813	<.162

(1) The 216-B-2-2 ditch was dammed on March 23, 1970. From this date until April 2, 1970 the ITS-2 cooling water was retained in the ditch and the data are included in Table 32 . On April 2, 1970 the flow was diverted to the 216-B-63 Trench and the data are included in Table 43 . The flow was returned to the 216-B-3 pond on May 8, 1970.

(2) $N^{-n} = N \times 10^{-n}$

(3) Data prior to January 1, 1969 are included in Table 33

* Based on measured beta concentration, this fission product is less than AEC Manual Chapter-0524 Table 2 limits

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TABLE 39

Disposal Site: 216-B-3 Pond
Waste Stream Description: Purex Chemical Sewer

1970	Volume ($n \times 10^6$ gal)	U (lbs)	Pu (gm)	Beta (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)	U-233* (gm)
January	8	.15	.05	.25	<.07	---	<.08	<.58	
February	8	.15	.05	.25	<.06	---	<.08	<.57	
March	3.15	<.2	<.02	.03	$<1^{-3}$(1)	$<3^{-4}$	$<2^{-3}$	<.01	
April	13.8	.7	<.6	.07	$<6^{-3}$	$<2^{-3}$	$<8^{-3}$	<.07	
May	6.52	<.4	<.1	.06	$<3^{-3}$	$<3^{-3}$	$<3^{-3}$	<.02	
June	7.12	<.4	<.1	.04	$<1^{-3}$	---	$<3^{-3}$	<.01	
July	.141	<.01	<.01	4^{-3}	$<2^{-5}$	$<1^{-4}$	$<1^{-4}$	$<6^{-4}$	
August	1.01	<.05	---*	.15	$<2^{-4}$	$<6^{-4}$	$<5^{-4}$	.08	<.07*
September	6.54	<.32	---*	.41	$<3^{-3}$	4^{-3}	$<3^{-3}$	.2	<1.84*
October	4.14	<.22	---*	.03	$<1^{-3}$	1^{-3}	$<1^{-3}$	<.01	<1.2*
November	9.39	<.43	---*	.75	$<2^{-3}$	2^{-3}	$<2^{-3}$	.22	<2.18*
December	5.71	.54	---*	.71	3^{-3}	---	$<3^{-4}$	.47	<1.38*
12-Month Total	73.5	<3.57	<.93	2.75	< .15	< .013	< .183	<2.24	<6.67*
Previous Total (Since 1-1-68)(2)	292.9	<13.1	<8.6	88.4	2.48	3.95	4.26	76.82	---
Total to Date (Since 1-1-68)	366.4	<16.67	<9.53	91.15	2.63	3.963	4.443	79.06	

(1) $N^{-n} = N \times 10^{-n}$
(2) Data prior to January 1, 1968 are included in Table 33
*Thorium campaign - no Pu in process

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TABLE 40

Disposal Site: 216-B-63 Trench - Summary
Waste Stream Description: B Plant chemical sewer, B Plant cooling water and ITS-2 cooling water

1970	Volume ($n \times 10^6$ gal)	U (lbs)	Pu (gm)	Beta (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)
January								
February								
March	13.8	<.067	$< 2.24^{-3}$(1)	.011				
April	21.9	<.162	< .025	<.024				
May	5.83	<.263	$< 5^{-3}$	.441	---	.179	---	---
June	3.35	<.149	$< 1.04^{-3}$	.18	---	.063	---	---
July	3.47	<.154	$< 1.07^{-3}$	.324	$<3.26^{-3}$	1.05	.347	<.073
August	2.27	<.103	$< 7.77^{-4}$	.037	$<5.11^{-4}$	.05	$<9.23^{-4}$	4.11^{-3}
September	4.19	<.186	$< 1.84^{-3}$	.159	$<6.33^{-4}$	.051	1.25^{-3}	$<4.52^{-3}$
October	3.35	<.149	$< 2.35^{-3}$	.045	---	.02	2.4^{-3}	---
November	3	<.163	$< 2.78^{-3}$	.11	---	.031	6.21^{-3}	---
December	3.35	<.154	$< 5.12^{-3}$	$<8.88^{-3}$	---	---	---	---
12-Month Total	64.51	<1.55	< .047	<1.34	$<4.4^{-3}$	1.44	<.358	<.082
Previous Total	---	---	---	---	---	---	---	---
Total to Date	64.51	<1.55	<.047	<1.34	$<4.4^{-3}$	1.44	<.358	<.082

(1) $N^{-n} = N \times 10^{-n}$

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TABLE 41

Disposal Site: 216-B-63 Trench
Waste Stream Description: B Plant chemical sewer from May 7, 1970 to date

1970	Volume ($n \times 10^6$ gal)	U (lbs)	Pu (gm)	Beta (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)
January								
February								
March								
April								
May	2.75	< .123	$<8.51^{-4}$ (1)	.427	---	.179	---	---
June	3.35	< .149	$<1.04^{-3}$	.18	---	.063	---	---
July	3.47	< .154	$<1.07^{-3}$	.324	$<3.26^{-3}$	1.05	.347	< .073
August	2.27 (2)	< .103	$<7.77^{-4}$	.037	$<5.11^{-4}$	.05	$<9.23^{-4}$	4.11^{-3}
September	4.19 (2)	< .186	$<1.84^{-3}$	.159	$<6.33^{-4}$	.051	1.25^{-3}	$< 4.52^{-3}$
October	3.35	< .149	$<2.35^{-3}$	.045	---	.02	2.4^{-3}	---
November	3	< .163	$<2.78^{-3}$	.11	---	.031	6.21^{-3}	---
December	3.35	< .154	$<5.12^{-3}$	$<8.88^{-3}$	---	---	---	---
12-Month Total	25.73	<1.181	< .016	<1.29	$<4.4^{-3}$	1.44	< .358	<.082
Previous Total	---	---	---	---	---	---	---	---
Total to Date	25.73	<1.181	<.016	<1.29	$<4.4^{-3}$	1.44	<.358	<.082

(1) $N^{-n} = N \times 10^{-n}$
(2) Flow was diverted to the 216-B-3 pond from August 20, 1970 to September 2, 1970. Data for this period are included in Table 34.

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TABLE 42

Disposal Site: 216-B-63 Trench
Waste Stream Description: B Plant cooling water from March 22, 1970 to April 8, 1970

1970	Volume ($n \times 10^6$ gal)	U (lbs)	Pu (gm)	Beta (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)
January								
February								
March	13.8	<.067	$<2.24^{-3}$(1)	.011	*	*	*	*
April	10.6	<.05	$<1.46^{-3}$	$<9.77^{-3}$	*	*	*	*
May								
June								
July								
August								
September								
October								
November								
December								
12-Month Total	24.4	<.117	$<3.7^{-3}$	<.021				
Previous Total	---	---	---	---				
Total to Date	24.4	<.117	$<3.7^{-3}$	<.021				

(1) $N^{-n} = N \times 10^{-n}$

*Based on measured beta concentration, this fission product is less than AEC Manual Chapter-0524 Table 2 limits

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TABLE 43

Disposal Site: 216-B-63 Trench
Waste Stream Description: ITS-2 cooling water from April 2, 1970 to May 8, 1970

1970	Volume (n x 10^6 gal)	U (lbs)	Pu (gm)	Beta (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)
January								
February								
March								
April	11.3	<.112	<.024	<.014	*	*	*	*
May	3.08	<.14	$<3.85^{-3}$(1)	.014	*	*	*	*
June								
July								
August								
September								
October								
November								
December								
12-Month Total	14.38	<.252	<.028	<.028				
Previous Total	---	----	---	---				
Total to Date	14.38	<.252	<.028	<.028				

(1) $N^{-n} = N \times 10^{-n}$

* Based on measured beta concentration, this fission product is less than AEC Manual Chapter-0524 Table 2 limits

TABLE 44

Disposal Site: 216-S-11 Pond
Waste Stream Description: 202-S chemical sewer

1970	Volume ($n \times 10^6$ gal)	U (lbs)	Pu (gm)	Beta (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)
January	1.7	---	$<3.05^{-3}$(1)	$<8.76^{-3}$	*	*	*	*
February	1.54	< .01	$<3^{-3}$	$<8.32^{-4}$	*	*	*	*
March	1.7	< .011	$<2.47^{-3}$	$<4.77^{-4}$	*	*	*	*
April	.794	$<4.9^{-3}$	$<1.15^{-3}$	$<2.22^{-4}$	*	*	*	*
May	.82	$<9.04^{-3}$	$<2.94^{-3}$	1.89^{-3}	*	*	*	*
June	.794	$<5.25^{-3}$	$<1.42^{-3}$	$< 4.64^{-4}$	*	*	*	*
July	.82	$<6.15^{-3}$	$<2.94^{-3}$	$< 2.02^{-4}$	*	*	*	*
August	.82	$<7.23^{-3}$	$<3.21^{-3}$	6.48^{-4}	*	*	*	*
September	.794	$<7^{-3}$	$<2.07^{-3}$	$<9.53^{-4}$	*	*	*	*
October	.820	< .04	$<1.59^{-3}$	$<1.03^{-4}$	*	*	*	*
November	.794	$<8.75^{-3}$	$<6.34^{-3}$	7.94^{-4}	*	*	*	*
December	.820	$<7.23^{-3}$	$<2.13^{-3}$	8.12^{-4}	*	*	*	*
12-Month Total	12.22	< .117	< .032	< .016				
Previous Total	703.8	51.42	.186	50.41	<.133(2)	1.111	<1.111	10.1
Total to Date	716	51.54	<.218	50.43	<.133(2)	1.111	<1.111	10.1

(1) $N^{-n} = N \times 10^{-n}$
(2) Total since 1-1-67
*Based on measured beta concentration, this fission product is less than AEC Manual Chapter-0524 Table 2 limits.

TABLE 45

Disposal Site: 216-S-16 Pond
Waste Stream Description: 202-S process cooling water from April 1954 to date

1970	Volume (n x 10^6 gal)	U (lbs)	Pu (gm)	Beta (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)
January	21.2	<.14	<.038	<.018	*	*	*	*
February	17.8	<.118	<.032	5.01^{-3}(1)	*	*	*	*
March	16.7	<.103	<.024	5.68^{-3}	*	*	*	*
April	17.3	<.114	<.031	.013	*	*	*	*
May	18.6	<.123	<.033	9.12^{-3}	*	*	*	*
June	22	<.136	$<3.19^{-3}$	.011	*	*	*	*
July	19.2	<.127	<.034	<.018	*	*	*	*
August	17.6	<.116	<.032	5.37^{-3}	*	*	*	*
September	15.6	<.096	<.022	$<2.76^{-3}$	*	*	*	*
October	19.7	<.911	$<3.52^{-3}$	.016	*	*	*	*
November	19.7	<.174	<.038	.014	*	*	*	*
December	16.6	<.106	<.027	.28	*	7.7^{-3}	.117	*
12-Month Total	222	<2.26	<.318	.398		7.7^{-3}	.117	
Previous Total	10,127	6,958.6	367.8	1,034.1	<5.89(2)	91.49	58.33	217.76
Total to Date	10,349	6,960.9	368.1	1,034.5	<.589(2)	91.5	58.45	217.76

(1) $N^{-n} = N \times 10^{-n}$
(2) Total since 1-1-67
*Based on measured beta concentration, this fission product is less than AEC Manual Chapter-0524 Table 2 limits.

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TABLE 46

Disposal Site: 216-S-19 Pond
Waste Stream Description: Redox Laboratory cooling water and sink wastes from January 1952 to date

1970	Volume ($n \times 10^6$ gal)	U (lbs)	Pu (gm)	Beta (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)
January	.775	<.027	$<4.2^{-3}$(1)	.017	*	*	9.3^{-3}	8.5^{-4}
February	.700	<.088	$<3.7^{-3}$	6.7^{-4}	*	*	*	*
March	.775	.023	$<3.2^{-3}$	6^{-4}	*	*	*	*
April	.750	<.038	$<3.2^{-3}$	6.5^{-4}	*	*	*	*
May	.775	<.036	$<3.7^{-3}$	$<3.3^{-4}$	*	*	*	*
June	.750	.05	$<3.4^{-3}$	6.1^{-4}	*	*	*	*
July	.775	7.1^{-3}	$<3.2^{-3}$	3.2^{-4}	*	*	*	*
August	.775	.022	$<3.5^{-3}$	1.2^{-3}	*	*	*	*
September	.750	$<5.9^{-3}$	5.74^{-3}	$<1.9^{-4}$	*	*	*	*
October	.775	< .042	$<3.31^{-3}$	6.95^{-4}	*	*	*	*
November	.750	7.4^{-3}	$<2.98^{-3}$	3.1^{-3}	*	*	*	*
December	.775	$<8.52^{-3}$	$<3.21^{-3}$	4.13^{-3}	*	*	*	*
12-Month Total	9.12	< .355	< .043	.03			9.3^{-3}	8.5^{-4}
Previous Total	657.6	236.1	20.47	24.01	.563(2)	<2.459	2.263	6.821
Total to Date	666.7	236.5	20.51	24.04	.563(2)	<2.459	2.272	6.822

(1) $N^{-n} = N \times 10^{-n}$

(2) Total since 1-1-67

*Based on measured beta concentration, this fission product is less than AEC Manual Chapter-0524 Table 2 limits.

TABLE 47

Disposal Site: 216-T-4 Pond
Waste Stream Description: 242-T Evaporator condenser cooling water

1970	Volume (n x 10^6 gal)	U (lbs)	Pu (gm)	Beta (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)
January	8.88	<.067	$<9.59^{-3}$(1)	.04	*	*	*	*
February	9.44	<.05	$<7.07^{-3}$	.01	*	*	*	*
March	10.6	<.052	$<7.96^{-3}$	8.18^{-3}	*	*	*	*
April	10	<.053	$<7^{-3}$	.015	*	*	*	*
May	10.7	<.063	$<1.48^{-3}$	.056	*	*	*	*
June	10.5	.081	$<8.21^{-3}$	.018	*	*	*	*
July	10.2	.087	$<8.01^{-3}$	.011	*	*	*	*
August	10.4	<.055	$<7.48^{-3}$	7.93^{-3}	*	*	*	*
September	10.3	<.111	< .01	.011	*	*	*	*
October	10.6	<.475	$<7.4^{-3}$	.018	*	*	*	*
November	10.4	<.069	< .01	.021	*	*	*	*
December	11	<.061	$<9.16^{-3}$	3.2^{-3}	*	*	*	*
12-Month Total	123	<1.224	< .093	.219				
Other Sources	10(2)							
1970 Total	133							
Previous Total	10,597	1,506.6	<3.57	124.64	<3.383(3)	<6.174	10.93	106.18
Total to Date	10,730	1,507.8	<3.66	124.86	<3.383(3)	<6.174	10.93	106.18

(1) $N^{-n} = N \times 10^{-n}$
(2) Includes T Plant wastes
(3) Total since 1-1-67
* Based on measured beta concentration, this fission product is less than AEC Manual Chapter-0524 Table 2 limits.

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TABLE 48

Disposal Site: 216-U-10, U Pond and Ditches - Summary
Waste Stream Description: U Plant and 241-SX cooling water, 234-5 and 231-Z waste (Z-11 ditch), laundry waste and power house water

1970	Volume (n x 10^6 gal)	U (lbs)	Pu (gm)	Beta (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)
January	30.79	<2.41	<.276	<.399	*	*	*	*
February	33.09	<2.58	<.553	<.444	*	*	*	*
March	27.97	<2.20	<.364	<.346	*	*	*	*
April	35.76	<2.85	<.319	<.486	*	*	*	*
May	29.85	<1.81	<.214	<.318	*	*	*	*
June	27.9	<1.36	<.097	<.163	*	*	*	*
July	29.19	<1.44	<.139	<.175	*	*	*	*
August	28.9	<1.41	<.212	<.142	*	*	*	*
September	29.11	<1.41	<.727	<.175	*	*	*	*
October	28.61	1.60	<.283	<.152	*	*	*	*
November	28.9	<1.75	<.395	<.134	*	*	*	*
December	30.36	<1.25	<.224	<.183	*	*	*	*
12-Month Total	360.4	<21.89	<3.803	<3.117				
Other Sources (1)	304							
1970 Total	664.4							
Previous Total	29,529	3,097.5	8,033.1	700.5	<4.345(2)	22.598	15.673	309.22
Total to Date	30,193	3,119.4	8,036.9	703.6	<4.345(2)	22.598	15.673	309.22

(1) Includes: 200-W Power House--254, U Plant Chem Sewer and others--50
(2) Total since 1-1-67
*Based on measured beta concentration, this fission product is less than AEC Manual Chapter-0524, Table a limits.

~~DECLASSIFIED~~ ~~UNCLASSIFIED~~ 2/11/11
ARH-2015 FP3
Page 71

TABLE 49

Disposal Site: 216-U-10
Waste Stream Description: Laundry waste water (U-14 ditch)

1970	Volume ($n \times 10^6$ gal)	U (lbs)	Pu (gm)	Beta (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)
January	1.3		< .018	< .022				
February	1.1		< .015	< .062				
March	1.12		< .016	< .022				
April	1.53		< .02	< .022				
May	1.7		< .02	< .038				
June	1.65		$<5.59^{-3}$(1)	< .02				
July	1.84		$<4.43^{-3}$	< .012				
August	1.45		$<3.52^{-3}$	$< 3.64^{-3}$				
September	1.36		$<3.21^{-3}$	$< 7^{-3}$				
October	1.36		$<3.61^{-3}$	< .013				
November	1.05		$<2.53^{-3}$	$< 4.34^{-3}$				
December	1.26		$<3.26^{-3}$	$< 6.25^{-3}$				
12-Month Total	16.72		< .115	< .232				
Previous Total(2) (Since 1-1-68)	30.47		< .199	< .561				
Total to Date (Since 1-1-68)	47.19		< .314	< .793				

(1) $N^{-n} - N \times 10^{-n}$
(2) Data prior to January 1, 1968 are included in Table 48

TABLE 50

Disposal Site: 216-U-10
Waste Stream Description: U Plant waste water (U-14 ditch).

1970	Volume ($n \times 10^6$ gal)	U (lbs)	Pu (gm)	Beta (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)
January	13	2.21		.165				
February	15	2.55		.19				
March	10	2		.11				
April	16.6	2.82		.267				
May	10.4	1.77		.132				
June	7.8	1.33		.099				
July	8.1	1.38		.103				
August	8.1	1.38		.103				
September	8.1	1.38		.103				
October	8.1	1.38		.1				
November	7.8	1.72		.081				
December	8.15	1.22		.085				
12-Month Total	121.15	21.14		1.538				
Previous Total (Since 1-1-68)(1)	405.6	83.38		5.99				
Total to Date (Since 1-1-68)	526.8	104.52		7.528				

(1) Data prior to January 1, 1968 are included in Table 48

TABLE 51

Disposal Site: 216-U-10
Waste Stream Description: 241-SX cooling water

1970	Volume ($n \times 10^6$ gal)	U (lbs)	Pu (gm)	Beta (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)
January	3.79	< .201	< .033	.042	*	*	*	*
February	3.39	< .03	$<8.84^{-3}$(1)	4.17^{-3}	*	*	*	*
March	3.75	< .023	$<5.44^{-3}$	2.44^{-3}	*	*	*	*
April	3.63	< .032	$<9.44^{-3}$	$<4.28^{-3}$	*	*	*	*
May	3.75	< .036	$<9.75^{-3}$	3.11^{-3}	*	*	*	*
June	3.75	< .028	$<7.31^{-3}$	9.11^{-3}	*	*	*	*
July	3.75	< .059	< .013	.026	*	*	*	*
August	3.75	< .033	$<9.75^{-3}$	2.78^{-3}	*	*	*	*
September	3.75	< .033	$<7.31^{-3}$	$<2.13^{-3}$	*	*	*	*
October	3.75	.215	$<9.75^{-3}$	1.46^{-3}	*	*	*	*
November	3.75	< .025	$<7.31^{-3}$	.014	*	*	*	*
December	3.75	< .033	< .011	$< 4.39^{-3}$	*	*	*	*
12-Month Total	44.56	< .748	< .132	< .116				
Previous Total (Since 1-1-68)	99.68	<4.82	<1.64	< 4.63	<.361	< .498	<1.173	< 1.111
Total To Date (Since 1-1-68)	144.24	<5.568	<1.772	< 4.746	<.361	< .498	< 1.173	< 1.111

(1) $N^{-n} = N \times 10^{-n}$
(2) Data prior to January 1, 1968 are included in Table 48
* Based on measured beta concentration, this fission product is less than AEC Manual Chapter-0524 Table 2 limits.

TABLE 52

Disposal Site: 216-U-10
Waste Stream Description: 234-5 and 231-Z cooling water (Z-11 Ditch)

1970	Volume ($n \times 10^6$ gal)	U (lbs)	Pu (gm)	Beta (Ci)	Co-60 (Ci)	Sr-90 (Ci)	Cs-137 (Ci)	Ru-106 (Ci)
January	12.7		<.225	<.17				
February	13.6		<.529	<.188				
March	13.1		<.343	<.212				
April	14		<.29	<.193				
May	14		<.184	<.145				
June	14.7		<.084	<.035				
July	15.5		<.122	<.034				
August	15.6		.199	<.033				
September	15.9		<.716	<.063				
October	15.4		<.27	<.038				
November	16.3		<.385	<.035				
December	17.2		<.21	<.087				
12-Month Total	178		<3.557	<1.233				
Previous Total(1) (Since 1-1-68)	315.6		<28.26	<5.22				
Total to Date	493.6		<31.82	<6.45				

(1) Data prior to January 1, 1968 are included in Table 48

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TABLE 53

1970 AVERAGE CONCENTRATION OF LIQUID WASTES TO CRIBS AND PONDS

Disposal Site	U-238 µCi/ml	Pu-239 µCi/ml	Total Beta Emitters µCi/ml	Co-60 µCi/ml	Sr-90 µCi/ml	Cs-137 µCi/ml	Ru-106 µCi/ml
Cribs							
216-A-6	1.04×10^{-9}	4.18×10^{-7}	2.72×10^{-5}	$< 2.04\times10^{-6}$	---	$<2.72\times10^{-6}$	2.27×10^{-4}
216-A-8	$<1.79\times10^{-9}$	$< 5.27\times10^{-9}$	2.77×10^{-4}	$< 1.10\times10^{-7}$	1.17×10^{-5}	7.79×10^{-5}	5.39×10^{-5}
216-A-10	1.90×10^{-8}	3.36×10^{-5}	5.20×10^{-3}	$< 4.41\times10^{-6}$	6.05×10^{-5}	8.16×10^{-5}	4.04×10^{-4}
216-A-27	1.24×10^{-6}	5.00×10^{-4}	6.10×10^{-1}	$< 1.54\times10^{-3}$	2.67×10^{-2}	3.64×10^{-2}	7.42×10^{-3}
216-A-30	3.01×10^{-9}	3.39×10^{-7}	4.57×10^{-4}	$< 9.27\times10^{-7}$	1.88×10^{-5}	2.29×10^{-5}	5.02×10^{-5}
216-A-36B	8.85×10^{-7}	2.19×10^{-5}	1.15×10^{0}	6.42×10^{-4}	2.34×10^{-2}	1.34×10^{-2}	1.70×10^{-1}
216-B-10b	$<2.22\times10^{-8}$	$< 1.55\times10^{-7}$	6.31×10^{-5}	---	1.09×10^{-5}	$<8.90\times10^{-6}$	---
216-B-12	$<9.47\times10^{-9}$	1.11×10^{-6}	1.84×10^{-3}	$< 2.34\times10^{-5}$	1.03×10^{-4}	6.31×10^{-4}	$<7.95\times10^{-5}$
216-B-50	$<1.59\times10^{-9}$	$< 1.25\times10^{-8}$	7.03×10^{-5}	$< 4.78\times10^{-8}$	1.30×10^{-6}	3.54×10^{-5}	2.83×10^{-6}
216-B-55	$<1.80\times10^{-9}$	$< 1.53\times10^{-8}$	3.09×10^{-5}	$< 6.02\times10^{-8}$	9.85×10^{-7}	1.33×10^{-5}	$< 6.34\times10^{-7}$
216-B-57	$<1.80\times10^{-9}$	$< 9.54\times10^{-9}$	2.72×10^{-3}	$< 7.71\times10^{-7}$	4.73×10^{-6}	1.66×10^{-3}	5.05×10^{-5}
216-S-6	$<1.84\times10^{-9}$	$< 7.62\times10^{-8}$	9.48×10^{-6}	$< 5.07\times10^{-8}$	7.40×10^{-7}	1.31×10^{-6}	1.76×10^{-6}
216-S-23	$<3.12\times10^{-9}$	2.00×10^{-6}	3.75×10^{-3}	$< 6.02\times10^{-6}$	7.77×10^{-5}	5.42×10^{-5}	1.17×10^{-3}
216-T-19	$<7.77\times10^{-10}$	$< 3.73\times10^{-9}$	9.01×10^{-5}	3.22×10^{-8}	1.31×10^{-6}	5.28×10^{-5}	$<9.83\times10^{-7}$
216-U-4A	---	---	$<1.77\times10^{-5}$	---	$< 8.98\times10^{-6}$	2.06×10^{-6}	$<2.06\times10^{-6}$
216-U-12	1.53×10^{-7}	---	3.59×10^{-6}	---	---	---	---
216-Z-12	---	1.16×10^{-2}	---	---	---	---	---
216-Z-16	---	$< 9.93\times10^{-6}$	$<4.07\times10^{-6}$	---	---	---	---
216-Z-18	---	3.89×10^{-1}	---	---	---	---	---
Ponds and Ditches							
216-A-25	$<1.72\times10^{-9}$	$<8.18\times10^{-8}$	$< 2.75\times10^{-6}$	$<1.82\times10^{-7}$	$<7.40\times10^{-8}$	$<3.46\times10^{-7}$	$<2.61\times10^{-6}$
216-B-3	$<8.15\times10^{-10}$	$<3.97\times10^{-8}$	4.68×10^{-5}	$<7.16\times10^{-8}$	1.39×10^{-5}	4.10×10^{-6}	$<1.08\times10^{-6}$
216-B-63	$<9.65\times10^{-10}$	$<1.18\times10^{-8}$	$< 5.50\times10^{-6}$	$<1.80\times10^{-8}$	5.89×10^{-6}	$<1.47\times10^{-6}$	$<3.36\times10^{-7}$
216-S-11	$<3.81\times10^{-10}$	$<4.28\times10^{-8}$	$< 3.49\times10^{-7}$	---	---	---	---
216-S-16	$<4.10\times10^{-10}$	$<2.32\times10^{-8}$	4.73×10^{-7}	---	---	---	---
216-S-19	$<1.57\times10^{-9}$	$<7.64\times10^{-8}$	8.69×10^{-7}	---	---	---	---
216-T-4	$<3.69\times10^{-10}$	$<1.13\times10^{-8}$	4.36×10^{-7}	---	---	---	---
216-U-10	$<1.32\times10^{-9}$	$<9.28\times10^{-8}$	$< 1.24\times10^{-6}$	---	---	---	---

TABLE 54

1970 MAXIMUM MONTHLY CONCENTRATION OF LIQUID WASTES TO CRIBS AND PONDS

Disposal Site	U-238 µCi/ml	Pu-239 µCi/ml	Total Beta Emitters µCi/ml	Co-60 µCi/ml	Sr-90 µCi/ml	Cs-137 µCi/ml	Ru-106 µCi/ml
Cribs							
216-A-6	1.04×10^{-9}	4.18×10^{-7}	2.72×10^{-5}	$< 2.04\times10^{-6}$	---	$< 2.72\times10^{-6}$	2.27×10^{-4}
216-A-8	$< 1.80\times10^{-9}$	$< 1.50\times10^{-8}$	6.95×10^{-4}	$< 2.35\times10^{-7}$	2.26×10^{-5}	1.83×10^{-4}	1.71×10^{-4}
216-A-10	4.83×10^{-8}	1.49×10^{-4}	1.30×10^{-2}	1.75×10^{-5}	1.88×10^{-4}	2.16×10^{-4}	1.16×10^{-3}
216-A-27	5.75×10^{-6}	3.21×10^{-3}	2.27×10^{0}	$< 7.56\times10^{-3}$	1.14×10^{-1}	1.15×10^{-1}	2.88×10^{-2}
216-A-30	1.30×10^{-8}	9.42×10^{-7}	5.50×10^{-3}	$< 1.23\times10^{-5}$	3.25×10^{-4}	4.36×10^{-4}	3.06×10^{-4}
216-A-36B	1.77×10^{-6}	5.60×10^{-5}	2.58×10^{0}	1.15×10^{-3}	5.18×10^{-2}	1.84×10^{-2}	3.36×10^{-1}
216-B-10b	8.30×10^{-8}	1.26×10^{-6}	2.49×10^{-4}	---	3.65×10^{-5}	3.28×10^{-5}	---
216-B-12	2.66×10^{-8}	1.44×10^{-5}	6.31×10^{-3}	$< 1.59\times10^{-4}$	4.91×10^{-4}	3.30×10^{-3}	$< 4.60\times10^{-4}$
216-B-50	1.82×10^{-9}	$< 1.95\times10^{-8}$	1.13×10^{-4}	$< 9.78\times10^{-8}$	5.86×10^{-6}	6.84×10^{-5}	4.44×10^{-6}
216-B-55	1.80×10^{-9}	$< 1.06\times10^{-7}$	1.73×10^{-4}	$< 1.26\times10^{-7}$	4.04×10^{-6}	1.10×10^{-4}	1.88×10^{-6}
216-B-57	1.81×10^{-9}	$< 1.74\times10^{-8}$	1.06×10^{-2}	5.60×10^{-6}	1.46×10^{-5}	6.60×10^{-3}	1.36×10^{-4}
216-S-6	1.91×10^{-9}	$< 2.90\times10^{-7}$	3.70×10^{-5}	$< 1.05\times10^{-7}$	3.59×10^{-6}	4.76×10^{-6}	5.07×10^{-6}
216-S-23	6.55×10^{-9}	1.00×10^{-5}	1.84×10^{-2}	2.40×10^{-5}	2.51×10^{-4}	2.09×10^{-4}	4.70×10^{-3}
216-T-19	3.59×10^{-9}	6.60×10^{-8}	6.82×10^{-4}	$< 1.96\times10^{-7}$	8.72×10^{-6}	3.22×10^{-4}	7.66×10^{-6}
216-U-12	4.42×10^{-7}	---	4.17×10^{-6}	---	---	---	---
216-Z-12	---	3.21×10^{-2}	---	---	---	---	---
216-Z-16	---	$< 4.18\times10^{-5}$	$< 1.30\times10^{-5}$	---	---	---	---
216-Z-18	---	7.30×10^{-1}	---	---	---	---	---
Ponds and Ditches							
216-A-25	$< 3.66\times10^{-9}$	$<6.13\times10^{-7}$	$<5.34\times10^{-6}$	$<2.03\times10^{-6}$	$< 1.48\times10^{-7}$	$< 2.41\times10^{-6}$	$<1.78\times10^{-5}$
216-B-3	$< 1.96\times10^{-9}$	$<1.74\times10^{-7}$	6.26×10^{-4}	$<2.53\times10^{-7}$	2.03×10^{-4}	5.31×10^{-5}	$<2.56\times10^{-6}$
216-B-63	$< 2.18\times10^{-9}$	$<2.48\times10^{-8}$	2.47×10^{-5}	$<2.48\times10^{-7}$	8.00×10^{-5}	2.64×10^{-5}	$<5.55\times10^{-6}$
216-S-11	$< 1.95\times10^{-9}$	$<1.29\times10^{-7}$	$<1.36\times10^{-6}$	---	---	---	---
216-S-16	$< 1.86\times10^{-9}$	$<3.16\times10^{-8}$	4.46×10^{-6}	---	1.23×10^{-7}	1.86×10^{-6}	---
216-S-19	$< 5.04\times10^{-9}$	1.24×10^{-7}	5.79×10^{-6}	---	---	3.17×10^{-6}	$<2.91\times10^{-7}$
216-T-4	$< 1.66\times10^{-9}$	$<1.60\times10^{-8}$	1.28×10^{-6}	---	---	---	---
216-U-10	$< 1.88\times10^{-9}$	$<2.17\times10^{-7}$	$<2.10\times10^{-6}$	---	---	---	---

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APPENDIX

200 AREA RADIOACTIVE LIQUID WASTE DISPOSAL SITES

Site Number	Approximate Coordinates	Reference Drawings
Cribs		
216-A-1	N-41330 W-47150	H-2-56016
216-A-2	N-39515 W-48278	H-2-56050
216-A-3	N-40530 W-48540	H-2-56050
216-A-4	N-39515 W-48158	H-2-56050
216-A-5	N-39510 W-48750	H-2-56050
216-A-6	N-39880 W-47000	H-2-56016
216-A-7	N-41205 W-47200	H-2-56016
216-A-8	N-41612 W-46734 N-41779 W-54870	H-2-56157
216-A-9	N-41000 W-48355 N-41297 W-48652	H-2-55577
216-A-10	N-39090 W-48952 N-39370 W-48952	H-2-55576
216-A-18	N-41860 W-47000	H-2-55900
216-A-19	N-41900 W-46680	H-2-32521
216-A-20	N-41875 W-46540	H-2-32521
216-A-21	N-39300 W-48160	H-2-57042
216-A-24	N-42206 W-45328 N-42494 W-46854	H-2-56977
216-A-27	N-39100 W-48118 N-39100 W-48318	H-2-57509
216-A-30	N-39150 W-44990 N-39735 W-46260	H-2-57720
216-A-31	N-39370 W-48290	H-2-57934

Site Number	Approximate Coordinates	Reference Drawings
Cribs (Contd.)		
216-A-36-A	N-39000 W-48525 N-39105 W-48525	H-2-59802
216-A-36-B	N-38500 W-48525 N-39000 W-48525	H-2-59805
216-A-37	N-39856 W-45816 N-40157 W-46449	H-2-57719 - H-2-57720
216-A-38	N-38971 W-49352 N-39471 W-49352	H-2-62876 - H-2-62877
216-A-39	N-41860 W-47399 N-41930 W-47489	H-2-34761
216-B-7	N-45602 W-52764 N-45648 W-52790	H-2-558
216-B-8	N-45880 W-52840	H-2-579
216-B-9	N-43757 W-52617	H-2-1031
216-B-10	N-42195 W-53868	H-2-1649
216-B-10b	N-42195 W-53943	H-2-32522
216-B-11	N-45674 W-52619 N-45734 W-52619	H-2-2024
216-B-12	N-42972 W-55000 N-43133 W-55000	H-2-43029
216-B-14	N-35855 W-53309	H-2-2900
216-B-15	N-35935 W-53447	H-2-2900
216-B-16	N-35716 W-53389	H-2-2900
216-B-17	N-35796 W-53527	H-2-2900
216-B-18	N-35577 W-53469	H-2-2900
216-B-19	N-35657 W-53607	H-2-2900
216-B-20-34	N-34800 W-53940 N-35972 W-55400	H-2-3203 - H-2-3232 H-2-3336
216-B-35-36	N-45273 W-53850 N-45323 W-54102	H-2-2431

Site Number	Approximate Coordinates	Reference Drawings
Cribs (Contd.)		
216-B-37	N-45413 W-53850 N-45413 W-54102	H-2-2431
216-B-38-41	N-45503 W-53850 N-45773 W-54102	H-2-2431
216-B-42	N-45273 W-54152 N-45273 W-54404	H-2-2431
216-B-43	N-46332 W-53355	H-2-2603
216-B-44	N-46417 W-53355	H-2-2603
216-B-45	N-46502 W-53355	H-2-2603
216-B-46	N-46587 W-53355	H-2-2603
216-B-47	N-46332 W-53499	H-2-2603
216-B-48	N-46417 W-53499	H-2-2603
216-B-49	N-46502 W-53499	H-2-2603
216-B-50	N-46587 W-53499	H-2-2603
216-B-52	N-35415 W-54170 N-35415 W-54750	H-2-3232
216-B-53-A	N-35972 W-54690 N-35972 W-54750	H-2-32522
216-B-53-B	N-35916 W-54723 N-35937 W-54583	H-2-32522
216-B-54	N-35772 W-54550 N-35772 W-54750	H-2-32522
216-B-55	N-42497 W-54810 N-42920 W-55431	SK-2-19674
216-B-56	N-42885 W-52600 N-42955 W-52600	SK-2-19674
216-B-57	N-46160 W-53775 N-46360 W-53775	H-2-62406
216-B-58	N-35672 W-54550 N-35672 W-54750	H-2-3336 - H-2-33400

0 0 1 3 0 8 7 0 3 7 5

Site Number	Approximate Coordinates	Reference Drawings
Cribs (Contd.)		
216-B-59	N-43001 W-52787 N-43284 W-52504	H-2-60310
216-B-60	N-42573 W-54178 N-42583 W-54178	H-2-60311
216-C-1	N-42069 W-50235	H-2-4037
216-C-3	N-42055 W-50390	H-2-4034
216-C-4	N-42060 W-50430	H-2-4010
216-C-5	N-42030 W-50360	H-2-4010
216-C-6	N-42015 W-50066	H-2-4425
216-C-7	N-42000 W-50672	H-2-44336
216-C-10	N-42100 W-49870	H-2-4540
216-S-1&2	N-35419 W-75170 N-35444 W-75214	H-2-1813
216-S-3	N-36000 W-75500	H-2-39574
216-S-5	N-32740 W-77000	H-2-5963
216-S-6	N-33250 W-77850	H-2-2594
216-S-7	N-35152 W-74510	H-2-30135
216-S-8	N-35350 W-75300	M-2600 SA22
216-S-9	N-36150 W-74550	H-2-32363
216-S-12	N-34965 W-73384	H-2-2430
216-S-13	N-34610 W-74620	H-2-5385
216-S-14	N-33200 W-73600	None
216-S-18	N-36200 W-74800	H-2-2430
216-S-20	N-34296 W-73337	H-2-5229
216-S-21	N-35920 W-76400	H-2-39549
216-S-22	N-34533 W-73080 N-34533 W-73185	H-2-31047

Site Number	Approximate Coordinates	Reference Drawings
Cribs (Contd.)		
216-S-23	N-36669 W-74709 N-37020 W-74725	SK-2-21845
216-T-6	N-43315 W-74450 N-43315 W-74525	H-2-353
216-T-7	N-43285 W-76000 N-43285 W-76356	H-2-578
216-T-8	N-43545 W-72950	H-2-353
216-T-9	N-43900 W-73700	M-2892 Sht-11
216-T-10	N-43910 W-73700	M-2892 Sht-11
216-T-11	N-43920 W-73700	M-2892 Sht-11
216-T-12	N-43560 W-75140	H-2-2430
216-T-13	N-42970 W-75720	M-2892 Sht-10
216-T-15	N-43900 W-75250	SK-2-2409
216-T-14-17	N-43800 W-75170 N-44100 W-75330	SK-2-2409
216-T-18	N-42790 W-75300	M-2600 Sht-11
216-T-19	N-41270 W-75600	H-2-806
216-T-24	N-41530 W-76450 N-41530 W-76690	M-2892 Sht-15
216-T-25	N-41350 W-76570	M-2892 Sht-15
216-T-26	N-42275 W-75330	H-2-2733
216-T-27	N-42360 W-75330	H-2-2733
216-T-28	N-42445 W-75330	H-2-2733
216-T-30	N-43880 W-73200	H-2-32526
216-T-33	N-44100 W-73600	H-2-32097
216-T-34	N-44200 W-73900	H-2-32649 - H-2-32650
216-T-35	N-44558 W-74575 N-45015 W-74520	H-2-33446

Site Number	Approximate Coordinates	Reference Drawings
Cribs (Contd.)		
216-T-36	N-43093 W-76000 N-43093 W-76155	H-2-33472
216-U-1&2	N-37860 W-74242 N-37860 W-74340	H-2-50061
216-U-3	N-37620 W-75630	H-2-44004
216-U-4-A	N-38215 W-73215	H-2-43081
216-U-4-B	N-38248 W-73100	SK-2-3337
216-U-5-6	N-39018 W-72940 N-39042 W-73038	M-2600W-Sht-19
216-U-8	N-36860 W-73100	H-2-43028
216-U-12	N-36350 W-73100	H-2-31321
216-U-13	N-38200 W-76070	H-2-32527
216-U-15	N-38220 W-73900	H-2-34762 (Site Only)
216-Z-1&2	N-39350 W-76550	H-2-16459
216-Z-1-A	N-39023 W-76501 N-39435 W-76815	H-2-16459 - H-2-24923
216-Z-3	N-39435 W-76461	H-2-12292
216-Z-4	N-40875 W-76475	H-2-511
216-Z-5	N-40920 W-76670 N-40985 W-76670	H-2-346
216-Z-6	N-40712 W-76480 N-40753 W-76508	H-2-508
216-Z-7	N-40830 W-75970 N-40970 W-76220	H-2-511
216-Z-9	N-39800 W-75850	H-2-15492
216-Z-12	N-39400 W-77200 N-39480 W-77209	H-2-20987
216-Z-16	N-41113 W-76892 N-41113 W-77072	H-2-26074 - H-2-26075

Site Number	Approximate Coordinates	Reference Drawings
Cribs (Contd.)		
216-Z-17	N-40563 W-76372 N-40563 W-76435	H-2-32682
216-Z-18	N-38670 W-76800 N-38930 W-76960	H-2-26093 - H-2-26094
Ponds, Ditches, Trenches		
216-A-25 Pond*	N-55632 W-51350 N-54763 W-52052 N-50962 W-47349 N-51830 W-46647	H-2-66018 H-2-3325
216-A-29 Ditch	N-40700 W-47065 (head) N-43300 W-44790 (terminus)	H-2-44500
216-B-2-1 East Ditch	N-43642 W-46962 (head) N-43645 W-45760 (terminus)	M-2600-E Sheet 26
216-B-2-1 West Ditch	N-44977 W-51922 (head) N-44169 W-48525 (terminus)	M-2600-E Sheet 27 N-2904-E Sheet 33
216-B-2-2 East Ditch	N-43692 W-46906 (head) N-43250 W-43300 (terminus)	M-2600-E Sheet 26
216-B-2-2 West Ditch	N-44930 W-51990 (head) N-44180 W-48525 (terminus)	H-2-44500 Sheet 5
216-B-2-3 (Current) B-2	N-43656 W-47025 (head) N-43183 W-43347 (terminus)	----
216-B-3 Pond*	N-43967 N-42468 W-44787 W-41745	----
216-B-63 Trench	N-45110 W-51793 (head) N-44635 W-50254 (terminus)	H-2-44500 Sheet 5
216-C-9 Pond*	N-42650 N-42520 W-50740 W-49840	H-2-32523 H-2-4010
216-N-1 Pond*	N-54130 N-53600 W-65475 W-65000	H-2-32524

Site Number	Approximate Coordinates	Reference Drawings
Ponds, Ditches, Trenches (Contd.)		
216-N-4 Pond*	N-54250 N-53400 W-62900 W-62330	H-2-32524
216-N-6 Pond*	N-54275 N-53600 W-60325 W-59800	H-2-32524
216-S-10 Ditch	N-33800 W-75421 (head) N-32325 W-77100 (terminus)	H-2-32525
216-S-11 Pond*	N-32690 N-31750 W-77070 W-76640	H-2-5962 H-2-2430
216-S-16 Pond*	N-31600 W-81140 N-32920 W-82180 N-32920 W-80900 N-31600 W-80900	H-2-30264
216-S-17 Pond*	N-31680 W-77350 N-31180 W-79738 N-31635 W-79738 N-32950 W-78265 N-32950 W-77350	H-2-2594
216-S-19 Pond*	N-32200 N-31840 W-72910 W-72650	H-2-34762
216-T-1 Ditch	N-44455 W-73050 (head) N-44570 W-73050 N-44955 W-73600 (terminus)	H-2-5101 M-2904 Sheet 11
216-T-4 Pond*	N-44000 W-75630 N-46150 W-76970 N-46150 W-77150 N-44000 W-77150	H-2-2430 H-2-578
216-U-9 Ditch	N-35750 W-78050 (head) N-35900 W-77000 (terminus)	H-2-2430
216-U-10 Pond*	N-37200 N-35800 W-78010 W-77000	H-2-2430 SK-2-1888

Site Number	Approximate Coordinates	Reference Drawings
Ponds, Ditches, Trenches, (Contd.)		
216-U-14 Ditch	N-41270 W-74710 (head) N-36845 W-76910 (terminus)	M-2600 Sheet 17
216-Z-11 Ditch	N-39413 W-76002 (head) N-37050 W-76950 (terminus)	M-2904 Sheet 18

*The pond is contained within the area outlined by the coordinates but is of irregular shape.