AUG 5 1996

ENGINEERING DATA TRANSMITTAL

Page 1 of 1

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		10. System/Bldg./Facility: N/A
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16. KEY					
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E, S, Q, D or N/A (see WHC-CM-3-5, Sec. 12.7)		1. Approval 2. Release 3. Information	4. Review 5. Post-Review 6. Dist. (Receipt Acknow. Required)	1. Approved 2. Approved w/comment 3. Disapproved w/comment	4. Reviewed no/comment 5. Reviewed w/comment 6. Receipt acknowledged

(G)	(H)	17. SIGNATURE/DISTRIBUTION (See Approval Designator for required signatures)								(G)	(H)
Reason	Disp.	(J) Name	(K) Signature	(L) Date	(M) MSIN	(J) Name	(K) Signature	(L) Date	(M) MSIN	Reason	Disp.
1	1	Cog. Eng. B. P. Gleckler	<i>B. P. Gleckler</i>	8-5-96	S3-95						
1	1	Cog. Mgr. L. P. Diediker	<i>L. P. Diediker</i>	8-5-96	S3-95						
1	1	QA L. W. Vance	<i>L. W. Vance</i>	8-9-96	6-03						
		Safety									
		Env.									
		<i>Central File (orig + 1) 83-88</i>									

18. Signature of EDT Originator <i>B. P. Gleckler</i> 8/5/96	19. Authorized Representative for Receiving Organization <i>L. P. Diediker</i> 8-5-96	20. Cognizant Manager Date <i>L. P. Diediker</i> 8-5-96	21. DOE APPROVAL (if required) Ctrl. No. ☐ Approved ☐ Approved w/comments ☐ Disapproved w/comments
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Environmental Release Summary (ERS) Database CY 1995 Releases and Supporting Data

B. P. Gleckler

Westinghouse Hanford Co., Richland, WA 99352
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Key Words: ERS, Environmental Release Summary, stack releases, point source emissions, liquid effluents.

Abstract: This document is a hard copy of the CY 1995 airborne and liquid effluent data contained in the Environmental Release Summary (ERS) computer database.

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Chris Millinghand 8-5-96
Release Approval Date

Release Stamp

Approved for Public Release

Environmental Release Summary (ERS) Database CY 1995 Releases and Supporting Data

B. P. Gleckler
Westinghouse Hanford Company

Date Published
May 1996

Prepared for the U.S. Department of Energy
Assistant Secretary for Environmental Management

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Hanford Company**

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ENVIRONMENTAL RELEASE SUMMARY (ERS) DATABASE CY-1995 RELEASES AND SUPPORTING DATA

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1.0 PURPOSE AND SCOPE

The Environmental Release Summary (ERS) database is a "living" database. The database is continually modified to fulfill the current needs of Air & Water Service. Changes made, to accurately calculate current releases, effect how past releases are calculated. This document serves as a "snap-shot" of the database and software for the CY-1995 data and releases.

This document contains all of the relevant data for calculating radioactive airborne and liquid effluent releases from Westinghouse Hanford Company (WHC) and Bechtel Hanford Incorporated (BHI) facilities, for CY-1995. The ERS database is the official repository for all WHC and BHI effluent sample data. This document serves as the repository for the CY-1995 ERS release reports and the settings used to generate those reports.

As part of the Tri-Party Agreement, WHC Air & Water Services has committed to the Washington State Department of Ecology to maintain a hard copy of the ERS database, since Ecology does not have direct access to the computer database. This document also serves as the hard copy, that WHC has committed to have available.

2.0 AIR EFFLUENT RELEASES & DATA

This section contains all of the effluent air release reports and the sample collection and analysis supporting data. Sub-section 2.1 contains the air emission releases calculated for each major operating area. The remaining sub-sections include the sample collection and analysis supporting data (trend reports) and radionuclide airborne releases (release reports) for individual emission points or source terms. No release or trend reports were included for those emission points or source terms which did not operate in CY-1995.

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2.1 Dose Modeling Release Reports

04/09/96

WHC ENVIRONMENTAL RELEASE SUMMARY

14:03

Radionuclides Discharged to the Atmosphere from 100 Areas

** 01/01/95 through 12/31/95 ***

Total System Flow: 3.1E+12 Liters = 1.1E+11 Cubic Ft

Radionuclide	Half-life	Release, Ci
⁶⁰ Co	5.27 Years	9.2E-06
⁹⁰ Sr	29.12 Years	6.1E-05
¹⁰⁶ Ru	368 Days	1.1E-05
¹²⁵ Sb	2.8 Years	2.8E-06
¹³⁴ Cs	2.1 Years	1.3E-06
¹³⁷ Cs	30 Years	2.5E-04
¹⁵⁴ Eu	8.8 Years	8.3E-06
¹⁵⁵ Eu	4.96 Years	1.5E-06
²³⁸ Pu	87.8 Years	2.3E-06
^{239/240} Pu	24,131 Years*	1.5E-05
²⁴¹ Pu	14.4 Years	2.1E-04
²⁴¹ Am	432 Years	5.7E-06

* The half-life shown for Total Uranium is the half-life of ²³⁸U. The half-life shown for mixed ^{239/240}Pu is the half-life of ²³⁹Pu.

** Values for one or more files projected backward to cover report period.

*** Values for one or more files projected forward to cover report period.

ENVIRONMENTAL RELEASE SUMMARY REPORT

08/01/96

13:49

Radionuclides Discharged to the Atmosphere from 200-East Area

01/01/95 through 12/31/95 ***

Total System Flow: 4.9E+12 Liters = 1.7E+11 Cubic Ft

Radionuclide	Halflife	Release, Ci
⁹⁰ Sr	29.12 Years	6.8E-05
¹⁰³ Ru	39 Days	ND
¹⁰⁶ Ru	368 Days	6.7E-06
¹¹³ Sn	115 Days	8.0E-07
¹²⁵ Sb	2.8 Years	9.1E-06
¹²⁹ I	1.57E+7 Years	8.9E-03
¹³¹ I	8.04 Days	ND
¹³⁴ Cs	2.1 Years	2.4E-08
¹³⁷ Cs	30 Years	3.8E-04
¹⁵² Eu	13.3 Years	3.7E-07
¹⁵⁴ Eu	8.8 Years	4.6E-07
¹⁵⁵ Eu	4.96 Years	2.2E-07
²³⁸ Pu	87.8 Years	6.9E-07
^{239/240} Pu	24,131 Years*	7.9E-06
²⁴¹ Pu	14.4 Years	1.2E-04
²⁴¹ Am	432 Years	1.6E-05

⁹⁰Sr values include Total β measurements from emission sources which are not analyzed for Sr.

^{239/240}Pu value includes Total α measurements from emission sources which are not analyzed for Pu.

* The halflife shown for Total Uranium is the half-life of ²³⁸U. The halflife shown for mixed ^{239/240}Pu is the halflife of ²³⁹Pu.

*** Values for one or more files projected forward to cover report period.

ENVIRONMENTAL RELEASE SUMMARY REPORT

08/01/96

13:50

Radionuclides Discharged to the Atmosphere from 200-West Area

** 01/01/95 through 12/31/95 ***

Total System Flow: 8.4E+12 Liters = 3.0E+11 Cubic Ft

Radionuclide	Half-life	Release, Ci
⁹⁰ Sr	29.12 Years	1.0E-04
¹⁰⁶ Ru	368 Days	4.0E-09
¹¹³ Sn	115 Days	2.7E-09
¹²⁵ Sb	2.8 Years	2.4E-08
¹³⁴ Cs	2.1 Years	2.0E-08
¹³⁷ Cs	30 Years	1.9E-05
¹⁵² Eu	13.3 Years	5.6E-08
¹⁵⁴ Eu	8.8 Years	1.4E-07
¹⁵⁵ Eu	4.96 Years	1.2E-07
²³⁸ Pu	87.8 Years	2.6E-06
^{239/240} Pu	24,131 Years*	1.0E-04
²⁴¹ Pu	14.4 Years	2.0E-04
²⁴¹ Am	432 Years	1.7E-05

⁹⁰Sr values include Total β measurements from emission sources which are not analyzed for Sr.

^{239/240}Pu value includes Total α measurements from emission sources which are not analyzed for Pu.

* The half-life shown for Total Uranium is the half-life of ²³⁸U. The half-life shown for mixed ^{239/240}Pu is the half-life of ²³⁹Pu.

** Values for one or more files projected backward to cover report period.

*** Values for one or more files projected forward to cover report period.

WHC ENVIRONMENTAL RELEASE SUMMARY

04/09/96

14:04

Radionuclides Discharged to the Atmosphere from the 300 Area

** 01/01/95 through 12/31/95 **

Total System Flow: 3.4E+11 Liters = 1.2E+10 Cubic Ft

Radionuclide	Halflife	Release, Ci
⁹⁰ Sr	29.12 Years	1.1E-06
¹³¹ I	8.04 Days	ND
¹³⁷ Cs	30 Years	ND
Total U	4.5E+9 Years*	2.2E-08
^{239/240} Pu	24,131 Years*	3.9E-07

⁹⁰Sr values include Total β measurements from emission sources which are not analyzed for Sr.

Total U value includes Total α measurements from emission sources which are not analyzed for U.

^{239/240}Pu value includes Total α measurements from emission sources which are not analyzed for Pu.

* The half-life shown for Total Uranium is the half-life of ²³⁸U. The half-life shown for mixed ^{239/240}Pu is the half-life of ²³⁹Pu.

** Values for one or more files projected backward to cover report period.

*** Values for one or more files projected forward to cover report period.

WHC ENVIRONMENTAL RELEASE SUMMARY

05/08/96

16:15

Radionuclides Discharged to the Atmosphere from the 400 Area

** 01/01/95 through 12/31/95 ***

Total System Flow: 1.1E+12 Liters = 3.9E+10 Cubic Ft

Radionuclide	Halflife	Release, Ci
² H	12.3 Years	2.5E-02
¹³¹ I	8.04 Days	ND
¹³⁷ Cs	30 Years	5.9E-06
^{239/240} Pu	24,131 Years*	1.7E-06

¹³⁷Cs values include Total β measurements from emission sources which are not analyzed for Cs.

^{239/240}Pu value includes Total α measurements from emission sources which are not analyzed for Pu.

* The half-life shown for Total Uranium is the half-life of ²³⁸U. The half-life shown for mixed ^{239/240}Pu is the half-life of ²³⁹Pu.

** Values for one or more files projected backward to cover report period.

*** Values for one or more files projected forward to cover report period.

2.2 100-K Area

WHC ENVIRONMENTAL RELEASE SUMMARY

04/10/96

17:13

105-KE BASIN ROOF VENTS (Y245-Y248)

01/01/95 through 12/31/95

Total System Flow: 5.3E+11 Liters = 1.9E+10 Cubic Ft

Radionuclide	Halflife	Release, Ci
⁶⁰ Co	5.27 Years	1.9E-06
⁹⁰ Sr	29.12 Years	5.9E-05
¹⁰⁶ Ru	368 Days	1.1E-05
¹²⁵ Sb	2.8 Years	2.5E-06
¹³⁴ Cs	2.1 Years	4.6E-07
¹³⁷ Cs	30 Years	2.4E-04
¹⁵⁴ Eu	8.8 Years	5.8E-06
¹⁵⁵ Eu	4.96 Years	1.2E-06
²³⁸ Pu	87.8 Years	2.3E-06
^{239/240} Pu	24,131 Years*	1.5E-05
²⁴¹ Pu	14.4 Years	2.1E-04
²⁴¹ Am	432 Years	5.6E-06
Total α	n/a	2.7E-05
Total β	n/a	3.0E-04

* The half-life shown for Total Uranium is the half-life of ²³⁸U. The half-life shown for mixed ^{239/240}Pu is the half-life of ²³⁹Pu.

100 K-5F AT LUN MAY EAST (R011) (Q241)

01/01/95 to 12/31/96

04/10/96 10:21

Warning Levels:

06/01/97 Date	1.0E-08 Co-60 µCi/ml	3.0E-09 Ru-106 µCi/ml	5E-125 Sr-125 µCi/ml	1.0E-09 Cs-134 µCi/ml	2.0E-09 Cs-137 µCi/ml	Eu-154 µCi/ml	Eu-155 µCi/ml	2.0E-14 Total g	1.0E-10 Total B
12/23/96-01/06/96	<3.3E-15	2.3E-14	<8.0E-16	<2.4E-15	9.5E-14 ± 21E	2.5E-14 ± 61E	2.7E-16	3.0E-14 ± 13E	2.3E-13 ± 10E
01/07/96-01/20/96	<3.3E-15	7.6E-14	7.2E-15	5.5E-15 ± 61E	5.5E-14 ± 21E	<9.0E-15	<5.4E-16	5.4E-14 ± 12E	5.4E-13 ± 9.0E
01/20/96-01/27/96	<3.3E-15	7.6E-14	<2.0E-15	<3.0E-15	8.6E-14 ± 19E	<9.0E-15	<5.4E-16	* 2.9E-14 ± 15E	3.1E-13 ± 9.3E
02/01/96-02/10/96	<3.3E-15	4.3E-14 ± 61E	7.6E-15	7.6E-15	8.6E-14 ± 19E	2.1E-14	2.8E-16	* 2.9E-14 ± 15E	3.1E-13 ± 9.3E
02/10/96-02/17/96	<3.3E-15	4.3E-14 ± 61E	7.6E-15	7.6E-15	1.7E-13 ± 16E	2.1E-14	2.8E-16	1.7E-14 ± 14E	2.8E-13 ± 9.4E
02/17/96-02/24/96	<3.3E-15	4.3E-14 ± 61E	7.6E-15	7.6E-15	2.4E-14 ± 22E	2.1E-14	2.8E-16	* 2.9E-14 ± 15E	3.1E-13 ± 9.3E
02/24/96-03/03/96	<3.3E-15	4.3E-14 ± 61E	7.6E-15	7.6E-15	1.9E-13 ± 16E	2.1E-14	2.8E-16	* 2.9E-14 ± 15E	3.1E-13 ± 9.3E
03/03/96-03/10/96	<3.3E-15	4.3E-14 ± 61E	7.6E-15	7.6E-15	1.9E-13 ± 16E	2.1E-14	2.8E-16	* 2.9E-14 ± 15E	3.1E-13 ± 9.3E
03/10/96-03/17/96	<3.3E-15	4.3E-14 ± 61E	7.6E-15	7.6E-15	1.9E-13 ± 16E	2.1E-14	2.8E-16	* 2.9E-14 ± 15E	3.1E-13 ± 9.3E
03/17/96-03/24/96	<3.3E-15	4.3E-14 ± 61E	7.6E-15	7.6E-15	1.9E-13 ± 16E	2.1E-14	2.8E-16	* 2.9E-14 ± 15E	3.1E-13 ± 9.3E
03/24/96-03/31/96	<3.3E-15	4.3E-14 ± 61E	7.6E-15	7.6E-15	1.9E-13 ± 16E	2.1E-14	2.8E-16	* 2.9E-14 ± 15E	3.1E-13 ± 9.3E
04/01/96-04/08/96	<3.3E-15	4.3E-14 ± 61E	7.6E-15	7.6E-15	1.9E-13 ± 16E	2.1E-14	2.8E-16	* 2.9E-14 ± 15E	3.1E-13 ± 9.3E
04/08/96-04/15/96	<3.3E-15	4.3E-14 ± 61E	7.6E-15	7.6E-15	1.9E-13 ± 16E	2.1E-14	2.8E-16	* 2.9E-14 ± 15E	3.1E-13 ± 9.3E
04/15/96-04/21/96	<3.3E-15	4.3E-14 ± 61E	7.6E-15	7.6E-15	1.9E-13 ± 16E	2.1E-14	2.8E-16	* 2.9E-14 ± 15E	3.1E-13 ± 9.3E
04/21/96-05/06/96	<3.3E-15	4.3E-14 ± 61E	7.6E-15	7.6E-15	1.9E-13 ± 16E	2.1E-14	2.8E-16	* 2.9E-14 ± 15E	3.1E-13 ± 9.3E
05/06/96-05/12/96	<3.3E-15	4.3E-14 ± 61E	7.6E-15	7.6E-15	1.9E-13 ± 16E	2.1E-14	2.8E-16	* 2.9E-14 ± 15E	3.1E-13 ± 9.3E
05/12/96-05/19/96	<3.3E-15	4.3E-14 ± 61E	7.6E-15	7.6E-15	1.9E-13 ± 16E	2.1E-14	2.8E-16	* 2.9E-14 ± 15E	3.1E-13 ± 9.3E
05/19/96-05/26/96	<3.3E-15	4.3E-14 ± 61E	7.6E-15	7.6E-15	1.9E-13 ± 16E	2.1E-14	2.8E-16	* 2.9E-14 ± 15E	3.1E-13 ± 9.3E
05/26/96-06/02/96	<3.3E-15	4.3E-14 ± 61E	7.6E-15	7.6E-15	1.9E-13 ± 16E	2.1E-14	2.8E-16	* 2.9E-14 ± 15E	3.1E-13 ± 9.3E
06/02/96-06/09/96	<3.3E-15	4.3E-14 ± 61E	7.6E-15	7.6E-15	1.9E-13 ± 16E	2.1E-14	2.8E-16	* 2.9E-14 ± 15E	3.1E-13 ± 9.3E
06/09/96-06/16/96	<3.3E-15	4.3E-14 ± 61E	7.6E-15	7.6E-15	1.9E-13 ± 16E	2.1E-14	2.8E-16	* 2.9E-14 ± 15E	3.1E-13 ± 9.3E
06/16/96-06/23/96	<3.3E-15	4.3E-14 ± 61E	7.6E-15	7.6E-15	1.9E-13 ± 16E	2.1E-14	2.8E-16	* 2.9E-14 ± 15E	3.1E-13 ± 9.3E
06/23/96-06/30/96	<3.3E-15	4.3E-14 ± 61E	7.6E-15	7.6E-15	1.9E-13 ± 16E	2.1E-14	2.8E-16	* 2.9E-14 ± 15E	3.1E-13 ± 9.3E
06/30/96-07/07/96	<3.3E-15	4.3E-14 ± 61E	7.6E-15	7.6E-15	1.9E-13 ± 16E	2.1E-14	2.8E-16	* 2.9E-14 ± 15E	3.1E-13 ± 9.3E
07/07/96-07/14/96	<3.3E-15	4.3E-14 ± 61E	7.6E-15	7.6E-15	1.9E-13 ± 16E	2.1E-14	2.8E-16	* 2.9E-14 ± 15E	3.1E-13 ± 9.3E
07/14/96-07/21/96	<3.3E-15	4.3E-14 ± 61E	7.6E-15	7.6E-15	1.9E-13 ± 16E	2.1E-14	2.8E-16	* 2.9E-14 ± 15E	3.1E-13 ± 9.3E
07/21/96-07/28/96	<3.3E-15	4.3E-14 ± 61E	7.6E-15	7.6E-15	1.9E-13 ± 16E	2.1E-14	2.8E-16	* 2.9E-14 ± 15E	3.1E-13 ± 9.3E
07/28/96-08/04/96	<3.3E-15	4.3E-14 ± 61E	7.6E-15	7.6E-15	1.9E-13 ± 16E	2.1E-14	2.8E-16	* 2.9E-14 ± 15E	3.1E-13 ± 9.3E
08/04/96-08/11/96	<3.3E-15	4.3E-14 ± 61E	7.6E-15	7.6E-15	1.9E-13 ± 16E	2.1E-14	2.8E-16	* 2.9E-14 ± 15E	3.1E-13 ± 9.3E
08/11/96-08/18/96	<3.3E-15	4.3E-14 ± 61E	7.6E-15	7.6E-15	1.9E-13 ± 16E	2.1E-14	2.8E-16	* 2.9E-14 ± 15E	3.1E-13 ± 9.3E
08/18/96-08/25/96	<3.3E-15	4.3E-14 ± 61E	7.6E-15	7.6E-15	1.9E-13 ± 16E	2.1E-14	2.8E-16	* 2.9E-14 ± 15E	3.1E-13 ± 9.3E
08/25/96-09/01/96	<3.3E-15	4.3E-14 ± 61E	7.6E-15	7.6E-15	1.9E-13 ± 16E	2.1E-14	2.8E-16	* 2.9E-14 ± 15E	3.1E-13 ± 9.3E
09/01/96-09/08/96	<3.3E-15	4.3E-14 ± 61E	7.6E-15	7.6E-15	1.9E-13 ± 16E	2.1E-14	2.8E-16	* 2.9E-14 ± 15E	3.1E-13 ± 9.3E
09/08/96-09/15/96	<3.3E-15	4.3E-14 ± 61E	7.6E-15	7.6E-15	1.9E-13 ± 16E	2.1E-14	2.8E-16	* 2.9E-14 ± 15E	3.1E-13 ± 9.3E
09/15/96-09/22/96	<3.3E-15	4.3E-14 ± 61E	7.6E-15	7.6E-15	1.9E-13 ± 16E	2.1E-14	2.8E-16	* 2.9E-14 ± 15E	3.1E-13 ± 9.3E
09/22/96-09/29/96	<3.3E-15	4.3E-14 ± 61E	7.6E-15	7.6E-15	1.9E-13 ± 16E	2.1E-14	2.8E-16	* 2.9E-14 ± 15E	3.1E-13 ± 9.3E
11/11/96-11/22/96	<3.3E-15	4.3E-14 ± 61E	7.6E-15	7.6E-15	1.9E-13 ± 16E	2.1E-14	2.8E-16	* 2.9E-14 ± 15E	3.1E-13 ± 9.3E
11/22/96-12/06/96	<3.3E-15	4.3E-14 ± 61E	7.6E-15	7.6E-15	1.9E-13 ± 16E	2.1E-14	2.8E-16	* 2.9E-14 ± 15E	3.1E-13 ± 9.3E
12/06/96-12/13/96	<3.3E-15	4.3E-14 ± 61E	7.6E-15	7.6E-15	1.9E-13 ± 16E	2.1E-14	2.8E-16	* 2.9E-14 ± 15E	3.1E-13 ± 9.3E
12/13/96-12/20/96	<3.3E-15	4.3E-14 ± 61E	7.6E-15	7.6E-15	1.9E-13 ± 16E	2.1E-14	2.8E-16	* 2.9E-14 ± 15E	3.1E-13 ± 9.3E
12/20/96-12/27/96	<3.3E-15	4.3E-14 ± 61E	7.6E-15	7.6E-15	1.9E-13 ± 16E	2.1E-14	2.8E-16	* 2.9E-14 ± 15E	3.1E-13 ± 9.3E
12/27/96-01/03/96	<3.3E-15	4.3E-14 ± 61E	7.6E-15	7.6E-15	1.9E-13 ± 16E	2.1E-14	2.8E-16	* 2.9E-14 ± 15E	3.1E-13 ± 9.3E

** Stack Flowplate of previous Sample.

† Reported MUA is negative.

† MUA exceeds Warning Level

SNMRL DET. * Concentration exceeds Warning Level

04/10/96 10:21

Warning Levels: Collect Time Sample

On/Off Dates	FlowRate Hours	Sample FlowRate CFM	Sample Volume ft3	Stack FlowRate CFM
12/30/94-01/06/95	168.9	2.0	20000	14000**
01/06/95-01/13/95	167.6	2.0	20000	14000**
01/13/95-01/20/95	168.2	2.0	20000	14000**
01/20/95-01/27/95	168.0	2.0	20000	14000**
01/27/95-02/03/95	167.7	2.0	20000	14000**
02/03/95-02/10/95	167.8	2.0	20000	14000**
02/10/95-02/17/95	168.2	2.0	20000	14000**
02/17/95-02/24/95	169.2	2.0	20000	14000**
02/24/95-03/03/95	168.7	2.0	20000	14000**
03/03/95-03/10/95	166.8	2.0	20000	14000**
03/10/95-03/17/95	167.7	2.0	20000	14000**
03/17/95-03/24/95	167.8	2.0	20000	14000**
03/24/95-03/31/95	168.3	2.0	20000	14000**
03/31/95-04/07/95	167.1	2.0	20000	14000**
04/07/95-04/14/95	168.9	2.0	20000	14000**
04/14/95-04/21/95	167.8	2.0	20000	14000**
04/21/95-04/28/95	167.9	2.0	20000	14000**
04/28/95-05/05/95	168.2	2.0	20000	14000**
05/05/95-05/12/95	168.1	2.0	20000	14000**
05/12/95-05/19/95	169.1	2.0	20000	14000**
05/19/95-05/26/95	166.2	2.0	20000	14000**
05/26/95-06/02/95	168.5	2.0	20000	14000**
06/02/95-06/09/95	168.9	2.0	20000	14000**
06/09/95-06/16/95	166.6	2.0	20000	14000**
06/16/95-06/23/95	168.0	2.0	20000	14000**
06/23/95-06/30/95	167.9	2.0	20000	14000**
06/30/95-07/07/95	168.2	2.0	20000	14000**
07/07/95-07/14/95	168.3	2.0	20000	14000**
07/14/95-07/21/95	167.9	2.0	20000	14000**
07/21/95-07/28/95	168.8	2.0	20000	14000**
07/28/95-08/04/95	167.3	2.0	20000	14000**
08/04/95-08/11/95	167.8	2.0	20000	14000**
08/11/95-08/18/95	168.0	2.0	20000	14000**
08/18/95-08/25/95	168.3	2.0	20000	14000**
08/25/95-09/01/95	167.7	2.0	20000	14000**
09/01/95-09/08/95	169.3	2.0	20000	14000**
09/08/95-09/15/95	167.5	2.0	20000	14000**
09/15/95-09/20/95	127.7	2.0	15000	14000**
09/20/95-11/17/95	0.0	0.0	0	0
11/17/95-11/22/95	119.0	2.0	14000	14000
11/22/95-11/29/95	167.3	2.0	20000	14000
11/29/95-12/06/95	167.5	2.0	20000	14000**
12/06/95-12/13/95	168.4	2.0	20000	14000**
12/13/95-12/20/95	169.0	2.0	20000	14000**
12/20/95-12/27/95	167.0	2.0	20000	14000**
12/27/95-01/03/96	169.2	2.0	20000	14000**

SYMBOL KEY: * Concentration exceeds Warning Level

*S MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack FlowRate of previous Sample.

100 x SE: μ E (LOW BAY WLS) (801B) (126s)									
01/01/96 to 12/31/96									
Page 1									
Warning Levels:									
On Off Dates	1.0E 08 Co-60 Total	3.0E 09 Ru-106 Total	5.0E 10 Sr-90 Total	1.0E 09 Cs-134 Total	2.0E 09 Cs-137 Total	Eu-154 Total	Eu-155 Total	2.0E 14 Total g Total g	1.0E 10 Total g Total g
17/01/96-01/06/96	75.7E-15	23.4E-14	23.4E-15	75.3E-15	4.4E-14 + 2.0E-14	2.0E-14 + 8.2E-15	4.1E-15	3.0E-14 + 1.4E-14	2.8E-13 + 1.0E-13
01/07/96-01/20/96	11.1E-14	4.1E-14	13.2E-15	13.2E-15	6.9E-14 + 3.0E-14	2.0E-14 + 8.2E-15	4.1E-15	4.1E-14 + 1.4E-14	2.8E-13 + 9.9E-14
01/20/96-01/27/96									
01/27/96-02/03/96									
02/03/96-02/10/96	4.0E-15			74.5E-16	2.2E-14 + 1.8E-14	3.4E-16	7.1E-16	4.3E-15 + 1.5E-15	8.2E-14 + 4.4E-14
02/10/96-02/17/96	2.4E-15 + 7.6E-15			75.6E-16	2.2E-14 + 1.8E-14	2.4E-16	4.3E-16	3.0E-14 + 1.3E-14	6.0E-13 + 9.8E-13
02/17/96-03/03/96	2.4E-15 + 7.6E-15			75.6E-16	2.2E-14 + 1.8E-14	2.4E-16	4.3E-16	3.0E-14 + 1.3E-14	6.0E-13 + 9.8E-13
03/03/96-03/10/96	6.4E-15 + 7.6E-15			75.6E-16	4.5E-14 + 1.3E-14	4.1E-14	1.2E-14 + 8.9E-15	1.3E-13 + 1.2E-13	1.2E-12 + 5.5E-12
03/10/96-03/17/96	7.2E-15			75.6E-16	3.0E-13 + 1.4E-13	4.3E-14 + 6.2E-15	4.3E-15	7.1E-13 + 9.9E-13	9.0E-13 + 9.9E-13
03/17/96-03/24/96	7.2E-15			75.6E-16	3.0E-13 + 1.4E-13	4.3E-14 + 6.2E-15	4.3E-15	7.1E-13 + 9.9E-13	9.0E-13 + 9.9E-13
03/24/96-03/29/96									
03/29/96-04/05/96									
04/05/96-04/12/96									
04/12/96-06/16/96									
06/16/96-06/23/96									
06/23/96-07/07/96									
07/07/96-07/14/96									
07/14/96-07/20/96									
07/20/96-07/28/96									
07/28/96-08/04/96									
08/04/96-08/11/96									
08/11/96-08/18/96									
08/18/96-08/25/96									
08/25/96-09/01/96									
09/01/96-12/15/96									
12/15/96-12/20/96									
12/20/96-01/03/96									

SYMBOL KEY: * Concentration exceeds Warning Level. * S-MEA exceeds Warning Level.

? Reported MHA is negative.

** Stack Flowrate of previous Sample.

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01/01/95 to 12/31/95

100.4.5E. NE (W BA W-1) (PVID) (Y246)

04/10/96 10:21									
Warning Levels:									
Onset Dates:		Collect Time:		Sample Volume:		Stack FlowRate:		Stack FlowRate:	
				LPM		LPM		LPM	
-----		-----		-----		-----		-----	
12/30/94	01/05/95	168.9	1.4	14000	8200**	14000	8200**	14000	8200**
01/13/95	01/20/95	168.9	1.4	14000	8200**	14000	8200**	14000	8200**
01/20/95	01/27/95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
01/27/95	02/03/95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
02/03/95	02/10/95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
02/10/95	02/17/95	166.5	1.4	14000	8200**	14000	8200**	14000	8200**
02/17/95	03/06/95	168.7	1.4	14000	8200**	14000	8200**	14000	8200**
03/06/95	03/13/95	166.8	1.4	14000	8200**	14000	8200**	14000	8200**
03/13/95	03/20/95	167.9	1.4	14000	8200**	14000	8200**	14000	8200**
03/20/95	03/27/95	167.9	1.4	14000	8200**	14000	8200**	14000	8200**
03/27/95	04/03/95	167.6	1.4	11000	8200**	11000	8200**	11000	8200**
04/03/95	04/10/95	93.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
04/10/95	04/16/95	168.0	2.0	20000	8200**	20000	8200**	20000	8200**
04/16/95	04/23/95	168.3	2.0	20000	8200**	20000	8200**	20000	8200**
04/23/95	05/01/95	167.7	2.0	20000	8200**	20000	8200**	20000	8200**
05/01/95	05/07/95	168.3	2.0	20000	8200**	20000	8200**	20000	8200**
05/07/95	05/14/95	168.3	2.0	20000	8200**	20000	8200**	20000	8200**
05/14/95	05/21/95	168.8	2.0	20000	8200**	20000	8200**	20000	8200**
05/21/95	05/28/95	168.8	2.0	20000	8200**	20000	8200**	20000	8200**
05/28/95	06/04/95	167.3	2.0	20000	8200**	20000	8200**	20000	8200**
06/04/95	06/11/95	168.0	2.0	20000	8200**	20000	8200**	20000	8200**
06/11/95	06/18/95	168.3	2.0	20000	8200**	20000	8200**	20000	8200**
06/18/95	06/25/95	168.3	2.0	20000	8200**	20000	8200**	20000	8200**
06/25/95	07/02/95	168.0	2.0	17000	8200**	17000	8200**	17000	8200**
07/02/95	07/09/95	168.0	2.0	16000	8200**	16000	8200**	16000	8200**
07/09/95	07/16/95	120.9	2.0	0.0	0.0	0.0	0.0	0.0	0.0
07/16/95	07/23/95	168.9	2.0	20000	8200**	20000	8200**	20000	8200**
07/23/95	07/30/95	168.9	2.0	20000	8200**	20000	8200**	20000	8200**

SYMBOL KEY: * Concentration exceeds Warning Level.

** N/A exceeds Warning Level.

? Reported HA is negative.

** Stack FlowRate of previous Sample.

100-A-5E: NE LOW BAY WEST (ENV10) (246)										
01/01/96 to 12/31/96										
Warning Levels:										
On/Off Dates:										
1.0E-08 Co-60 µCi/ml	3.0E-11 Pu-239 µCi/ml	3.0E-09 Pu-238 µCi/ml	5.0E-10 Cs-137 µCi/ml	1.0E-09 Co-60 µCi/ml	2.0E-09 Cs-137 µCi/ml	Eu-154 µCi/ml	Eu-155 µCi/ml	7.0E-14 Pu-238 µCi/ml	Page 1	
3.5E-14 ± 221				27.0E-15	3.2E-13 ± 164	<1.4E-14		1.6E-15 ± 131	1.6E-15 ± 121	
9.0E-14 ± 201				75.0E-16	1.3E-13 ± 141	<1.4E-15		1.5E-14 ± 9.51	1.6E-15 ± 131	
1.8E-13 ± 211				<1.4E-16	2.1E-13 ± 121	1.2E-14 ± 5.11		2.5E-14 ± 101	1.6E-15 ± 131	
4.3E-14 ± 201				<2.0E-15	1.6E-13 ± 171	<1.4E-15		1.3E-15 ± 111	1.6E-15 ± 131	
4.4E-14 ± 201				<8.0E-16	1.1E-13 ± 121	3.1E-15 ± 901		1.4E-15 ± 101	1.6E-15 ± 131	
4.7E-14 ± 251								2.3E-15 ± 101	1.6E-15 ± 131	
12/27/95-01/31/96	74.6E-16							2.0E-15 ± 111	1.6E-15 ± 131	
** Stack FloodRate of previous Sample.										
** NDA exceeds Warning Level.										
** NDA exceeds Warning Level.										

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04/10/96 10:21

Warning Levels:

On/Off Dates:

6.0E-14

Pu-239/40

µCi/ml

Am-241

µCi/ml

Collect Sample

Hours

Sample

FlowRate

CFM

Stack

FloodRate

CFM

Stack

FloodRate

CFM

100-A-5E: NE LOW BAY WEST (ENV10) (246)

01/03/96-02/13/96

1.1E-14 ± 9.61

1.2E-13 ± 131

1.4E-14 ± 111

0.0

0.0

0.0

0.0

0.0

02/10/96-03/03/96

1.0E-14 ± 101

1.3E-14 ± 121

1.3E-14 ± 121

504.3

0.0

0.0

0.0

0.0

0.0

03/03/96-03/24/96

1.6E-13 ± 9.61

2.3E-12 ± 121

3.4E-14 ± 121

127.6

1.4

42000

8200

0.0

0.0

0.0

0.0

0.0

03/24/96-06/12/96

1.6E-13 ± 9.61

2.3E-12 ± 121

3.4E-14 ± 121

127.6

1.4

11000

8200

0.0

0.0

0.0

0.0

0.0

06/12/96-07/30/96

8.6E-15 ± 9.41

1.1E-13 ± 121

4.5E-15 ± 111

672.7

2.0

81000

8200

0.0

0.0

0.0

0.0

0.0

07/30/96-08/31/96

6.5E-15 ± 9.51

9.1E-14 ± 121

4.1E-15 ± 111

815.4

2.0

98000

8200

0.0

0.0

0.0

0.0

0.0

08/31/96-12/15/96

1.1E-14 ± 9.61

1.4E-13 ± 121

9.3E-15 ± 131

815.4

2.0

298.2

35000

8200

0.0

0.0

0.0

0.0

0.0

12/15/96-01/31/96

1.7E-14 ± 9.21

2.4E-13 ± 121

7.0E-15 ± 111

298.2

2.0

100000

8200

0.0

0.0

0.0

0.0

0.0

01/31/96-02/13/96

1.3E-14 ± 9.61

8.4E-15 ± 111

840.8

2.0

04/10/96 10:21

Warning Levels:

100 K-54: KE NORTH MEZZANINE (PW?) (Y247)

01/01/96 to 12/31/96

Page 1

OnOff Dates	1.0E-09 Co-60 (dpm)	3.0E-09 Pu-239 (dpm)	5E-09 Sr-90 (dpm)	1.0E-09 Cs-137 (dpm)	2.0E-09 Co-60 (dpm)	Ex.154 (dpm)	Ex.155 (dpm)	2.0E-14 Total g	1.0E-10 Total g
01/06/96-01/13/96	< 3E-15	7.4E-14 ± 924	< 3E-15	7.4E-15	3.7E-14 ± 584	25.7E-15	< 2E-16	* 2.1E-14 ± 154	1.6E-13 ± 104
01/13/96-01/20/96	< 3E-15	7.4E-14	< 3E-15	7.4E-15	3.7E-14 ± 214	< 1.0E-14	< 5E-16	* 2.1E-14 ± 174	1.6E-13 ± 114
01/20/96-02/03/96	< 3E-15	7.4E-14	< 3E-15	7.4E-15	4.7E-14 ± 264	7.7E-15	< 5E-16	* 1.7E-14 ± 174	2.0E-13 ± 944
02/03/96-02/10/96	< 3E-15	7.4E-14	< 3E-15	7.4E-15	4.7E-14 ± 234	5.6E-15	21.7E-15	8.8E-15 ± 194	1.5E-13 ± 114
02/10/96-02/17/96	5.2E-15 ± 504	7.4E-14	7.4E-15	7.4E-15	6.6E-14 ± 224	22.6E-15	< 3E-16	8.3E-15 ± 194	1.6E-13 ± 104
02/17/96-03/03/96	7.5E-16	7.4E-14	7.4E-15	7.4E-15	9.0E-14 ± 214	< 1.7E-14	22.6E-15	1.6E-14 ± 184	2.0E-13 ± 84
03/03/96-03/10/96	< 3E-15	7.4E-14 ± 764	7.4E-15	7.4E-15	8.0E-14 ± 194	2.1E-14 ± 764	2.7E-15	* 2.7E-14 ± 164	2.0E-13 ± 104
03/10/96-03/17/96	< 3E-15	7.4E-14	7.4E-15	7.4E-15	1.3E-13 ± 204	< 1.3E-14	< 4E-16	* 6.8E-14 ± 124	3.5E-13 ± 104
03/17/96-03/24/96	7.1E-15 ± 764	7.4E-14	7.4E-15	7.4E-15	1.8E-13 ± 164	< 4.1E-15	22.4E-15	* 1.5E-13 ± 124	5.7E-13 ± 74
04/07/96-04/14/96								* 1.7E-13 ± 124	6.5E-13 ± 54
04/14/96-04/21/96								* 4.3E-14 ± 124	4.2E-13 ± 84
04/21/96-04/28/96								* 1.9E-13 ± 144	1.0E-12 ± 104
05/05/96-05/12/96								* 1.1E-13 ± 134	5.3E-13 ± 84
05/12/96-05/19/96								* 1.6E-14 ± 164	2.8E-13 ± 54
05/19/96-05/26/96								8.2E-15 ± 194	1.8E-13 ± 104
05/26/96-06/02/96								1.1E-14 ± 194	2.1E-13 ± 104
06/02/96-06/09/96								1.1E-14 ± 194	2.1E-13 ± 104
06/09/96-06/16/96								* 3.0E-14 ± 144	2.6E-13 ± 94
06/16/96-06/23/96								1.3E-14 ± 164	2.0E-13 ± 114
06/23/96-07/07/96								* 4.9E-14 ± 154	1.5E-11 ± 64
07/07/96-07/14/96								4.6E-15 ± 224	1.7E-13 ± 104
07/14/96-07/28/96								* 1.8E-14 ± 154	5.6E-13 ± 104
07/28/96-08/04/96									
08/04/96-12/31/96									

** Stack FlowRate of previous Sample.

* Reported MRA is negative

*S MRA exceeds Warning Level.

SYMOL KEY: * Concentration exceeds Warning Level.

04/10/96 10:21

TOD-K SE: KE NORTH MEZZANINE (RV7) (Y247)

01/01/95 to 12/31/95

Page 2

Warning Levels:	Collect Time	Sample FlowRate	Sample Volume	Stack FlowRate
On/Off Dates	Hours	CFM	ft ³	CFM
12/30/94-01/06/95	168.9	1.6	16000	9300**
01/06/95-01/13/95	167.7	1.6	16000	9300**
01/13/95-01/20/95	168.1	1.6	16000	9300**
01/20/95-01/27/95	168.0	1.6	16000	9300**
01/27/95-02/03/95	167.6	1.6	16000	9300**
02/03/95-02/10/95	168.0	1.6	16000	9300**
02/10/95-02/17/95	168.1	1.6	16000	9300**
02/17/95-02/24/95	169.1	1.6	16000	9300**
02/24/95-03/03/95	168.7	1.6	16000	9300**
03/03/95-03/10/95	166.8	1.6	16000	9300**
03/10/95-03/17/95	167.8	1.6	16000	9300**
03/17/95-03/24/95	167.8	1.6	16000	9300**
03/24/95-03/31/95	168.1	1.6	16000	9300**
03/31/95-04/07/95	167.3	2.0	20000	9300**
04/07/95-04/14/95	168.7	2.0	20000	9300**
04/14/95-04/21/95	167.8	2.0	20000	9300**
04/21/95-04/28/95	167.9	2.0	20000	9300**
04/28/95-05/05/95	168.5	2.0	20000	9300**
05/05/95-05/12/95	167.8	2.0	20000	9300**
05/12/95-05/19/95	169.1	2.0	20000	9300**
05/19/95-05/26/95	168.1	2.0	20000	9300**
05/26/95-06/02/95	168.6	2.0	20000	9300**
06/02/95-06/09/95	168.6	2.0	20000	9300**
06/09/95-06/16/95	168.9	2.0	20000	9300**
06/16/95-06/23/95	168.0	2.0	20000	9300**
06/23/95-06/30/95	168.4	2.0	20000	9300**
06/30/95-07/07/95	167.7	2.0	20000	9300**
07/07/95-07/14/95	168.3	2.0	20000	9300**
07/14/95-07/21/95	167.9	2.0	20000	9300**
07/21/95-07/28/95	168.8	2.0	20000	9300**
07/28/95-08/04/95	175.1	2.0	21000	9300**
08/04/95-12/31/95	0.0	0.0	0	0

SYMBOL KEY: * Concentration exceeds Warning Level.

** MDA exceeds Warning Level.

: Reported MDA is negative.

** Stack flowRate of previous Sample.

04/10/96 10:21

100-K-5E: KE NORTH MEZZANINE (R47) (x247)

01/01/95 to 12/31/95

Page 1

Warning Levels:	1.0E-08 Co-60 µCi/ml	3.0E-11 Sr-90 µCi/ml	3.0E-09 Pu-105 µCi/ml	5E-125 µCi/ml	1.0E-09 Cs-134 µCi/ml	2.0E-09 Cs-137 µCi/ml	Eu-154 µCi/ml	Eu-155 µCi/ml	7.0E-14 Pu-238 µCi/ml
On/Off Dates									
12/30/94-01/27/95		2.8E-14 ± 21%							7.0E-16 ± 12%
01/27/95-03/03/95		3.1E-14 ± 23%							4.2E-16 ± 20%
03/03/95-03/31/95		6.7E-14 ± 20%							7.0E-15 ± 9.8%
03/31/95-04/28/95	3.5E-15 ± 64%	1.2E-13 ± 24%			31.7E-15	2.9E-13 ± 11%	9.3E-15 ± 64%	<9.6E-16	1.8E-14 ± 9.6%
04/28/95-05/26/95	<1.6E-15	1.2E-13 ± 21%			27.1E-16	2.7E-13 ± 11%	<3.9E-15	5.0E-15 ± 97%	7.5E-15 ± 9.6%
05/26/95-06/30/95	<8.8E-16	4.7E-14 ± 19%			21.6E-16	1.3E-13 ± 12%	7.5E-15 ± 64%	<6.5E-16	1.0E-15 ± 11%
06/30/95-07/28/95	28.6E-16	7.5E-13 ± 19%			<1.6E-15	3.3E-12 ± 10%	29.3E-16	22.0E-15	1.0E-15 ± 11%
07/28/95-08/04/95	<2.0E-15	1.5E-13 ± 19%			<4.5E-15	2.1E-13 ± 15%	13.6E-14	28.5E-15	1.8E-15 ± 14%
08/04/95-12/31/96									

SYMBOL KEY: * Concentration exceeds Warning Level.

*S MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack FlowRate of previous Sample.

04/10/96 10:21

100-K-5E: KE NORTH MEZZANINE (R47) (x247)

01/01/95 to 12/31/95

Page 2

Warning Levels:	6.0E-14 Pu239/40 µCi/ml	Pu-241 µCi/ml	Am-241 µCi/ml	Collect Time Hours	Sample FlowRate CFM	Sample Volume FL3	Stack FlowRate CFM
On/Off Dates							
12/30/94-01/27/95	4.5E-15 ± 9.7%		5.3E-15 ± 11%	672.7	1.6	45000	9300
01/27/95-03/03/95	3.1E-15 ± 12%	4.0E-14 ± 16%	4.1E-15 ± 12%	841.5	1.6	45000	9300
03/03/95-03/31/95	4.6E-14 ± 9.4%		1.4E-14 ± 12%	670.5	1.6	44000	9300
03/31/95-04/28/95	1.2E-13 ± 9.5%	1.7E-12 ± 12%	2.1E-14 ± 12%	671.7	2.0	51000	9300
04/28/95-05/26/95	5.0E-14 ± 9.4%	5.8E-13 ± 11%	1.8E-14 ± 10%	671.5	2.0	51000	9300
05/26/95-06/30/95	6.8E-15 ± 9.3%	9.5E-14 ± 12%	5.0E-15 ± 11%	840.5	2.0	100000	9300
06/30/95-07/28/95	6.1E-15 ± 9.4%	6.9E-14 ± 12%	1.0E-14 ± 11%	672.7	2.0	51000	9300
07/28/95-08/04/95	1.0E-14 ± 10%	1.4E-13 ± 13%	5.8E-15 ± 14%	175.1	2.0	21000	2400
08/04/95-12/31/96			0.0	0.0	0	0	0

SYMBOL KEY: * Concentration exceeds Warning Level.

*S MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack FlowRate of previous Sample.

04/10/96 10 21

100 K 5C: KE South Mezzanine (RV 6) (Y246)

01/01/95 to 12/31/95

Page 1

Warning Levels:	1.0E-08 Co-60 µCi/ml	3.0E-09 Ru-106 µCi/ml	5.0E-10 Sb-125 µCi/ml	1.0E-09 Cs-134 µCi/ml	2.0E-09 Cs-137 µCi/ml	Eu-154 µCi/ml	Eu-155 µCi/ml	2.0E-14 Total α µCi/ml	1.0E-10 Total β µCi/ml
On/Off Dates									
12/30/94-01/06/95	<3.1E-15	21.6E-14	<3.1E-15	45.4E-16	2.4E-14 ± 374	<5.4E-15	<3.7E-15	* 1.8E-14 ± 154	1.7E-13 ± 114
01/06/95-01/13/95	<2.3E-15	26.9E-14	21.9E-15	24.7E-15	2.3E-14 ± 484	21.5E-14	26.8E-15	* 1.3E-14 ± 191	1.3E-13 ± 104
01/13/95-01/20/95	21.9E-15	23.6E-14	23.5E-15	26.1E-16	3.7E-14 ± 294	<4.2E-15	27.0E-16	* 1.7E-14 ± 174	1.3E-13 ± 114
01/20/95-01/27/95	8.6E-15 ± 714	4.3E-14 ± 914	1.8E-14 ± 594	<1.1E-15	6.1E-14 ± 224	<7.3E-15	27.1E-16	1.6E-14 ± 164	1.9E-13 ± 104
01/27/95-02/03/95	<5.1E-16			27.0E-15	5.0E-14 ± 264	<1.0E-14	1.1E-15	1.1E-14 ± 184	1.6E-13 ± 114
02/03/95-02/10/95	<5.2E-16			5.2E-15 ± 744	4.2E-14 ± 334	<1.1E-14	6.4E-15 ± 894	9.3E-15 ± 194	1.6E-13 ± 104
02/10/95-02/17/95	<3.7E-15			<6.8E-16	6.3E-14 ± 244	23.2E-15	<8.0E-15	8.2E-15 ± 204	1.5E-13 ± 114
02/17/95-02/24/95	<5.3E-16			78.9E-15	3.2E-14 ± 324	27.2E-15	22.7E-15	4.0E-15 ± 284	7.8E-14 ± 284
02/24/95-03/03/95	<2.1E-15			<3.3E-15	4.5E-14 ± 274	<1.2E-14	<4.3E-15	8.0E-15 ± 204	1.3E-13 ± 104
03/03/95-03/10/95	<2.4E-15			<2.3E-15	5.4E-14 ± 294	<4.4E-15	<1.3E-15	* 1.8E-14 ± 154	1.8E-13 ± 104
03/10/95-03/17/95	<2.1E-15			27.7E-17	3.6E-14 ± 274	21.4E-15	24.5E-15	* 8.1E-15 ± 204	1.1E-13 ± 124
03/17/95-03/24/95	24.4E-15			27.7E-15	6.9E-14 ± 274	2.2E-14 ± 744	<3.5E-15	* 2.7E-14 ± 164	2.0E-13 ± 104
03/24/95-03/31/95	<4.1E-15			21.5E-16	1.2E-13 ± 184	3.0E-14 ± 514	<2.0E-15	* 8.2E-14 ± 134	3.6E-13 ± 104
03/31/95-04/07/95								* 1.1E-13 ± 114	4.2E-13 ± 9.2E
04/07/95-04/14/95								* 3.2E-13 ± 104	4.3E-13 ± 9.2E
04/14/95-04/21/95								* 3.0E-14 ± 154	4.0E-13 ± 9.6E
04/21/95-04/28/95								* 7.2E-13 ± 124	8.3E-13 ± 9.0E
04/28/95-05/05/95								* 1.4E-13 ± 114	8.7E-13 ± 104
05/05/95-05/12/95								* 1.2E-13 ± 114	6.8E-13 ± 9.5E
05/12/95-05/19/95								1.6E-14 ± 174	5.6E-13 ± 104
05/19/95-05/26/95								9.2E-15 ± 194	2.3E-13 ± 104
05/26/95-06/02/95								8.2E-15 ± 194	2.3E-13 ± 9.5E
06/02/95-06/09/95								1.1E-14 ± 164	2.1E-13 ± 104
06/09/95-06/16/95								1.3E-14 ± 184	2.8E-13 ± 9.4E
06/16/95-06/23/95								8.6E-15 ± 194	1.4E-13 ± 114
06/23/95-06/30/95								7.0E-15 ± 194	1.4E-13 ± 104
06/30/95-07/07/95								9.1E-15 ± 184	1.6E-13 ± 114
07/07/95-07/14/95								9.8E-15 ± 194	1.6E-12 ± 9.4E
07/14/95-07/21/95								6.3E-15 ± 214	1.5E-13 ± 114
07/21/95-07/28/95								4.5E-15 ± 234	1.8E-13 ± 104
07/28/95-08/04/95								1.2E-14 ± 164	2.7E-13 ± 104
08/04/95-09/20/95								* 3.2E-14 ± 214	5.6E-13 ± 104
09/20/95-09/27/95								* 2.5E-14 ± 164	4.1E-13 ± 9.2E
09/27/95-10/06/95								* 1.7E-14 ± 154	3.2E-13 ± 9.6E
10/06/95-10/13/95								* 3.7E-14 ± 124	1.4E-12 ± 8.9E
10/13/95-10/20/95								* 4.5E-14 ± 124	9.9E-13 ± 8.9E
10/20/95-10/27/95								1.2E-14 ± 184	5.3E-13 ± 9.7E
10/27/95-11/01/95								1.3E-14 ± 194	1.5E-13 ± 104
11/01/95-11/17/95									
11/17/95-11/22/95								* 1.6E-13 ± 144	1.5E-12 ± 9.6E
11/22/95-11/29/95								1.3E-14 ± 174	4.7E-13 ± 9.4E
11/29/95-12/06/95								9.7E-15 ± 184	2.5E-13 ± 9.2E
12/06/95-12/13/95								* 2.3E-14 ± 184	2.6E-13 ± 104
12/13/95-12/20/95								* 1.9E-14 ± 144	2.3E-13 ± 104
12/20/95-12/27/95								1.2E-14 ± 164	2.2E-13 ± 104
12/27/95-01/03/96								* 1.9E-14 ± 154	1.6E-13 ± 104

SYMBOL KEY: * Concentration exceeds Warning Level. † MDA exceeds Warning Level.

‡ Reported MDA is negative.

** Stack FlowRate of previous Sample.

Page 2

01/01/95 to 12/31/95

100 A SE KE South Mozzarella (RV 6) (V246)

04/10/96 to 21

Warning Levels:

On/Off Dates	Collect Time	Sample Volume	Stack FlowRate
17/30/94 01/06/95	168.7	16000	16000
01/13/95 01/20/95	168.2	1.6	16000
01/27/95 02/03/95	167.9	1.6	16000
02/10/95 02/17/95	168.2	1.6	16000
02/24/95 03/03/95	168.7	1.6	16000
03/17/95 03/24/95	167.9	1.6	16000
03/29/95 03/31/95	168.0	1.6	16000
04/14/95 04/21/95	167.9	2.0	20000
05/05/95 05/12/95	167.8	2.0	20000
05/19/95 05/26/95	166.1	2.0	20000
05/26/95 06/02/95	168.5	2.0	20000
06/09/95 06/16/95	167.0	2.0	20000
06/16/95 06/23/95	168.0	2.0	20000
06/30/95 07/07/95	168.3	2.0	20000
07/14/95 07/21/95	168.7	2.0	20000
07/28/95 08/04/95	175.0	2.0	21000
08/11/95 08/18/95	40.7	0	4900
09/20/95 09/27/95	166.7	2.0	20000
09/27/95 10/04/95	168.3	2.0	20000
10/11/95 10/18/95	168.3	2.0	20000
10/25/95 11/01/95	120.1	2.0	14000
11/08/95 11/15/95	0.0	0	0
11/22/95 11/29/95	167.3	2.0	20000
12/06/95 12/13/95	169.3	2.0	20000
12/20/95 12/27/95	166.9	2.0	20000
01/03/96 01/10/96	169.1	2.0	20000

SYNCH KEY: * Concentration exceeds Warning Level. ** MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack FlowRate of previous Sample.

04/10/95 to 01/01/96

100-K-5E: KE SOUTH MEZZANINE (RW6) (X248)

01/01/95 to 12/31/95

Page 1

Warning Levels:	1.0E-08 Co-60 µCi/ml	3.0E-11 Sr-90 µCi/ml	3.0E-09 Ru-106 µCi/ml	5E-12S (M)	1.0E-09 Cs-134 µCi/ml	2.0E-09 Cs-137 µCi/ml	Eu-154 µCi/ml	Eu-155 µCi/ml	7.0E-14 Pu-238 µCi/ml
On/Off Dates									
12/30/94-01/27/95		2.3E-14 ± 211							5.3E-16 ± 141
01/27/95-03/03/95		2.5E-14 ± 231							3.5E-16 ± 171
03/03/95-03/31/95		3.8E-14 ± 201							3.4E-15 ± 101
03/31/95-04/28/95	2.0E-15 ± 761	8.4E-14 ± 231							1.2E-14 ± 9.81
04/28/95-05/26/95	<5.7E-17	1.2E-13 ± 211			77.9E-16	2.3E-13 ± 111	8.5E-15 ± 811	72.8E-15	7.2E-15 ± 9.71
05/26/95-06/30/95	2.5E-15 ± 901	3.7E-14 ± 201			72.5E-16	1.0E-13 ± 111	71.2E-15	<9.1E-16	7.2E-16 ± 111
06/30/95-07/28/95	2.3E-15 ± 711	1.0E-13 ± 191			<2.8E-16	3.7E-13 ± 111	<5.1E-15	78.1E-16	5.4E-16 ± 131
07/28/95-08/04/95	<2.0E-15	9.7E-14 ± 201			75.5E-16	5.7E-14 ± 221	1.9E-14 ± 761	73.2E-15	1.4E-15 ± 141
08/04/95-09/20/95									
09/20/95-09/29/95	4.2E-15 ± 901	9.5E-14 ± 201			71.2E-15	1.5E-13 ± 161	<2.7E-15	<2.1E-15	2.6E-15 ± 131
09/29/95-11/01/95	2.7E-15 ± 611	1.5E-13 ± 251			72.3E-15	4.0E-13 ± 111	75.8E-15	4.9E-15 ± 921	2.2E-15 ± 111
11/01/95-11/17/95									
11/17/95-11/29/95	<5.4E-16	2.1E-13 ± 191			<4.9E-16	3.4E-13 ± 121	1.3E-14 ± 901	<3.6E-15	6.9E-15 ± 9.61
11/29/95-12/27/95	<1.4E-15	4.9E-14 ± 251			71.9E-15	9.8E-14 ± 131	72.1E-15	<4.7E-16	1.2E-15 ± 101
12/27/95-01/31/96	79.2E-16				71.8E-15	6.4E-14 ± 141	<7.9E-16	71.8E-15	1.0E-15 ± 121

SYMBOL KEY: * Concentration exceeds Warning Level. *S MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack FlowRate of previous Sample.

04/10/95 to 01/01/96

100-K-5E: KE SOUTH MEZZANINE (RW6) (X248)

01/01/95 to 12/31/95

Page 2

Warning Levels:	6.0E-14 Pu-239/40 µCi/ml	Pu-241 µCi/ml	Am-241 µCi/ml	Collect Time Hours	Sample FlowRate CMH	Sample Volume L	Stack FlowRate CMH
On/Off Dates							
12/30/94-01/27/95	3.7E-15 ± 9.91		5.3E-15 ± 121	672.7	1.6	43000	16000
01/27/95-03/03/95	2.4E-15 ± 111	2.8E-14 ± 151	3.0E-15 ± 131	841.6	1.6	81000	16000
03/03/95-03/31/95	2.2E-14 ± 9.41		6.0E-15 ± 121	670.5	1.6	64000	16000
03/31/95-04/28/95	8.0E-14 ± 9.41		1.5E-14 ± 121	671.6	2.0	81000	16000
04/28/95-05/26/95	4.9E-14 ± 9.41		1.6E-14 ± 101	671.5	2.0	81000	16000
05/26/95-06/30/95	4.5E-15 ± 9.51		3.4E-15 ± 111	840.5	2.0	100000	16000
06/30/95-07/28/95	3.0E-15 ± 9.81		2.9E-15 ± 121	672.6	2.0	81000	16000
07/28/95-08/04/95	7.6E-15 ± 101	9.7E-14 ± 141	2.7E-15 ± 161	175.0	2.0	21000	16000
08/04/95-09/20/95				0.0	0.0	0	0
09/20/95-09/29/95	1.5E-14 ± 101	2.1E-13 ± 131	6.9E-15 ± 131	207.4	2.0	25000	25000
09/29/95-11/01/95	1.4E-14 ± 9.61	1.8E-13 ± 121	6.2E-15 ± 121	792.6	2.0	95000	25000
11/01/95-11/17/95				0.0	0.0	0	0
11/17/95-11/29/95	4.3E-14 ± 9.11	5.8E-13 ± 111	2.4E-14 ± 111	286.4	2.0	34000	25000
11/29/95-12/27/95	8.4E-15 ± 9.31	1.1E-13 ± 121	3.8E-15 ± 111	672.2	2.0	81000	25000
12/27/95-01/31/96	6.9E-15 ± 9.81		4.0E-15 ± 111	841.0	2.0	100000	25000

SYMBOL KEY: * Concentration exceeds Warning Level. *S MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack FlowRate of previous Sample.

WHC ENVIRONMENTAL RELEASE SUMMARY

04/10/96

17:13

105-KW BASIN ROOF VENTS (Y234-Y236)

01/01/95 through 12/31/95

Total System Flow: 5.0E+11 Liters = 1.8E+10 Cubic Ft

Radionuclide	Half-life	Release, Ci
⁶⁰ Co	5.27 Years	5.7E-07
⁹⁰ Sr	29.12 Years	1.0E-06
¹⁰⁶ Ru	368 Days	ND
¹²⁵ Sb	2.8 Years	ND
¹³⁴ Cs	2.1 Years	8.6E-07
¹³⁷ Cs	30 Years	1.3E-05
¹⁵⁴ Eu	8.8 Years	1.9E-06
¹⁵⁵ Eu	4.96 Years	7.8E-09
²³⁸ Pu	87.8 Years	1.2E-08
^{239/240} Pu	24,131 Years*	7.0E-08
²⁴¹ Pu	14.4 Years	1.4E-06
²⁴¹ Am	432 Years	5.9E-08
Total α	n/a	1.7E-06
Total β	n/a	2.2E-05

* The half-life shown for Total Uranium is the half-life of ²³⁸U. The half-life shown for mixed ^{239/240}Pu is the half-life of ²³⁹Pu.

04/10/96 10:21

100-F-5W PW LOW BAY EAST (RV 11) (Y234)

01/01/95 to 12/31/95

Page 1

Warning Levels:	1.0E-08	3.0E-09	5.0E-10	1.0E-09	2.0E-09	Eu-154	Eu-155	Total α	Total β
On/Off Dates	Co-60 μCi/ml	Ru-106 μCi/ml	Sb-125 μCi/ml	Cs-134 μCi/ml	Cs-137 μCi/ml	μCi/ml	μCi/ml	μCi/ml	μCi/ml
12/30/94-01/06/95	16.3E-15	75.4E-15	-4.9E-15	-1.9E-16	7.6E-15	5.7E-15	-4.5E-15	7.1E-15	5.9E-14
01/06/95-01/13/95	-1.8E-15	75.1E-14	71.0E-14	3.9E-15	9.5E-15	5.4E-15	7.4E-15	5.3E-14	5.9E-14
01/13/95-01/20/95	<2.5E-15	<1.3E-14	-2.4E-15	21.1E-15	2.1E-14	3.0E-15	2.8E-15	1.1E-15	4.9E-14
01/20/95-01/27/95	73.4E-15	<1.1E-14	74.8E-15	76.3E-16	8.9E-15	6.3E-15	76.6E-15	2.9E-15	2.9E-14
01/27/95-02/03/95	-1.2E-15			72.9E-15	<1.0E-15		71.1E-15	1.8E-15	3.6E-14
02/03/95-02/10/95	77.9E-16			23.6E-15	1.5E-14	6.2E-15	23.8E-15	9.7E-16	5.1E-14
02/10/95-02/17/95	-2.6E-15			-2.5E-15	1.6E-14	5.6E-15	21.3E-14	1.1E-15	4.5E-14
02/17/95-02/24/95	-2.8E-15			4.8E-15	5.8E-15	9.8E-15	-5.4E-15	1.0E-15	4.8E-14
02/24/95-03/03/95	74.1E-16			-5.4E-16	-6.2E-15		-6.4E-15	3.5E-15	2.6E-14
03/03/95-03/10/95	-2.0E-15			-6.8E-16	1.7E-14	3.4E-15	-1.5E-15	3.5E-16	9.6E-14
03/10/95-03/17/95	5.1E-15	± 82%		72.0E-16	4.3E-15	8.1E-15	24.6E-15	3.5E-16	9.6E-14
03/17/95-03/24/95	78.3E-16			-5.7E-16	9.9E-15	5.3E-15	7.8E-15	1.0E-15	5.0E-14
03/24/95-03/31/95	71.7E-15			72.1E-16	-2.4E-15		1.2E-14	1.7E-15	3.7E-14
03/31/95-04/07/95								1.0E-15	3.4E-14
04/07/95-04/14/95								6.9E-16	2.2E-14
04/14/95-04/21/95								8.0E-16	2.6E-14
04/21/95-04/28/95								2.0E-15	3.0E-14
04/28/95-05/05/95								2.3E-15	3.2E-14
05/05/95-05/12/95								2.2E-15	3.3E-14
05/12/95-05/19/95								2.0E-15	3.4E-14
05/19/95-05/26/95								2.4E-15	3.1E-14
05/26/95-06/02/95								5.5E-15	2.1E-14
06/02/95-06/09/95								2.5E-15	3.1E-14
06/09/95-06/16/95								2.1E-15	3.5E-14
06/16/95-06/23/95								4.7E-16	8.7E-14
06/23/95-06/30/95								2.1E-15	3.4E-14
06/30/95-07/07/95								1.6E-15	3.8E-14
07/07/95-07/14/95								1.1E-15	4.0E-14
07/14/95-07/21/95								1.4E-15	4.0E-14
07/21/95-07/28/95								6.1E-16	5.9E-14
07/28/95-08/04/95								1.9E-15	3.3E-14
08/04/95-08/11/95								1.9E-15	3.4E-14
08/11/95-08/18/95								9.4E-16	4.9E-14
08/18/95-08/25/95								2.1E-15	3.1E-14
08/25/95-09/01/95								1.8E-15	3.4E-14
09/01/95-09/08/95								2.6E-15	3.0E-14
09/08/95-09/15/95								5.5E-15	2.2E-14
09/15/95-09/22/95								5.5E-15	2.2E-14
09/22/95-09/29/95								3.5E-15	2.5E-14
09/29/95-10/06/95								1.4E-15	3.8E-14
10/06/95-10/13/95								1.8E-15	3.3E-14
10/13/95-10/20/95								2.4E-15	2.9E-14
10/20/95-10/27/95								1.7E-15	3.8E-14
10/27/95-11/03/95								4.9E-15	2.7E-14
11/03/95-11/10/95								2.2E-15	3.1E-14
11/10/95-11/17/95								2.2E-15	3.1E-14
11/17/95-11/22/95								2.2E-15	3.1E-14
11/22/95-11/29/95								2.2E-15	3.1E-14
11/29/95-12/06/95								-2.7E-15	1.6E-14
12/06/95-12/13/95								5.1E-15	2.1E-14
12/13/95-12/20/95								1.9E-15	3.5E-14
12/20/95-12/27/95								8.1E-15	1.0E-13
12/27/95-01/03/96								1.3E-14	1.8E-13

SYMBOL KEY: * Concentration exceeds Warning Level.

*S MDA exceeds Warning Level.

? Reported MDA is negative

** Stack FlowRate of previous Sample.

01/01/95 to 12/31/95

100 A SW 1/4 LW BAY EAST (HW 11) (T21A)

04/10/96 10:21

Warning Levels:				On/Off Dates:				Manning Levels:				Stack FlowRate			
W	O	N	O	D	D	D	D	W	O	N	O	W	O	N	O
hours	hours	hours	hours	hours	hours	hours	hours	hours	hours	hours	hours	CFM	CFM	CFM	CFM
12/30/94	01/06/95	166	5	2	0	20000	6800**	12/30/94	01/06/95	166	5	2	0	20000	6800**
01/06/95	01/13/95	167	9	2	0	20000	6800**	01/06/95	01/13/95	167	9	2	0	20000	6800**
01/13/95	01/20/95	168	3	2	0	20000	6800**	01/13/95	01/20/95	168	3	2	0	20000	6800**
01/20/95	01/27/95	169	3	2	0	20000	6800**	01/20/95	01/27/95	169	3	2	0	20000	6800**
01/27/95	02/03/95	170	0	2	0	21000	6800**	01/27/95	02/03/95	170	0	2	0	21000	6800**
02/03/95	02/10/95	171	0	2	0	20000	6800**	02/03/95	02/10/95	171	0	2	0	20000	6800**
02/10/95	02/17/95	168	4	2	0	20000	6800**	02/10/95	02/17/95	168	4	2	0	20000	6800**
02/17/95	02/24/95	167	5	2	0	20000	6800**	02/17/95	02/24/95	167	5	2	0	20000	6800**
02/24/95	03/01/95	168	6	2	0	20000	6800**	02/24/95	03/01/95	168	6	2	0	20000	6800**
03/01/95	03/08/95	169	7	2	0	20000	6800**	03/01/95	03/08/95	169	7	2	0	20000	6800**
03/08/95	03/15/95	169	3	2	0	20000	6800**	03/08/95	03/15/95	169	3	2	0	20000	6800**
03/15/95	03/22/95	167	3	2	0	20000	6800**	03/15/95	03/22/95	167	3	2	0	20000	6800**
03/22/95	03/29/95	169	7	2	0	20000	6800**	03/22/95	03/29/95	169	7	2	0	20000	6800**
03/29/95	04/07/95	167	6	2	0	20000	6800**	03/29/95	04/07/95	167	6	2	0	20000	6800**
04/07/95	04/14/95	169	7	2	0	20000	6800**	04/07/95	04/14/95	169	7	2	0	20000	6800**
04/14/95	04/21/95	168	3	2	0	20000	6800**	04/14/95	04/21/95	168	3	2	0	20000	6800**
04/21/95	04/28/95	167	3	2	0	20000	6800**	04/21/95	04/28/95	167	3	2	0	20000	6800**
04/28/95	05/05/95	167	3	2	0	20000	6800**	04/28/95	05/05/95	167	3	2	0	20000	6800**
05/05/95	05/12/95	168	6	2	0	20000	6800**	05/05/95	05/12/95	168	6	2	0	20000	6800**
05/12/95	05/19/95	168	6	2	0	20000	6800**	05/12/95	05/19/95	168	6	2	0	20000	6800**
05/19/95	05/26/95	167	2	2	0	20000	6800**	05/19/95	05/26/95	167	2	2	0	20000	6800**
05/26/95	06/02/95	169	0	2	0	20000	6800**	05/26/95	06/02/95	169	0	2	0	20000	6800**
06/02/95	06/09/95	167	2	2	0	20000	6800**	06/02/95	06/09/95	167	2	2	0	20000	6800**
06/09/95	06/16/95	167	3	2	0	20000	6800**	06/09/95	06/16/95	167	3	2	0	20000	6800**
06/16/95	06/23/95	168	0	2	0	20000	6800**	06/16/95	06/23/95	168	0	2	0	20000	6800**
06/23/95	06/30/95	167	8	2	0	20000	6800**	06/23/95	06/30/95	167	8	2	0	20000	6800**
06/30/95	07/07/95	168	3	2	0	20000	6800**	06/30/95	07/07/95	168	3	2	0	20000	6800**
07/07/95	07/14/95	168	3	2	0	20000	6800**	07/07/95	07/14/95	168	3	2	0	20000	6800**
07/14/95	07/21/95	168	1	2	0	20000	6800**	07/14/95	07/21/95	168	1	2	0	20000	6800**
07/21/95	07/28/95	168	0	2	0	20000	6800**	07/21/95	07/28/95	168	0	2	0	20000	6800**
07/28/95	08/04/95	168	2	2	0	20000	6800**	07/28/95	08/04/95	168	2	2	0	20000	6800**
08/04/95	08/11/95	168	0	2	0	20000	6800**	08/04/95	08/11/95	168	0	2	0	20000	6800**
08/11/95	08/18/95	168	1	2	0	20000	6800**	08/11/95	08/18/95	168	1	2	0	20000	6800**
08/18/95	08/25/95	168	1	2	0	20000	6800**	08/18/95	08/25/95	168	1	2	0	20000	6800**
08/25/95	09/01/95	167	9	2	0	20000	6800**	08/25/95	09/01/95	167	9	2	0	20000	6800**
09/01/95	09/08/95	168	8	2	0	20000	6800**	09/01/95	09/08/95	168	8	2	0	20000	6800**
09/08/95	09/15/95	168	8	2	0	20000	6800**	09/08/95	09/15/95	168	8	2	0	20000	6800**
09/15/95	09/22/95	167	1	2	0	20000	6800**	09/15/95	09/22/95	167	1	2	0	20000	6800**
09/22/95	09/29/95	168	8	2	0	20000	6800**	09/22/95	09/29/95	168	8	2	0	20000	6800**
09/29/95	10/06/95	168	2	2	0	20000	6800**	09/29/95	10/06/95	168	2	2	0	20000	6800**
10/06/95	10/13/95	170	3	2	0	20000	6800**	10/06/95	10/13/95	170	3	2	0	20000	6800**
10/13/95	10/20/95	167	1	2	0	20000	6800**	10/13/95	10/20/95	167	1	2	0	20000	6800**
10/20/95	10/27/95	167	1	2	0	20000	6800**	10/20/95	10/27/95	167	1	2	0	20000	6800**
10/27/95	11/03/95	167	8	2	0	20000	6800**	10/27/95	11/03/95	167	8	2	0	20000	6800**
11/03/95	11/17/95	166	6	2	0	20000	6800**	11/03/95	11/17/95	166	6	2	0	20000	6800**
11/17/95	11/27/95	168	2	2	0	20000	6800**	11/17/95	11/27/95	168	2	2	0	20000	6800**
11/27/95	12/04/95	168	7	2	0	20000	6800**	11/27/95	12/04/95	168	7	2	0	20000	6800**
12/04/95	12/13/95	167	5	2	0	20000	6800**	12/04/95	12/13/95	167	5	2	0	20000	6800**
12/13/95	12/27/95	168	0	2	0	20000	6800**	12/13/95	12/27/95	168	0	2	0	20000	6800**
12/27/95	01/03/96	166	0	2	0	20000	6800**	12/27/95	01/03/96	166	0	2	0	20000	6800**

* Reported MUA is negative.

** MUA exceeds Warning Level.

** Stack FlowRate of previous Sample.

04/10/95 10:21

100-K-SW: KW LOW BAY WEST (PW 10) (K235)

01/01/95 to 12/31/95

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Warning Levels:	1.0E-08 Co-60 μCi/ml	3.0E-09 Ru-106 μCi/ml	Sh-125 μCi/ml	1.0E-09 Cs-134 μCi/ml	2.0E-09 Cs-137 μCi/ml	Eu-154 μCi/ml	Eu-155 μCi/ml	Total α μCi/ml	Total β μCi/ml
On/Off Dates									
12/30/94-01/06/95	<5.5E-16	<9.0E-16	24.8E-15	22.2E-15	<3.5E-15	21.3E-14	9.4E-15 ± 931	1.3E-14 ± 201	9.3E-14 ± 111
01/06/95-01/13/95	<1.9E-16	34.2E-14	<2.0E-15	27.1E-16	<6.8E-15	22.6E-15	<7.6E-16	8.8E-15 ± 217	7.5E-14 ± 121
01/13/95-01/20/95	24.5E-15	4.3E-14 ± 921	21.6E-15	<3.2E-15	2.3E-14 ± 331	28.0E-15	<4.7E-16	1.2E-15 ± 551	3.2E-14 ± 151
01/20/95-01/27/95	<2.0E-16	34.0E-15	<1.1E-14	<4.0E-15	1.7E-14 ± 451	35.5E-15	<4.2E-16	4.1E-15 ± 281	6.4E-14 ± 121
01/27/95-02/03/95	8.4E-15 ± 761			22.9E-15	<8.9E-15	<8.1E-15	23.8E-15	2.9E-15 ± 331	4.4E-14 ± 131
02/03/95-02/10/95	<4.5E-15			<2.0E-15	3.3E-14 ± 391	21.4E-14	76.8E-15	1.5E-15 ± 301	7.2E-14 ± 121
02/10/95-02/17/95	<3.4E-15			4.7E-15 ± 671	<5.5E-15	22.6E-15	22.5E-15	1.8E-15 ± 411	6.0E-14 ± 121
02/17/95-02/24/95	<3.9E-15			21.6E-15	1.0E-14 ± 561	<1.2E-14	<2.6E-15	1.1E-15 ± 591	2.6E-14 ± 161
02/24/95-03/03/95	<3.9E-15			25.5E-15	1.8E-14 ± 551	<6.4E-15	<2.0E-15	1.7E-15 ± 441	4.4E-14 ± 131
03/03/95-03/10/95				23.9E-15	1.4E-14 ± 581	<2.0E-15	<6.0E-15	3.9E-15 ± 281	4.8E-14 ± 141
03/10/95-03/17/95	21.7E-15			27.6E-15 ± 781	1.5E-14 ± 571	1.5E-14 ± 901	<6.8E-15	<3.7E-16	3.0E-14 ± 151
03/17/95-03/24/95	<3.1E-15			23.8E-15	1.3E-14 ± 671	23.0E-15	<1.7E-15	9.4E-16 ± 581	2.9E-14 ± 161
03/24/95-03/31/95	<2.7E-15			21.9E-15	2.1E-14 ± 431	<1.3E-14	24.6E-15	2.7E-15 ± 351	5.6E-14 ± 131
03/31/95-04/07/95								2.5E-15 ± 321	4.5E-14 ± 131
04/07/95-04/14/95								1.4E-15 ± 391	2.6E-14 ± 141
04/14/95-04/21/95								9.3E-16 ± 501	2.5E-14 ± 151
04/21/95-04/28/95								2.0E-15 ± 351	3.2E-14 ± 141
04/28/95-05/05/95	<3.9E-15							1.7E-15 ± 381	2.1E-14 ± 161
05/05/95-05/12/95								2.1E-15 ± 331	2.3E-14 ± 151
05/12/95-05/19/95								2.1E-15 ± 331	2.8E-14 ± 141
05/19/95-05/26/95								2.2E-15 ± 331	2.8E-14 ± 151
05/26/95-06/02/95								3.5E-15 ± 271	3.3E-14 ± 141
06/02/95-06/09/95								1.4E-15 ± 431	1.9E-14 ± 161
06/09/95-06/16/95								1.2E-15 ± 451	1.9E-14 ± 161
06/16/95-06/23/95								3.9E-16 ± 931	1.5E-14 ± 181
06/23/95-06/30/95								1.4E-15 ± 421	2.3E-14 ± 151
06/30/95-07/07/95								1.0E-15 ± 341	2.7E-14 ± 151
07/07/95-07/14/95								1.3E-15 ± 421	2.0E-14 ± 161
07/14/95-07/21/95								1.7E-15 ± 381	2.8E-14 ± 151
07/21/95-07/28/95								9.6E-16 ± 461	2.0E-14 ± 161
07/28/95-08/04/95								1.7E-15 ± 351	1.5E-14 ± 181
08/04/95-08/11/95								1.8E-15 ± 341	2.1E-14 ± 161
08/11/95-08/18/95								1.3E-15 ± 421	1.6E-14 ± 181
08/18/95-08/25/95								1.4E-15 ± 391	4.5E-14 ± 131
08/25/95-09/01/95								1.7E-15 ± 351	8.8E-14 ± 111
09/01/95-09/08/95								2.7E-15 ± 291	2.2E-14 ± 161
09/08/95-09/15/95								5.4E-15 ± 211	4.0E-14 ± 131
09/15/95-09/22/95								5.8E-15 ± 231	4.7E-14 ± 121
09/22/95-09/29/95								3.9E-15 ± 261	4.3E-14 ± 131
09/29/95-10/06/95								1.9E-15 ± 331	2.5E-14 ± 141
10/06/95-10/13/95								1.7E-15 ± 351	3.2E-14 ± 131
10/13/95-10/20/95								2.7E-15 ± 281	1.6E-13 ± 101
10/20/95-10/27/95								1.4E-15 ± 411	2.9E-14 ± 141
10/27/95-11/03/95								2.0E-15 ± 311	5.8E-14 ± 121
11/03/95-11/10/95								4.4E-15 ± 241	5.1E-14 ± 121
11/10/95-11/17/95								2.5E-15 ± 301	2.9E-14 ± 141
11/17/95-11/24/95								1.6E-15 ± 421	3.7E-14 ± 141
11/24/95-11/29/95								2.3E-15 ± 301	3.7E-14 ± 131
11/29/95-12/06/95								1.5E-15 ± 371	1.7E-14 ± 171
12/06/95-12/13/95								7.0E-15 ± 191	5.9E-14 ± 121
12/13/95-12/20/95								1.4E-15 ± 381	2.4E-14 ± 151
12/20/95-12/27/95								8.0E-15 ± 181	9.0E-14 ± 121
12/27/95-01/03/96								1.4E-14 ± 161	9.5E-14 ± 111

SYMBOL KEY: * Concentration exceeds Warning Level. ** MDA exceeds Warning Level

? Reported MDA is negative

** Stack FlowRate of previous Sample.

04/10/95 10 21

100-K-SW: KW LOW BAY WEST (FV 10) (Y235)

01/01/95 to 12/31/95

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On/Off Dates	Warning Levels: Collect Time Hours	Sample FlowRate CFM	Sample Volume ft3	Stack FlowRate CFM
12/30/94-01/06/95	166.5	1.5	15000	4300**
01/06/95-01/13/95	167.9	1.5	15000	4300**
01/13/95-01/20/95	167.5	1.5	15000	4300**
01/20/95-01/27/95	168.3	1.5	15000	4300**
01/27/95-02/03/95	172.0	1.5	15000	4300**
02/03/95-02/10/95	163.9	1.5	15000	4300**
02/10/95-02/17/95	168.4	1.5	15000	4300**
02/17/95-02/24/95	167.4	1.5	15000	4300**
02/24/95-03/03/95	168.7	1.5	15000	4300**
03/03/95-03/10/95	166.9	1.5	15000	4300**
03/10/95-03/17/95	169.7	1.5	15000	4300**
03/17/95-03/24/95	168.1	1.5	15000	4300**
03/24/95-03/31/95	167.3	1.5	15000	4300**
03/31/95-04/07/95	167.6	2.0	20000	4300**
04/07/95-04/14/95	167.9	2.0	20000	4300**
04/14/95-04/21/95	168.7	2.0	20000	4300**
04/21/95-04/28/95	167.3	2.0	20000	4300**
04/28/95-05/05/95	167.7	2.0	20000	4300**
05/05/95-05/12/95	168.6	2.0	20000	4300**
05/12/95-05/19/95	168.6	2.0	20000	4300**
05/19/95-05/26/95	167.4	2.0	20000	4300**
05/26/95-06/02/95	167.3	2.0	20000	4300**
06/02/95-06/09/95	168.9	2.0	20000	4300**
06/09/95-06/16/95	167.7	2.0	20000	4300**
06/16/95-06/23/95	168.0	2.0	20000	4300**
06/23/95-06/30/95	167.8	2.0	20000	4300**
06/30/95-07/07/95	167.0	2.0	20000	4300**
07/07/95-07/14/95	168.4	2.0	20000	4300**
07/14/95-07/21/95	168.1	2.0	20000	4300**
07/21/95-07/28/95	167.8	2.0	20000	4300**
07/28/95-08/04/95	168.2	2.0	20000	4300**
08/04/95-08/11/95	168.0	2.0	20000	4300**
08/11/95-08/18/95	168.1	2.0	20000	4300**
08/18/95-08/25/95	168.1	2.0	20000	4300**
08/25/95-09/01/95	167.9	2.0	20000	4300**
09/01/95-09/08/95	167.9	2.0	20000	4300**
09/08/95-09/15/95	168.8	2.0	20000	4300**
09/15/95-09/22/95	167.1	2.0	20000	4300**
09/22/95-09/29/95	168.4	2.0	20000	4300**
09/29/95-10/06/95	168.2	2.0	20000	4300**
10/06/95-10/13/95	170.3	2.0	20000	4300**
10/13/95-10/20/95	166.1	2.0	20000	4300**
10/20/95-10/27/95	167.0	2.0	20000	4300**
10/27/95-11/03/95	168.2	2.0	20000	4300**
11/03/95-11/10/95	169.4	2.0	20000	4300**
11/10/95-11/17/95	166.6	2.0	20000	4300**
11/17/95-11/22/95	120.3	2.0	14000	4300**
11/22/95-11/29/95	168.1	2.0	20000	4300**
11/29/95-12/06/95	168.6	2.0	20000	4300**
12/06/95-12/13/95	167.5	2.0	20000	4300**
12/13/95-12/20/95	168.5	2.0	20000	4300**
12/20/95-12/27/95	169.3	2.0	20000	4300**
12/27/95-01/03/96	166.0	2.0	20000	4300**

SYMBOL KEY: * Concentration exceeds Warning Level. ** S MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack FlowRate of previous Sample.

[illegible]

Page 1

100-K-K-54: KM LOW BAY WEST (RV10) (X235) 01/01/95 to 12/31/95

100-K-54: KM LOW BAY WEST (R10) (x235)

01/01/95 to 12/31/95

100-Y-5M: KM LOW BAY WEST (RVID) (X235)

[illegible]

Page 2

5 NDA exceeds Warning Level.
? Reported NDA is negative.

5 MDA exceeds Warning Level.

Stack FlowRate of previous Sample.

04/10/96 10:21

100-A-SW: KW MEZZ. (RV 647) (1736)

01/01/95 to 12/31/95

Page 1

Warning Levels:	1.0E-08 Co-60 µCi/ml	3.0E-09 Ru-106 µCi/ml	5.0E-09 Cs-137 µCi/ml	1.0E-09 Cs-134 µCi/ml	2.0E-09 Cs-137 µCi/ml	Eu-154 µCi/ml	Eu-155 µCi/ml	Total α µCi/ml	Total β µCi/ml
On/Off Dates									
12/30/94-01/06/95	<4.1E-16	<1.2E-14	<7.2E-15	<1.3E-15	<9.4E-16	<9.9E-16	<8.5E-16	1.4E-14 ± 171	1.0E-13 ± 111
01/06/95-01/13/95	<1.4E-16	<1.4E-16	8.2E-15 ± 8%	75.4E-15	9.1E-15 ± 63%	<2.3E-15	<2.9E-15	9.6E-15 ± 172	9.0E-14 ± 111
01/13/95-01/20/95	<1.4E-16	<1.4E-16	<2.5E-15	72.4E-15	<5.7E-15	<1.1E-15	<1.1E-15	1.6E-15 ± 401	1.9E-14 ± 161
01/20/95-01/27/95	4.6E-15 ± 901	<6.7E-15	<2.5E-15	21.4E-15	<7.4E-15	<1.1E-15	<1.1E-15	5.7E-15 ± 215	6.3E-14 ± 111
01/27/95-02/03/95	<9.8E-16	<1.4E-16	<2.5E-15	2.6E-14 ± 29%	<9.1E-15	<2.8E-16	<2.8E-16	3.3E-15 ± 263	5.4E-14 ± 121
02/03/95-02/10/95	<1.7E-15	<1.7E-15	<2.5E-15	1.9E-14 ± 39%	<1.3E-15	<2.8E-16	<2.8E-16	5.3E-15 ± 241	5.2E-14 ± 121
02/10/95-02/17/95	<1.7E-15	<1.7E-15	<2.5E-15	<9.7E-16	1.0E-14 ± 77%	<5.0E-15	<3.7E-16	1.4E-15 ± 411	3.3E-14 ± 141
02/17/95-02/24/95	<1.2E-15	<1.2E-15	<2.5E-15	<3.1E-15	5.5E-15 ± 90%	<1.1E-15	<2.1E-16	9.6E-16 ± 511	2.5E-14 ± 151
02/24/95-03/03/95	<1.2E-15	<1.2E-15	<2.5E-15	<2.5E-16	1.1E-14 ± 55%	7.6E-16	<2.1E-15	2.7E-15 ± 291	6.2E-14 ± 111
03/03/95-03/10/95	<3.3E-15	<3.3E-15	<2.5E-15	<4.2E-15	7.2E-15	<8.5E-16	<4.9E-16	6.4E-15 ± 711	4.9E-14 ± 131
03/10/95-03/17/95	<2.8E-15	<2.8E-15	<2.5E-15	7.1E-15 ± 73%	<8.8E-15	<1.1E-15	<2.1E-15	9.2E-16 ± 511	1.8E-14 ± 171
03/17/95-03/24/95	<2.8E-15	<2.8E-15	<2.5E-15	<1.8E-16	1.0E-14 ± 39%	7.9E-15	<2.7E-15	2.1E-15 ± 331	3.1E-14 ± 141
03/24/95-03/31/95	<1.3E-15	<1.3E-15	<2.5E-15	4.5E-15 ± 84%	1.1E-14 ± 35%	<2.3E-15	<1.7E-15	7.2E-15 ± 321	4.3E-14 ± 131
03/31/95-04/07/95	<1.3E-15	<1.3E-15	<2.5E-15	<1.3E-15	<1.3E-15	<2.3E-15	<2.3E-15	2.3E-15 ± 311	2.9E-14 ± 141
04/07/95-04/14/95	<1.3E-15	<1.3E-15	<2.5E-15	<1.3E-15	<1.3E-15	<2.3E-15	<2.3E-15	8.2E-16 ± 561	1.1E-14 ± 201
04/14/95-04/21/95	<1.3E-15	<1.3E-15	<2.5E-15	<1.3E-15	<1.3E-15	<2.3E-15	<2.3E-15	7.6E-16 ± 621	1.6E-14 ± 171
04/21/95-04/28/95	<1.3E-15	<1.3E-15	<2.5E-15	<1.3E-15	<1.3E-15	<2.3E-15	<2.3E-15	1.6E-15 ± 381	2.4E-14 ± 151
04/28/95-05/05/95	<1.3E-15	<1.3E-15	<2.5E-15	<1.3E-15	<1.3E-15	<2.3E-15	<2.3E-15	4.4E-15 ± 341	1.8E-14 ± 171
05/05/95-05/12/95	<1.3E-15	<1.3E-15	<2.5E-15	<1.3E-15	<1.3E-15	<2.3E-15	<2.3E-15	4.6E-15 ± 341	2.1E-14 ± 161
05/12/95-05/19/95	<1.3E-15	<1.3E-15	<2.5E-15	<1.3E-15	<1.3E-15	<2.3E-15	<2.3E-15	5.5E-15 ± 321	2.5E-14 ± 151
05/19/95-05/26/95	<1.3E-15	<1.3E-15	<2.5E-15	<1.3E-15	<1.3E-15	<2.3E-15	<2.3E-15	2.7E-15 ± 301	2.5E-14 ± 151
05/26/95-06/02/95	<1.3E-15	<1.3E-15	<2.5E-15	<1.3E-15	<1.3E-15	<2.3E-15	<2.3E-15	3.6E-15 ± 271	3.4E-14 ± 131
06/02/95-06/09/95	<1.3E-15	<1.3E-15	<2.5E-15	<1.3E-15	<1.3E-15	<2.3E-15	<2.3E-15	1.7E-15 ± 381	1.4E-14 ± 181
06/09/95-06/16/95	<1.3E-15	<1.3E-15	<2.5E-15	<1.3E-15	<1.3E-15	<2.3E-15	<2.3E-15	1.0E-15 ± 481	1.9E-14 ± 161
06/16/95-06/23/95	<1.3E-15	<1.3E-15	<2.5E-15	<1.3E-15	<1.3E-15	<2.3E-15	<2.3E-15	<2.1E-16	1.3E-14 ± 191
06/23/95-06/30/95	<1.3E-15	<1.3E-15	<2.5E-15	<1.3E-15	<1.3E-15	<2.3E-15	<2.3E-15	1.8E-15 ± 361	1.7E-14 ± 171
06/30/95-07/07/95	<1.3E-15	<1.3E-15	<2.5E-15	<1.3E-15	<1.3E-15	<2.3E-15	<2.3E-15	2.3E-15 ± 321	2.1E-14 ± 161
07/07/95-07/14/95	<1.3E-15	<1.3E-15	<2.5E-15	<1.3E-15	<1.3E-15	<2.3E-15	<2.3E-15	1.1E-15 ± 471	1.7E-14 ± 171
07/14/95-07/21/95	<1.3E-15	<1.3E-15	<2.5E-15	<1.3E-15	<1.3E-15	<2.3E-15	<2.3E-15	1.3E-15 ± 441	2.3E-14 ± 151
07/21/95-07/28/95	<1.3E-15	<1.3E-15	<2.5E-15	<1.3E-15	<1.3E-15	<2.3E-15	<2.3E-15	8.8E-16 ± 491	1.7E-14 ± 171
07/28/95-08/04/95	<1.3E-15	<1.3E-15	<2.5E-15	<1.3E-15	<1.3E-15	<2.3E-15	<2.3E-15	1.6E-15 ± 371	1.5E-14 ± 181
08/04/95-08/11/95	<1.3E-15	<1.3E-15	<2.5E-15	<1.3E-15	<1.3E-15	<2.3E-15	<2.3E-15	1.6E-15 ± 361	2.0E-14 ± 161
08/11/95-08/18/95	<1.3E-15	<1.3E-15	<2.5E-15	<1.3E-15	<1.3E-15	<2.3E-15	<2.3E-15	1.7E-15 ± 411	1.9E-14 ± 161
08/18/95-08/25/95	<1.3E-15	<1.3E-15	<2.5E-15	<1.3E-15	<1.3E-15	<2.3E-15	<2.3E-15	4.8E-15 ± 241	1.9E-13 ± 101
08/25/95-09/01/95	<1.3E-15	<1.3E-15	<2.5E-15	<1.3E-15	<1.3E-15	<2.3E-15	<2.3E-15	2.3E-15 ± 321	1.2E-13 ± 111
09/01/95-09/08/95	<1.3E-15	<1.3E-15	<2.5E-15	<1.3E-15	<1.3E-15	<2.3E-15	<2.3E-15	3.4E-15 ± 261	5.6E-14 ± 121
09/08/95-09/15/95	<1.3E-15	<1.3E-15	<2.5E-15	<1.3E-15	<1.3E-15	<2.3E-15	<2.3E-15	5.4E-15 ± 241	4.2E-14 ± 141
09/15/95-11/03/95	<1.3E-15	<1.3E-15	<2.5E-15	<1.3E-15	<1.3E-15	<2.3E-15	<2.3E-15	<1.3E-15	<1.3E-15
11/03/95-11/10/95	<1.3E-15	<1.3E-15	<2.5E-15	<1.3E-15	<1.3E-15	<2.3E-15	<2.3E-15	4.1E-15 ± 251	4.0E-14 ± 131
11/10/95-11/17/95	<1.3E-15	<1.3E-15	<2.5E-15	<1.3E-15	<1.3E-15	<2.3E-15	<2.3E-15	1.1E-15 ± 381	2.2E-14 ± 151
11/17/95-11/22/95	<1.3E-15	<1.3E-15	<2.5E-15	<1.3E-15	<1.3E-15	<2.3E-15	<2.3E-15	4.1E-15 ± 281	4.4E-14 ± 141
11/22/95-11/29/95	<1.3E-15	<1.3E-15	<2.5E-15	<1.3E-15	<1.3E-15	<2.3E-15	<2.3E-15	2.2E-15 ± 301	3.0E-14 ± 141
11/29/95-12/06/95	<1.3E-15	<1.3E-15	<2.5E-15	<1.3E-15	<1.3E-15	<2.3E-15	<2.3E-15	1.7E-15 ± 351	1.5E-14 ± 181
12/06/95-12/13/95	<1.3E-15	<1.3E-15	<2.5E-15	<1.3E-15	<1.3E-15	<2.3E-15	<2.3E-15	5.2E-15 ± 211	4.6E-14 ± 131
12/13/95-12/20/95	<1.3E-15	<1.3E-15	<2.5E-15	<1.3E-15	<1.3E-15	<2.3E-15	<2.3E-15	2.2E-15 ± 321	2.2E-14 ± 151
12/20/95-12/27/95	<1.3E-15	<1.3E-15	<2.5E-15	<1.3E-15	<1.3E-15	<2.3E-15	<2.3E-15	4.8E-15 ± 241	7.8E-14 ± 121
12/27/95-01/03/96	<1.3E-15	<1.3E-15	<2.5E-15	<1.3E-15	<1.3E-15	<2.3E-15	<2.3E-15	1.4E-14 ± 161	9.4E-14 ± 111

SYMBOL KEY: * Concentration exceeds Warning Level.

** MDA exceeds Warning Level

? Reported MDA is negative.

*** Stack FlowRate of previous Sample.

04/10/96 10:21									
Warning Levels:									
On-Off Dates:	Collect Time	Sample Flowrate	Sample Flowrate	Stack Flowrate	Stack Flowrate	Stack Flowrate	Stack Flowrate	Stack Flowrate	Stack Flowrate
Hours	Flowrate	Flowrate	Flowrate	Flowrate	Flowrate	Flowrate	Flowrate	Flowrate	Flowrate
12/30/94-01/06/95	166 5	2	20000	27000	27000	27000	27000	27000	27000
01/07/95-01/13/95	167 5	2	20000	27000	27000	27000	27000	27000	27000
01/14/95-01/20/95	167 5	2	20000	27000	27000	27000	27000	27000	27000
01/20/95-01/27/95	168 3	2	20000	27000	27000	27000	27000	27000	27000
01/28/95-02/03/95	168 3	2	20000	27000	27000	27000	27000	27000	27000
02/04/95-02/10/95	168 3	2	20000	27000	27000	27000	27000	27000	27000
02/10/95-02/17/95	168 4	2	20000	27000	27000	27000	27000	27000	27000
02/17/95-02/24/95	168 3	2	20000	27000	27000	27000	27000	27000	27000
02/25/95-03/03/95	168 3	2	20000	27000	27000	27000	27000	27000	27000
03/04/95-03/10/95	168 8	2	20000	27000	27000	27000	27000	27000	27000
03/10/95-03/17/95	168 6	2	20000	27000	27000	27000	27000	27000	27000
03/18/95-03/24/95	167 4	2	20000	27000	27000	27000	27000	27000	27000
03/25/95-03/31/95	167 7	2	20000	27000	27000	27000	27000	27000	27000
03/31/95-04/07/95	167 7	2	20000	27000	27000	27000	27000	27000	27000
04/08/95-04/14/95	168 7	2	20000	27000	27000	27000	27000	27000	27000
04/14/95-04/21/95	168 7	2	20000	27000	27000	27000	27000	27000	27000
04/22/95-04/28/95	167 3	2	20000	27000	27000	27000	27000	27000	27000
04/29/95-05/05/95	168 5	2	20000	27000	27000	27000	27000	27000	27000
05/06/95-05/12/95	168 5	2	20000	27000	27000	27000	27000	27000	27000
05/13/95-05/19/95	168 6	2	20000	27000	27000	27000	27000	27000	27000
05/20/95-05/26/95	167 2	2	20000	27000	27000	27000	27000	27000	27000
05/27/95-06/02/95	168 9	2	20000	27000	27000	27000	27000	27000	27000
06/03/95-06/09/95	168 9	2	20000	27000	27000	27000	27000	27000	27000
06/10/95-06/16/95	167 6	2	20000	27000	27000	27000	27000	27000	27000
06/17/95-06/23/95	168 0	2	20000	27000	27000	27000	27000	27000	27000
06/24/95-06/30/95	168 0	2	20000	27000	27000	27000	27000	27000	27000
07/01/95-07/07/95	168 0	2	20000	27000	27000	27000	27000	27000	27000
07/08/95-07/14/95	168 0	2	20000	27000	27000	27000	27000	27000	27000
07/15/95-07/21/95	168 0	2	20000	27000	27000	27000	27000	27000	27000
07/22/95-07/28/95	168 1	2	20000	27000	27000	27000	27000	27000	27000
08/01/95-08/07/95	168 0	2	20000	27000	27000	27000	27000	27000	27000
08/08/95-08/14/95	168 0	2	20000	27000	27000	27000	27000	27000	27000
08/15/95-08/21/95	168 2	2	20000	27000	27000	27000	27000	27000	27000
08/22/95-08/28/95	167 8	2	20000	27000	27000	27000	27000	27000	27000
08/29/95-09/04/95	168 2	2	20000	27000	27000	27000	27000	27000	27000
09/05/95-09/11/95	167 1	2	20000	27000	27000	27000	27000	27000	27000
09/12/95-09/18/95	167 1	2	15000	27000	27000	27000	27000	27000	27000
09/19/95-10/03/95	167 0	0	20000	27000	27000	27000	27000	27000	27000
10/04/95-10/10/95	166 0	0	20000	27000	27000	27000	27000	27000	27000
10/11/95-10/17/95	166 2	2	20000	27000	27000	27000	27000	27000	27000
10/18/95-10/24/95	167 4	2	20000	27000	27000	27000	27000	27000	27000
10/25/95-10/31/95	167 5	2	20000	27000	27000	27000	27000	27000	27000
11/01/95-11/07/95	168 6	2	20000	27000	27000	27000	27000	27000	27000
11/08/95-11/14/95	167 6	2	20000	27000	27000	27000	27000	27000	27000
11/15/95-11/21/95	167 6	2	20000	27000	27000	27000	27000	27000	27000
11/22/95-11/28/95	168 6	2	20000	27000	27000	27000	27000	27000	27000
11/29/95-12/05/95	167 6	2	20000	27000	27000	27000	27000	27000	27000
12/06/95-12/12/95	167 6	2	20000	27000	27000	27000	27000	27000	27000
12/13/95-12/19/95	168 6	2	20000	27000	27000	27000	27000	27000	27000
12/20/95-12/26/95	165 9	2	20000	27000	27000	27000	27000	27000	27000
12/27/95-01/02/96	165 9	2	20000	27000	27000	27000	27000	27000	27000

Stack Flowrate of previous Sample.

Reported MDA is negative.

MDA exceeds Warning Level.

Concentration exceeds Warning Level.

04/10/96 10:21					100-K-5W-KW MEZZ (RV 647) (X236)					01/01/95 to 12/31/95					Page 1
Warning Levels:					1.0E-08	3.0E-11	3.0E-09	5.0E-12	1.0E-09	2.0E-09	Eu-154	Eu-155	Eu-154	Eu-155	7.0E-14
On/Off Dates					Co-60 µCi/ml	Sr-90 µCi/ml	Ru-106 µCi/ml	Sb-125 µCi/ml	Cs-134 µCi/ml	Cs-137 µCi/ml	µCi/ml	µCi/ml	µCi/ml	µCi/ml	Pu-238 µCi/ml
12/30/94-01/27/95						6.7E-16 ± 67%									7.6E-18 ± 76%
01/27/95-03/03/95						1.5E-15 ± 37%									<4.7E-18
03/03/95-03/31/95						1.9E-15 ± 36%									1.4E-17 ± 63%
03/31/95-04/28/95						8.7E-16 ± 60%									1.1E-17 ± 59%
04/28/95-05/26/95						2.0E-15 ± 76%				2.6E-16	7.7E-15 ± 40%	<3.1E-15	<2.5E-15		<1.5E-17
05/26/95-06/30/95						<5.9E-16				5.6E-15 ± 51%	24.3E-15	23.3E-15	<2.5E-17		<1.5E-17
06/30/95-07/28/95						7.5E-16 ± 48%				6.0E-15 ± 36%	21.5E-15	22.6E-15	3.8E-17 ± 33%		7.1E-17 ± 23%
07/28/95-09/01/95						<1.8E-15				1.5E-15 ± 80%	6.5E-15 ± 41%	27.8E-16	<9.1E-16		6.8E-17 ± 38%
09/01/95-09/13/95						<2.4E-15				<5.9E-16	4.3E-14 ± 16%	24.8E-15			
09/13/95-11/03/95						4.9E-15 ± 32%				12.2E-15	1.4E-14 ± 33%	<1.9E-15			
11/03/95-11/29/95						7.5E-16 ± 67%				<8.2E-16	1.0E-14 ± 31%	21.8E-15	<2.7E-15		4.2E-17 ± 31%
11/29/95-12/27/95						21.7E-15				22.4E-15	5.7E-15 ± 38%	<1.7E-15	28.4E-16		4.1E-17 ± 31%
12/27/95-01/31/96						2.4E-15 ± 67%				<1.8E-16	1.1E-14 ± 36%	<1.3E-15	21.8E-15		5.8E-17 ± 25%

SYMBOL KEY: * Concentration exceeds Warning Level. ** MDA exceeds Warning Level. ? Reported MDA is negative. ** Stack FlowRate of previous Sample.

04/10/96 10:21					100-K-5W-KW MEZZ (RV 647) (X236)					01/01/95 to 12/31/95					Page 2
Warning Levels:					6.0E-14	Pu-241	Am-241	Collect	Sample	Sample	Stack	Stack	Stack	Stack	
On/Off Dates					Pu239/40 µCi/ml	µCi/ml	µCi/ml	Time Hours	flowRate CFM	Volume ft3	FlowRate CFM	FlowRate CFM	FlowRate CFM	FlowRate CFM	
12/30/94-01/27/95					5.6E-17 ± 29%		6.4E-17 ± 30%	670.2	2.0	80000	27000	27000	27000	27000	
01/27/95-03/03/95					7.9E-17 ± 20%	2.4E-15 ± 52%	4.8E-17 ± 35%	840.4	2.0	100000	27000	27000	27000	27000	
03/03/95-03/31/95					6.5E-17 ± 29%	1.2E-16 ± 94%	6.2E-17 ± 35%	671.9	2.0	81000	27000	27000	27000	27000	
03/31/95-04/28/95					8.1E-17 ± 24%	3.1E-15 ± 33%	2.5E-17 ± 61%	671.5	2.0	81000	27000	27000	27000	27000	
04/28/95-05/26/95					6.2E-17 ± 80%	<5.8E-16	1.9E-17 ± 49%	672.4	2.0	81000	27000	27000	27000	27000	
05/26/95-06/30/95					1.5E-17 ± 50%	9.1E-16 ± 86%	1.7E-17 ± 50%	839.6	2.0	100000	27000	27000	27000	27000	
06/30/95-07/28/95					1.2E-16 ± 20%	4.2E-15 ± 29%	8.2E-17 ± 21%	671.3	2.0	81000	27000	27000	27000	27000	
07/28/95-09/01/95					3.9E-16 ± 13%	4.7E-15 ± 23%	2.6E-16 ± 19%	840.2	2.0	100000	27000	27000	27000	27000	
09/01/95-09/13/95					3.4E-16 ± 19%	6.9E-15 ± 42%	1.9E-16 ± 30%	289.1	2.0	35000	27000	27000	27000	27000	
09/13/95-11/03/95								0.0	0.0	0	0	0	0	0	
11/03/95-11/29/95					3.3E-16 ± 14%	5.1E-15 ± 25%	3.3E-16 ± 17%	622.2	2.0	75000	27000	27000	27000	27000	
11/29/95-12/27/95					2.0E-16 ± 16%	3.1E-15 ± 37%	3.4E-16 ± 15%	674.1	2.0	81000	27000	27000	27000	27000	
12/27/95-01/31/96					3.5E-16 ± 13%		4.6E-16 ± 14%	838.4	2.0	100000	27000	27000	27000	27000	

SYMBOL KEY: * Concentration exceeds Warning Level. ** MDA exceeds Warning Level. ? Reported MDA is negative. ** Stack FlowRate of previous Sample.

WHC ENVIRONMENTAL RELEASE SUMMARY

04/10/96

17:14

1706-KER -27 FT. LAB EXHAUST (Y244)

** 01/01/95 through 12/31/95

Total System Flow: 3.7E+10 Liters = 1.3E+09 Cubic Ft

Radionuclide	Half-life	Release, Ci
⁶⁰ Co	5.27 Years	ND
⁹⁰ Sr	29.12 Years	6.0E-09
¹⁰⁶ Ru	368 Days	ND
¹²⁵ Sb	2.8 Years	ND
¹³⁴ Cs	2.1 Years	1.2E-08
¹³⁷ Cs	30 Years	ND
¹⁵⁴ Eu	8.8 Years	ND
¹⁵⁵ Eu	4.96 Years	ND
²³⁸ Pu	87.8 Years	9.1E-11
^{239/240} Pu	24,131 Years*	6.5E-10
²⁴¹ Am	432 Years	6.9E-10
Total α	n/a	9.5E-09
Total β	n/a	7.0E-08

* The half-life shown for Total Uranium is the half-life of ²³⁸U. The half-life shown for mixed ^{239/240}Pu is the half-life of ²³⁹Pu.

** Values for one or more files projected backward to cover report period.

04/10/96 10:21		100-K-KER: 1706-KER -27 ft Lab Exhaust (Y244)					01/01/95 to 12/31/95			Page 1
Warning Levels:	1.0E-08 Co-60 μCi/ml	3.0E-11 Sr-90 μCi/ml	3.0E-09 Ru-106 μCi/ml	5.0E-12 Sb-125 μCi/ml	1.0E-09 Cs-134 μCi/ml	2.0E-09 Cs-137 μCi/ml	1.0E-14 Eu-154 μCi/ml	7.0E-14 Eu-155 μCi/ml	7.0E-14 Pu-238 μCi/ml	
On/Off Dates										
12/02/94-01/06/95	7.8E-16 ± 90%	6.1E-16 ± 56%	27.5E-15	27.7E-16	<1.8E-16	<1.0E-16	<3.6E-16	<3.6E-16	23.8E-19	
01/06/95-02/10/95	23.2E-16	23.9E-17	<4.5E-15	21.6E-16	<3.7E-16	21.8E-16	22.2E-16	22.4E-16	26.9E-19	
02/10/95-03/03/95	<3.4E-17	23.1E-17			26.4E-16	<1.9E-16	<1.1E-15	<1.1E-15	<5.4E-19	
03/03/95-04/07/95	22.2E-16	<4.9E-17			26.5E-16	29.7E-17	23.0E-16	22.1E-16	22.8E-19	
04/07/95-05/05/95										
05/05/95-06/02/95										
06/02/95-07/07/95										
07/07/95-08/04/95										
08/04/95-09/01/95										
09/01/95-10/06/95										
10/06/95-11/03/95										
11/03/95-12/01/95										
12/01/95-01/08/96										

SYMBOL KEY: * Concentration exceeds Warning Level. ** MDA exceeds Warning Level. ? Reported MDA is negative. ** Stack FlowRate of previous Sample.

04/10/96 10:21		100-K-KER: 1706-KER -27 ft Lab Exhaust (Y244)					01/01/95 to 12/31/95			Page 2
Warning Levels:	6.0E-14 Pu239/40 μCi/ml	Am-241 μCi/ml	Total α μCi/ml	Total β μCi/ml	Collect Time Hours	Sample FlowRate CFM	Sample Volume ft ³	Stack FlowRate CFM		
On/Off Dates										
12/02/94-01/06/95	<8.5E-19	<3.7E-18	2.7E-16 ± 46%	3.0E-15 ± 17%	6.09 3	3.0	150000	2500**		
01/06/95-02/10/95	8.1E-18 ± 51%	1.7E-17 ± 56%	1.8E-16 ± 41%	1.7E-15 ± 17%	8.04 0	3.0	150000	2500**		
02/10/95-03/03/95	<4.8E-18	<8.9E-18	1.1E-16 ± 17%	7.14E-16 ± 81%	8.89 2	3.0	150000	2500**		
03/03/95-04/07/95	<1.8E-18	<4.8E-18	4.9E-17 ± 20%	6.34E-16 ± 31%	6.33 2	3.0	150000	2500**		
04/07/95-05/05/95			<4.2E-17	7.1E-16 ± 34%	6.72 9	3.0	126000	2500**		
05/05/95-06/02/95			1.7E-16 ± 49%	9.3E-16 ± 29%	6.71 8	3.0	126000	2500**		
06/02/95-07/07/95			1.1E-16 ± 57%	1.2E-15 ± 23%	6.38 7	3.0	150000	2500**		
07/07/95-08/04/95			1.4E-16 ± 57%	9.7E-16 ± 28%	6.72 7	3.0	126000	2500**		
08/04/95-09/01/95			2.7E-16 ± 38%	9.4E-16 ± 30%	6.71 0	3.0	126000	2500**		
09/01/95-10/06/95			3.6E-16 ± 28%	2.8E-15 ± 16%	8.00 0	3.0	150000	2500**		
10/06/95-11/03/95			2.8E-16 ± 37%	9.6E-16 ± 28%	6.71 5	3.0	126000	2500**		
11/03/95-12/01/95			2.6E-16 ± 37%	1.4E-15 ± 24%	6.74 3	3.0	126000	2500**		
12/01/95-01/08/96			2.5E-16 ± 32%	2.7E-15 ± 16%	9.15 3	3.0	150000	2500**		

SYMBOL KEY: * Concentration exceeds Warning Level. ** MDA exceeds Warning Level. ? Reported MDA is negative. ** Stack FlowRate of previous Sample.

04/10/96 10:21		100-K-KER: 1706-KER -27 ft Lab Exhaust (X244)						01/01/95 to 12/31/95		Page 1
Warning Levels:		8.0E-11 Co-60 μCi/ml	9.0E-12 Sr-90 μCi/ml	3.0E-11 Ru-106 μCi/ml	1.0E-09 Sb-125 μCi/ml	2.0E-10 Cs-134 μCi/ml	4.0E-10 Cs-137 μCi/ml	5.0E-11 Eu-154 μCi/ml	3.0E-10 Eu-155 μCi/ml	3.0E-14 Pu-238 μCi/ml
On/Off Dates										
04/07/95-07/07/95		<2.1E-16	8.4E-17 ± 811			2.8E-16 ± 861	?? 1E-16	?? 8E-16	<2.5E-16	2.9E-18 ± 581
07/07/95-10/06/95		<2.8E-16	8.7E-17 ± 741			21.2E-16	52.8E-16	<4.1E-16	13.8E-16	<2.0E-19
10/06/95-01/08/96		<4.0E-16	<4.1E-17			5.0E-16 ± 631	21.3E-17	<5.6E-16	?? 3E-17	1.0E-18 ± 911

SYMBOL KEY: * Concentration exceeds Warning Level. *S MDA exceeds Warning Level. ? Reported MDA is negative. ** Stack FlowRate of previous Sample.

04/10/96 10:21		100-K-KER: 1706-KER -27 ft Lab Exhaust (X244)						01/01/95 to 12/31/95		Page 2
Warning Levels:		2.0E-14 Pu-239/40 μCi/ml	2.0E-14 Am-241 μCi/ml	Collect Time	Sample FlowRate	Sample Volume	Stack FlowRate			
On/Off Dates				Hours	CFM	ft ³	CFM			
04/07/95-07/07/95		1.2E-17 ± 291	5.9E-18 ± 401	2184.4	3.0	390000	2500			
07/07/95-10/06/95		8.2E-18 ± 331	3.5E-18 ± 621	2183.7	3.0	390000	2500			
10/06/95-01/08/96		7.5E-18 ± 341	8.1E-18 ± 341	2261.1	3.0	410000	2500			

SYMBOL KEY: * Concentration exceeds Warning Level. *S MDA exceeds Warning Level. ? Reported MDA is negative. ** Stack FlowRate of previous Sample.

WHC ENVIRONMENTAL RELEASE SUMMARY

04/10/96

17:14

1706-KE Lab (Y243)

** 01/01/95 through 12/31/95

Total System Flow: 1.8E+11 Liters = 6.3E+09 Cubic Ft

Radionuclide	Half-life	Release, Ci
⁶⁰ Co	5.27 Years	3.3E-08
⁹⁰ Sr	29.12 Years	ND
¹⁰⁶ Ru	368 Days	ND
¹²⁵ Sb	2.8 Years	ND
¹³⁴ Cs	2.1 Years	ND
¹³⁷ Cs	30 Years	ND
¹⁵⁴ Eu	8.8 Years	6.0E-07
¹⁵⁵ Eu	4.96 Years	1.3E-07
²³⁸ Pu	87.8 Years	ND
^{239/240} Pu	24,131 Years*	3.6E-09
²⁴¹ Am	432 Years	9.0E-09
Total α	n/a	2.4E-08
Total β	n/a	1.3E-07

* The half-life shown for Total Uranium is the half-life of ²³⁸U. The half-life shown for mixed ^{239/240}Pu is the half-life of ²³⁹Pu.

** Values for one or more files projected backward to cover report period.

100-K-LAB, 1706-EE Lab Exhaust (V243)									
04/10/95 10:21									
Warning Levels:									
On/Off Dates:									
04/10/95-01/06/95	Co-60 µCi/ml	1.0E-08	3.0E-11	3.0E-09	5.0E-12	1.0E-09	2.0E-09	7.0E-14	7.0E-14
01/06/95-02/10/95	72.3E-15	<5.2E-16	<5.2E-16	75.2E-15	7.0E-15 ± 924	<1.1E-16	75.1E-16	75.1E-16	<2.4E-18
02/10/95-03/03/95	76.1E-16	79.3E-16	79.3E-16	<2.4E-14	71.0E-14	79.3E-16	79.3E-16	79.3E-16	79.3E-16
03/03/95-04/07/95	<2.4E-15	<8.2E-17	<8.2E-17			71.1E-16	<1.1E-16	71.1E-16	71.1E-16
04/07/95-05/05/95									
05/05/95-06/02/95									
06/02/95-08/04/95									
08/04/95-09/01/95									
09/01/95-10/06/95									
10/06/95-11/03/95									
11/03/95-12/01/95									
12/01/95-01/06/95									

** Stack FlowRate of previous Sample.

? Reported HMA is negative

* S HMA exceeds Warning Level

* S HMA exceeds Warning Level

* S HMA exceeds Warning Level

100-K-LAB, 1706-EE Lab Exhaust (V243)									
04/10/95 10:21									
Warning Levels:									
On/Off Dates:									
04/10/95-01/06/95	Co-60 µCi/ml	6.0E-14	6.0E-14	6.0E-14	6.0E-14	6.0E-14	6.0E-14	6.0E-14	6.0E-14
01/06/95-02/10/95	72.3E-15	<5.2E-16	<5.2E-16	75.2E-15	7.0E-15 ± 924	<1.1E-16	75.1E-16	75.1E-16	<2.4E-18
02/10/95-03/03/95	76.1E-16	79.3E-16	79.3E-16	<2.4E-14	71.0E-14	79.3E-16	79.3E-16	79.3E-16	79.3E-16
03/03/95-04/07/95	<2.4E-15	<8.2E-17	<8.2E-17			71.1E-16	<1.1E-16	71.1E-16	71.1E-16
04/07/95-05/05/95									
05/05/95-06/02/95									
06/02/95-08/04/95									
08/04/95-09/01/95									
09/01/95-10/06/95									
10/06/95-11/03/95									
11/03/95-12/01/95									
12/01/95-01/06/95									

** Stack FlowRate of previous Sample.

? Reported HMA is negative

* S HMA exceeds Warning Level

* S HMA exceeds Warning Level

* S HMA exceeds Warning Level

04/10/96 10:21		100-K-LAB: 1706-KE Lab Exhaust (x243)					01/01/95 to 12/31/95			Page 1
Warning Levels:	8.0E-11 Co-60 μCi/ml	9.0E-12 Sr-90 μCi/ml	3.0E-11 Ru-106 μCi/ml	1.0E-09 Sb-125 μCi/ml	2.0E-10 Cs-134 μCi/ml	4.0E-10 Cs-137 μCi/ml	5.0E-11 Eu-154 μCi/ml	3.0E-10 Eu-155 μCi/ml	3.0E-14 Pu-238 μCi/ml	
On/Off Dates										
04/07/95-06/02/95	<4.9E-16	73.1E-17			22.8E-16	<5.6E-17	4.2E-15 ± 72%	21.1E-16	<1.3E-18	
07/07/95-10/06/95	38.7E-16	<5.3E-17			22.1E-17	<3.4E-16	<1.0E-15	21.2E-16	<1.7E-18	
10/06/95-01/08/96	6.9E-16 ± 90%	27.2E-18			23.1E-17	<2.8E-16	<8.0E-16	<5.8E-17	<1.4E-18	

SYMBOL KEY: * Concentration exceeds Warning Level. *S MDA exceeds Warning Level. ? Reported MDA is negative. ** Stack FlowRate of previous Sample.

04/10/96 10:21			100-K-LAB: 1706-KE Lab Exhaust (x243)				01/01/95 to 12/31/95				Page 2
Warning Levels:		2.0E-14 Pu239/40 μCi/ml	2.0E-14 Am-241 μCi/ml	Collect Time Hours	Sample FlowRate CFM	Sample Volume ft3	Stack FlowRate CFM				
On/Off Dates											
04/07/95-06/02/95		1.5E-17 ± 41%	7.1E-17 ± 38%	1345.7	1.5	120000	12000				
07/07/95-10/06/95		1.1E-17 ± 43%	5.3E-18 ± 64%	2183.6	1.5	200000	12000				
10/06/95-01/08/96		1.7E-17 ± 31%	5.3E-18 ± 58%	2261.3	1.5	200000	12000				
SYMBOL KEY: * Concentration exceeds Warning Level. * S MDA exceeds Warning Level. ? Reported MDA is negative. ** Stack FlowRate of previous Sample.											

SYMBOL KEY: * Concentration exceeds Warning Level. *S MDA exceeds Warning Level. ? Reported MDA is negative. ** Stack FlowRate of previous Sample.

2.3 100-N Area

WHC ENVIRONMENTAL RELEASE SUMMARY

04/09/96

09:58

1AN116: 116-N STACK PARTICULATE (X211, Y211, Y212, Y213)

01/01/95 through 12/31/95 ***

Total System Flow: 1.6E+12 Liters = 5.8E+10 Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.73

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci}/\text{ml}$	
		Average	Peak
⁶⁰ Co	6.6E-06	2.9E-15	2.5E-14
⁹⁰ Sr	ND	<9.3E-18	n/a
¹⁰⁶ Ru	ND	<7.7E-15	n/a
¹²⁵ Sb	ND	<1.1E-15	n/a
¹³⁴ Cs	ND	?1.8E-16	n/a
¹³⁷ Cs	ND	-2.5E-16	3.5E-15
¹⁵⁴ Eu	ND	<1.3E-15	n/a
¹⁵⁵ Eu	ND	<1.3E-15	n/a
²³⁸ Pu	ND	<9.8E-19	n/a
^{239/240} Pu	5.8E-08	2.6E-17	3.2E-17
²⁴¹ Am	4.2E-08	1.9E-17	2.2E-17
Total α	5.3E-07	2.4E-16	2.8E-15
Total β	9.5E-06	4.2E-15	4.4E-14

*** Values projected for period 07/21/95 to 12/31/95.

? A question mark (" ? ") indicates an average concentration less than a negative value.

04/10/96 10:21

IAN116: 116-N STACK PARTICULATE (Y211)

01/01/95 to 12/31/95

Page 1

Warning Levels:	1.0E-08 Co-60 µCi/ml	3.0E-09 Ru-106 µCi/ml	Sb-125 µCi/ml	1.0E-09 Cs-134 µCi/ml	2.0E-09 Cs-137 µCi/ml	Eu-154 µCi/ml	Eu-155 µCi/ml	Total α µCi/ml	Total β µCi/ml
On/Off Dates									
12/27/94-01/03/95	2.5E-14 ± 56†	21.2E-14	25.3E-15	<2.2E-15	<4.6E-15	24.3E-15	22.3E-15	<7.7E-16	2.6E-14 ± 20†
01/03/95-01/10/95	1.1E-14 ± 71†	23.0E-14	<9.5E-15	<4.2E-16	23.7E-16	<5.7E-15	23.5E-15	2.0E-15 ± 39†	4.4E-14 ± 14†
01/10/95-01/17/95	<2.4E-16	24.4E-14	<5.4E-16	<8.0E-15	<5.6E-15	26.6E-15	26.6E-15	<3.4E-16	8.0E-15 ± 31†
01/17/95-01/24/95	<4.5E-15	26.0E-14	<8.3E-16	<4.6E-16	<1.1E-15	<1.0E-14	27.6E-16	21.2E-16	8.7E-15 ± 29†
01/26/95-02/01/95	<8.9E-15	<1.1E-14		26.3E-15	<7.0E-16	21.6E-14	<1.1E-14	<8.7E-17	1.2E-14 ± 27†
02/01/95-02/15/95	21.4E-15			<7.0E-16	22.8E-16	23.8E-15	<2.6E-15	6.0E-16 ± 54†	7.5E-15 ± 23†
02/15/95-03/01/95	1.6E-14 ± 43†			<1.1E-15	<1.3E-15	<5.6E-15	22.7E-15	<1.0E-16	9.2E-15 ± 20†
03/01/95-03/15/95				<1.4E-15	<1.6E-15	29.5E-16	29.3E-16	<1.0E-16	5.1E-15 ± 27†
03/15/95-03/30/95				22.7E-15	3.5E-15 ± 89†	<1.0E-15	21.3E-15	3.5E-16 ± 82†	4.5E-15 ± 28†
03/30/95-04/12/95				<3.2E-16	23.0E-15	<6.6E-15	<3.3E-15	3.7E-16 ± 83†	5.3E-15 ± 28†
04/12/95-04/26/95				21.0E-15	<3.0E-15	26.0E-15	<4.6E-16	3.6E-16 ± 82†	4.6E-15 ± 29†
04/26/95-05/10/95				<7.0E-16	<2.2E-15	<1.0E-14	<5.6E-16	29.0E-19	5.4E-15 ± 27†
05/10/95-05/24/95	<1.5E-15			29.6E-16	21.6E-15	<5.5E-15	<2.1E-15	28.0E-17	<7.6E-16
05/24/95-06/07/95				<2.6E-15	21.1E-15	<4.6E-15	<5.2E-15	8.9E-16 ± 47†	7.0E-15 ± 24†
06/07/95-06/21/95	6.5E-15 ± 81†			21.7E-15	22.4E-16	<6.5E-15	<1.4E-15	2.6E-16 ± 96†	5.5E-15 ± 27†
06/21/95-07/05/95				<1.3E-15	<4.5E-16	29.0E-15	<4.7E-16	<2.5E-18	<4.0E-16
07/05/95-07/21/95	<4.1E-15			23.54E-16	29.11E-16	<8.9E-16	<1.8E-15	<1.2E-16	1.0E-15 ± 71†

SYMBOL KEY: * Concentration exceeds Warning Level.

† S MDA exceeds Warning Level.

‡ Reported MDA is negative.

** Stack FlowRate of previous Sample.

04/10/96 10:21

IAN116: 116-N STACK PARTICULATE (Y211)

01/01/95 to 12/31/95

Page 2

Warning Levels:	Collect Time Hours	Sample FlowRate CFM	Sample Volume FLX	Stack FlowRate CFM
On/Off Dates				
12/27/94-01/03/95	171.2	1.2	12000	110000
01/03/95-01/10/95	166.0	1.2	12000	110000**
01/10/95-01/17/95	167.6	1.2	12000	110000**
01/17/95-01/24/95	172.7	1.2	12000	110000**
01/26/95-02/01/95	144.6	1.2	10500	110000**
02/01/95-02/15/95	335.6	1.2	24000	110000**
02/15/95-03/01/95	337.5	1.2	24000	110000**
03/01/95-03/15/95	340.3	1.2	25000	110000**
03/15/95-03/30/95	354.7	1.2	25000	110000**
03/30/95-04/12/95	315.8	1.2	23000	110000**
04/12/95-04/26/95	337.9	1.2	24000	110000**
04/26/95-05/10/95	331.5	1.2	24000	110000**
05/10/95-05/24/95	337.6	1.2	24000	110000**
05/24/95-06/07/95	335.8	1.2	24000	110000**
06/07/95-06/21/95	332.2	1.2	24000	110000**
06/21/95-07/05/95	336.7	1.2	24000	110000**
07/05/95-07/21/95	388.0	1.2	28000	110000**

SYMBOL KEY: * Concentration exceeds Warning Level.

† S MDA exceeds Warning Level.

‡ Reported MDA is negative.

** Stack FlowRate of previous Sample.

04/10/96	05/10/96	06/10/96	07/10/96	08/10/96	09/10/96	10/10/96	11/10/96	12/10/96	13/10/96	14/10/96	15/10/96	16/10/96	17/10/96	18/10/96	19/10/96	20/10/96	21/10/96	22/10/96	23/10/96	24/10/96	25/10/96	26/10/96	27/10/96	28/10/96	29/10/96	30/10/96	31/10/96	01/11/96	02/11/96	03/11/96	04/11/96	05/11/96	06/11/96	07/11/96	08/11/96	09/11/96	10/11/96	11/11/96	12/11/96	13/11/96	14/11/96	15/11/96	16/11/96	17/11/96	18/11/96	19/11/96	20/11/96	21/11/96	22/11/96	23/11/96	24/11/96	25/11/96	26/11/96	27/11/96	28/11/96	29/11/96	30/11/96	01/12/96	02/12/96	03/12/96	04/12/96	05/12/96	06/12/96	07/12/96	08/12/96	09/12/96	10/12/96	11/12/96	12/12/96	13/12/96	14/12/96	15/12/96	16/12/96	17/12/96	18/12/96	19/12/96	20/12/96	21/12/96	22/12/96	23/12/96	24/12/96	25/12/96	26/12/96	27/12/96	28/12/96	29/12/96	30/12/96	31/12/96	01/01/97	02/01/97	03/01/97	04/01/97	05/01/97	06/01/97	07/01/97	08/01/97	09/01/97	10/01/97	11/01/97	12/01/97	13/01/97	14/01/97	15/01/97	16/01/97	17/01/97	18/01/97	19/01/97	20/01/97	21/01/97	22/01/97	23/01/97	24/01/97	25/01/97	26/01/97	27/01/97	28/01/97	29/01/97	30/01/97	31/01/97	01/02/97	02/02/97	03/02/97	04/02/97	05/02/97	06/02/97	07/02/97	08/02/97	09/02/97	10/02/97	11/02/97	12/02/97	13/02/97	14/02/97	15/02/97	16/02/97	17/02/97	18/02/97	19/02/97	20/02/97	21/02/97	22/02/97	23/02/97	24/02/97	25/02/97	26/02/97	27/02/97	28/02/97	29/02/97	01/03/97	02/03/97	03/03/97	04/03/97	05/03/97	06/03/97	07/03/97	08/03/97	09/03/97	10/03/97	11/03/97	12/03/97	13/03/97	14/03/97	15/03/97	16/03/97	17/03/97	18/03/97	19/03/97	20/03/97	21/03/97	22/03/97	23/03/97	24/03/97	25/03/97	26/03/97	27/03/97	28/03/97	29/03/97	30/03/97	31/03/97	01/04/97	02/04/97	03/04/97	04/04/97	05/04/97	06/04/97	07/04/97	08/04/97	09/04/97	10/04/97	11/04/97	12/04/97	13/04/97	14/04/97	15/04/97	16/04/97	17/04/97	18/04/97	19/04/97	20/04/97	21/04/97	22/04/97	23/04/97	24/04/97	25/04/97	26/04/97	27/04/97	28/04/97	29/04/97	30/04/97	01/05/97	02/05/97	03/05/97	04/05/97	05/05/97	06/05/97	07/05/97	08/05/97	09/05/97	10/05/97	11/05/97	12/05/97	13/05/97	14/05/97	15/05/97	16/05/97	17/05/97	18/05/97	19/05/97	20/05/97	21/05/97	22/05/97	23/05/97	24/05/97	25/05/97	26/05/97	27/05/97	28/05/97	29/05/97	30/05/97	31/05/97	01/06/97	02/06/97	03/06/97	04/06/97	05/06/97	06/06/97	07/06/97	08/06/97	09/06/97	10/06/97	11/06/97	12/06/97	13/06/97	14/06/97	15/06/97	16/06/97	17/06/97	18/06/97	19/06/97	20/06/97	21/06/97	22/06/97	23/06/97	24/06/97	25/06/97	26/06/97	27/06/97	28/06/97	29/06/97	30/06/97	01/07/97	02/07/97	03/07/97	04/07/97	05/07/97	06/07/97	07/07/97	08/07/97	09/07/97	10/07/97	11/07/97	12/07/97	13/07/97	14/07/97	15/07/97	16/07/97	17/07/97	18/07/97	19/07/97	20/07/97	21/07/97	22/07/97	23/07/97	24/07/97	25/07/97	26/07/97	27/07/97	28/07/97	29/07/97	30/07/97	31/07/97	01/08/97	02/08/97	03/08/97	04/08/97	05/08/97	06/08/97	07/08/97	08/08/97	09/08/97	10/08/97	11/08/97	12/08/97	13/08/97	14/08/97	15/08/97	16/08/97	17/08/97	18/08/97	19/08/97	20/08/97	21/08/97	22/08/97	23/08/97	24/08/97	25/08/97	26/08/97	27/08/97	28/08/97	29/08/97	30/08/97	31/08/97	01/09/97	02/09/97	03/09/97	04/09/97	05/09/97	06/09/97	07/09/97	08/09/97	09/09/97	10/09/97	11/09/97	12/09/97	13/09/97	14/09/97	15/09/97	16/09/97	17/09/97	18/09/97	19/09/97	20/09/97	21/09/97	22/09/97	23/09/97	24/09/97	25/09/97	26/09/97	27/09/97	28/09/97	29/09/97	30/09/97	01/10/97	02/10/97	03/10/97	04/10/97	05/10/97	06/10/97	07/10/97	08/10/97	09/10/97	10/10/97	11/10/97	12/10/97	13/10/97	14/10/97	15/10/97	16/10/97	17/10/97	18/10/97	19/10/97	20/10/97	21/10/97	22/10/97	23/10/97	24/10/97	25/10/97	26/10/97	27/10/97	28/10/97	29/10/97	30/10/97	31/10/97	01/11/97	02/11/97	03/11/97	04/11/97	05/11/97	06/11/97	07/11/97	08/11/97	09/11/97	10/11/97	11/11/97	12/11/97	13/11/97	14/11/97	15/11/97	16/11/97	17/11/97	18/11/97	19/11/97	20/11/97	21/11/97	22/11/97	23/11/97	24/11/97	25/11/97	26/11/97	27/11/97	28/11/97	29/11/97	30/11/97	01/12/97	02/12/97	03/12/97	04/12/97	05/12/97	06/12/97	07/12/97	08/12/97	09/12/97	10/12/97	11/12/97	12/12/97	13/12/97	14/12/97	15/12/97	16/12/97	17/12/97	18/12/97	19/12/97	20/12/97	21/12/97	22/12/97	23/12/97	24/12/97	25/12/97	26/12/97	27/12/97	28/12/97	29/12/97	30/12/97	31/12/97	01/01/98	02/01/98	03/01/98	04/01/98	05/01/98	06/01/98	07/01/98	08/01/98	09/01/98	10/01/98	11/01/98	12/01/98	13/01/98	14/01/98	15/01/98	16/01/98	17/01/98	18/01/98	19/01/98	20/01/98	21/01/98	22/01/98	23/01/98	24/01/98	25/01/98	26/01/98	27/01/98	28/01/98	29/01/98	30/01/98	31/01/98	01/02/98	02/02/98	03/02/98	04/02/98	05/02/98	06/02/98	07/02/98	08/02/98	09/02/98	10/02/98	11/02/98	12/02/98	13/02/98	14/02/98	15/02/98	16/02/98	17/02/98	18/02/98	19/02/98	20/02/98	21/02/98	22/02/98	23/02/98	24/02/98	25/02/98	26/02/98	27/02/98	28/02/98	29/02/98	01/03/98	02/03/98	03/03/98	04/03/98	05/03/98	06/03/98	07/03/98	08/03/98	09/03/98	10/03/98	11/03/98	12/03/98	13/03/98	14/03/98	15/03/98	16/03/98	17/03/98	18/03/98	19/03/98	20/03/98	21/03/98	22/03/98	23/03/98	24/03/98	25/03/98	26/03/98	27/03/98	28/03/98	29/03/98	30/03/98	31/03/98	01/04/98	02/04/98	03/04/98	04/04/98	05/04/98	06/04/98	07/04/98	08/04/98	09/04/98	10/04/98	11/04/98	12/04/98	13/04/98	14/04/98	15/04/98	16/04/98	17/04/98	18/04/98	19/04/98	20/04/98	21/04/98	22/04/98	23/04/98	24/04/98	25/04/98	26/04/98	27/04/98	28/04/98	29/04/98	30/04/98	01/05/98	02/05/98	03/05/98	04/05/98	05/05/98	06/05/98	07/05/98	08/05/98	09/05/98	10/05/98	11/05/98	12/05/98	13/05/98	14/05/98	15/05/98	16/05/98	17/05/98	18/05/98	19/05/98	20/05/98	21/05/98	22/05/98	23/05/98	24/05/98	25/05/98	26/05/98	27/05/98	28/05/98	29/05/98	30/05/98	31/05/98	01/06/98	02/06/98	03/06/98	04/06/98	05/06/98	06/06/98	07/06/98	08/06/98	09/06/98	10/06/98	11/06/98	12/06/98	13/06/98	14/06/98	15/06/98	16/06/98	17/06/98	18/06/98	19/06/98	20/06/98	21/06/98	22/06/98	23/06/98	24/06/98	25/06/98	26/06/98	27/06/98	28/06/98	29/06/98	30/06/98	01/07/98	02/07/98	03/07/98	04/07/98	05/07/98	06/07/98	07/07/98	08/07/98	09/07/98	10/07/98	11/07/98	12/07/98	13/07/98	14/07/98	15/07/98	16/07/98	17/07/98	18/07/98	19/07/98	20/07/98	21/07/98	22/07/98	23/07/98	24/07/98	25/07/98	26/07/98	27/07/98	28/07/98	29/07/98	30/07/98	31/07/98	01/08/98	02/08/98	03/08/98	04/08/98	05/08/98	06/08/98	07/08/98	08/08/98	09/08/98	10/08/98	11/08/98	12/08/98	13/08/98	14/08/98	15/08/98	16/08/98	17/08/98	18/08/98	19/08/98	20/08/98	21/08/98	22/08/98	23/08/98	24/08/98	25/08/98	26/08/98	27/08/98	28/08/98	29/08/98	30/08/98	31/08/98	01/09/98	02/09/98	03/09/98	04/09/98	05/09/98	06/09/98	07/09/98	08/09/98	09/09/98	10/09/98	11/09/98	12/09/98	13/09/98	14/09/98	15/09/98	16/09/98	17/09/98	18/09/98	19/09/98	20/09/98	21/09/98	22/09/98	23/09/98	24/09/98	25/09/98	26/09/98	27/09/98	28/09/98	29/09/98	30/09/98	01/10/98	02/10/98	03/10/98	04/10/98	05/10/98	06/10/98	07/10/98	08/10/98	09/10/98	10/10/98	11/10/98	12/10/98	13/10/98	14/10/98	15/10/98	16/10/98	17/10/98	18/10/98	19/10/98	20/10/98	21/10/98	22/10/98	23/10/98	24/10/98	25/10/98	26/10/98	27/10/98	28/10/98	29/10/98	30/10/98	31/10/98	01/11/98	02/11/98	03/11/98	04/11/98	05/11/98	06/11/98	07/11/98	08/11/98	09/11/98	10/11/98	11/11/98	12/11/98	13/11/98	14/11/98	15/11/98	16/11/98	17/11/98	18/11/98	19/11/98	20/11/98	21/11/98	22/11/98	23/11/98	24/11/98	25/11/98	26/11/98	27/11/98	28/11/98	29/11/98	30/11/98	01/12/98	02/12/98	03/12/98	04/12/98	05/12/98	06/12/98	07/12/98	08/12/98	09/12/98	10/12/98	11/12/98	12/12/98	13/12/98	14/12/98	15/12/98	16/12/98	17/12/98	18/12/98	19/12/98	20/12/98	21/12/98	22/12/98	23/12/98	24/12/98	25/12/98	26/12/98	27/12/98	28/12/98	29/12/98	30/12/98	31/12/98	01/01/99	02/01/99	03/01/99	04/01/99	05/01/99	06/01/99	07/01/99	08/01/99	09/01/99	10/01/99	11/01/99	12/01/99	13/01/99	14/01/99	15/01/99	16/01/99	17/01/99	18/01/99	19/01/99	20/01/99	21/01/99	22/01/99	23/01/99	24/01/99	25/01/99	26/01/99	27/01/99	28/01/99	29/01/99	30/01/99	31/01/99	01/02/99	02/02/99	03/02/99	04/02/99	05/02/99	06/02/99	07/02/99	08/02/99	09/02/99	10/02/99	11/02/99	12/02/99	13/02/99	14/02/99	15/02/99	16/02/99	17/02/99	18/02/99	19/02/99	20/02/99	21/02/99	22/02/99	23/02/99	24/02/99	25/02/99	26/02/99	27/02/99	28/02/99	29/02/99	01/03/99	02/03/99	03/03/99	04/03/99	05/03/99	06/03/99	07/03/99	08/03/99	09/03/99	10/03/99	11/03/99	12/03/99	13/03/99	14/03/99	15/03/99	16/03/99	17/03/99	18/03/99	19/03/99	20/03/99	21/03/99	22/03/99	23/03/99	24/03/99	25/03/99	26/03/99	27/03/99	28/03/99	29/03/99	30/03/99	31/03/99	01/04/99	02/04/99	03/04/99	04/04/99	05/04/99	06/04/99	07/04/99	08/04/99	09/04/99	10/04/99	11/04/99	12/04/99	13/04/99	14/04/99	15/04/99	16/04/99	17/04/99	18/04/99	19/04/99	20/04/99	21/04/99	22/04/99	23/04/99	24/04/99	25/04/99	26/04/99	27/04/99	28/04/99	29/04/99	30/04/99	01/05/99	02/05/99	03/05/99	04/05/99	05/05/99	06/05/99	07/05/99	08/05/99	09/05/99	10/05/99	11
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** Stack FlowRate of previous Sample.

? Reported MA is negative.

*5 MDA exceeds Warning Level.

SYMBOL KEY: * Concentration exceeds Warning Level.

WHC ENVIRONMENTAL RELEASE SUMMARY

04/09/96

09:58

1AN05DCN: 14' DECON FACILITY PARTICULATE (Y259, Y260)

01/01/95 through 12/31/95 ***

Total System Flow: 9.5E+10 Liters = 3.4E+09 Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.73

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci}/\text{ml}$	
		Average	Peak
^{60}Co	ND	<3.9E-16	n/a
^{90}Sr	4.4E-07	3.4E-15	5.8E-15
^{106}Ru	ND	<1.8E-15	n/a
^{125}Sb	2.7E-07	2.1E-15	5.0E-15
^{134}Cs	ND	?2.3E-16	n/a
^{137}Cs	ND	?3.8E-17	n/a
^{154}Eu	ND	-3.6E-16	9.9E-15
^{155}Eu	ND	<3.7E-16	n/a
^{238}Pu	ND	?2.9E-18	n/a
$^{239/240}\text{Pu}$	2.5E-09	1.9E-17	1.2E-17
^{241}Am	1.6E-08	1.2E-16	1.9E-16
Total α	5.8E-09	4.5E-17	1.1E-16
Total β	8.8E-08	6.8E-16	3.2E-15

*** Values projected for period 08/01/95 to 12/31/95.

? A question mark ("?) indicates an average concentration less than a negative value.

04/10/96 10 21

Warning Levels:

On/Off Dates:	1.0E-08 Co-60 µCi/ml	3.0E-11 Sr-90 µCi/ml	3.0E-09 Ru-106 µCi/ml	5.0E-15 ± 794 Sr-125 µCi/ml	1.0E-09 Cs-134 µCi/ml	2.0E-09 Cs-137 µCi/ml	Eu-154 µCi/ml	Eu-155 µCi/ml	7.0E-14 Pu-238 µCi/ml
12/06/94-01/03/95	39.4E-16	22.0E-16	<6.9E-15	5.0E-15 ± 794	32.4E-15	1.3E-15	21.9E-15	<2.5E-16	21.2E-18
01/03/95-02/15/95	<1.2E-16	<2.0E-16	<1.0E-15	<2.1E-15	29.6E-16	<2.1E-16	23.3E-16	25.0E-16	21.5E-18
02/15/95-03/30/95	<1.2E-16	<1.7E-17	<1.0E-15	<2.0E-16	<2.0E-16	1.2E-15	9.9E-16	21.5E-15	21.5E-18
03/30/95-04/26/95	<3E-16	<1.7E-17	<1.0E-15	<2.0E-16	21.1E-15	<2.0E-16	9.9E-16 ± 763	21.5E-15	21.5E-18
04/27/95-05/30/95	<2.0E-15	22.2E-18	<1.0E-15	<2.0E-16	<2.0E-16	<2.0E-16	3.8E-16 ± 903	22.0E-16	25.0E-18
05/31/95-06/09/95	<2.0E-15	<2.0E-15	<1.0E-15	<2.0E-16	<2.0E-16	<2.0E-16	<2.0E-16	<2.0E-16	25.0E-18
06/09/95-06/01/95	<6.4E-17	5.0E-15 ± 243	<1.0E-15	<2.0E-16	23.7E-17	21.5E-16	21.6E-15	<1.0E-15	25.0E-18

SMP04 KEY: * Concentration exceeds Warning Level. ** Stack FlowRate of previous Sample.

01/01/95 to 12/31/95

Page 1

04/10/96 10 21

Warning Levels:

On/Off Dates:	6.0E-14 Pu-238 µCi/ml	As-74 µCi/ml	Total 2 µCi/ml	Total 8 µCi/ml	Collect Hours	Sample Volume CMH	Stack FlowRate CMH
12/06/94-01/03/95	1.9E-17 ± 643	1.3E-17 ± 773	1.1E-16 ± 873	2.4E-15 ± 233	1032.7	73000	6400**
01/03/95-02/15/95	<4.8E-18	2.0E-17 ± 713	8.7E-17 ± 983	1.0E-15 ± 363	1032.7	73000	6400**
02/15/95-03/30/95	<4.8E-18	<2.0E-17	<2.0E-17	1.0E-15 ± 363	1032.7	73000	6400**
03/30/95-04/26/95	<4.8E-18	<2.0E-17	<2.0E-17	1.0E-15 ± 363	1032.7	73000	6400**
04/27/95-05/30/95	<4.8E-18	24.0E-16	24.0E-16	24.0E-16	163.8	17000	6400**
05/31/95-06/09/95	<4.8E-18	1.9E-16 ± 433	<2.0E-17	<2.0E-17	1383.7	93000	6400**

SMP04 KEY: * Concentration exceeds Warning Level. ** Stack FlowRate of previous Sample.

WHC ENVIRONMENTAL RELEASE SUMMARY

04/09/96

10:00

1AN07ROOF: 107-N EXHAUST PARTICULATE (Y265, Y266)

01/01/95 through 12/31/95 ***

Total System Flow: 1.1E+11 Liters = 3.8E+09 Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.73

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci/ml}$	
		Average	Peak
^{60}Co	1.0E-07	6.9E-16	1.4E-15
^{90}Sr	1.5E-07	9.8E-16	1.7E-15
^{106}Ru	ND	<2.7E-15	n/a
^{125}Sb	ND	?1.2E-15	n/a
^{134}Cs	ND	<5.0E-16	n/a
^{137}Cs	ND	<2.0E-16	n/a
^{154}Eu	ND	<2.0E-16	n/a
^{155}Eu	2.0E-07	1.4E-15	2.1E-15
^{238}Pu	ND	<3.1E-18	n/a
$^{239/240}\text{Pu}$	2.3E-09	1.6E-17	1.5E-17
^{241}Am	3.6E-09	2.4E-17	1.3E-17
Total α	3.1E-09	2.1E-17	1.2E-16
Total β	9.5E-08	6.4E-16	6.6E-15

*** Values projected for period 08/01/95 to 12/31/95.

? A question mark ("?") indicates an average concentration less than a negative value.

04/10/96 TO 12/31/96

107 M EXHAUST PARTICULATE (7265)

Page 1

Warning Levels:	1.0E-08 Co-60 µCi/m	3.0E-09 Ru-106 µCi/m	5E-10 Sr-90 µCi/m	1.0E-09 Cs-134 µCi/m	2.0E-09 Cs-137 µCi/m	Eu-154 µCi/m	Eu-155 µCi/m	Pu-238 µCi/m
12/06/94-01/03/95	<1.0E-15	3.2E-15	3.3E-16	3.3E-15	26.4E-16	<1.0E-15	29.4E-16	<1.3E-19
01/03/95-02/15/95	<1.0E-15	<2.7E-15	<1.0E-16	<2.7E-15	2.3E-16	<1.0E-15	2.4E-16	2.2E-19
03/01/95-04/27/95	7.1E-15 ± 9M		2.4E-17	2.1E-16	2.1E-15	<1.0E-15	1.8E-16	1.8E-19
04/27/95-05/26/95			2.4E-16	2.5E-15	5.4E-16	<1.0E-15	2.4E-16	2.4E-19
05/26/95-06/06/95			1.7E-15 ± 361	<9.2E-16	4.4E-15	2.1E-15 ± 611	2.1E-15 ± 611	<2.4E-19
06/06/95-08/07/95								

SIMBOL KEY: * Concentration exceeds Warning Level.

* MHA exceeds Warning Level

* Reported MHA is negative.

** Stack flowRate of previous Sample.

04/10/96 TO 12/31/96

107 M EXHAUST PARTICULATE (7265)

Page 2

Warning Levels:	Pu239/40 µCi/m	Am-241 µCi/m	Total α µCi/m	Total β µCi/m	Collector Hours	Sample Flow CFM	Stack Flow CFM
12/06/94-01/03/95	2.1E-19	<8.2E-18	<3.9E-17	1.5E-15 ± 6.1	672	74000	73000**
01/03/95-02/15/95	<2.1E-19	1.3E-17 ± 811	3.3E-16	1.2E-15 ± 2.3	1011.9	74000	73000**
02/15/95-03/01/95	4.2E-17	<3.3E-18	3.2E-17	1.7E-15 ± 3.0	695.0	60000	73000**
03/01/95-04/27/95	<4.2E-17	<3.3E-18	3.2E-17	1.7E-15 ± 3.0	818.6	59000	73000**
04/27/95-05/26/95	<2.3E-17	<3.7E-20	<2.7E-16 ± 901	1.1E-15 ± 4.1	1492.5	17000	73000**
05/26/95-06/06/95	<2.3E-17	<3.7E-20	<2.7E-16	6.6E-15 ± 2.1	1362.2	97000	73000**
06/06/95-08/07/95				2.7E-17			

SIMBOL KEY: * Concentration exceeds Warning Level.

* MHA exceeds Warning Level

* Reported MHA is negative.

** Stack flowRate of previous Sample.

2.4 200 East Area

2.4.1 PUREX

ENVIRONMENTAL RELEASE SUMMARY REPORT

08/01/96

13:51

291-A-1: PUREX MAIN STACK (A511, A552, A566, A940, X552)

01/01/95 through 12/31/95 ***

Total System Flow: 1.6E+12 Liters = 5.5E+10 Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.52
 Halogens: 0.87

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci/ml}$	
		Average	Peak
⁹⁰ Sr	4.2E-05	1.4E-14	2.8E-14
¹⁰³ Ru	ND	<1.0E-14	n/a
¹⁰⁶ Ru	ND	-2.6E-15	1.6E-14
¹¹³ Sn	ND	-2.7E-16	1.9E-15
¹²⁵ Sb	7.4E-06	2.7E-15	6.0E-15
¹²⁹ I	8.6E-03	4.8E-12	2.9E-11
¹³¹ I	ND	<3.3E-14	n/a
¹³⁴ Cs	ND	-2.2E-17	2.4E-17
¹³⁷ Cs	1.0E-04	3.7E-14	6.4E-14
¹⁵² Eu	3.5E-07	1.2E-16	2.5E-16
¹⁵⁴ Eu	3.2E-07	1.1E-16	1.9E-16
¹⁵⁵ Eu	9.4E-08	3.2E-17	1.5E-16
²³⁸ Pu	5.7E-07	1.9E-16	5.1E-16
^{239/240} Pu	4.5E-06	1.5E-15	2.7E-15
²⁴¹ Pu	1.1E-04	3.8E-14	8.3E-14
²⁴¹ Am	1.6E-05	5.2E-15	8.6E-15
Total α	1.4E-05	4.6E-15	1.1E-14
Total β	1.3E-04	4.3E-14	1.2E-13

*** Values projected for period 12/20/95 to 12/31/95.

06/21/96 11:21

291 A-1 Purex Main Stack (A552)

01/01/95 to 12/31/95

Page 1

Warning Levels:	2 OE 13	9 OE 11	Collect	Sample	Sample	Stack
On/Off Dates	Total α	Total β	Time	FlowRate	Volume	FlowRate
	μCi/ml	μCi/ml	Hours	CFM	FT3	CFM
12/21/94 01/04/95	9.2E 15 ± 151	9.2E 14 ± 4.2E	335.9	2.0	39000	110000
01/04/95 01/18/95	9.0E 15 ± 163	9.2E 14 ± 4.1E	334.6	2.0	39000	120000
01/18/95 02/01/95	6.6E 15 ± 181	5.7E 14 ± 5.3E	335.6	2.0	39000	120000
02/01/95 02/15/95	5.9E 15 ± 191	5.1E 14 ± 5.6E	336.3	2.0	40000	120000
02/15/95 03/01/95	5.6E 15 ± 201	5.9E 14 ± 5.1E	338.0	2.0	40000	120000
03/01/95 03/15/95	9.9E 15 ± 151	6.8E 14 ± 4.8E	334.5	2.0	39000	120000
03/15/95 03/29/95	1.1E 14 ± 141	1.2E 13 ± 3.7E	334.8	2.0	39000	120000
03/29/95 04/12/95	7.0E 15 ± 171	7.1E 14 ± 4.7E	341.5	2.0	40000	97000
04/12/95 04/26/95	1.9E 15 ± 341	2.8E 14 ± 7.6E	332.6	2.0	39000	110000
04/26/95 05/10/95	4.2E 15 ± 231	3.3E 14 ± 7.0E	333.7	2.0	39000	110000
05/10/95 05/24/95	5.3E 15 ± 201	3.7E 14 ± 6.5E	336.9	2.0	40000	110000
05/24/95 06/07/95	2.3E 15 ± 311	3.2E 14 ± 7.0E	340.2	2.0	40000	89000
06/07/95 06/21/95	3.8E 15 ± 241	3.2E 14 ± 7.1E	336.0	2.0	40000	78000
06/21/95 07/05/95	3.0E 15 ± 261	2.4E 14 ± 8.0E	331.6	2.0	39000	95000
07/05/95 07/19/95	2.6E 15 ± 291	2.5E 14 ± 8.0E	336.0	2.0	40000	94000
07/19/95 08/02/95	2.7E 15 ± 281	2.1E 14 ± 8.5E	341.0	2.0	40000	81000
08/02/95 08/16/95	4.0E 15 ± 271	2.9E 14 ± 7.4E	329.7	1.9	39000	92000
08/16/95 08/30/95	3.3E 15 ± 251	2.7E 14 ± 7.6E	336.6	1.9	39000	95000
08/30/95 09/13/95	2.4E 15 ± 291	3.1E 14 ± 7.0E	336.3	2.0	40000	87000
09/13/95 09/27/95	1.9E 15 ± 341	1.7E 14 ± 9.6E	337.8	2.0	40000	100000
09/27/95 10/11/95	2.8E 15 ± 271	2.9E 14 ± 7.4E	338.3	2.0	40000	110000
10/11/95 10/25/95	5.1E 15 ± 201	4.1E 14 ± 6.1E	336.1	2.0	40000	110000
10/25/95 11/08/95	2.8E 15 ± 281	1.5E 14 ± 6.7E	333.0	1.9	39000	110000
11/08/95 11/22/95	5.0E 15 ± 351	1.5E 14 ± 1.0E	334.7	2.0	39000	110000
11/22/95 12/06/95	1.4E 15 ± 401	1.7E 14 ± 9.8E	336.4	1.9	38000	110000
12/06/95 12/20/95	4.2E 15 ± 221	3.9E 14 ± 6.3E	341.0	2.0	41000	110000
12/21/95 12/31/95			0.0	0.0	0	110000

SYMBOL KEY: * Concentration exceeds Warning Level.

*S MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack FlowRate of previous Sample

06/21/96 11 21

291 A 1 PUREX MAIN STACK (A511)

01/01/95 to 12/31/95

Page 1

Warning Levels	2 OE 08 Ru-103 µCi/ml	3 OE 09 Ru-106 µCi/ml	1 OE 08 Sn-113 µCi/ml	1 OE 08 Sb-125 µCi/ml	7 OE 10 I-129 µCi/ml	4 OE 09 I-131 µCi/ml	Cs-137 µCi/ml	Collect Time Hours	Sample FlowRate CFM	Sample Volume ft3	Stack FlowRate CFM
On/Off Dates											
12/23/94 01/04/95	<1 1F 13	<1 1F 13	<1 2E 14	<6 9E 14	3 4E 12 ± 0.0%	<3 3E 14		335 9	1 9	39000	110000
01/04/95 01/18/95	1 5E 14 ± 110%	6 0E 16 ± 320%	5 0E 15 ± 100%	2 0E 12 ± 20%			1 5F 16 ± 1200%	334 5	2 0	40000	120000
01/18/95 02/01/95	4 1E 15 ± 370%	1 5E 15 ± 130%	4 5E 15 ± 100%	2 5E 12 ± 20%			3 2E 15 ± 60%	335 6	2 0	40000	120000
02/01/95 02/15/95	1 4E 14 ± 170%	8 6E 16 ± 230%	2 8E 15 ± 160%	1 9E 12 ± 25%			4 0E 15 ± 100%	336 2	2 0	40000	120000
02/15/95 03/01/95	2 5E 15 ± 630%	2 8E 16 ± 710%	1 9E 15 ± 240%	2 0E 12 ± 75%			4 5E 15 ± 70%	337 7	2 0	40000	120000
03/01/95 03/15/95	6 5E 15 ± 240%	1 1E 15 ± 700%	1 1E 15 ± 430%	2 1E 12 ± 20%			2 8E 16 ± 720%	334 6	2 0	40000	120000
03/15/95 03/29/95	3 0E 15 ± 330%	1 3E 15 ± 160%	1 9E 15 ± 240%	2 6E 12 ± 15%			2 8E 15 ± 70%	334 9	2 0	40000	120000
03/29/95 04/12/95	3 11 15 ± 470%	5 9E 16 ± 340%	3 1E 16 ± 1400%	3 6E 12 ± 20%			3 3E 15 ± 60%	340 5	2 0	41000	97000
04/12/95 05/03/95	5 6E 15 ± 280%	6 0E 16 ± 390%	6 0E 15 ± 90%	2 9E 12 ± 20%			6 4E 14 ± 15%	329 7	2 0	40000	110000
04/19/95 05/10/95	1 8E 14 ± 860%	1 9E 15 ± 110%	3 3E 15 ± 150%	2 9E 12 ± 20%			5 4E 15 ± 50%	336 5	2 0	40000	110000
05/10/95 05/24/95	1 2E 14 ± 120%	6 3E 16 ± 320%	3 8E 15 ± 110%	5 5E 12 ± 15%			5 0E 15 ± 50%	335 9	2 0	41000	110000
05/24/95 06/07/95	2 9E 15 ± 530%	4 3E 16 ± 440%	1 9E 15 ± 210%	6 9E 12 ± 15%			1 9E 15 ± 100%	339 2	2 0	41000	89000
06/07/95 06/21/95	4 6E 15 ± 330%	9 6E 16 ± 200%	4 0E 15 ± 110%	3 7E 12 ± 15%			1 6E 15 ± 110%	335 1	2 0	40000	98000
06/21/95 07/05/95	5 4E 15 ± 320%	6 8E 16 ± 280%	2 9E 15 ± 150%	3 2E 12 ± 15%			1 8E 15 ± 100%	330 6	2 0	40000	93000
07/05/95 07/19/95	9 6E 15 ± 160%	2 6E 16 ± 730%	5 2E 15 ± 80%	6 0E 12 ± 15%			1 5E 15 ± 30%	325 3	2 0	40000	94000
07/19/95 08/02/95	3 2E 15 ± 500%	1 2E 15 ± 170%	2 7E 15 ± 190%	4 7E 12 ± 15%			4 6E 15 ± 50%	340 0	2 0	41000	81000
08/02/95 08/16/95	4 8E 15 ± 360%	1 4E 15 ± 160%	2 5E 16 ± 1700%	4 7E 12 ± 15%			2 4E 15 ± 80%	328 7	2 0	39000	92000
08/16/95 08/30/95	1 3E 14 ± 120%	5 2E 16 ± 400%	2 5E 15 ± 180%	5 7E 12 ± 15%			2 2E 15 ± 92%	335 6	2 0	40000	95000
08/30/95 09/13/95	6 7E 15 ± 220%	1 4E 15 ± 140%	1 5E 15 ± 270%	5 1E 12 ± 15%			9 7E 16 ± 90%	335 1	2 0	40000	87000
09/13/95 09/27/95	8 5E 15 ± 180%	1 3E 16 ± 1500%	6 5E 16 ± 660%	4 7E 12 ± 15%			1 6E 15 ± 120%	337 0	2 0	40000	100000
09/27/95 10/11/95	4 8E 15 ± 170%	1 1E 15 ± 180%	1 7E 16 ± 2500%	2 5E 12 ± 20%			6 4E 15 ± 50%	337 7	2 0	40000	110000
10/11/95 10/25/95	8 9E 15 ± 180%	1 2E 15 ± 170%	6 7E 16 ± 630%	2 6E 12 ± 17%				336 1	2 0	40000	110000
10/25/95 11/08/95	6 9E 16 ± 2500%	1 2E 15 ± 160%	1 1E 14 ± 430%	2 5E 12 ± 18%			4 6E 15 ± 61%	332 8	1 9	38000	110000
11/08/95 11/22/95	5 1E 15 ± 315%	5 7E 17 ± 3500%	1 3E 15 ± 310%	2 9E 11 ± 11%			3 0E 15 ± 70%	334 7	2 0	40000	110000
11/22/95 12/06/95	5 0E 15 ± 380%	1 1E 15 ± 190%	1 0E 15 ± 480%	1 1E 11 ± 15%			8 6E 15 ± 40%	336 3	1 7	34000	110000
12/06/95 12/20/95	1 6E 14 ± 100%	1 2E 15 ± 170%	4 3E 15 ± 100%	5 4E 12 ± 15%			2 7E 15 ± 70%	341 0	2 0	41000	110000
12/20/95 01/03/96	4 5E 15 ± 330%	8 0E 16 ± 730%	2 8E 15 ± 140%	2 8E 12 ± 20%			1 4E 15 ± 120%	330 4	2 2	43000	100000

SYMBOL KEY: * Concentration exceeds Warning Level.

*S MDA exceeds Warning Level

? Reported MDA is negative

** Stack FlowRate of previous Sample

06/21/96 11:21

Warning Levels:

On/Off Dates	9.0E-11 Sr-90 µCi/ml	6.0E-09 Zr-95 µCi/ml	3.0E-08 Nb-95 µCi/ml	2.0E-08 Ru-103 µCi/ml	3.0E-09 Ru-106 µCi/ml	1.0E-08 Sr-113 µCi/ml	1.0E-08 Sb-125 µCi/ml	2.0E-09 Cs-137 µCi/ml
12/21/94 03/29/95	2.8E-14 ± 1.0E-14				8.2E-17 ± 9.0E-17	4.7E-17 ± 2.7E-17		
03/29/95 06/21/95	3.1E-14 ± 1.5E-14				6.0E-17 ± 3.9E-17	7.4E-17 ± 1.6E-16		
06/21/95 09/27/95	3.1E-14 ± 1.5E-14				6.0E-17 ± 1.9E-16	8.1E-16 ± 1.2E-15		
09/27/95 12/20/95	7.1E-15 ± 1.6E-15				7.7E-16 ± 1.9E-16	8.1E-16 ± 1.2E-15		

Stack Flowrate of previous Sample

Symbol Key: * Concentration exceeds Warning Level.

* MDA exceeds Warning Level.

? Reported MDA is negative.

06/21/96 11:21

Warning Levels:

On/Off Dates	3.0E-10 Cr-54 µCi/ml	3.0E-09 Pu-239 µCi/ml	5.0E-10 Pu-238 µCi/ml	3.0E-10 Pu-240 µCi/ml	3.0E-09 Pu-241 µCi/ml	3.0E-13 Pu-242 µCi/ml	2.0E-13 Pu-243 µCi/ml	1.0E-11 Am-241 µCi/ml
12/21/94 03/29/95								
03/29/95 06/21/95								
06/21/95 09/27/95								
09/27/95 12/20/95								

Stack Flowrate of previous Sample

Symbol Key: * Concentration exceeds Warning Level.

* MDA exceeds Warning Level.

? Reported MDA is negative.

06/21/96 11:21

Warning Levels:

On/Off Dates	Collect Hours	Sample Volume L	Stack Flowrate CFM
03/29/95 06/21/95	2019.8	2.0	15000
06/21/95 09/27/95	2348.3	2.0	24000
09/27/95 12/20/95	2019.5	1.8	22000

Stack Flowrate of previous Sample

Symbol Key: * Concentration exceeds Warning Level.

* MDA exceeds Warning Level.

? Reported MDA is negative.

ENVIRONMENTAL RELEASE SUMMARY REPORT

08/01/96

13:51

296-A-1: PUREX L, N, Q CELLS & PR ROOM (A540, X540)

01/01/95 through 12/31/95

Total System Flow: 5.9E+10 Liters = 2.1E+09 Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.73

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci/ml}$	
		Average	Peak
-----	-----	-----	-----
²³⁸ Pu	1.1E-07	1.3E-15	3.4E-15
^{239/240} Pu	1.8E-06	2.2E-14	4.7E-14
²⁴¹ Pu	9.4E-06	1.2E-13	3.0E-13
²⁴¹ Am	5.4E-07	6.7E-15	1.4E-14
Total α	1.2E-06	1.5E-14	7.6E-14
Total β	1.3E-07	1.6E-15	6.7E-15

06/21/96 11 21

296 A 1 PUREX L. N. O CELLS & FR ROOM (A54D)

01/01/95 to 12/31/95

Page 1

Warning Levels	2 OE 13	9 OE 11	Collect	Sample	Sample	Stack
On/Off Dates	Total α	Total β	Time	FlowRate	Volume	FlowRate
	$\mu\text{Ci/ml}$	$\mu\text{Ci/ml}$	Hours	CFM	ft ³	CFM
12/21/94 01/04/95	4.8E-14 $\pm$ 9.2E	2.7E-15 $\pm$ 39E	335.1	1.0	21000	3300
01/04/95 01/16/95	7.6E-14 $\pm$ 7.2E	4.8E-15 $\pm$ 79E	336.5	1.1	22000	3400
01/16/95 02/01/95	2.4E-14 $\pm$ 12E	2.8E-15 $\pm$ 32E	334.6	1.2	25000	3900
02/01/95 02/15/95	2.0E-14 $\pm$ 13E	9.3E-16 $\pm$ 70E	336.5	1.3	26000	4000
02/15/95 03/01/95	5.9E-15 $\pm$ 24E	5.0E-17 $\pm$ 2100E	340.1	1.3	26000	4000
03/01/95 03/15/95	6.2E-14 $\pm$ 7.5E	6.7E-15 $\pm$ 21E	332.4	1.2	24000	3800
03/15/95 03/29/95	1.2E-14 $\pm$ 17E	1.7E-15 $\pm$ 44E	335.8	1.2	24000	3800
03/29/95 04/12/95	5.9E-17 $\pm$ 770E	9.9E-16 $\pm$ 61E	329.8	1.2	25000	3900
04/12/95 04/26/95	1.0E-14 $\pm$ 18E	2.6E-16 $\pm$ 210E	333.3	1.3	25000	4100
04/26/95 05/10/95	7.9E-15 $\pm$ 20E	4.3E-16 $\pm$ 130E	333.5	1.3	26000	4200
05/10/95 05/24/95	5.9E-15 $\pm$ 23E	1.4E-16 $\pm$ 360E	336.9	1.3	27000	4100
05/24/95 06/07/95	7.4E-15 $\pm$ 21E	7.0E-16 $\pm$ 91E	340.0	1.3	27000	4200
06/07/95 06/21/95	4.6E-15 $\pm$ 27E	4.0E-16 $\pm$ 140E	337.0	1.3	26000	4100
06/21/95 07/05/95	1.6E-14 $\pm$ 14E	2.3E-15 $\pm$ 34E	331.0	1.4	27000	4100
07/05/95 07/19/95	4.0E-15 $\pm$ 29E	4.3E-15 $\pm$ 25E	336.9	1.3	26000	4100
07/19/95 08/02/95	1.9E-14 $\pm$ 13E	6.1E-16 $\pm$ 98E	340.1	1.3	27000	4100
08/02/95 08/16/95	1.0E-14 $\pm$ 17E	8.0E-16 $\pm$ 76E	331.1	1.4	28000	4100
08/16/95 08/30/95	5.0E-15 $\pm$ 25E	1.0E-15 $\pm$ 57E	335.2	1.3	26000	4000
08/30/95 09/13/95	5.8E-16 $\pm$ 110E	2.1E-15 $\pm$ 36E	337.6	1.3	26000	4100
09/13/95 09/27/95	1.0E-14 $\pm$ 18E	1.1E-15 $\pm$ 52E	337.5	1.3	27000	4100
09/27/95 10/11/95	3.6E-14 $\pm$ 4.6E	9.6E-16 $\pm$ 59E	337.4	1.3	25000	3900
10/11/95 10/25/95	6.1E-15 $\pm$ 27E	8.4E-16 $\pm$ 63E	337.1	1.3	27000	4000
10/25/95 11/08/95	1.4E-14 $\pm$ 15E	1.6E-15 $\pm$ 39E	333.0	1.3	26000	4000
11/08/95 11/22/95	1.4E-14 $\pm$ 16E	5.9E-16 $\pm$ 100E	333.4	1.3	26000	3900
11/22/95 12/06/95	4.3E-15 $\pm$ 27E	1.0E-15 $\pm$ 56E	337.4	1.3	26000	4000
12/06/95 12/20/95	1.4E-14 $\pm$ 15E	2.3E-15 $\pm$ 36E	339.9	1.3	26000	3800
12/20/95 12/31/95			0.0	0.0	0	4000

SYMBOL KEY: * Concentration exceeds Warning Level.

*S MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack FlowRate of previous Sample.

01/01/95 to 12/31/95

Page 1

79% A.I. PUREX I. N. O. CELL'S & P.V. ROOM (COMPOSITIONS) (K540)

06/21/96 11:21

Warning Levels:

On/Off Dates	3.0E-14 Pu-238 μCi/ml	2.0E-14 Pu-239/40 μCi/ml	1.0E-17 Pu-241 μCi/ml	2.0E-14 Am-241 μCi/ml	Collect Time Hours	Sample FlowRate CFM	Sample Volume ft ³	Stack FlowRate CFM
12/21/94 03:29/95	3.4E-15 ± 17A	4.7E-14 ± 15A	3.0E-13 ± 0.0A	1.4E-14 ± 15A	2500.9	1.2	170000	3800
06/21/95 06:21/95	6.3E-16 ± 20A	1.4E-14 ± 15A	5.5E-14 ± 0.0A	3.9E-15 ± 15A	2819.4	1.3	160000	4100
08/21/95 12:20/95	9.6E-16 ± 20A	1.4E-14 ± 15A	8.3E-14 ± 0.0A	5.7E-15 ± 15A	2808.3	1.3	160000	3900
12/20/95 12:31/95	9.6E-16 ± 20A	1.4E-14 ± 15A	8.3E-14 ± 0.0A	5.7E-15 ± 15A	0.0	0.0	0	4000

SYMBOL KEY: * Concentration exceeds Warning Level

*5 MHA exceeds Warning Level

? Reported MHA is negative

-- Stack FlowRate of previous Sample

WHC ENVIRONMENTAL RELEASE SUMMARY

06/14/96

13:12

296-A-2: PUREX WEST SAMPLE GAL. HOOD EXHAUST (A542, X542)

01/01/95 through 12/31/95

Total System Flow: 3.3E+10 Liters = 1.2E+09 Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.73

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci/ml}$	
		Average	Peak
Total α	3.3E-09	7.3E-17	7.3E-17
Total β	5.8E-09	1.3E-16	1.3E-16

06/21/96 11:21 2.0E 13 9.0E-11 01/01/96 to 12/31/96 Page 1

Warning Levels: Total α Total B

01/01/96 05/02/96 7.3E 17 $\pm$ 2304 1.3E-16 $\pm$ 1504

05/03/96 05/31/96

06/02/96 12/31/96

SYMBOL KEY * Concentration exceeds Warning Level. *S MDA exceeds Warning Level

2.0E A 2. PARTIAL SAMPLE GAL 1000 L/HAWST (A542)

Collect Time	Sample Flowrate CFM	Sample Volume ft ³	Start Location
00:00	0.0	0	2200
00:01	0.0	0	2200
00:02	2.0	79000	2200
00:03	0.0	0	2200

? Reported MDA is negative.

-- Slack Filtrate of previous Sample.

WHC ENVIRONMENTAL RELEASE SUMMARY

06/14/96

13:12

296-A-3: PUREX EAST SAMPLE GAL. HOOD EXHAUST (A543)

01/01/95 through 12/31/95

Total System Flow: 4.4E+10 Liters = 1.6E+09 Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.73

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci/ml}$	
		Average	Peak
-----	-----	-----	-----
Total α	5.2E-09	8.6E-17	8.6E-17
Total β	1.1E-07	1.8E-15	1.8E-15

06/27/96 11:41:21		276. A: TURLEY EAST 5499 F GAL		01/01/96, to 12/31/96		Page 1	
Warning Levels:		9 0E-12	Stack	Sample	Stack		
		0E-12	Flow	Flow	Flow		
		0E-12	Waste	Waste	Waste		
		0E-12	Hours	Hours	Hours		
Un/Off Dates:			Un/Off	Un/Off	Un/Off		
01/01/96-05/03/96			Un/Off	Un/Off	Un/Off		
05/03/96-05/31/96			Un/Off	Un/Off	Un/Off		
05/31/96-12/31/96			Un/Off	Un/Off	Un/Off		
		8 4E 17 + 2.00E	1 BE 15 + 2.44	646 7	1 7	68000	3000
				646 7	1 7	68000	3000
				0	0	3000	3000
SMOKE REL: *		Concentration exceeds Warning Level		* Reported MDA is negative		-- Stack Flowrate of previous sample	

WHC ENVIRONMENTAL RELEASE SUMMARY

06/15/96

15:23

296-5-A & 296-5-B: PUREX LAB EXHAUSTERS (A545, A546)

01/01/95 through 12/31/95

Total System Flow: 2.8E+11 Liters = 9.9E+09 Cubic Ft

Radionuclide	Half-life	Release, Ci
-----	-----	-----
Total α	n/a	5.4E-08
Total β	n/a	8.8E-08

06/21/96 11:21 296 A 58: PUREX LAB. M EAST EXHAUSTER (A546) 01/01/96 TO 12/31/96 Page 1

Warning Levels:		9 of 12		Collect	Sample	Sample	Stack
Dilution Dates		Total	Flowrate	Time	Flowrate	Volume	Flowrate
01/01/96	05/31/96	1.4E+16 ± 1528	2.3E+16 ± 1002	0 0	0 0	0 19000	0 19000
01/01/96	05/31/96	1.4E+16 ± 1528	2.3E+16 ± 1002	66 0	0 0	7400 0	19000
05/31/96	12/31/96			0 0	0 0	0 0	19000

SYMBOL KEY: * Concentration exceeds Warning Level. ? Reported MDA is negative. ** MDA exceeds Warning Level.

-- Stack Flowrate of previous Sample.

WHC ENVIRONMENTAL RELEASE SUMMARY

06/14/96

13:12

296-A-6: PUREX EAST SAMPLE GAL. & U CELL (A547, X547)

01/01/95 through 12/31/95

Total System Flow: 1.8E+11 Liters = 6.3E+09 Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.73

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci/ml}$	
		Average	Peak
Total α	ND	-4.3E-17	-4.3E-17
Total β	1.4E-08	5.6E-17	5.6E-17

06/21/96 11 21 206 A 6: PUREX EAST SAMPLE GAL A II CELL (A447) 01/01/95 to 12/31/95 Page 1

Warning Level: 2.0E 14 Total g 9.0E 12 Total g

On Off Dates	Collect Time	Sample Volume	Stack Flowrate
01/01/95-05/03/95	0 0	0	0
05/01/95-05/31/95	0 0	67000	12000
05/31/95-12/31/95	0 0	0	12000**

SYMBOL KEY: * Concentration exceeds Warning Level. ** MHA exceeds Warning Level. ? Reported MHA is negative. ** Stack Flowrate of previous Sample

WHC ENVIRONMENTAL RELEASE SUMMARY

06/14/96

13:12

296-A-7: PUREX WEST SAMPLE GAL. & U CELL (A548, X548)

01/01/95 through 12/31/95

Total System Flow: 2.7E+11 Liters = 9.4E+09 Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.73

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci/ml}$	
		Average	Peak
Total α	1.2E-08	3.2E-17	3.2E-17
Total β	2.1E-07	5.7E-16	5.7E-16

06/21/96 11:21 296 A 7: HURRY WEST SAMPLE GAL. & U CH11 (ASR8) 01/01/95 to 12/31/95 Page 1

Warning Levels: 2 DE 14 9 DE 12
Total @ Total @
µCi/ml µCi/ml

On Off Dates	Collect Line	Sample Flowrate CFM	Sample Volume TL3	Stack Flowrate CFM
01/01/95 05/03/95	0 0	0 0	0	18000
05/03/95 09/31/95	668 0	1 2	46000	18000
09/31/95 12/31/95	0 0	0 0	0	18000

SYMBOL KEY: * Concentration exceeds Warning Level *S MIA exceeds Warning Level
? Reported MIA is negative. ** Stack Flowrate of previous Sample

WHC ENVIRONMENTAL RELEASE SUMMARY

06/14/96

13:12

296-A-8: PUREX WHITE ROOM EXHAUSTER (A549, X549)

01/01/95 through 12/31/95

Total System Flow: 2.1E+11 Liters = 7.3E+09 Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.73

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci/ml}$	
		Average	Peak
Total α	7.1E-08	2.5E-16	2.5E-16
Total β	5.7E-07	2.0E-15	2.0E-15

[illegible]

WHC ENVIRONMENTAL RELEASE SUMMARY

06/14/96

13:12

296-A-10: PUREX EQUIPMENT DISPOSAL TUNNEL 2 (A550)

01/01/95 through 12/31/95

Total System Flow: 1.0E+11 Liters = 3.5E+09 Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.73

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci/ml}$	
		Average	Peak
Total α	ND	-4.8E-17	-4.8E-17
Total β	ND	-1.6E-16	-1.6E-16

296 A 10: PUREX EQUIPMENT DISPOSAL TUNNEL 2 (A550)									
06/21/96 11 21									
Warning Levels:									
On 01/95		2.0E 14		9.0E 12		Collect		Sample	
Date		Total α		Total B		Time		Flowrate	
		ppm		ppm		min		cm ³ /min	

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01/02/95 05/13/95									
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WHC ENVIRONMENTAL RELEASE SUMMARY

06/14/96

13:12

296-A-14: 293-A 'OUTBACK FACILITY' EXHAUST (A544)

01/01/95 through 12/31/95

Total System Flow: 6.9E+10 Liters = 2.4E+09 Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.73

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci/ml}$	
		Average	Peak
Total α	1.3E-08	1.4E-16	1.4E-16
Total β	2.2E-08	2.3E-16	2.3E-16

Warning Levels:		2 DE 14		9 DE 12		Collect		Sample		Stack	
On Off Dates:		JCF m		JCF m		Hours		Volume		Flowrate	
								CFM		CFM	
05/21/95 11:21		1 4E 16 + 150K		2 3E 16 + 100K		666 0		0 0		0 0	
05/22/95 05:31:55						0 0		0 0		0 0	
05/23/95 05:31:55						0 0		0 0		0 0	
05/23/95 11:42:55						0 0		0 0		0 0	
11/27/95 12:31:55						0 0		0 0		0 0	

SYNOD. KER + Concentration exceeds Warning Level.

*S MDA exceeds Warning Level.

? Reported MDA is negative.

-- Stack Flowrate of previous Sample

01/01/95 to 12/31/95

796 A-14 293 A 'OUTBACK FACILITY' EXHAUST (A5/A)

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2.4.2 B-Plant

WHC ENVIRONMENTAL RELEASE SUMMARY

06/14/96

13:12

291-B-1: 221-B BLDG & CANYON (B-PLANT MAIN STK) (B691, X691)

01/01/95 through 12/31/95

Total System Flow: 5.8E+11 Liters = 2.0E+10 Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.73

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci/ml}$	
		Average	Peak
⁹⁰ Sr	8.7E-06	1.1E-14	2.7E-14
¹⁰⁶ Ru	ND	-1.7E-16	6.7E-16
¹¹³ Sn	ND	-1.0E-16	-1.8E-17
¹²⁵ Sb	4.1E-08	5.2E-17	6.2E-16
¹³⁴ Cs	ND	-2.0E-18	7.3E-17
¹³⁷ Cs	2.1E-04	2.7E-13	4.0E-13
¹⁵² Eu	ND	-6.3E-17	-4.3E-17
¹⁵⁴ Eu	ND	-4.8E-18	9.7E-17
¹⁵⁵ Eu	7.0E-08	8.9E-17	3.3E-16
²³⁸ Pu	9.0E-09	1.1E-17	1.8E-17
^{239/240} Pu	9.5E-07	1.2E-15	1.5E-15
²⁴¹ Am	6.4E-08	8.1E-17	1.6E-16
Total α	1.0E-06	1.3E-15	6.3E-15
Total β	1.5E-04	1.9E-13	1.1E-12

06/21/96 11 21

791 B L 221 B HOG & CANYON (B-PLANT MAIN SIX) (B69)

01/01/95 to 12/31/95

Page 1

Warning Levels	2 OE 13 Total O µCi/ml	9 OE 11 Total O µCi/ml	Collect Time Hours	Sample Flowrate CFM	Sample Volume Ft3	Stack Flowrate CFM
On/Off Dates						
17/30/94 01/06/95	4.1E-15 ± 381	2.5E-13 ± 4.03	168.4	1.5	15000	39000
01/06/95 01/13/95	1.9E-15 ± 691	1.1E-13 ± 5.91	168.0	1.6	17000	39000
01/13/95 01/20/95	8.5E-16 ± 1201	4.9E-14 ± 8.81	170.1	1.6	17000	39000
01/20/95 01/27/95	1.4E-15 ± 861	5.1E-14 ± 9.71	165.0	1.7	16000	39000
01/27/95 02/03/95	1.6E-15 ± 771	6.9E-14 ± 7.42	167.7	1.7	17000	39000
02/03/95 02/10/95	9.9E-16 ± 1001	1.1E-13 ± 6.02	168.3	1.6	16000	39000
02/10/95 02/17/95	6.9E-16 ± 1001	7.1E-14 ± 4.21	168.0	1.6	16000	39000
02/17/95 02/24/95	2.8E-15 ± 451	1.4E-13 ± 5.21	168.0	1.6	16000	40000
02/24/95 03/03/95	1.9E-15 ± 691	1.6E-13 ± 4.91	167.4	1.6	17000	40000
03/03/95 03/10/95	7.3E-16 ± 1201	2.7E-13 ± 4.11	169.0	1.7	17000	40000
03/10/95 03/15/95	2.0E-16 ± 4701	2.0E-13 ± 5.11	172.7	1.6	12000	40000
03/15/95 03/17/95	2.6E-15 ± 1401	1.6E-13 ± 9.61	43.7	1.7	4300	40000
03/17/95 03/24/95	3.9E-15 ± 371	8.6E-14 ± 6.61	167.4	1.6	16000	40000
03/24/95 03/31/95	4.4E-16 ± 1801	8.0E-14 ± 6.81	169.4	1.6	17000	40000
03/31/95 04/07/95	1.8E-15 ± 701	1.4E-13 ± 5.21	165.0	1.6	16000	40000
04/07/95 04/14/95	2.4E-15 ± 601	2.1E-13 ± 4.31	165.0	1.6	16000	40000
04/14/95 04/21/95	7.5E-16 ± 1201	7.1E-14 ± 7.31	168.6	1.7	17000	40000
04/21/95 04/28/95	6.4E-16 ± 1401	1.8E-13 ± 4.51	168.3	1.7	17000	40000
04/28/95 05/05/95	1.5E-15 ± 791	7.1E-14 ± 7.42	168.0	1.6	16000	40000
05/05/95 05/12/95	7.0E-16 ± 1301	1.2E-13 ± 5.71	168.4	1.6	16000	40000
05/12/95 05/19/95	1.4E-15 ± 801	1.5E-13 ± 5.01	168.3	1.6	17000	40000
05/19/95 05/26/95	3.8E-15 ± 371	4.7E-13 ± 2.92	166.7	1.6	16000	40000
05/26/95 06/02/95	4.6E-16 ± 1801	3.9E-13 ± 3.11	168.0	1.7	17000	40000
06/02/95 06/09/95	3.3E-16 ± 2501	0.0E-13 ± 6.11	170.7	1.6	17000	40000
06/09/95 06/16/95	8.9E-17 ± 5701	1.7E-13 ± 4.81	167.7	1.6	16000	40000
06/16/95 06/23/95	9.9E-16 ± 1101	8.5E-14 ± 6.71	168.9	1.6	16000	40000
06/23/95 06/30/95	9.0E-17 ± 5301	5.2E-14 ± 8.51	166.2	1.6	16000	40000
06/30/95 07/07/95	1.3E-15 ± 901	1.5E-13 ± 5.01	168.2	1.6	15000	40000
07/07/95 07/14/95	6.3E-15 ± 291	1.1E-12 ± 1.91	168.0	1.6	16000	40000
07/14/95 07/21/95	2.1E-15 ± 651	2.8E-13 ± 3.71	168.2	1.6	16000	40000
07/21/95 07/28/95	3.1E-15 ± 421	2.9E-13 ± 3.61	168.4	1.6	16000	40000
07/28/95 08/04/95	4.9E-16 ± 1101	1.5E-13 ± 5.01	168.0	1.6	16000	40000
08/04/95 08/11/95	4.3E-16 ± 1901	5.5E-13 ± 5.11	167.3	1.6	16000	40000
08/11/95 08/18/95	2.1E-16 ± 3001	2.5E-14 ± 4.91	169.4	1.6	16000	40000
08/18/95 08/25/95	2.2E-16 ± 3301	1.2E-13 ± 5.71	166.9	1.6	16000	40000
08/25/95 09/01/95	7.3E-16 ± 1301	4.1E-14 ± 9.81	168.1	1.6	16000	40000
09/01/95 09/08/95	3.6E-15 ± 391	8.8E-14 ± 2.61	168.8	1.6	16000	37000
09/08/95 09/15/95	9.4E-16 ± 1101	1.8E-13 ± 4.61	166.7	1.6	16000	37000
09/15/95 09/22/95	1.5E-16 ± 3301	1.6E-13 ± 5.01	168.1	1.6	16000	37000
09/22/95 09/29/95	7.4E-16 ± 1801	1.6E-13 ± 3.31	167.2	1.6	16000	37000
09/29/95 10/06/95	1.8E-16 ± 3901	2.1E-13 ± 4.31	169.0	1.5	16000	37000
10/06/95 10/13/95	1.0E-15 ± 1001	1.2E-13 ± 5.61	169.4	1.6	16000	37000
10/13/95 10/20/95	3.3E-16 ± 5001	3.3E-14 ± 7.11	165.8	1.6	16000	37000
10/20/95 10/27/95	1.2E-16 ± 3901	4.8E-14 ± 8.81	165.9	1.6	16000	37000
10/27/95 11/03/95	1.6E-16 ± 4001	5.3E-14 ± 8.11	168.9	1.7	17000	37000
11/03/95 11/10/95	3.9E-16 ± 2201	8.2E-14 ± 6.61	168.1	1.7	16000	37000
11/10/95 11/17/95	1.6E-15 ± 771	5.8E-13 ± 2.51	169.5	1.7	17000	37000
11/17/95 11/24/95	9.6E-16 ± 1001	9.8E-14 ± 6.11	167.2	1.7	17000	37000
11/24/95 12/01/95	5.5E-15 ± 451	2.3E-13 ± 3.41	167.2	1.7	17000	37000
12/01/95 12/08/95	1.9E-16 ± 3501	9.8E-14 ± 6.01	168.5	1.7	18000	37000
12/08/95 12/15/95	1.0E-15 ± 1201	5.6E-13 ± 2.61	167.5	1.7	17000	37000
12/15/95 12/22/95	1.3E-15 ± 781	2.7E-14 ± 7.101	166.9	1.7	17000	37000
12/22/95 12/29/95	4.5E-16 ± 1801	6.3E-14 ± 7.61	168.3	1.7	17000	37000
12/30/95 12/31/95		0.0	0.0	0	0	37000

SYMBOL KEY: * Concentration exceeds Warning Level.

*S MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack FlowRate of previous Sample.

06/21/96 11:21

Warning Levels:

On/Off Dates	9 DE 12 Sr-90 $\mu\text{Ci/ml}$	3 DE 11 Ru-106 $\mu\text{Ci/ml}$	1 DE 09 Cs-137 $\mu\text{Ci/ml}$	1 DE 09 Ba-133 $\mu\text{Ci/ml}$	2 DE 10 Cs-137 $\mu\text{Ci/ml}$	4 DE 10 Cs-137 $\mu\text{Ci/ml}$	5 DE 11 Eu-155 $\mu\text{Ci/ml}$	5 DE 11 Eu-154 $\mu\text{Ci/ml}$	3 DE 10 Eu-155 $\mu\text{Ci/ml}$
12/30/94 03/31/95	6 DE 15 $\pm$ 133	5 DE 17 $\pm$ 28003	2 DE 16 $\pm$ 7600	2 DE 16 $\pm$ 3003	2 DE 13 $\pm$ 2533	2 DE 13 $\pm$ 203	4 DE 17 $\pm$ 2703	4 DE 17 $\pm$ 5703	3 DE 10 $\pm$ 1303
03/31/95 06/30/95	9 DE 15 $\pm$ 153	4 DE 16 $\pm$ 3303	1 DE 16 $\pm$ 2303	2 DE 16 $\pm$ 3003	3 DE 17 $\pm$ 2533	2 DE 13 $\pm$ 203	4 DE 17 $\pm$ 5703	4 DE 17 $\pm$ 5703	3 DE 10 $\pm$ 1303
06/30/95 09/29/95	9 DE 15 $\pm$ 153	4 DE 16 $\pm$ 3303	1 DE 16 $\pm$ 2303	2 DE 16 $\pm$ 3003	3 DE 17 $\pm$ 2533	2 DE 13 $\pm$ 203	4 DE 17 $\pm$ 5703	4 DE 17 $\pm$ 5703	3 DE 10 $\pm$ 1303
09/29/95 12/29/95	9 DE 15 $\pm$ 153	4 DE 16 $\pm$ 3303	1 DE 16 $\pm$ 2303	2 DE 16 $\pm$ 3003	3 DE 17 $\pm$ 2533	2 DE 13 $\pm$ 203	4 DE 17 $\pm$ 5703	4 DE 17 $\pm$ 5703	3 DE 10 $\pm$ 1303

SYMBOL KEY: * Concentration exceeds Warning Level.

* MDA exceeds Warning Level.

? Reported MDA is negative.

-- Stack Floodate of previous Sample.

06/21/96 11:21

Warning Levels:

On/Off Dates	3 DE 14 Pu-238 $\mu\text{Ci/ml}$	2 DE 14 Pu-239/40 $\mu\text{Ci/ml}$	Collect Hours	Sample Volume ml	Stack Floodate hrs
12/30/94 03/31/95	5 DE 18 $\pm$ 3003	7 DE 16 $\pm$ 553	2176.0	210000	33000
03/31/95 06/30/95	1 DE 17 $\pm$ 1153	1 DE 15 $\pm$ 203	2176.0	210000	33000
06/30/95 09/29/95	1 DE 17 $\pm$ 1153	1 DE 15 $\pm$ 203	2176.0	210000	33000
09/29/95 12/29/95	1 DE 17 $\pm$ 1153	1 DE 15 $\pm$ 203	2176.0	210000	33000

SYMBOL KEY: * Concentration exceeds Warning Level.

* MDA exceeds Warning Level.

? Reported MDA is negative.

-- Stack Floodate of previous Sample.

WHC ENVIRONMENTAL RELEASE SUMMARY

06/14/96

13:12

296-B-5: 221-BB BUILDING EXHAUST (B686)

01/01/95 through 12/31/95

Total System Flow: 2.2E+10 Liters = 7.9E+08 Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.73

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci/ml}$	
		Average	Peak
-----	-----	-----	-----
Total α	4.5E-09	1.5E-16	1.8E-15
Total β	1.6E-08	5.2E-16	5.0E-15

06/21/96 11:21

296 B-5 221 B8 BUILDING EXHAUST (8686)

01/01/95 to 12/31/95

Page 1

Warning Levels:		2 OF 14	9 OF 12	Collect	Sample	Sample	Stack
On/Off Dates		Total μ Cl/ml	Total μ Cl/ml	Time	FlowRate	Volume	FlowRate
				Hours	CFM	ft ³	CFM
12/30/94	01/06/95	5.5E-17 $\pm$ 1300%	1.3E-16 $\pm$ 78%	168.7	1.6	16800	1500
01/06/95	01/13/95	2.2E-16 $\pm$ 230%	4.8E-16 $\pm$ 220%	168.0	1.6	16000	1500
01/13/95	01/20/95	6.1E-16 $\pm$ 160%	-7.2E-16 $\pm$ 98%	168.3	1.6	16000	1500
01/20/95	02/03/95	3.7E-17 $\pm$ 1300%	4.8E-16 $\pm$ 90%	208.3	1.9	24000	1500
02/03/95	02/17/95	5.5E-17 $\pm$ 620%	8.2E-16 $\pm$ 86%	208.3	1.9	24000	1500
02/17/95	03/03/95	-1.1E-16 $\pm$ 230%	-6.0E-17 $\pm$ 750%	302.4	1.8	32000	1500
03/03/95	03/17/95	7.0E-17 $\pm$ 470%	2.8E-16 $\pm$ 160%	330.7	1.6	32000	1500
03/17/95	03/31/95	1.0E-16 $\pm$ 350%	9.6E-16 $\pm$ 52%	268.8	1.9	30000	1500
03/31/95	04/07/95	2.0E-16 $\pm$ 350%	-1.7E-16 $\pm$ 390%	135.0	1.9	15000	1500
04/07/95	04/21/95	2.5E-17 $\pm$ 1000%	3.7E-17 $\pm$ 980%	336.5	1.6	32000	1500
04/21/95	05/05/95	4.6E-17 $\pm$ 550%	4.6E-16 $\pm$ 110%	335.0	1.6	32000	1500
05/05/95	05/19/95	5.0E-17 $\pm$ 480%	1.0E-16 $\pm$ 380%	337.1	1.6	32000	1500
05/19/95	06/02/95	3.6E-17 $\pm$ 710%	2.0E-16 $\pm$ 220%	331.0	1.6	32000	1500
06/02/95	06/16/95	3.8E-16 $\pm$ 130%	3.3E-16 $\pm$ 140%	334.5	1.6	31000	1500
06/16/95	06/30/95	8.3E-17 $\pm$ 400%	7.0E-16 $\pm$ 61%	336.1	1.6	33000	1500
06/30/95	07/14/95	5.0E-17 $\pm$ 490%	3.8E-16 $\pm$ 130%	335.9	1.7	33000	1500
07/14/95	07/28/95	2.1E-16 $\pm$ 200%	9.2E-17 $\pm$ 340%	336.7	1.6	32000	1500
07/28/95	08/11/95	2.3E-16 $\pm$ 190%	8.6E-16 $\pm$ 55%	335.2	1.5	31000	1500
08/11/95	08/18/95	2.3E-16 $\pm$ 330%	1.8E-15 $\pm$ 54%	167.3	1.5	15000	1500
08/18/95	09/01/95	2.4E-16 $\pm$ 180%	7.8E-16 $\pm$ 61%	335.5	1.5	30000	1500
09/01/95	09/08/95	1.8E-15 $\pm$ 74%	5.0E-15 $\pm$ 29%	168.7	1.5	15000	1500
09/08/95	09/22/95	3.5E-16 $\pm$ 140%	3.0E-16 $\pm$ 150%	335.3	1.5	30000	1500
09/22/95	10/06/95	2.3E-16 $\pm$ 190%	4.9E-16 $\pm$ 110%	336.3	1.5	31000	1500
10/06/95	10/20/95	7.4E-17 $\pm$ 360%	3.1E-16 $\pm$ 150%	336.2	1.5	31000	1500
10/20/95	11/03/95	4.8E-17 $\pm$ 530%	9.6E-17 $\pm$ 410%	334.8	1.5	31000	1500
11/03/95	11/17/95	2.2E-16 $\pm$ 200%	1.5E-15 $\pm$ 40%	336.9	1.5	31000	1500
11/17/95	11/24/95	1.1E-15 $\pm$ 100%	1.8E-15 $\pm$ 56%	167.6	1.5	15000	1500
11/24/95	12/08/95	1.1E-16 $\pm$ 350%	6.9E-16 $\pm$ 82%	337.6	1.5	30000	1500
12/08/95	12/22/95	1.0E-16 $\pm$ 360%	1.4E-16 $\pm$ 300%	336.6	1.5	30000	1500
12/22/95	12/31/95			0.0	0.0	0	1500

SYMBOL KEY: * Concentration exceeds Warning Level.

*S MDA exceeds Warning Level

? Reported MDA is negative.

** Stack FlowRate of previous Sample

WHC ENVIRONMENTAL RELEASE SUMMARY

06/14/96

13:12

296-B-10: 225-B BUILDING & CELLS (B748, X748)

01/01/95 through 12/31/95

Total System Flow: 3.0E+11 Liters = 1.0E+10 Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.73

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci/ml}$	
		Average	Peak
-----	-----	-----	-----
⁹⁰ Sr	6.0E-06	1.5E-14	2.9E-14
¹⁰⁶ Ru	2.2E-09	5.4E-18	1.0E-15
¹¹³ Sn	ND	-2.8E-16	8.9E-17
¹²⁵ Sb	2.2E-08	5.4E-17	3.0E-16
¹³⁴ Cs	ND	-1.9E-17	1.2E-16
¹³⁷ Cs	2.9E-06	7.1E-15	8.5E-15
¹⁵² Eu	1.6E-08	3.9E-17	1.4E-16
¹⁵⁴ Eu	5.8E-08	1.4E-16	3.0E-16
¹⁵⁵ Eu	1.1E-08	2.7E-17	1.0E-16
²³⁸ Pu	ND	-1.7E-18	-1.1E-18
^{239/240} Pu	5.2E-10	1.3E-18	5.0E-18
²⁴¹ Am	1.3E-08	3.2E-17	5.3E-17
Total α	2.0E-07	4.8E-16	4.1E-15
Total β	1.4E-05	3.5E-14	2.4E-13

06/21/96 11:21

296-B-10-225-B BUILDING & CELLS (B748)

01/01/95 to 12/31/95

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Warning Levels: On/Off Dates	2 Of 14 Total g µCi/ml	9 Of 12 Total B µCi/m	Collect Time Hours	Sample FlowRate CFM	Sample Volume ft ³	Stack FlowRate
12/30/94 01/06/95	2.2E-16 ± 230E	3.3E-15 ± 40E	168.3	1.6	16000	20000
01/06/95 01/13/95	6.1E-16 ± 160E	2.9E-14 ± 12E	168.3	1.6	16000	20000
01/13/95 01/20/95	6.1E-16 ± 160E	4.8E-14 ± 9.1E	171.9	1.6	16000	20000
01/20/95 01/27/95	2.3E-16 ± 230E	5.0E-16 ± 270E	167.9	1.6	15000	20000
01/27/95 02/03/95	2.1E-15 ± 48E	1.7E-13 ± 4.4E	167.9	1.9	19000	20000
02/03/95 02/10/95	8.4E-17 ± 620E	4.6E-15 ± 31E	168.2	1.5	16000	20000
02/10/95 02/17/95	1.0E-15 ± 180E	1.8E-13 ± 4.7E	167.9	1.6	16000	20000
02/17/95 02/24/95	5.7E-17 ± 130E	5.2E-15 ± 31E	167.9	1.5	16000	20000
02/24/95 03/03/95	2.2E-16 ± 230E	8.2E-17 ± 1200E	167.5	1.6	16000	20000
03/03/95 03/10/95	2.3E-16 ± 31E	1.5E-14 ± 17E	168.0	1.5	16000	20000
03/10/95 03/17/95	1.3E-16 ± 410E	5.6E-14 ± 8.5E	168.0	1.6	16000	20000
03/17/95 03/24/95	3.8E-16 ± 230E	4.3E-14 ± 9.6E	167.5	1.6	16000	20000
03/24/95 03/31/95	6.2E-16 ± 130E	4.1E-15 ± 30E	166.8	1.9	19000	20000
03/31/95 04/07/95	1.0E-15 ± 100E	7.4E-15 ± 24E	167.0	1.6	16000	20000
04/07/95 04/14/95	4.4E-16 ± 190E	4.1E-15 ± 32E	169.0	1.6	16000	20000
04/14/95 04/21/95	7.9E-16 ± 120E	5.0E-15 ± 30E	166.5	1.6	16000	20000
04/21/95 04/28/95	1.6E-16 ± 456E	2.3E-14 ± 14E	168.4	1.5	15000	20000
04/28/95 05/05/95	9.5E-17 ± 550E	2.2E-15 ± 48E	168.0	1.5	16000	20000
05/05/95 05/12/95	1.8E-16 ± 410E	1.6E-13 ± 5.0E	168.0	1.6	16000	20000
05/12/95 05/19/95	1.7E-16 ± 420E	1.0E-14 ± 20E	167.6	1.5	16000	20000
05/19/95 05/26/95	3.8E-16 ± 230E	2.1E-15 ± 51E	167.8	1.5	16000	20000
05/26/95 06/02/95	7.5E-17 ± 710E	1.5E-15 ± 63E	168.0	1.5	16000	20000
06/02/95 06/09/95	7.2E-17 ± 1000E	3.0E-14 ± 12E	169.9	1.5	16000	20000
06/09/95 06/16/95	9.3E-17 ± 570E	2.1E-15 ± 49E	166.9	1.5	15000	20000
06/16/95 06/23/95	1.9E-16 ± 390E	2.6E-14 ± 13E	166.6	1.5	15000	18000
06/23/95 06/30/95	9.4E-17 ± 530E	4.9E-15 ± 30E	168.4	1.6	16000	18000
06/30/95 07/07/95	9.2E-17 ± 570E	1.1E-14 ± 19E	168.8	1.6	16000	18000
07/07/95 07/14/95	1.1E-16 ± 490E	8.1E-14 ± 120E	166.4	1.6	16000	18000
07/14/95 07/21/95	1.6E-15 ± 86E	1.6E-15 ± 58E	168.3	1.6	16000	18000
07/21/95 07/28/95	1.5E-16 ± 480E	5.1E-15 ± 29E	168.1	1.6	16000	18000
07/28/95 08/04/95	4.2E-16 ± 200E	5.3E-15 ± 8.6E	168.2	1.6	16000	18000
08/04/95 08/11/95	8.5E-17 ± 570E	1.1E-15 ± 94E	169.2	1.6	16000	18000
08/11/95 08/18/95	2.3E-16 ± 330E	1.5E-14 ± 17E	167.1	1.5	15000	18000
08/18/95 08/25/95	5.8E-17 ± 340E	1.5E-14 ± 37E	167.4	1.5	15000	18000
08/25/95 09/01/95	9.6E-17 ± 620E	3.0E-14 ± 12E	168.1	1.5	15000	18000
09/01/95 09/08/95	6.8E-16 ± 150E	8.1E-14 ± 7.1E	168.6	1.5	15000	21000
09/08/95 09/15/95	1.2E-16 ± 530E	8.4E-14 ± 150E	167.3	1.4	15000	21000
09/15/95 09/22/95	1.6E-16 ± 330E	3.3E-15 ± 37E	168.5	1.5	15000	21000
09/22/95 09/29/95	1.8E-16 ± 410E	2.3E-15 ± 45E	168.9	1.5	16000	21000
09/29/95 10/06/95	1.8E-16 ± 390E	1.3E-15 ± 5.5E	167.9	1.5	15000	21000
10/06/95 10/13/95	1.6E-15 ± 78E	2.3E-14 ± 13E	169.3	1.5	16000	21000
10/13/95 10/20/95	1.6E-15 ± 82E	5.1E-15 ± 30E	166.8	1.5	15000	21000
10/20/95 10/27/95	4.3E-16 ± 200E	1.6E-14 ± 16E	166.1	1.4	15000	21000
10/27/95 11/03/95	7.7E-16 ± 130E	3.2E-14 ± 12E	168.9	1.4	14000	21000
11/03/95 11/10/95	1.4E-16 ± 670E	2.6E-14 ± 13E	168.4	1.4	14000	21000
11/10/95 11/17/95	1.7E-16 ± 460E	8.8E-14 ± 7.0E	169.6	1.4	14000	21000
11/17/95 11/24/95	1.7E-15 ± 78E	2.1E-14 ± 14E	167.5	1.5	15000	21000
11/24/95 12/01/95	8.0E-16 ± 130E	2.9E-14 ± 12E	167.6	1.5	15000	21000
12/01/95 12/08/95	7.5E-17 ± 730E	1.7E-14 ± 16E	168.7	1.5	15000	21000
12/08/95 12/15/95	1.5E-15 ± 96E	2.4E-13 ± 4.3E	167.3	1.4	14000	21000
12/15/95 12/22/95	4.1E-15 ± 38E	4.6E-14 ± 9.7E	169.2	1.5	15000	21000
12/22/95 12/29/95	8.6E-16 ± 130E	4.8E-14 ± 9.7E	166.1	1.4	14000	21000
12/30/95 12/31/95			0.0	0.0	0	21000

SYMBOL KEY: * Concentration exceeds Warning Level. ** MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack FlowRate of previous Sample.

06/21/96 11 21

296-B 10: 225-B BUILDING & CEILS (X748)

01/01/95 to 12/31/95

Page 1

Warning Levels:	9.0E-12 Sr-90 μCi/ml	3.0E-11 Ru-106 μCi/ml	1.0E-09 Sn-113 μCi/ml	1.0E-09 Sb-125 μCi/ml	2.0E-10 Cs-134 μCi/ml	4.0E-10 Cs-137 μCi/ml	5.0E-11 Eu-152 μCi/ml	5.0E-11 Eu-154 μCi/ml	3.0E-10 Eu-155 μCi/ml
On/Off Dates									
12/30/94-03/31/95	9.7E-15 ± 11%	-7.3E-16 ± 140%	3.9E-17 ± 610%	2.0E-17 ± 1200%	-1.2E-16 ± 90%	7.3E-15 ± 20%	8.6E-17 ± 180%	2.0E-16 ± 130%	1.2E-17 ± 1900%
03/31/95-06/30/95	1.2E-14 ± 15%	-1.9E-16 ± 440%	7.8E-18 ± 1500%	3.1E-17 ± 740%	-1.1E-16 ± 100%	4.3E-15 ± 20%	1.4E-16 ± 120%	-1.3E-18 ± 9999%	1.0E-16 ± 250%
06/30/95-09/29/95	6.6E-15 ± 15%	1.5E-16 ± 607%	8.9E-17 ± 140%	1.1E-16 ± 237%	2.1E-17 ± 491%	8.1E-15 ± 19%	2.6E-17 ± 707%	6.4E-17 ± 618%	7.6E-17 ± 350%
09/29/95-12/29/95	7.9E-14 ± 25%	1.0E-15 ± 220%	1.1E-15 ± 110%	3.0E-16 ± 130%	9.6E-17 ± 190%	8.5E-15 ± 70%	-3.9E-17 ± 580%	3.0E-16 ± 160%	5.0E-17 ± 790%

SYMBOL KEY: * Concentration exceeds Warning Level.

*S MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack FlowRate of previous Sample.

06/21/96 11 21

296-B 10: 225-B BUILDING & CELLS (X748)

01/01/95 to 12/31/95

Page 2

Warning Levels:	3.0E-14 Pu-238 μCi/ml	2.0E-14 Pu-239/40 μCi/ml	2.0E-14 Am-241 μCi/ml	Collect Time Hours	Sample FlowRate CFM	Sample Volume ft3	Stack FlowRate CFM
On/Off Dates							
12/30/94-03/31/95	1.4E-18 ± 100%	3.2E-18 ± 100%	8.5E-18 ± 180%	2183.3	1.6	210000	20000
03/31/95-06/30/95	1.1E-18 ± 150%	-1.3E-18 ± 470%	3.1E-17 ± 80%	2182.8	1.6	200000	20000
06/30/95-09/29/95	1.4E-18 ± 150%	4.5E-18 ± 250%	3.2E-17 ± 80%	2184.1	1.4	190000	19000
09/29/95-12/29/95	2.8E-18 ± 500%	5.0E-18 ± 320%	5.3E-17 ± 60%	2182.4	1.5	190000	21000

SYMBOL KEY: * Concentration exceeds Warning Level.

*S MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack FlowRate of previous Sample.

WHC ENVIRONMENTAL RELEASE SUMMARY

06/14/96

13:12

296-B-13: 221-BF BCP TANKS & CONDENSATE (B690)

01/01/95 through 12/31/95

Total System Flow: 1.0E+10 Liters = 3.6E+08 Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.73

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci/ml}$	
		Average	Peak
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Total α	2.8E-09	2.0E-16	1.9E-15
Total β	1.5E-08	1.0E-15	3.2E-15

06/21/96 11 21

296 B 13. 221 BF BCP TANKS & CONDENSATE (B690)

01/01/95 to 12/31/95

Page 1

Warning Levels	2.0E-14	9.0E-12	Collect	Sample	Sample	Stack
On/Off Dates	Total α	Total B	Time	FlowRate	Volume	FlowRate
	$\mu\text{Ci/ml}$	$\mu\text{Ci/ml}$	Hours	CFM	ft ³	CFM
12/30/94 01/06/95	9.2E-16 ± 1204	1.7E-15 ± 644	168.5	1.5	15000	690
01/06/95 01/13/95	2.3E-16 ± 2304	2.1E-15 ± 554	168.0	1.5	16000	690
01/13/95 01/20/95	5.6E-17 ± 1304	8.5E-17 ± 1203	169.4	1.5	16000	690
01/20/95 02/03/95	2.6E-16 ± 1604	1.0E-15 ± 494	333.0	1.9	38000	690
02/03/95 02/17/95	4.3E-17 ± 6204	1.3E-15 ± 454	336.7	1.5	31000	690
02/17/95 03/03/95	2.9E-17 ± 1004	6.3E-17 ± 7504	336.0	1.5	31000	690
03/03/95 03/17/95	3.8E-16 ± 1404	6.3E-16 ± 904	332.4	1.5	30000	690
03/17/95 03/31/95	2.4E-16 ± 1804	2.9E-15 ± 284	335.9	1.5	30000	690
03/31/95 04/07/95	4.9E-16 ± 1804	6.0E-16 ± 1404	167.0	1.5	15000	690
04/07/95 04/21/95	2.6E-17 ± 1004	3.6E-16 ± 1204	336.1	1.5	30000	690
04/21/95 05/05/95	5.0E-17 ± 5504	5.0E-16 ± 1104	331.2	1.5	29000	690
05/05/95 05/19/95	9.0E-17 ± 4804	1.0E-16 ± 3804	167.5	1.8	18000	690
05/19/95 06/02/95	1.2E-16 ± 3504	1.1E-15 ± 504	336.0	1.4	28000	690
06/02/95 06/16/95	2.9E-16 ± 1904	6.5E-16 ± 974	336.2	1.3	26000	690
06/16/95 06/30/95	6.1E-17 ± 5304	5.7E-16 ± 954	336.0	1.4	29000	690
06/30/95 07/14/95	8.1E-16 ± 2404	1.7E-15 ± 2104	334.7	1.6	31000	690
07/14/95 07/28/95	8.2E-17 ± 4804	1.2E-16 ± 3604	335.9	1.4	29000	690
07/28/95 08/11/95	9.1E-17 ± 3904	2.4E-16 ± 1904	337.6	1.5	31000	690
08/11/95 08/18/95	5.9E-17 ± 9404	1.0E-16 ± 7404	167.3	1.5	15000	690
08/18/95 09/01/95	1.0E-16 ± 3704	1.6E-15 ± 404	335.6	1.5	30000	690
09/01/95 09/08/95	1.2E-16 ± 6304	4E-15 ± 164	168.3	1.5	15000	690
09/08/95 09/22/95	6.6E-17 ± 5804	2.2E-15 ± 334	335.4	1.5	29000	690
09/22/95 10/06/95	9.4E-17 ± 3904	1.8E-16 ± 2404	336.5	1.5	30000	690
10/06/95 10/20/95	2.2E-16 ± 7104	9.8E-16 ± 544	335.1	1.5	30000	690
10/20/95 11/03/95	2.4E-16 ± 1904	1.9E-15 ± 364	335.0	1.4	29000	690
11/03/95 11/17/95	7.8E-17 ± 4604	1.1E-15 ± 494	336.8	1.5	31000	690
11/17/95 11/24/95	1.9E-15 ± 714	1.2E-15 ± 394	167.6	1.5	15000	690
11/24/95 12/08/95	1.1E-16 ± 3504	1.4E-16 ± 2904	333.2	1.6	31000	690
12/08/95 12/22/95	3.8E-16 ± 1304	2.0E-15 ± 344	337.2	1.6	32000	690
12/22/95 12/31/95			0.0	0.0	0	690

SYMBOL KEY: * Concentration exceeds Warning Level.

*S MDA exceeds Warning Level

? Reported MDA is negative.

** Stack FlowRate of previous Sample

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2.4.3 East Tank Farms

WHC ENVIRONMENTAL RELEASE SUMMARY

06/15/96

15:25

296-A-17 & 296-P-26: 241-AZ, AZ TANK EXHAUSTERS (E059, E039)

01/01/95 through 12/31/95

Total System Flow: 9.2E+10 Liters = 3.3E+09 Cubic Ft

Radionuclide	Half-life	Release, Ci
⁹⁰ Sr	29.12 Years	5.4E-06
¹⁰⁶ Ru	368 Days	4.0E-06
¹¹³ Sn	115 Days	5.3E-07
¹²⁵ Sb	2.8 Years	9.5E-07
¹²⁹ I	1.57E+7 Years	2.7E-04
¹³⁴ Cs	2.1 Years	1.8E-08
¹³⁷ Cs	30 Years	6.2E-05
¹⁵² Eu	13.3 Years	ND
¹⁵⁴ Eu	8.8 Years	8.8E-09
¹⁵⁵ Eu	4.96 Years	3.1E-08
²³⁸ Pu	87.8 Years	4.6E-09
^{239/240} Pu	24,131 Years*	1.4E-08
²⁴¹ Am	432 Years	1.2E-08
Total α	n/a	2.2E-07
Total β	n/a	3.6E-05

- * The half-life shown for Total Uranium is the half-life of ²³⁸U. The half-life shown for mixed ^{239/240}Pu is the half-life of ²³⁹Pu.

06/21/96 11:21

296 A 17, 241 AY, A/ TANKS (F059)

01/01/95 to 12/31/95

Page 1

Warning Levels:	2 OE 13	9 OE 11	Collect	Sample	Sample	Stack
On/Off Dates	Total α	Total β	Time	FlowRate	Volume	FlowRate
	μCi/ml	μCi/ml	Hours	CFM	ft3	CFM
17/29/94 01/12/95	2.1E+16 ± 260X	6.8E+16 ± 89X	332.1	1.3	25000	5900
01/12/95 01/26/95	2.7E+16 ± 200X	4.8E+16 ± 130X	335.0	1.3	26000	5900
01/26/95 02/07/95	7.1E+17 ± 620X	2.1E+15 ± 45X	798.7	1.1	18000	5900
02/07/95 02/09/95	6.4E+15 ± 71X	1.0E+12 ± 3.7X	48.2	1.6	4600	3800
02/09/95 02/16/95	9.2E+14 ± 7.0E	6.0E+12 ± 0.7X	177.0	1.8	19000	3800
02/16/95 02/23/95	1.2E+14 ± 22X	9.5E+13 ± 2.0E	155.7	1.7	16000	3800
02/23/95 03/09/95	4.6E+16 ± 100X	2.9E+14 ± 7.8X	336.9	1.8	36000	3800
03/09/95 03/23/95	2.1E+16 ± 170X	1.3E+14 ± 11X	334.4	1.9	37000	3800
03/23/95 04/06/95	5.5E+16 ± 230X	1.4E+15 ± 37X	335.8	1.9	39000	3800
04/06/95 04/20/95	1.9E+16 ± 190X	8.6E+15 ± 14X	337.0	1.9	38000	3800
04/20/95 05/04/95	4.5E+16 ± 110X	5.1E+14 ± 5.9X	335.8	1.8	35000	3800
05/04/95 05/18/95	4.6E+16 ± 100X	6.0E+13 ± 1.9X	335.5	1.8	37000	3900
05/18/95 06/01/95	3.3E+17 ± 710X	7.9E+14 ± 4.8X	336.1	1.7	35000	3800
06/01/95 06/15/95	1.8E+15 ± 35X	3.5E+13 ± 2.0E	335.1	1.9	39000	3800
06/15/95 06/29/95	7.6E+17 ± 400X	4.0E+13 ± 2.0E	337.5	1.8	37000	3800
06/29/95 07/13/95	3.8E+15 ± 24X	6.7E+13 ± 1.6E	334.9	1.9	38000	3800
07/13/95 07/27/95	6.4E+16 ± 81X	5.0E+13 ± 1.8E	336.0	1.9	37000	3800
07/27/95 08/10/95	5.4E+16 ± 89X	2.6E+13 ± 2.5E	336.1	1.9	38000	3800
08/10/95 08/24/95	-5.1E+17 ± 530X	3.3E+15 ± 26X	253.8	2.0	30000	5900
08/24/95 09/07/95	1.6E+16 ± 210X	1.9E+15 ± 31X	340.6	1.9	40000	5900
09/07/95 09/19/95	2.9E+17 ± 710X	5.7E+13 ± 1.7E	279.0	2.4	41000	5900
09/19/95 09/28/95	2.6E+16 ± 180X	1.6E+12 ± 1.1E	220.5	2.3	30000	3800
09/28/95 10/12/95	1.6E+16 ± 200X	4.1E+13 ± 1.9E	340.0	2.0	41000	3800
10/12/95 10/17/95	2.4E+16 ± 350X	1.3E+13 ± 5.8E	108.0	2.1	14000	5900
10/17/95 10/26/95	3.7E+15 ± 34X	7.3E+13 ± 2.1E	222.9	1.5	20000	3800
10/26/95 11/09/95	8.1E+16 ± 74X	1.1E+12 ± 1.2E	337.1	1.9	39000	5900
11/09/95 11/16/95	4.0E+16 ± 190X	9.5E+16 ± 95X	171.5	1.7	18000	5900
11/16/95 12/07/95	3.2E+17 ± 730X	1.3E+13 ± 3.7E	382.9	1.5	35000	5900
12/07/95 12/21/95	6.7E+16 ± 89X	9.0E+14 ± 4.6E	343.8	1.6	32000	5900
12/21/95 12/31/95			0.0	0.0	0	5900

SYMBOL KEY: * Concentration exceeds Warning Level.

*S MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack FlowRate of previous Sample.

Waiting Levels		2.0E 08 Ru 103 µCi/ml	3.0E 10 Ru 106 µCi/ml	1.0E 08 Sm 113 µCi/ml	1.0E 08 Sb 125 µCi/ml	7.0E 10 I 129 µCi/ml	4.0E 09 I 131 µCi/ml	4.0E 09 I 137 µCi/ml	Collect Time	Sample flowrate	Sample Volume	Stack flowrate	
12/29/94 01/12/95		<5.0E 14	<6.7E 15	<1.3E 14	1.5E 12	341			1.1	1	21000	5900	
01/13/95 01/12/95		<5.3E 14	<6.9E 15	<1.4E 14	1.2E 12	+ 661			335.0	0	71000	5900	
01/26/95 02/02/95		<1.3E 14	<1.7E 14	<3.4E 14	1.1E 12	+ 595			172.9	0	93000	5900	
02/05/95 02/07/95		<1.3E 13	<1.8E 14	<3.9E 14	<1.0E 12				48.2	1	78000	5900	
02/07/95 02/09/95		<5.4E 13	<7.2E 14	<1.5E 14	<3.1E 12				48.2	1	78000	5900	
02/09/95 02/15/95		<5.4E 13	<7.2E 14	<1.5E 14	<3.1E 12				48.2	1	78000	5900	
02/15/95 02/22/95		<6.6E 14	<8.8E 15	<1.8E 14	<8.0E 13				141.2	1.8	155000	3800	
02/22/95 02/28/95		<7.7E 14	<1.1E 16	<2.2E 14	1.7E 13				169.1	1.7	170000	3800	
03/01/95 03/08/95		<7.7E 14	<1.1E 16	<2.2E 14	<8.0E 13				169.1	1.7	170000	3800	
03/08/95 03/15/95		<7.7E 14	<1.1E 16	<2.2E 14	<8.0E 13				169.1	1.7	170000	3800	
03/15/95 03/22/95		<7.7E 14	<1.1E 16	<2.2E 14	<8.0E 13				169.1	1.7	170000	3800	
03/22/95 03/29/95		<5.9E 14	<7.7E 15	<1.8E 14	<8.0E 13				169.0	1.8	180000	3800	
03/29/95 04/05/95		<6.0E 14	<7.7E 15	<1.8E 14	<8.0E 13				169.5	2.0	200000	3800	
04/05/95 04/12/95		<6.1E 14	<7.7E 15	<1.8E 14	<8.0E 13				169.3	1.9	190000	3800	
04/12/95 04/19/95		<6.7E 14	<7.7E 15	<1.8E 14	<8.0E 13				167.0	1.9	190000	3800	
04/19/95 04/26/95		<6.9E 14	<7.7E 15	<1.8E 14	<8.0E 13				167.0	1.9	190000	3800	
04/26/95 05/03/95		<6.9E 14	<7.7E 15	<1.8E 14	<8.0E 13				167.0	1.9	190000	3800	
05/03/95 05/10/95		<6.8E 14	<7.7E 15	<1.8E 14	<8.0E 13				167.0	1.9	190000	3800	
05/10/95 05/17/95		<5.3E 14	<6.9E 15	<1.4E 14	<7.7E 13	+ 291			167.8	2.0	180000	3800	
05/17/95 05/24/95		<5.3E 14	<6.9E 15	<1.4E 14	<7.7E 13				167.8	2.0	180000	3800	
05/24/95 05/31/95		<5.8E 14	<7.7E 15	<1.8E 14	2.6E 12	+ 334			167.5	1.8	180000	3800	
05/31/95 06/07/95		<5.7E 14	<7.7E 15	<1.8E 14	2.6E 12	+ 324			166.2	1.7	170000	3800	
06/07/95 06/14/95		<5.7E 14	<7.7E 15	<1.8E 14	2.6E 12	+ 324			167.8	2.0	180000	3800	
06/14/95 06/21/95		<6.5E 14	<8.8E 15	<1.8E 14	2.4E 12	+ 377			165.8	1.9	190000	3800	
06/21/95 06/28/95		<6.2E 14	<8.8E 15	<1.8E 14	<5.3E 13				167.8	2.0	200000	3800	
06/28/95 07/05/95		<6.3E 14	<8.8E 15	<1.8E 14	<5.3E 13				167.1	2.0	200000	3800	
07/05/95 07/12/95		<6.4E 14	<8.8E 15	<1.8E 14	3.3E 12	+ 264			166.1	2.0	200000	3800	
07/12/95 07/19/95		<6.5E 14	<8.8E 15	<1.8E 14	5.9E 12	+ 186			167.3	0	90000	3800	
07/19/95 07/26/95		<6.5E 14	<8.8E 15	<1.8E 14	5.9E 12	+ 186			166.4	1.9	190000	3800	
07/26/95 08/02/95		<6.4E 14	<8.8E 15	<1.8E 14	4.9E 12	+ 204			169.8	0	190000	3800	
08/02/95 08/09/95		<6.7E 14	<8.8E 15	<1.8E 14	7.9E 12	+ 154			166.6	1.9	190000	3800	
08/09/95 08/13/95		<1.0E 13	<1.5E 14	<3.8E 14	4.9E 12	+ 165			165.5	1.8	180000	3800	
08/13/95 08/17/95		<1.4E 13	<2.1E 14	<5.4E 14	1.6E 11	+ 134			140.4	0	120000	3800	
08/17/95 08/23/95		<6.7E 14	<8.8E 15	<1.8E 14	1.0E 11	+ 124			166.1	1.9	190000	3800	
08/23/95 08/31/95		<5.9E 14	8.4E 15 ± 0.8	<1.7E 14	1.6E 11	+ 134			140.4	2.1	190000	5900	
08/31/95 09/07/95		<2.5E 14	<3.6E 15	<9.0E 14	8.1E 10	+ 442			166.2	2.0	210000	5900	
09/07/95 09/20/95		<3.6E 15	<7.2E 15	<1.8E 14	1.2E 11	+ 124			329.0	0	210000	5900	
09/20/95 09/27/95		<5.6E 14	<8.1E 15	<1.8E 14	4.0E 10	+ 438			144.4	2.3	200000	5900	
09/27/95 10/04/95		<5.6E 14	<8.1E 15	<1.8E 14	4.0E 10	+ 438			166.2	2.0	200000	3800	
10/04/95 10/11/95		<6.4E 14	<8.1E 15	<1.8E 14	1.6E 10	+ 361			162.2	2.1	220000	3800	
10/11/95 10/18/95		<7.7E 14	<1.1E 16	<2.2E 14	2.0E 10	+ 304			167.9	2.0	190000	3800	
10/18/95 10/25/95		2.3E 14 ± 1554	2.3E 14 ± 1554	2.2E 14 ± 1001	2.0E 10	+ 334			168.8	2.0	160000	5900	
10/25/95 11/01/95		1.1E 14 ± 3201	2.9E 15 ± 1601	3.4E 14 ± 1001	3.6E 12	+ 194			6.7E 14 ± 201	1.8	190000	4400	
11/01/95 11/09/95		3.0E 14 ± 1901	1.1E 16 ± 4001	2.4E 14 ± 1001	8.8E 13	+ 581			2.9E 13 ± 134	1.7	180000	5600	
11/09/95 11/16/95		8.8E 14 ± 3301	2.8E 15 ± 1001	6.1E 14 ± 3301	6.7E 12	+ 354			8.2E 14 ± 141	1.9	190000	5900	
11/16/95 11/23/95		3.0E 17 ± 999991	2.0E 15 ± 1001	6.6E 14 ± 3301	6.7E 12	+ 354			1.5E 12 ± 204	446.4	0.3	230000	5900
11/23/95 12/06/95		2.2E 14 ± 1401	2.0E 15 ± 1501	6.6E 14 ± 3301	2.3E 12	+ 354			2.8E 15 ± 1801	331.3	1.5	300000	5900
12/06/95 12/13/95		4.3E 14 ± 1101	1.7E 15 ± 1701	4.6E 14 ± 24001	2.0E 12	+ 201			1.5E 13 ± 1801	160.9	0.1	150000	5900
12/13/95 12/20/95		1.8E 14 ± 2401	1.7E 15 ± 2601	4.6E 14 ± 24001	2.0E 12	+ 201			1.5E 13 ± 201	167.9	1.4	140000	5900
12/20/95 12/28/95		2.9E 15 ± 1001	1.4E 15 ± 3101	7.2E 15 ± 1301	1.3E 13	+ 3701			8.4E 15 ± 601	159.8	0.9	170000	5900

SYMBOL KEY: * Concentration exceeds Warning Level

*S MDA exceeds Warning Level

? Reported HDA is negative

^^ Stack FlowRate of previous Sample

06/21/96 11:21

Warning Levels:

On/Off Dates	9:0E-17 µCi/ml	3:0E-11 µCi/ml	1:0E-09 µCi/ml	1:0E-09 µCi/ml	2:0E-10 µCi/ml	4:0E-10 µCi/ml	5:0E-11 µCi/ml	5:0E-11 µCi/ml	3:0E-10 µCi/ml
03/23/95-06/28/95	3:0E-17 ± 154	3:0E-16 ± 154	1:0E-17 ± 3800	1:0E-16 ± 4000	2:0E-16 ± 2000	4:0E-16 ± 2000	5:0E-16 ± 2000	5:0E-16 ± 2000	3:0E-17 ± 1500
06/28/95-09/28/95	7:2E-17 ± 304	1:0E-16 ± 5404	1:0E-16 ± 2700	6:1E-16 ± 1400	2:1E-16 ± 604	5:1E-16 ± 704	5:1E-16 ± 2004	5:1E-16 ± 2004	3:7E-16 ± 1504
09/28/95-12/21/95	5:9E-17 ± 254	3:7E-16 ± 5404	1:1E-16 ± 3804	2:9E-17 ± 1004	2:1E-16 ± 204	5:1E-16 ± 204	1:0E-16 ± 2004	2:0E-16 ± 1300	4:4E-17 ± 1500

SYMBOL KEY: * Concentration exceeds Warning Level. * MDA exceeds Warning Level. * Reported MDA is negative.

06/21/96 11:21

Warning Levels:

On/Off Dates	3:0E-14 µCi/ml	2:0E-14 µCi/ml	7:0E-14 µCi/ml	Collect Time Hours	Sample Flowrate µCi/ml	Stack Volume µCi/ml	Stack Flowrate µCi/ml
12/29/94-03/23/95	4:6E-17 ± 854	2:3E-16 ± 404	1:2E-16 ± 404	2008.0	1.5	180000	4800
03/23/95-06/28/95	6:0E-17 ± 404	1:9E-16 ± 404	1:9E-16 ± 404	2182.4	2.0	180000	4800
06/28/95-09/28/95	4:0E-17 ± 404	1:9E-16 ± 404	1:9E-16 ± 404	2023.4	1.6	200000	5300
09/28/95-12/21/95	4:0E-17 ± 404	1:9E-16 ± 404	1:9E-16 ± 404	2023.4	1.6	200000	5300

SYMBOL KEY: * Concentration exceeds Warning Level. * MDA exceeds Warning Level. * Reported MDA is negative.

06/21/96 11:21

Warning Levels:

206-14 µCt/mi	90E-12 µCt/mi	Collect Hours	Sample Volume liters	Sample Flowrate CFM	Stack Flowrate CFM
01/01/96-02/07/96		0.0	0.0	0.0	5400
02/08/96-08/12/96		0.0	0.0	0.0	0
08/13/96-09/17/96		0.0	0.0	0.0	5400
09/18/96-10/17/96		0.0	0.0	0.0	0
10/17/96-10/18/96		0.0	0.0	0.0	5400
10/19/96-11/05/96		0.0	0.0	0.0	0
11/06/96-11/08/96		0.0	0.0	0.0	5400
11/14/96-11/15/96		0.0	0.0	0.0	0
11/17/96-11/18/96		0.0	0.0	0.0	5400
11/20/96-11/21/96		0.0	0.0	0.0	0
11/22/96-11/28/96		0.0	0.0	0.0	5400
11/29/96-12/05/96		0.0	0.0	0.0	0
12/06/96-12/09/96		0.0	0.0	0.0	5400
12/09/96-12/12/96		3.0	260	0.0	5400
12/13/96-12/15/96		0.0	0.0	0.0	0
12/16/96-12/31/96		0.0	0.0	0.0	0

206-P-76, 241-AV, AL EXHAUSTER - BACKUP RP 206 A 17 (E039)

01/01/96 to 12/31/96

Page 1

Stack Flowrate of previous Sample.

? Reported NDA is negative.

* NDA exceeds Warning Level.

*S NDA exceeds Warning Level.

SYMBOL KEY: * Concentration exceeds Warning Level.

06/15/96

WHC ENVIRONMENTAL RELEASE SUMMARY

16:59

296-A-20: ALL AZ ANNULI (E197)

01/01/95 through 12/31/95

Total System Flow: 1.6E+10 Liters = 5.7E+08 Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.84

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci/ml}$	
		Average	Peak
-----	-----	-----	-----
Total α	1.1E-08	5.5E-16	3.1E-15
Total β	3.1E-08	1.6E-15	6.0E-15

06/21/96 11:21

296-A-20: ALL A2 ANNULI (E197)

01/01/95 to 12/31/95

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Warning Levels:	2 OE 14	9 OE 12	Collect	Sample	Sample	Stack
On/Off Dates	Total $\mu\text{Ci}/\text{m}^3$	Total $\mu\text{Ci}/\text{m}^3$	Time	FlowRate	Volume	FlowRate
-----	-----	-----	Hours	CFM	ft3	CFM
01/01/95-01/12/95			0.0	0.0	0	1600
01/12/95-01/26/95	7.0E-16 $\pm$ 921	2.0E-16 $\pm$ 2401	335.0	1.4	29000	1600
01/26/95-01/31/95	1.2E-15 $\pm$ 1301	4.6E-15 $\pm$ 411	129.5	1.3	9900	1600
01/31/95-02/07/95	2.1E-16 $\pm$ 3701	2.1E-16 $\pm$ 3301	160.4	1.5	15000	1600
02/07/95-02/09/95	3.1E-15 $\pm$ 1301	3.4E-17 $\pm$ 88001	43.7	1.5	3800	1600
02/09/95-02/22/95	2.0E-15 $\pm$ 441	9.1E-16 $\pm$ 691	309.5	1.3	23000	1100
02/22/95-02/23/95	3.2E-16 $\pm$ 13001	1.6E-15 $\pm$ 3601	32.2	1.4	2800	1600
02/23/95-03/06/95	2.0E-15 $\pm$ 461	3.8E-16 $\pm$ 1901	256.1	1.4	21000	1600
03/06/95-03/09/95	2.1E-15 $\pm$ 1101	1.1E-15 $\pm$ 1901	80.7	1.5	7300	1600
03/09/95-03/23/95	3.7E-16 $\pm$ 1401	1.8E-16 $\pm$ 1901	334.8	1.5	39000	1600
03/23/95-04/06/95	9.8E-17 $\pm$ 2801	-4.6E-17 $\pm$ 8501	335.8	1.5	29000	1600
04/06/95-04/20/95	3.2E-16 $\pm$ 2001	7.0E-16 $\pm$ 1101	337.0	1.0	21000	1100
04/20/95-07/13/95	1.1E-15 $\pm$ 801	6.0E-15 $\pm$ 221	335.3	1.2	23000	220
07/13/95-07/24/95	7.2E-17 $\pm$ 4101	1.3E-16 $\pm$ 3601	256.3	1.8	27000	150
07/24/95-07/27/95	1.4E-15 $\pm$ 1401	2.0E-15 $\pm$ 981	79.7	1.7	7900	1600
07/27/95-08/10/95	2.6E-15 $\pm$ 1801	1.6E-15 $\pm$ 391	336.0	1.5	30000	1600
08/10/95-08/24/95	3.7E-16 $\pm$ 1301	3.3E-15 $\pm$ 261	335.9	1.6	32000	1600
08/24/95-09/07/95	1.8E-16 $\pm$ 2101	1.8E-15 $\pm$ 321	340.8	1.8	37000	1600
09/07/95-09/28/95	3.4E-16 $\pm$ 1001	3.0E-15 $\pm$ 211	499.8	1.6	49000	1600
09/28/95-10/12/95	5.2E-17 $\pm$ 4201	1.3E-15 $\pm$ 391	336.9	1.8	35000	1600
10/12/95-10/26/95	1.7E-16 $\pm$ 2101	2.0E-15 $\pm$ 311	331.6	1.9	37000	1600
10/26/95-11/09/95	5.9E-16 $\pm$ 961	3.9E-15 $\pm$ 211	337.2	1.8	37000	1600
11/09/95-11/14/95			0.0	0.0	0	1600
11/14/95-12/31/95			0.0	0.0	0	0

SYMBOL KEY: * Concentration exceeds Warning Level.

*S MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack FlowRate of previous Sample.

WHC ENVIRONMENTAL RELEASE SUMMARY

06/15/96

20:46

296-A-25: 244-A LIFT STATION CATCH TANK (E080, X080)

01/01/95 through 12/31/95

Total System Flow: 2.6E+09 Liters = 9.3E+07 Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.81

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci}/\text{ml}$	
		Average	Peak
⁹⁰ Sr	3.2E-08	9.9E-15	2.3E-14
¹⁰⁶ Ru	ND	-2.1E-16	6.2E-16
¹¹³ Sn	ND	-2.0E-16	-4.8E-17
¹²⁵ Sb	4.0E-10	1.2E-16	1.7E-16
¹³⁴ Cs	4.0E-11	1.2E-17	5.4E-17
¹³⁷ Cs	1.4E-06	4.2E-13	5.1E-13
¹⁵² Eu	ND	-7.4E-17	9.1E-17
¹⁵⁴ Eu	1.4E-10	4.3E-17	1.8E-16
¹⁵⁵ Eu	ND	-4.4E-17	4.2E-16
²³⁸ Pu	5.7E-11	1.8E-17	2.2E-17
^{239/240} Pu	1.7E-10	5.1E-17	7.5E-17
²⁴¹ Am	4.1E-10	1.3E-16	3.1E-16
Total α	5.6E-09	1.7E-15	1.1E-14
Total β	1.2E-06	3.9E-13	1.1E-12

06/21/96-11/21

296-A 25 244 A LIFT STATION CATCH TANK (E880)

01/01/95 to 12/31/95

Page 1

Warning Levels	7.0E-14	9.0E-12	Collect	Sample	Stack	Stack
On Off Dates	Top	ACI (m)	Hours	Volume	Volume	Flowrate
	μCi/lr			UPL	UPL	UPL
01/01/95-03/26/95	1.1E-14	1.1E-12	230.4	1.9	26400	230
03/27/95-04/06/95	1.0E-14	1.1E-12	339.2	1.9	38000	230
04/07/95-05/04/95	6.9E-15	1.1E-12	335.5	1.8	35000	230
05/05/95-05/18/95	2.2E-14	1.1E-12	335.6	1.9	38000	230
05/19/95-06/15/95	2.7E-14	1.1E-12	337.0	2.4	49000	230
06/16/95-06/29/95	3.1E-14	1.1E-12	338.9	2.5	51000	230
07/01/95-07/27/95	2.3E-14	1.1E-12	338.5	2.5	51000	230
07/28/95-08/10/95	1.0E-14	1.1E-12	336.3	2.6	38000	230
08/11/95-08/28/95	1.4E-14	1.1E-12	330.3	1.9	38000	230
09/01/95-09/28/95	1.3E-14	1.1E-12	340.2	2.4	49000	230
10/01/95-10/26/95	1.4E-14	1.1E-12	362.0	2.4	55000	230
10/27/95-11/21/95	6.0E-17	1.1E-12	339.2	0.0	0	230
11/22/95-12/31/95	4.1E-16	1.1E-12	0.0	0.0	0	230

SYNOPSIS KEY: * Concentration exceeds Warning Level. ? Reported MDA is negative. ** MDA exceeds Warning Level.

06/21/96 11:21									
Warning Levels:									
On/Off Dates:	9.0E-12 Sr-90	3.0E-11 Ru-106	1.0E-09 Sr-113	1.0E-09 Sr-132	2.0E-10 Cs-134	4.0E-10 Cs-137	5.0E-11 Eu-154	3.0E-10 Eu-155	01/01/95 to 12/31/95
01/01/95-03/26/95	2.3E-14 ± 10%	6.2E-16 ± 200%	-1.7E-16 ± 250%	8.5E-17 ± 110%	-5.2E-19 ± 9999%	5.1E-13 ± 20%	-2.2E-16 ± 140%	-1.4E-16 ± 200%	
03/26/95-09/28/95	3.3E-15 ± 15%	1.1E-16 ± 400%	-3.0E-16 ± 100%	1.7E-16 ± 45%	5.4E-17 ± 14%	4.8E-13 ± 18%	-3.0E-17 ± 96%	9.7E-17 ± 254%	2.5E-16 ± 200%
09/28/95-12/21/95	2.5E-15 ± 20%	-1.2E-15 ± 110%	-4.0E-17 ± 500%	1.1E-16 ± 56%	1.5E-17 ± 480%	2.8E-13 ± 70%	9.1E-17 ± 330%	1.8E-16 ± 110%	4.2E-16 ± 17%
SYMBOL KEY: * Concentration exceeds Warning Level.									
* MDA exceeds Warning Level.									
* Reported MDA is negative.									
-- Stack Flowrate of previous Sample									

06/21/96 11:21									
Warning Levels:									
On/Off Dates:	3.0E-14 Pu-238	2.0E-14 Pu-239/40	2.0E-14 Am-241	Collect Time Hours	Sample Volume CM	Stack Flowrate TC3	Stack Flowrate CM	Stack Flowrate TC3	01/01/95 to 12/31/95
01/01/95-03/26/95	1.3E-17 ± 80%	2.5E-17 ± 80%	3.1E-16 ± 25%	0.0	0.0	0	0	0	
03/26/95-09/28/95	2.2E-17 ± 90%	2.5E-17 ± 80%	1.3E-17 ± 140%	21.9	21.9	270000	230	270000	
09/28/95-12/21/95	1.4E-17 ± 110%	4.0E-17 ± 50%	4.9E-17 ± 60%	16.9	2.5	240000	230	240000	
SYMBOL KEY: * Concentration exceeds Warning Level.									
* MDA exceeds Warning Level.									
* Reported MDA is negative.									
-- Stack Flowrate of previous Sample									

WHC ENVIRONMENTAL RELEASE SUMMARY

06/14/96

13:14

296-A-26: 204-AR WASTE UNLOADING FACILITY (E297)

01/01/95 through 12/31/95

Total System Flow: 2.9E+10 Liters = 1.0E+09 Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.73

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci/ml}$	
		Average	Peak
Total α	7.2E-09	1.8E-16	1.2E-15
Total β	2.4E-08	6.0E-16	3.6E-15

01/01/95 to 12/31/95
Page 1

296-A-26: 204-AR WASIL UNLOADING FACILITY (E297)

06/71/96 11:21

Warning Levels:

2 DE 14

9 DE 12

Collect

Sample

Stack

Flowrate

Sample

Flowrate

Stack

Flowrate

Sample

Flowrate

Stack

Flowrate

On Off Dates	2 DE 14 µCi/ml	9 DE 12 µCi/ml	Collect Hours	Sample Flowrate CFM	Sample Flowrate t-1	Stack Flowrate CFM
12/29/94-01/12/95	5.3E-16 ± 1.0E-16	2.9E-17 ± 2.1E-17	336.6	1.8	38000	2000
01/12/95-01/26/95	1.9E-16 ± 2.0E-16	3.9E-17 ± 3.7E-17	336.0	1.7	34000	2000
01/26/95-02/02/95	6.0E-17 ± 3.0E-17	3.9E-17 ± 3.7E-17	336.0	1.7	34000	2000
02/02/95-02/23/95	1.2E-15 ± 5.4E-16	3.9E-17 ± 3.7E-17	341.7	1.7	34000	2000
02/23/95-03/09/95	1.2E-15 ± 5.4E-16	3.9E-17 ± 3.7E-17	341.7	1.7	34000	2000
03/09/95-04/02/95	1.0E-16 ± 7.0E-17	3.9E-17 ± 3.7E-17	331.0	1.7	34000	2000
04/02/95-04/20/95	5.9E-16 ± 1.9E-16	8.1E-16 ± 5.4E-16	336.8	1.7	34000	2000
05/04/95-05/18/95	2.4E-16 ± 1.0E-16	9.8E-17 ± 7.0E-17	335.7	1.7	34000	2000
05/18/95-06/01/95	1.0E-16 ± 3.5E-16	8.0E-16 ± 5.4E-16	337.5	1.6	33000	2000
06/01/95-06/13/95	2.3E-16 ± 2.0E-16	2.0E-16 ± 1.2E-16	333.6	1.5	30000	2000
06/13/95-07/13/95	5.5E-17 ± 4.9E-17	6.7E-16 ± 4.8E-16	340.1	1.4	24000	2000
07/13/95-08/10/95	5.5E-17 ± 4.9E-17	9.5E-17 ± 3.0E-17	332.9	1.6	31000	2000
08/10/95-08/24/95	4.6E-17 ± 5.0E-17	2.9E-16 ± 1.5E-16	341.0	1.7	34000	2000
08/24/95-09/09/95	6.0E-17 ± 5.0E-17	2.9E-16 ± 1.5E-16	330.9	1.6	32000	2000
09/09/95-09/28/95	6.0E-17 ± 5.0E-17	2.9E-16 ± 1.5E-16	339.6	1.6	33000	2000
09/28/95-10/12/95	9.0E-17 ± 4.0E-17	2.9E-16 ± 1.5E-16	336.9	1.6	32000	2000
10/12/95-11/09/95	2.0E-16 ± 1.5E-16	2.9E-16 ± 1.5E-16	339.7	1.7	36000	2000
11/09/95-11/21/95	4.8E-17 ± 5.5E-17	2.9E-16 ± 1.5E-16	379.7	1.5	34000	2000
12/01/95-12/07/95	3.5E-16 ± 1.0E-16	3.9E-17 ± 3.7E-17	346.0	0.0	30000	2000
12/07/95-12/31/95	3.5E-16 ± 1.0E-16	3.9E-17 ± 3.7E-17	346.0	0.0	30000	2000

Symbol Key: * Concentration exceeds Warning Level.

* WMA exceeds Warning Level.

? Reported WMA is negative.

-- Stack Flowrate of previous Sample.

WHC ENVIRONMENTAL RELEASE SUMMARY

06/15/96

15:25

296-A-27: ALL 241-AW TANKS' EXHAUSTER (E270, E933)

01/01/95 through 12/31/95

Total System Flow: 1.8E+10 Liters = 6.5E+08 Cubic Ft

Radionuclide	Halflife	Release, Ci
-----	-----	-----
⁹⁰ Sr	29.12 Years	ND
¹⁰⁶ Ru	368 Days	1.3E-06
¹¹³ Sn	115 Days	1.2E-07
¹²⁵ Sb	2.8 Years	3.5E-07
¹²⁹ I	1.57E+7 Years	1.4E-05
¹³⁴ Cs	2.1 Years	ND
¹³⁷ Cs	30 Years	2.5E-09
¹⁵² Eu	13.3 Years	ND
¹⁵⁴ Eu	8.8 Years	ND
¹⁵⁵ Eu	4.96 Years	ND
²³⁸ Pu	87.8 Years	ND
^{239/240} Pu	24,131 Years*	1.7E-10
²⁴¹ Am	432 Years	8.2E-10
Total α	n/a	7.9E-09
Total β	n/a	1.9E-06

* The half-life shown for Total Uranium is the half-life of ²³⁸U. The half-life shown for mixed ^{239/240}Pu is the half-life of ²³⁹Pu.

06/21/96 11:21

296-A-27 ALL AW TANKS (E933)

01/01/95 to 12/31/95

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Warning Levels:	2.0E-08 Ru-103 µCi/ml	3.0E-10 Ru-106 µCi/ml	1.0E-08 Sr-90 µCi/ml	1.0E-08 Sr-90 µCi/ml	7.0E-10 I-129 µCi/ml	4.0E-09 I-131 µCi/ml	4.0E-09 Cs-137 µCi/ml	Collect Time Hours	Sample FlowRate CFM	Sample Volume ft ³	Stack FlowRate CFM
On/Off Dates											
12/29/94-01/12/95	<3.7E-14	<4.0E-15	<9.0E-15	<9.0E-15	<3.0E-13	<3.0E-13	335.9	1.8	35000	1200	
01/12/95-01/26/95	<2.9E-14	<3.9E-15	<8.7E-15	<8.7E-15	<3.0E-13	<3.0E-13	340.2	1.8	37000	1200	
01/26/95-02/02/95	<6.4E-14	<7.5E-14	<1.7E-14	<1.7E-14	<8.0E-13	<8.0E-13	163.7	1.8	18000	1200	
02/02/95-02/09/95	<5.9E-14	<7.5E-15	<1.7E-14	<1.7E-14	<8.0E-13	<8.0E-13	168.7	1.8	18000	1200	
02/09/95-02/15/95	<7.1E-14	<8.5E-15	<2.1E-14	<2.1E-14	<7.6E-13	<7.6E-13	142.8	1.8	15000	1200	
02/15/95-02/22/95	<6.2E-14	<8.0E-15	<1.7E-14	<1.7E-14	<7.6E-13	<7.6E-13	171.6	1.8	19000	1200	
02/22/95-03/01/95	<6.6E-14	<8.0E-15	<1.8E-14	<1.8E-14	<8.0E-13	<8.0E-13	165.0	1.8	18000	1200	
03/01/95-03/08/95	<6.4E-14	<7.7E-15	<1.7E-14	<1.7E-14	<8.0E-13	<8.0E-13	168.5	1.8	18000	1200	
03/08/95-03/15/95	<6.5E-14	<7.8E-15	<1.8E-14	<1.8E-14	<8.0E-13	<8.0E-13	167.3	1.8	18000	1200	
03/15/95-03/22/95	<6.6E-14	<8.1E-15	<1.8E-14	<1.8E-14	<8.0E-13	<8.0E-13	167.7	2.1	21000	1200	
03/22/95-03/29/95	<5.5E-14	<6.6E-15	<1.5E-14	<1.5E-14	<6.6E-13	<6.6E-13	167.2	1.7	18000	1200	
03/29/95-04/05/95	<5.3E-14	<6.4E-15	<1.5E-14	<1.5E-14	<6.5E-13	<6.5E-13	167.9	2.2	22000	1200	
04/05/95-04/12/95	<5.4E-14	<6.6E-15	<1.5E-14	<1.5E-14	<6.6E-13	<6.6E-13	167.3	2.1	21000	1200	
04/12/95-04/19/95	<5.9E-14	<7.2E-15	<1.6E-14	<1.6E-14	<7.2E-13	<7.2E-13	166.7	2.0	20000	1200	
04/19/95-04/26/95	<4.7E-14	<6.7E-15	<1.3E-14	<1.3E-14	<5.4E-13	<5.4E-13	167.4	2.1	21000	1200	
04/26/95-05/03/95	<5.9E-14	<7.2E-15	<1.7E-14	<1.7E-14	<6.8E-13	<6.8E-13	167.0	2.6	26000	1200	
05/03/95-05/10/95	<4.7E-14	<6.7E-15	<1.3E-14	<1.3E-14	<5.4E-13	<5.4E-13	167.6	2.6	26000	1200	
05/10/95-05/17/95	<4.2E-14	<5.2E-15	<1.2E-14	<1.2E-14	<4.9E-13	<4.9E-13	165.9	2.7	27000	1200	
05/17/95-05/24/95	<4.9E-14	<5.4E-15	<1.2E-14	<1.2E-14	<5.4E-13	<5.4E-13	167.7	2.6	26000	1200	
05/24/95-05/31/95	<4.6E-14	<5.6E-15	<1.4E-14	<1.4E-14	<4.8E-13	<4.8E-13	166.3	2.5	25000	1200	
05/31/95-06/07/95	<4.6E-14	<5.4E-15	<1.2E-14	<1.2E-14	<4.5E-13	<4.5E-13	167.4	2.6	26000	1200	
06/07/95-06/14/95	8.3E-14 ± 521	<7.2E-15	<1.6E-14	<1.6E-14	9.1E-13 ± 801	9.1E-13 ± 801	166.9	2.0	20000	1200	
06/14/95-06/21/95	7.8E-14 ± 532	<7.4E-15	<1.5E-14	<1.5E-14	<6.4E-13	<6.4E-13	171.1	2.3	24000	1200	
06/21/95-06/28/95	1.6E-13 ± 421	<1.1E-14	2.1E-14 ± 0.03	<2.1E-14	<6.4E-13	<6.4E-13	166.0	1.7	17000	1200	
06/28/95-07/05/95	1.8E-13 ± 341	<1.0E-14	<2.1E-14	<2.1E-14	<6.4E-13	<6.4E-13	170.8	1.7	17000	1200	
07/05/95-07/12/95	2.4E-13 ± 252	<6.5E-15	<1.3E-14	<1.3E-14	<6.7E-13 ± 721	<6.7E-13 ± 721	163.9	2.7	27000	1200	
07/12/95-07/19/95	3.0E-13 ± 242	<8.5E-15	<1.7E-14	<1.7E-14	1.6E-12 ± 181	1.6E-12 ± 181	166.3	2.1	21000	1200	
07/19/95-07/26/95	2.4E-13 ± 538	<7.0E-15	<1.4E-14	<1.4E-14	6.0E-13 ± 461	6.0E-13 ± 461	171.3	2.5	25000	1200	
07/26/95-08/02/95	6.2E-14 ± 692	<7.7E-15	<1.5E-14	<1.5E-14	9.4E-13 ± 471	9.4E-13 ± 471	166.5	2.3	23000	1200	
08/02/95-08/09/95	5.9E-14	<6.1E-15	<1.2E-14	<1.2E-14	6.7E-13 ± 401	6.7E-13 ± 401	144.6	2.3	23000	1200	
08/09/95-08/17/95	<5.3E-14	<7.5E-15	<1.5E-14	<1.5E-14	6.8E-13 ± 471	6.8E-13 ± 471	189.9	2.5	29000	1200	
08/17/95-08/23/95	6.7E-14 ± 771	<8.7E-15	<1.7E-14	<1.7E-14	8.7E-13 ± 501	8.7E-13 ± 501	170.8	2.4	24000	1200	
08/23/95-08/30/95	6.0E-14 ± 683	<7.1E-15	<1.4E-14	<1.4E-14	5.0E-13 ± 331	5.0E-13 ± 331	167.4	2.2	22000	1200	
08/30/95-09/06/95	<5.7E-14	<6.1E-15	<1.2E-14	<1.2E-14	1.3E-12 ± 231	1.3E-12 ± 231	166.7	2.1	21000	1200	
09/06/95-09/13/95	<5.8E-14	<8.3E-15	<1.7E-14	<1.7E-14	<5.0E-13	<5.0E-13	167.4	1.8	18000	1200	
09/13/95-09/20/95	<7.0E-14	<1.0E-14	<2.0E-14	<2.0E-14	<5.0E-13	<5.0E-13	167.4	1.8	18000	1200	
09/20/95-09/27/95	<8.8E-14	<9.8E-15	<2.2E-14	<2.2E-14	<5.0E-13	<5.0E-13	166.1	2.3	23000	1200	
09/27/95-10/04/95	<6.1E-14	<8.7E-15	<1.7E-14	<1.7E-14	<5.0E-13	<5.0E-13	167.4	1.8	18000	1200	
10/04/95-10/11/95	<5.9E-14	<7.9E-15	<1.6E-14	<1.6E-14	<4.8E-13 ± 391	<4.8E-13 ± 391	166.1	2.0	20000	1200	
10/11/95-10/18/95	<5.1E-14	<6.1E-15	<1.6E-14	<1.6E-14	4.1E-13 ± 801	4.1E-13 ± 801	167.9	2.2	22000	1200	
10/18/95-10/25/95	2.3E-14 ± 1401	<7.9E-16 ± 4901	<2.8E-14 ± 1001	<2.8E-14 ± 1001	6.5E-13 ± 601	6.5E-13 ± 601	9.5E-15 ± 1001	167.9	2.0	20000	1200
10/25/95-11/01/95	1.1E-14 ± 3001	<1.4E-15 ± 2901	<3.5E-14 ± 1001	<3.5E-14 ± 1001	3.4E-13 ± 801	3.4E-13 ± 801	-8.0E-15 ± 1001	170.3	1.9	19000	1200
11/01/95-11/09/95	1.8E-14 ± 2401	2.6E-15 ± 1801	2.1E-16 ± 253001	2.1E-16 ± 253001	6.0E-13 ± 601	6.0E-13 ± 601	5.4E-15 ± 1001	193.2	1.8	21000	1200
11/09/95-11/15/95	3.7E-14 ± 1001	2.0E-15 ± 2401	1.8E-15 ± 5901	1.8E-15 ± 5901	7.9E-13 ± 551	7.9E-13 ± 551	4.2E-15 ± 1101	138.6	1.8	18000	1200
11/15/95-11/22/95	1.1E-14 ± 2601	1.7E-16 ± 20001	-1.9E-15 ± 25001	-1.9E-15 ± 25001	3.9E-13 ± 1801	3.9E-13 ± 1801	6.2E-16 ± 6701	166.3	1.7	17000	1200
11/22/95-12/01/95	4.7E-14 ± 1701	1.6E-15 ± 5601	7.4E-15 ± 2501	7.4E-15 ± 2501	6.8E-13 ± 801	6.8E-13 ± 801	1.2E-15 ± 2601	222.9	1.7	23000	1200
12/01/95-12/06/95	4.3E-14 ± 1201	3.5E-15 ± 1701	1.9E-14 ± 801	1.9E-14 ± 801	6.8E-13 ± 801	6.8E-13 ± 801	8.8E-16 ± 21001	115.9	1.9	19000	1200
12/06/95-12/13/95	3.1E-14 ± 1601	5.4E-15 ± 1201	7.4E-15 ± 1801	7.4E-15 ± 1801	6.2E-13 ± 901	6.2E-13 ± 901	-2.0E-15 ± 3001	166.8	1.3	13000	1200
12/13/95-12/20/95	2.6E-14 ± 1801	5.0E-15 ± 1201	2.6E-15 ± 4601	2.6E-15 ± 4601	3.7E-16 ± 10001	3.7E-16 ± 10001	5.1E-16 ± 10001	191.3	1.2	12000	1200

SYMBOL KEY: * Concentration exceeds Warning Level.

*S MDA exceeds Warning Level.

? Reported MDA is negative.

-- Stack FlowRate of previous Sample

06/21/96 11.21

796 A 27: ALL AM TANKS (X270)

01/01/95 to 12/31/95

Page 1

Warning Levels:	9.0E-12 Sr-90 μCi/m	3.0E-11 Ru-106 μCi/m	1.0E-09 Sn-113 μCi/m	1.0E-09 Sb-125 μCi/m	2.0E-10 Cs-134 μCi/m	4.0E-10 Cs-137 μCi/m	5.0E-11 Eu-152 μCi/m	5.0E-11 Eu-154 μCi/m	3.0E-10 Eu-155 μCi/m
On/Off Dates									
12/29/94-03/23/95	-3.0E-16 ± 100%	1.3E-15 ± 90%	1.3E-16 ± 190%	3.9E-15 ± 12%	1.6E-17 ± 690%	-5.9E-17 ± 150%	1.6E-16 ± 100%	3.0E-17 ± 110%	1.7E-16 ± 130%
03/23/95-06/29/95	-2.2E-16 ± 100%	4.1E-16 ± 150%	1.4E-17 ± 650%	3.5E-15 ± 10%	1.2E-17 ± 570%	1.1E-16 ± 60%	8.0E-17 ± 141%	-3.0E-18 ± 3300%	1.8E-16 ± 100%
06/29/95-09/28/95	3.3E-16 ± 50%	7.8E-16 ± 111%	6.2E-17 ± 127%	4.5E-15 ± 10%	1.1E-17 ± 653%	6.5E-17 ± 104%	2.5E-17 ± 476%	4.6E-17 ± 468%	4.2E-17 ± 392%
09/28/95-12/22/95	9.9E-17 ± 80%	1.0E-15 ± 90%	-6.6E-18 ± 1400%	2.5E-15 ± 15%	-2.6E-17 ± 330%	1.5E-16 ± 60%	-1.1E-16 ± 130%	3.0E-16 ± 100%	-1.3E-16 ± 170%

SYMBOL KEY: * Concentration exceeds Warning Level.

*S MDA exceeds Warning Level.

? Reported MDA is negative

-- Stack FlowRate of previous Sample

06/21/96 11.21

796-A-27: ALL AM TANKS (X270)

01/01/95 to 12/31/95

Page 2

Warning Levels:	3.0E-14 Pu-238 μCi/m	2.0E-14 Pu-239/40 μCi/m	2.0E-14 Am-241 μCi/m	Collect Time Hours	Sample FlowRate CFM	Sample Volume ft3	Stack FlowRate CFM
On/Off Dates							
12/29/94-03/23/95	-4.1E-19 ± 1900%	-3.6E-18 ± 100%					
03/23/95-06/29/95	1.3E-18 ± 350%	6.8E-18 ± 150%	2.2E-17 ± 80%	2015.9	1.6	200000	1200
06/29/95-09/28/95	-3.8E-18 ± 250%	3.2E-18 ± 380%	1.7E-17 ± 160%	2352.6	1.9	270000	1200
09/28/95-12/22/95	-3.8E-18 ± 240%	1.8E-17 ± 120%	3.6E-17 ± 90%	2184.5	2.0	270000	1200
				2033.3	1.8	210000	1200

SYMBOL KEY: * Concentration exceeds Warning Level.

*S MDA exceeds Warning Level.

? Reported MDA is negative.

-- Stack FlowRate of previous Sample

WHC ENVIRONMENTAL RELEASE SUMMARY

06/14/96

13:14

296-A-28: ALL AW ANNULI (E272)

01/01/95 through 12/31/95

Total System Flow: $9.3\text{E}+10$ Liters = $3.3\text{E}+09$ Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.47

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci}/\text{ml}$	
		Average	Peak
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Total α	4.6E-08	2.3E-16	6.0E-16
Total β	3.9E-07	2.0E-15	6.9E-15

06/21/96 11:21

296 A-28, All AW ANNUL1 (E277)

01/01/95 to 12/31/95

Page 1

Warning Levels:		2.0E-14	9.0E-12	Collect	Sample	Sample	Stack
		Total Φ	Total B	Time	FlowRate	Volume	FlowRate
On/Off Dates		$\mu\text{Ci}/\text{m}^3$	$\mu\text{Ci}/\text{m}^3$	Hours	CFM	ft ³	CFM
12/29/94-01/17/95	5.6E-16 $\pm$ 100%	6.9E-15 $\pm$ 17%	338.6	1.6	33000	6200	
01/12/95-01/26/95	4.7E-16 $\pm$ 110%	8E-15 $\pm$ 34%	340.2	1.6	33000	6200	
01/26/95-02/09/95	3.6E-16 $\pm$ 130%	1.9E-15 $\pm$ 39%	332.4	1.6	33000	6200	
02/09/95-02/23/95	1.6E-16 $\pm$ 260%	1.5E-15 $\pm$ 42%	335.1	1.7	34000	6200	
02/23/95-03/09/95	3.7E-16 $\pm$ 120%	6.6E-15 $\pm$ 17%	335.5	1.6	33000	6200	
03/09/95-03/23/95	5.0E-16 $\pm$ 100%	5.4E-15 $\pm$ 19%	337.0	1.6	33000	6200	
03/23/95-04/06/95	1.8E-16 $\pm$ 230%	1.6E-15 $\pm$ 37%	335.5	1.6	33000	6200	
04/06/95-04/20/95	4.7E-16 $\pm$ 110%	1.7E-15 $\pm$ 35%	337.1	1.7	34000	6200	
04/20/95-05/04/95	5.0E-16 $\pm$ 100%	1.3E-15 $\pm$ 45%	339.8	1.4	28000	6200	
05/04/95-05/18/95	1.0E-16 $\pm$ 340%	1.1E-15 $\pm$ 47%	331.5	1.7	33000	6200	
05/18/95-06/01/95	-5.5E-17 $\pm$ 710%	1.9E-15 $\pm$ 33%	336.4	1.7	33000	6200	
06/01/95-06/15/95	8.0E-17 $\pm$ 430%	1.3E-15 $\pm$ 42%	336.5	1.7	34000	6200	
06/15/95-06/29/95	-4.4E-17 $\pm$ 530%	1.3E-15 $\pm$ 41%	336.6	1.6	32000	6200	
06/29/95-07/13/95	2.0E-16 $\pm$ 130%	1.6E-15 $\pm$ 37%	335.4	1.9	36000	6200	
07/13/95-07/27/95	6.0E-16 $\pm$ 92%	1.3E-15 $\pm$ 42%	333.6	1.6	33000	6200	
07/27/95-08/10/95	-3.6E-17 $\pm$ 690%	6.9E-16 $\pm$ 63%	336.5	1.6	33000	6200	
08/10/95-08/24/95	8.4E-17 $\pm$ 400%	8.7E-16 $\pm$ 63%	336.3	1.7	34000	6200	
09/07/95-09/28/95	3.9E-16 $\pm$ 100%	2.3E-15 $\pm$ 25%	509.0	1.6	48000	6200	
09/28/95-10/12/95	-5.9E-17 $\pm$ 420%	9.3E-17 $\pm$ 390%	332.8	1.7	34000	6200	
10/12/95-10/26/95	3.1E-16 $\pm$ 140%	5.6E-16 $\pm$ 98%	335.3	1.7	34000	6200	
10/26/95-11/09/95	2.6E-16 $\pm$ 150%	2.4E-15 $\pm$ 25%	340.3	2.2	45000	6200	
11/09/95-11/21/95	-4.3E-17 $\pm$ 550%	7.0E-16 $\pm$ 60%	292.5	1.9	33000	6200	
11/21/95-12/07/95	9.8E-17 $\pm$ 350%	6.1E-16 $\pm$ 82%	376.4	1.5	24000	6200	
12/07/95-12/22/95	3.5E-16 $\pm$ 130%	2.9E-15 $\pm$ 27%	356.3	1.5	33000	6200	
12/22/95-12/31/95			0.0	0.0	0	6200	

SYMBOL KEY: * Concentration exceeds Warning Level

*S MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack FlowRate of previous Sample.

WHC ENVIRONMENTAL RELEASE SUMMARY

06/14/96

13:15

296-A-29: ALL AN TANKS (E901, X901)

01/01/95 through 12/31/95

Total System Flow: 1.4E+10 Liters = 4.9E+08 Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.53

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci}/\text{ml}$	
		Average	Peak
⁹⁰ Sr	2.0E-08	7.8E-16	2.0E-15
¹⁰⁶ Ru	ND	-5.2E-17	4.3E-16
¹¹³ Sn	ND	-2.4E-18	3.0E-17
¹²⁵ Sb	ND	-3.2E-17	2.2E-17
¹³⁴ Cs	ND	-1.3E-17	3.0E-17
¹³⁷ Cs	1.9E-10	7.4E-18	3.0E-17
¹⁵² Eu	ND	-3.0E-17	1.9E-17
¹⁵⁴ Eu	9.4E-10	3.6E-17	1.9E-16
¹⁵⁵ Eu	ND	-9.6E-17	4.4E-18
²³⁸ Pu	3.0E-11	1.1E-18	5.4E-18
^{239/240} Pu	1.1E-10	4.1E-18	8.1E-18
²⁴¹ Am	1.1E-09	4.1E-17	5.5E-17
Total α	8.0E-09	3.0E-16	3.2E-15
Total β	7.9E-07	3.0E-14	7.1E-14

06/21/96 11:21

296-A-29: All AN TANKS (E901)

01/01/95 to 12/31/95

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Warning Levels:	2 DE-13	9 DE-11	Collect	Sample	Sample	Stack
On/Off Dates	Total g µl/ml	Total g µl/ml	Time hours	FlowRate GPM	Volume T3	FlowRate GPM
12/29/94-01/12/95	4.7E-16 ± 1.0E-16	1.6E-14 ± 9.9E-15	335.3	2.0	40000	930
01/12/95-01/26/95	-5.1E-17 ± 4.1E-17	4.4E-14 ± 6.1E-14	332.0	2.0	39000	930
02/09/95-02/17/95	1.0E-16 ± 8.6E-16	6.5E-14 ± 6.5E-14	192.9	2.0	23000	930
02/17/95-02/23/95	1.4E-16 ± 8.6E-16	6.0E-14 ± 7.0E-14	144.0	2.0	17000	930
02/23/95-03/09/95	2.0E-16 ± 1.7E-16	4.9E-14 ± 5.7E-14	334.3	2.0	39000	930
03/09/95-03/23/95	9.4E-17 ± 3.1E-16	2.7E-14 ± 7.7E-14	333.9	1.9	38000	930
03/23/95-04/06/95	3.2E-16 ± 2.6E-16	7.1E-14 ± 4.8E-14	333.9	1.9	38000	930
04/06/95-04/20/95	-5.1E-16 ± 9.0E-16	1.8E-14 ± 9.5E-14	337.0	2.0	46000	930
04/20/95-05/04/95	8.5E-16 ± 4.5E-16	2.9E-14 ± 6.6E-14	335.9	2.5	50000	930
05/04/95-05/05/95	-2.2E-16 ± 8.3E-16	4.3E-14 ± 1.9E-14	26.5	2.8	4500	930
05/05/95-05/18/95	1.7E-16 ± 1.8E-16	5.5E-14 ± 5.0E-14	305.3	2.5	46000	930
05/18/95-06/01/95	7.5E-17 ± 3.5E-17	5.1E-14 ± 5.3E-14	325.2	2.3	44000	930
06/01/95-06/15/95	5.8E-17 ± 4.3E-17	1.4E-14 ± 1.0E-14	331.9	2.3	46000	930
06/15/95-06/29/95	6.0E-17 ± 4.0E-17	3.7E-14 ± 5.5E-14	337.7	2.2	45000	930
06/29/95-07/13/95	3.5E-16 ± 1.1E-16	4.1E-14 ± 5.8E-14	338.0	2.3	46000	930
07/13/95-07/27/95	5.3E-17 ± 4.8E-17	4.1E-14 ± 5.8E-14	328.7	2.2	44000	930
07/27/95-08/10/95	-2.5E-17 ± 6.9E-17	1.9E-14 ± 8.5E-14	326.0	2.3	47000	930
08/10/95-08/24/95	3.3E-17 ± 5.3E-17	5.8E-14 ± 4.9E-14	336.0	2.3	46000	930
08/24/95-09/07/95	-4.6E-17 ± 3.7E-17	2.1E-14 ± 8.0E-14	340.3	2.3	47000	930
09/07/95-09/28/95	-1.7E-17 ± 7.1E-17	1.7E-14 ± 8.7E-14	499.6	2.3	69000	930
09/28/95-10/12/95	1.4E-16 ± 2.0E-16	1.4E-14 ± 9.9E-14	338.3	2.3	47000	930
10/12/95-10/26/95	4.3E-16 ± 9.4E-16	1.4E-14 ± 9.9E-14	335.7	2.2	46000	930
10/26/95-11/09/95	-6.5E-17 ± 3.0E-17	1.7E-14 ± 9.9E-14	332.9	2.3	47000	930
11/09/95-11/21/95	6.9E-17 ± 3.9E-17	6.9E-15 ± 1.5E-15	294.0	2.3	40000	930
11/21/95-12/07/95	-2.1E-17 ± 7.3E-17	1.0E-14 ± 1.1E-14	378.0	2.4	55000	930
12/07/95-12/21/95	-2.0E-17 ± 7.1E-17	5.8E-15 ± 1.5E-15	341.8	2.4	49000	930
12/21/95-12/31/95			0.0	0.0	0	930**

SYMBOL KEY: * Concentration exceeds Warning Level.

*S MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack FlowRate of previous Sample.

06/21/96 11:21

296-A-29: ALL AN TANKS (X901)

01/01/95 to 12/31/95

Page 1

Warning Levels:	9.0E-12 Sr-90 μCi/ml	3.0E-11 Ru-106 μCi/ml	1.0E-09 Sn-113 μCi/ml	1.0E-09 Sb-125 μCi/ml	2.0E-10 Cs-134 μCi/ml	4.0E-10 Cs-137 μCi/ml	5.0E-11 Eu-152 μCi/ml	5.0E-11 Eu-154 μCi/ml	3.0E-10 Eu-155 μCi/ml
On/Off Dates									
12/29/94-03/23/95	6.0E-16 ± 12%	-2.1E-17 ± 3000%	2.7E-17 ± 290%	-4.6E-17 ± 425%	-1.9E-17 ± 390%	5.7E-18 ± 1200%	6.1E-17 ± 2000%	2.4E-16 ± 110%	-1.6E-16 ± 110%
03/23/95-06/29/95	2.0E-16 ± 20%	4.3E-16 ± 170%	1.2E-17 ± 720%	6.8E-18 ± 2500%	3.0E-17 ± 260%	2.7E-17 ± 320%	-5.3E-17 ± 220%	7.6E-17 ± 960%	-2.2E-17 ± 780%
06/29/95-09/28/95	2.5E-16 ± 35%	-1.9E-16 ± 375%	-3.0E-17 ± 288%	-1.2E-16 ± 153%	-2.7E-17 ± 309%	3.0E-17 ± 264%	-2.8E-17 ± 517%	1.9E-16 ± 131%	4.4E-16 ± 4100%
09/28/95-12/21/95	1.4E-16 ± 35%	-4.9E-16 ± 160%	3.0E-17 ± 330%	2.2E-17 ± 840%	4.0E-17 ± 240%	1.9E-17 ± 430%	1.9E-17 ± 680%	1.4E-16 ± 190%	-2.1E-16 ± 100%

SYMBOL KEY: * Concentration exceeds Warning Level.

*S MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack FlowRate of previous Sample.

06/21/96 11:21

296-A-29: ALL AN TANKS (X901)

01/01/95 to 12/31/95

Page 2

Warning Levels:	3.0E-14 Pu-238 μCi/ml	2.0E-14 Pu239/40 μCi/ml	2.0E-14 Am-241 μCi/ml	Collect Time Hours	Sample FlowRate CFM	Sample Volume ft3	Stack FlowRate CFM
On/Off Dates							
12/29/94-03/23/95	5.4E-18 ± 460%	8.1E-18 ± 309%	3.4E-17 ± 65%	2011.3	2.0	240000	930
03/23/95-06/29/95	-3.6E-18 ± 100%	5.5E-18 ± 170%	4.7E-17 ± 50%	2337.7	2.2	310000	930
06/29/95-09/28/95	4.4E-18 ± 250%	3.1E-18 ± 220%	2.5E-17 ± 80%	2179.2	2.3	300000	930
09/28/95-12/21/95	-7.6E-19 ± 680%	1.6E-22 ± 1000%	5.5E-17 ± 50%	2022.0	2.3	280000	920

SYMBOL KEY: * Concentration exceeds Warning Level.

*S MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack FlowRate of previous Sample.

WHC ENVIRONMENTAL RELEASE SUMMARY

06/15/96

17:11

296-A-30: 241-AN ALL ANNULI (E903)

01/01/95 through 12/31/95

Total System Flow: $9.2\text{E}+10$ Liters = $3.3\text{E}+09$ Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.55

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci}/\text{ml}$	
		Average	Peak
Total α	$2.1\text{E}-08$	$1.2\text{E}-16$	$4.6\text{E}-16$
Total β	$1.8\text{E}-07$	$1.1\text{E}-15$	$4.3\text{E}-15$

06/21/96 11:21

296-A-30: 241-AN All ANNULI (E903)

01/01/95 to 12/31/95

Page 1

Warning Levels:		2.0E-14	9.0E-12	Collect	Sample	Sample	Stack
On/Off Dates		Total α	Total β	Time	FlowRate	Volume	FlowRate
		μCi/ml	μCi/ml	Hours	CFM	Fe3	CFM
12/29/94 01/12/95	2.5E-16 ± 160%	4.3E-15 ± 201	335.3	2.0	40000	6300	
01/12/95-01/26/95	6.2E-17 ± 470%	9.0E-16 ± 404	332.4	2.0	39000	6300	
01/26/95-02/09/95	-3.1E-17 ± 620%	2.3E-16 ± 150%	338.9	2.1	43000	6300	
02/09/95-02/17/95	3.1E-17 ± 1300%	-4.0E-16 ± 984	192.9	2.5	29000	6300	
02/17/95-02/23/95	2.5E-16 ± 260%	2.1E-16 ± 360%	144.1	2.4	21000	6300	
02/23/95-03/09/95	4.0E-16 ± 87%	2.8E-16 ± 21%	334.3	2.6	52000	6300	
03/09/95-03/23/95	4.6E-16 ± 87%	1.8E-16 ± 29%	334.2	2.3	46000	6300	
03/23/95-04/06/95	3.2E-16 ± 120%	1.5E-16 ± 33%	335.1	2.2	45000	3600	
04/06/95-04/20/95	1.5E-16 ± 190%	4.5E-16 ± 80%	337.1	2.3	47000	6300	
04/20/95-05/04/95	6.2E-17 ± 390%	2.1E-16 ± 110%	335.9	2.3	47000	6300	
05/04/95-05/18/95	-2.3E-17 ± 830%	4.5E-16 ± 87%	335.9	2.2	43000	6300	
05/18/95-06/01/95	2.6E-17 ± 710%	7.4E-16 ± 50%	338.6	2.2	44000	6300	
06/01/95-06/15/95	3.6E-16 ± 110%	8.9E-16 ± 45%	334.1	2.2	43000	6300	
06/15/95-06/29/95	1.6E-16 ± 190%	5.1E-16 ± 61%	337.7	2.2	45000	6300	
06/29/95-07/13/95	-3.6E-17 ± 490%	5.6E-16 ± 58%	338.0	2.3	46000	6300	
07/13/95-07/27/95	-4.4E-17 ± 410%	2.2E-16 ± 150%	332.6	2.3	45000	6300	
07/27/95-08/10/95	-2.5E-17 ± 69%	4.2E-16 ± 89%	336.0	2.3	46000	6300	
08/10/95-08/24/95	3.3E-17 ± 530%	2.1E-16 ± 150%	338.4	2.3	46000	6300	
08/24/95-09/07/95	-4.6E-17 ± 370%	2.1E-16 ± 140%	340.3	2.3	47000	6300	
09/07/95-09/28/95	1.0E-16 ± 180%	1.3E-15 ± 26%	499.9	2.5	76000	6300	
09/28/95-10/12/95	4.6E-17 ± 470%	4.4E-16 ± 63%	338.3	2.5	51000	6300	
10/12/95-10/26/95	1.3E-16 ± 210%	4.6E-16 ± 63%	335.8	2.4	49000	6300	
10/26/95-11/09/95	2.5E-16 ± 150%	8.2E-16 ± 45%	332.9	2.4	47000	6300	
11/09/95-11/21/95	6.9E-17 ± 390%	9.6E-16 ± 44%	294.8	2.3	41000	6300	
11/21/95-12/07/95	1.6E-16 ± 180%	1.4E-15 ± 32%	376.2	2.2	50000	6300	
12/07/95-12/21/95	2.6E-16 ± 130%	3.3E-16 ± 21%	341.8	2.1	43000	6300	
12/21/95-12/31/95			0.0	0.0	0	6300**	

SYMBOL KEY: * Concentration exceeds Warning Level.

^S MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack FlowRate of previous Sample.

WHC ENVIRONMENTAL RELEASE SUMMARY

06/15/96

15:26

296-A-40: 241-AP TANK FARM EXHAUSTER (E013, E028)

01/01/95 through 12/31/95

Total System Flow: 1.4E+10 Liters = 5.0E+08 Cubic Ft

Radionuclide	Halflife	Release, Ci
⁹⁰ Sr	29.12 Years	4.3E-09
¹⁰⁶ Ru	368 Days	8.1E-07
¹¹³ Sn	115 Days	9.8E-08
¹²⁵ Sb	2.8 Years	2.0E-07
¹²⁹ I	1.57E+7 Years	1.6E-05
¹³⁴ Cs	2.1 Years	4.5E-10
¹³⁷ Cs	30 Years	2.7E-08
¹⁵² Eu	13.3 Years	1.4E-09
¹⁵⁴ Eu	8.8 Years	ND
¹⁵⁵ Eu	4.96 Years	ND
²³⁸ Pu	87.8 Years	ND
^{239/240} Pu	24,131 Years*	5.8E-11
²⁴¹ Am	432 Years	4.9E-10
Total α	n/a	6.6E-09
Total β	n/a	1.2E-07

- The half-life shown for Total Uranium is the half-life of ²³⁸U. The half-life shown for mixed ^{239/240}Pu is the half-life of ²³⁹Pu.

Warning Levels:		2.0E-14	9.0E-12	Collect	Sample	Sample	Stack
		Total A	Total B	Time	FlowRate	Volume	FlowRate
On/Off Dates		µCi/ml	µCi/ml	Hours	CFM	ft3	CFM
12/29/94-01/12/95	2.3E-17 ± 13001	5.3E-16 ± 781	335.0	1.9	39000	950	
01/12/95-01/26/95	6.0E-17 ± 4701	1.7E-17 ± 17001	338.8	2.0	41000	950	
01/26/95-02/09/95	1.0E-16 ± 1801	3.3E-16 ± 1201	332.4	2.0	40000	950	
02/09/95-02/23/95	2.1E-17 ± 13001	1.9E-16 ± 2201	336.2	2.0	41000	950	
02/23/95-03/09/95	4.1E-16 ± 1601	3.4E-15 ± 221	334.4	2.0	41000	950	
03/09/95-03/23/95	5.2E-16 ± 871	3.5E-15 ± 221	336.6	2.0	41000	950	
03/23/95-04/06/95	3.7E-17 ± 7701	3.4E-17 ± 8501	334.4	2.0	40000	950	
04/06/95-04/20/95	7.1E-17 ± 3901	6.0E-16 ± 591	337.2	2.0	41000	950	
04/20/95-05/04/95	7.1E-17 ± 3901	4.0E-17 ± 6201	340.0	2.0	41000	950	
05/04/95-05/19/95	3.9E-17 ± 4801	1.4E-18 ± 99991	337.2	2.0	41000	950	
05/19/95-06/01/95	3.2E-17 ± 7101	2.4E-16 ± 1501	313.3	1.9	36000	950	
06/01/95-06/15/95	4.5E-17 ± 4801	2.5E-16 ± 1601	337.7	1.9	39000	950	
06/15/95-06/29/95	6.9E-17 ± 4001	1.3E-15 ± 371	339.2	2.0	41000	950	
06/29/95-07/13/95	1.7E-16 ± 1901	4.8E-15 ± 181	332.0	2.1	41000	950	
07/13/95-07/27/95	7.0E-17 ± 4101	2.0E-15 ± 381	192.0	2.2	25000	950	
07/27/95-08/10/95	1.9E-16 ± 1801	8.0E-14 ± 4.21	336.8	2.0	41000	950	
08/10/95-08/24/95	1.7E-16 ± 1901	3.9E-15 ± 201	334.9	2.1	42000	950	
08/24/95-09/07/95	2.6E-16 ± 1401	1.6E-15 ± 321	336.1	2.1	42000	950	
09/07/95-09/28/95	4.6E-15 ± 1001	3.8E-14 ± 221	27.5	2.2	3600	950	
09/28/95-10/12/95	6.7E-17 ± 4701	1.7E-15 ± 391	333.1	2.1	41000	950	
10/12/95-10/26/95	1.5E-16 ± 2101	2.4E-15 ± 761	335.4	2.1	42000	950	
10/26/95-11/09/95	4.6E-17 ± 6701	4.4E-15 ± 191	337.1	2.1	42000	950	
11/09/95-11/22/95	7.6E-17 ± 5501	2.7E-15 ± 251	307.8	2.1	39000	950	
11/22/95-12/07/95	2.9E-16 ± 1301	8.0E-16 ± 481	366.3	1.9	42000	950	
12/07/95-12/22/95	6.6E-17 ± 3501	4.6E-16 ± 641	363.2	2.2	47000	950	
12/22/95-12/31/95			0.0	0.0	0	950	

SYMOL KEY: * Concentration exceeds Warning Level

*S MDA exceeds Warning Level

? Reported MDA is negative.

** Stack FlowRate of previous Sample.

[illegible]

06/21/96 11:21

Warning Levels:

On Off Dates	9 OE-12 µCi/ml	3 OE-11 µCi/ml	1 OE-09 µCi/ml	1 OE-09 µCi/ml	2 OE-10 µCi/ml	4 OE-10 µCi/ml	5 OE-11 µCi/ml	5 OE-11 µCi/ml	3 OE-10 µCi/ml
05/28/96-06/23/96	1.0E-18 ± 1.0E-18	1.2E-18 ± 1.2E-18	1.2E-17 ± 2.0E-17	1.2E-17 ± 2.0E-17	1.2E-18 ± 1.0E-18	2.0E-17 ± 2.0E-17	1.2E-17 ± 2.0E-17	1.2E-17 ± 2.0E-17	1.2E-17 ± 2.0E-17
06/23/96-09/28/96	2.0E-16 ± 1.0E-16	1.2E-18 ± 1.2E-18	1.2E-17 ± 2.0E-17	1.2E-17 ± 2.0E-17	1.2E-18 ± 1.0E-18	2.0E-17 ± 2.0E-17	1.2E-17 ± 2.0E-17	1.2E-17 ± 2.0E-17	1.2E-17 ± 2.0E-17
09/28/96-12/22/96	1.5E-15 ± 2.5E-15	1.2E-18 ± 1.2E-18	1.2E-17 ± 2.0E-17	1.2E-17 ± 2.0E-17	1.2E-18 ± 1.0E-18	2.0E-17 ± 2.0E-17	1.2E-17 ± 2.0E-17	1.2E-17 ± 2.0E-17	1.2E-17 ± 2.0E-17

SYMBOL KEY: * Concentration exceeds Warning Level.

*S MDA exceeds Warning Level.

? Reported MDA is negative.

296-A-40 741-AP TANK FARM EXHAUST (X013)

01/01/95 to 12/31/95

Page 1

06/21/96 11:21

Warning Levels:

On Off Dates	3 OE-14 µCi/ml	2 OE-14 µCi/ml	2 OE-14 µCi/ml	2 OE-14 µCi/ml	2 OE-14 µCi/ml	2 OE-14 µCi/ml	2 OE-14 µCi/ml	2 OE-14 µCi/ml	2 OE-14 µCi/ml
12/29/94-03/23/95	3.0E-22 ± 9.99E-22	1.2E-17 ± 9.0E-17	1.2E-17 ± 9.0E-17	1.2E-17 ± 9.0E-17	1.2E-17 ± 9.0E-17	1.2E-17 ± 9.0E-17	1.2E-17 ± 9.0E-17	1.2E-17 ± 9.0E-17	1.2E-17 ± 9.0E-17
03/23/95-06/23/95	7.0E-18 ± 1.7E-17	1.2E-17 ± 9.0E-17	1.2E-17 ± 9.0E-17	1.2E-17 ± 9.0E-17	1.2E-17 ± 9.0E-17	1.2E-17 ± 9.0E-17	1.2E-17 ± 9.0E-17	1.2E-17 ± 9.0E-17	1.2E-17 ± 9.0E-17
06/23/95-09/28/95	1.1E-18 ± 6.8E-18	1.2E-17 ± 9.0E-17	1.2E-17 ± 9.0E-17	1.2E-17 ± 9.0E-17	1.2E-17 ± 9.0E-17	1.2E-17 ± 9.0E-17	1.2E-17 ± 9.0E-17	1.2E-17 ± 9.0E-17	1.2E-17 ± 9.0E-17
09/28/95-12/22/95	1.1E-18 ± 6.8E-18	1.2E-17 ± 9.0E-17	1.2E-17 ± 9.0E-17	1.2E-17 ± 9.0E-17	1.2E-17 ± 9.0E-17	1.2E-17 ± 9.0E-17	1.2E-17 ± 9.0E-17	1.2E-17 ± 9.0E-17	1.2E-17 ± 9.0E-17

SYMBOL KEY: * Concentration exceeds Warning Level.

*S MDA exceeds Warning Level.

? Reported MDA is negative.

296-A-40 741-AP TANK FARM EXHAUST (X013)

01/01/95 to 12/31/95

Page 2

WHC ENVIRONMENTAL RELEASE SUMMARY

06/14/96

13:13

296-A-41: 241-AP TANK FARM ANNULUS (E015)

01/01/95 through 12/31/95

Total System Flow: 1.5E+11 Liters = 5.3E+09 Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.80

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci/ml}$	
		Average	Peak
Total α	2.4E-08	1.3E-16	4.7E-15
Total β	1.1E-07	6.1E-16	3.6E-15

06/21/96 11:21

296 A 41: 241 AP TANK FARM ANNULUS (E015)

01/01/95 to 12/31/95

Page 1

Warning Levels:	2.0E-14	9.0E-12	Collect	Sample	Sample	Stack
On/Off Dates	Total α μCi/m	Total β μCi/m	Time Hours	FlowRate CFM	Volume ft3	FlowRate CFM
12/29/94-01/12/95	4.2E-16 ± 1204	4.1E-16 ± 1204	337.4	1.7	34000	10000
01/12/95-01/26/95	7.4E-17 ± 4704	2.8E-16 ± 1604	339.0	1.6	33000	10000
01/26/95-02/09/95	-4.2E-17 ± 6204	1.1E-16 ± 3704	332.4	1.6	32000	10000
02/09/95-02/19/95	4.7E-15 ± 1604	2.5E-15 ± 2604	25.8	1.3	2100	10000
02/19/95-02/13/95			0.0	0.0	0	0
02/13/95-02/23/95	3.9E-17 ± 13004	-6.5E-16 ± 684	240.2	1.6	23000	10000
02/23/95-03/09/95	1.1E-16 ± 3104	3.4E-15 ± 254	334.3	1.6	32000	10000
03/09/95-03/23/95	1.1E-16 ± 3104	3.6E-15 ± 254	336.7	1.6	32000	10000
03/23/95-04/06/95	3.2E-16 ± 1504	4.7E-16 ± 1104	335.3	1.6	32000	10000
04/06/95-04/20/95	-4.5E-17 ± 5504	4.9E-17 ± 7204	327.3	1.6	33000	10000
04/20/95-05/04/95	-4.7E-17 ± 5504	3.7E-16 ± 1304	340.0	1.5	31000	10000
05/04/95-05/19/95	-5.0E-17 ± 4804	5.9E-16 ± 874	364.0	1.5	32000	10000
05/19/95-06/01/95	-4.1E-17 ± 7104	-9.7E-18 ± 43004	313.2	1.5	28000	10000
06/01/95-06/15/95	8.8E-17 ± 4304	1.2E-16 ± 2804	337.6	1.5	30000	10000
06/15/95-06/29/95	9.5E-17 ± 4004	9.0E-16 ± 564	339.2	1.5	30000	10000
06/29/95-07/13/95	8.2E-17 ± 4204	4.8E-16 ± 1004	332.1	1.7	33000	10000
07/13/95-07/27/95	7.9E-17 ± 4804	2.7E-16 ± 2004	334.5	1.5	30000	10000
07/27/95-08/10/95	3.9E-17 ± 6904	3.2E-16 ± 1504	336.6	1.5	30000	10000
08/10/95-08/24/95	-4.7E-17 ± 5304	3.0E-16 ± 1504	335.2	1.6	33000	10000
08/24/95-09/07/95	7.1E-17 ± 5204	5.3E-16 ± 984	336.0	1.5	31000	10000
09/07/95-09/28/95	7.5E-17 ± 3504	1.4E-15 ± 344	508.0	1.4	44000	10000
09/28/95-10/12/95	-5.9E-17 ± 4204	4.9E-16 ± 1204	333.4	1.6	31000	10000
10/12/95-10/26/95	4.9E-16 ± 1104	3.1E-16 ± 1504	335.2	1.6	31000	10000
10/26/95-11/09/95	-1.1E-16 ± 3004	1.1E-16 ± 4004	337.5	1.4	29000	10000
11/09/95-11/22/95	4.1E-16 ± 1304	8.4E-16 ± 604	307.6	1.5	27000	10000
11/22/95-12/07/95	2.5E-16 ± 1804	2.5E-16 ± 1804	366.5	1.4	31000	10000
12/07/95-12/22/95	4.1E-16 ± 1304	3.2E-16 ± 1504	353.6	1.3	28000	10000
12/22/95-12/31/95			0.0	0.0	0	10000**

SYMBOL KEY: * Concentration exceeds Warning Level.

** MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack FlowRate of previous Sample.

112

WHC-SD-EN-TL308 Rev.0

WHC ENVIRONMENTAL RELEASE SUMMARY

06/15/96

16:31

296-B-28: 244-BX SALT WELL RECEIVER & ANN. (E886, X886)

01/01/95 through 12/31/95

Total System Flow: 4.2E+09 Liters = 1.5E+08 Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.72

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci/ml}$	
		Average	Peak
-----	-----	-----	-----
⁹⁰ Sr	1.2E-08	2.1E-15	7.9E-15
¹⁰⁶ Ru	ND	-1.5E-16	3.9E-16
¹¹³ Sn	4.2E-10	7.3E-17	3.3E-16
¹²⁵ Sb	4.8E-10	8.3E-17	2.2E-16
¹³⁴ Cs	ND	-1.3E-17	1.0E-16
¹³⁷ Cs	2.7E-09	4.6E-16	7.2E-16
¹⁵² Eu	3.1E-10	5.4E-17	1.1E-16
¹⁵⁴ Eu	ND	-4.8E-17	1.0E-17
¹⁵⁵ Eu	4.2E-10	7.3E-17	2.7E-16
²³⁸ Pu	ND	-2.1E-18	5.4E-18
^{239/240} Pu	7.1E-11	1.2E-17	4.7E-17
²⁴¹ Am	1.3E-10	2.2E-17	5.4E-17
Total α	1.8E-09	3.1E-16	1.0E-15
Total β	1.7E-08	2.9E-15	1.1E-14

07/01/95 to 12/31/95
Page 1

296 B-28-244 BX SALT WELL RECEIVER & ANN. (E886)

06/21/96 11:21

Warning Levels:

OnOff Dates:

2 DE-14
Total m

9 DE-12
Total m

Collect
Time

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SMOGL KEY: * Concentration exceeds Warning Level.

*S MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack Flowrate of previous Sample.

06/21/96 11:21

296-B-28: 296-B-28 STACK SAMPLER (X886)

01/01/95 to 12/31/95

Page 1

Warning Levels:	9.0E-12 Sr-90 μCi/ml	3.0E-11 Ru-106 μCi/ml	1.0E-09 Sn-113 μCi/ml	1.0E-09 Sb-125 μCi/ml	2.0E-10 Cs-134 μCi/ml	4.0E-10 Cs-137 μCi/ml	3.0E-11 Ce-144 μCi/ml	5.0E-11 Eu-152 μCi/ml	5.0E-11 Eu-154 μCi/ml
On/Off Dates									
12/29/94-03/23/95	-4.4E-16 ± 100%	-2.8E-16 ± 365%	3.3E-16 ± 85%	1.5E-17 ±1500%	1.0E-16 ± 105%	7.2E-16 ± 30%	7.4E-17 ± 200%	-9.8E-17 ± 300%	
03/23/95-06/29/95	7.3E-16 ± 30%	5.9E-16 ± 150%	-1.0E-17 ±1100%	1.0E-16 ± 220%	2.3E-17 ± 470%	6.5E-16 ± 30%	1.1E-16 ± 150%	-1.4E-17 ±2700%	
06/29/95-09/29/95	7.9E-15 ± 15%	3.9E-16 ± 281%	7.8E-17 ± 163%	-1.1E-17 ±2300%	3.0E-17 ± 416%	2.5E-16 ± 67%	-1.7E-17 ±1100%	-9.9E-17 ± 379%	
09/29/95-12/21/95	2.3E-17 ± 260%	9.5E-17 ±1100%	6.3E-17 ± 200%	2.2E-16 ± 130%	-8.3E-17 ± 150%	2.5E-16 ± 60%	5.2E-17 ± 420%	1.0E-17 ±3800%	

SYMBOL KEY: * Concentration exceeds Warning Level.

*S MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack FlowRate of previous Sample.

06/21/96 11:21

296-B-28: 296-B-28 STACK SAMPLER (X886)

01/01/95 to 12/31/95

Page 2

Warning Levels:	3.0E-10 Eu-155 μCi/ml	3.0E-14 Pu-238 μCi/ml	2.0E-14 Pu239/40 μCi/ml	2.0E-14 Am-241 μCi/ml	Collect Time Hours	Sample FlowRate CFM	Sample Volume ft3	Stack FlowRate CFM
On/Off Dates								
12/29/94-03/23/95	3.2E-17 ± 550%	-1.6E-17 ± 110%	4.0E-18 ±1900%	6.3E-18 ± 240%	1829.6	1.8	200000	270
03/23/95-06/29/95	-2.5E-17 ± 980%	-2.7E-18 ± 240%	5.6E-18 ± 170%	4.6E-18 ± 300%	2350.4	1.7	240000	290
06/29/95-09/29/95	1.4E-17 ±1800%	3.2E-18 ± 670%	2.1E-18 ± 720%	2.3E-17 ± 120%	2199.7	1.5	290000	290
09/29/95-12/21/95	2.7E-16 ± 110%	5.4E-18 ± 270%	4.7E-17 ± 70%	5.4E-17 ± 70%	1673.6	1.6	160000	280

SYMBOL KEY: * Concentration exceeds Warning Level.

*S MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack FlowRate of previous Sample

WHC ENVIRONMENTAL RELEASE SUMMARY

06/14/96

13:13

296-C-5: 244-CR VAULT CELL & VESSEL VENT (E069, X069)

01/01/95 through 12/31/95

Total System Flow: 7.5E+10 Liters = 2.6E+09 Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.83

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci/ml}$	
		Average	Peak
-----	-----	-----	-----
⁹⁰ Sr	2.7E-07	3.0E-15	5.1E-15
¹⁰⁶ Ru	ND	-4.0E-16	1.1E-17
¹¹³ Sn	1.7E-09	1.9E-17	1.0E-16
¹²⁵ Sb	6.4E-09	7.1E-17	9.3E-17
¹³⁴ Cs	4.1E-09	4.5E-17	8.5E-17
¹³⁷ Cs	2.8E-07	3.1E-15	4.1E-15
¹⁵² Eu	ND	-6.6E-18	4.7E-17
¹⁵⁴ Eu	3.5E-11	3.9E-19	1.6E-16
¹⁵⁵ Eu	3.4E-09	3.8E-17	9.1E-17
²³⁸ Pu	4.6E-10	5.2E-18	1.3E-17
^{239/240} Pu	3.7E-09	4.1E-17	1.5E-16
²⁴¹ Am	2.2E-09	2.4E-17	3.3E-17
Total α	2.5E-08	2.8E-16	1.4E-15
Total β	1.1E-06	1.3E-14	4.5E-14

06/21/96 11:21

296-C-5: 244 CR VAULT CELL & VESSEL VENT (E069)

01/01/95 to 12/31/95

Page 1

Warning Levels:	2.0E-14	9.0E-17	Collect	Sample	Sample	Stack
On/Off Dates	Total α $\mu\text{Ci}/\text{m}^3$	Total β $\mu\text{Ci}/\text{m}^3$	Time Hours	FlowRate CFM	Volume ft^3	FlowRate CFM
12/29/94-01/12/95	1.4E-15 $\pm$ 43%	1.9E-14 $\pm$ 9.6%	335.0	1.8	36000	5000
01/12/95-01/26/95	1.9E-16 $\pm$ 290%	1.1E-14 $\pm$ 13%	333.4	1.8	37000	5000
01/26/95-02/09/95	2.0E-16 $\pm$ 180%	5.5E-15 $\pm$ 18%	274.1	2.3	38000	5000
02/09/95-02/23/95	2.5E-17 $\pm$ 1390%	1.2E-14 $\pm$ 12%	331.5	1.8	36900	5000
02/23/95-03/09/95	2.2E-16 $\pm$ 170%	1.4E-14 $\pm$ 11%	338.1	1.8	37000	5000
03/09/95-03/23/95	5.6E-16 $\pm$ 87%	1.1E-14 $\pm$ 12%	338.7	1.9	38000	5000
03/23/95-04/06/95	4.3E-16 $\pm$ 170%	7.5E-15 $\pm$ 16%	331.5	1.7	33900	5000
04/06/95-04/20/95	8.6E-16 $\pm$ 110%	1.5E-14 $\pm$ 15%	154.8	2.0	18000	5000
04/20/95-05/04/95	8.7E-17 $\pm$ 390%	1.4E-14 $\pm$ 12%	335.7	1.6	33000	5000
05/04/95-05/18/95	9.9E-17 $\pm$ 340%	9.0E-15 $\pm$ 14%	335.4	1.7	35900	5000
05/18/95-06/01/95	3.5E-16 $\pm$ 130%	1.4E-14 $\pm$ 12%	333.3	1.7	35000	5000
06/01/95-06/15/95	6.4E-17 $\pm$ 430%	1.2E-14 $\pm$ 11%	328.6	2.1	42000	5000
06/15/95-06/29/95	1.7E-16 $\pm$ 190%	6.6E-15 $\pm$ 15%	338.9	2.1	42000	5000
06/29/95-07/14/95	1.5E-16 $\pm$ 190%	1.0E-14 $\pm$ 11%	356.3	2.2	47000	5000
07/14/95-07/27/95	2.6E-16 $\pm$ 140%	1.2E-14 $\pm$ 11%	312.9	2.2	42000	5000
07/27/95-08/10/95	1.7E-16 $\pm$ 180%	8.1E-15 $\pm$ 10%	335.5	2.3	46000	5000
08/10/95-08/24/95	4.0E-16 $\pm$ 110%	8.4E-15 $\pm$ 14%	343.9	1.8	38000	5000
08/24/95-09/07/95	1.9E-16 $\pm$ 210%	1.0E-14 $\pm$ 13%	339.1	1.7	34000	5000
09/07/95-09/28/95	3.3E-16 $\pm$ 89%	7.7E-15 $\pm$ 11%	499.6	2.1	64000	5000
09/28/95-10/26/95	3.4E-16 $\pm$ 73%	6.9E-15 $\pm$ 11%	682.6	2.0	82000	5000
10/26/95-11/09/95	2.7E-16 $\pm$ 150%	1.2E-14 $\pm$ 11%	331.0	2.2	43000	5000
11/09/95-11/22/95	6.9E-17 $\pm$ 390%	5.7E-15 $\pm$ 17%	310.1	2.2	49000	5000
11/22/95-12/07/95	2.4E-17 $\pm$ 730%	1.0E-14 $\pm$ 12%	357.5	2.2	46000	5000
12/07/95-12/21/95	1.6E-16 $\pm$ 180%	4.5E-14 $\pm$ 5.5%	341.7	2.2	45000	5000
12/22/95-12/31/95			0.0	0.0	0	5000

SYMBOL KEY: * Concentration exceeds Warning Level.

*S MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack FlowRate of previous Sample.

06/21/96 11:21

296 C-5: 244-CR VAULT CELL & VESSEL VENT (X069)

01/01/95 to 12/31/95

Page 1

Warning Levels:	9.0E-17 Sr-90	6.0E-10 Zr-95	3.0E-11 Ru-106	1.0E-09 Sn-113	1.0E-09 Sb-125	2.0E-10 Cs-134	4.0E-10 Cs-137	3.0E-11 Re-144	5.0E-11 Eu-152
On/Off Dates	$\mu\text{Ci}/\text{ml}$	$\mu\text{Ci}/\text{ml}$	$\mu\text{Ci}/\text{ml}$	$\mu\text{Ci}/\text{ml}$	$\mu\text{Ci}/\text{ml}$	$\mu\text{Ci}/\text{ml}$	$\mu\text{Ci}/\text{ml}$	$\mu\text{Ci}/\text{ml}$	$\mu\text{Ci}/\text{ml}$
12/29/94-03/23/95	2.7E-15 $\pm$ 12%		-1.2E-15 $\pm$ 100%	1.0E-16 $\pm$ 240%	9.3E-17 $\pm$ 250%	8.5E-17 $\pm$ 125%	2.9E-17 $\pm$ 20%		2.9E-17 $\pm$ 560%
03/23/95-06/29/95	2.8E-15 $\pm$ 15%		-1.6E-16 $\pm$ 430%	-6.9E-17 $\pm$ 150%	6.5E-17 $\pm$ 300%	1.1E-17 $\pm$ 720%	4.0E-15 $\pm$ 20%		4.7E-17 $\pm$ 270%
06/29/95-09/28/95	1.3E-15 $\pm$ 15%		1.1E-17 $\pm$ 5300%	3.7E-17 $\pm$ 212%	6.4E-17 $\pm$ 250%	7.8E-17 $\pm$ 84%	3.7E-15 $\pm$ 19%		-5.5E-17 $\pm$ 216%
09/28/95-12/21/95	5.1E-15 $\pm$ 18%		-2.9E-16 $\pm$ 220%	2.3E-17 $\pm$ 360%	6.6E-17 $\pm$ 280%	1.5E-17 $\pm$ 480%	4.1E-15 $\pm$ 20%		3.2E-18 $\pm$ 4400%
SYMBOL KEY: * Concentration exceeds Warning Level. *S MDA exceeds Warning Level. ? Reported MDA is negative. ** Stack FlowRate of previous Sample.									

06/21/96 11:21

296 C-5: 244-CR VAULT CELL & VESSEL VENT (X069)

01/01/95 to 12/31/95

Page 2

Warning Levels:	5.0E-11 Eu-154	3.0E-10 Eu-155	3.0E-14 Pu-238	2.0E-14 Pu-239/40	2.0E-14 Am-241	Collect Time Hours	Sample FlowRate CFM	Sample Volume ft3	Stack FlowRate CFM
On/Off Dates	$\mu\text{Ci}/\text{ml}$	$\mu\text{Ci}/\text{ml}$	$\mu\text{Ci}/\text{ml}$	$\mu\text{Ci}/\text{ml}$	$\mu\text{Ci}/\text{ml}$	-----	-----	-----	-----
12/29/94-03/23/95	-2.4E-16 $\pm$ 105%	9.1E-17 $\pm$ 250%	1.3E-17 $\pm$ 200%	1.5E-16 $\pm$ 48%	1.8E-17 $\pm$ 100%	1950.2	1.9	220000	5000
03/23/95-06/29/95	-5.8E-19 $\pm$ 9999%	2.1E-17 $\pm$ 900%	-1.2E-18 $\pm$ 150%	1.3E-17 $\pm$ 100%	2.1E-17 $\pm$ 90%	2160.3	1.8	240000	5000
06/29/95-09/28/95	4.6E-17 $\pm$ 458%	7.2E-18 $\pm$ 2300%	6.4E-18 $\pm$ 190%	3.8E-18 $\pm$ 32%	2.5E-17 $\pm$ 90%	2178.3	2.1	270000	5000
09/28/95-12/21/95	1.6E-16 $\pm$ 140%	5.7E-17 $\pm$ 370%	3.7E-18 $\pm$ 300%	8.5E-18 $\pm$ 170%	3.3E-17 $\pm$ 70%	2023.0	2.1	260000	5000
SYMBOL KEY: * Concentration exceeds Warning Level. *S MDA exceeds Warning Level. ? Reported MDA is negative. ** Stack FlowRate of previous Sample.									

WHC ENVIRONMENTAL RELEASE SUMMARY

06/15/96

16:40

296-P-16: 105-C & 106-C TANK EXHAUSTER (E068, X068)

01/01/95 through 12/31/95

Total System Flow: 6.0E+10 Liters = 2.1E+09 Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.73

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci/ml}$	
		Average	Peak
⁹⁰ Sr	4.2E-07	5.1E-15	1.0E-14
¹⁰⁶ Ru	ND	-5.9E-17	2.0E-16
¹¹³ Sn	ND	-2.1E-16	5.2E-17
¹²⁵ Sb	3.7E-09	4.5E-17	2.2E-16
¹³⁴ Cs	ND	-2.5E-17	1.3E-17
¹³⁷ Cs	1.4E-06	1.7E-14	4.5E-14
¹⁵² Eu	1.7E-09	2.1E-17	1.2E-16
¹⁵⁴ Eu	ND	-3.3E-17	8.9E-17
¹⁵⁵ Eu	4.6E-09	5.6E-17	3.0E-16
²³⁸ Pu	1.1E-09	1.3E-17	3.0E-17
^{239/240} Pu	1.9E-10	2.3E-18	2.6E-17
²⁴¹ Am	6.8E-09	8.3E-17	1.5E-16
Total α	1.8E-08	2.2E-16	1.3E-15
Total β	2.0E-06	2.4E-14	2.3E-13

06/21/96 11 21

296-P-16: 105-C & 106-C TANK EXHAUSTER (E068)

01/01/95 to 12/31/95

Page 1

Warning Levels: On/Off Dates	2.0E-14 Total α $\mu\text{Ci}/\text{ml}$	9.0E-12 Total β $\mu\text{Ci}/\text{ml}$	Collect Time Hours	Sample FlowRate CPM	Sample Volume ft ³	Stack FlowRate CPM
12/29/94-01/12/95	1.1E-15 $\pm$ 63%	7.6E-14 $\pm$ 4.9%	335.4	1.7	34000	4000
01/12/95-01/26/95	5.6E-16 $\pm$ 110%	2.3E-13 $\pm$ 3.1%	285.9	1.6	28000	4000
01/26/95-02/09/95	4.5E-16 $\pm$ 100%	9.0E-15 $\pm$ 14%	339.4	1.8	36000	4000
02/09/95-02/23/95	2.8E-16 $\pm$ 160%	2.1E-14 $\pm$ 9.2%	330.4	1.8	35000	4000
02/23/95-03/09/95	4.6E-16 $\pm$ 100%	4.8E-15 $\pm$ 20%	338.2	1.8	36000	4000
03/09/95-03/23/95	3.4E-16 $\pm$ 120%	5.7E-15 $\pm$ 18%	338.1	1.8	36000	4000
03/23/95-04/06/95	4.2E-17 $\pm$ 770%	1.3E-14 $\pm$ 12%	332.5	1.8	35000	4000
04/06/95-04/20/95	1.3E-15 $\pm$ 45%	3.3E-14 $\pm$ 7.1%	310.3	1.7	32000	4000
04/20/95-05/04/95	2.1E-16 $\pm$ 190%	4.4E-15 $\pm$ 21%	336.4	1.7	35000	4000
05/04/95-05/18/95	2.8E-17 $\pm$ 830%	4.7E-15 $\pm$ 20%	335.5	1.7	35000	4000
05/18/95-06/01/95	-3.2E-17 $\pm$ 710%	1.6E-14 $\pm$ 11%	336.8	1.8	37000	4000
06/01/95-06/15/95	1.8E-16 $\pm$ 190%	6.5E-15 $\pm$ 16%	322.4	2.1	40000	4000
06/15/95-06/29/95	-3.4E-17 $\pm$ 530%	9.8E-15 $\pm$ 12%	339.3	2.2	44000	4000
06/29/95-07/14/95	1.8E-16 $\pm$ 190%	6.4E-15 $\pm$ 16%	336.0	2.0	40000	4000
07/14/95-07/27/95	6.7E-17 $\pm$ 480%	4.4E-15 $\pm$ 20%	313.1	1.9	36000	4000
07/27/95-08/10/95	7.9E-17 $\pm$ 360%	1.3E-14 $\pm$ 11%	335.7	2.0	41000	4000
08/10/95-08/24/95	-5.6E-17 $\pm$ 370%	2.1E-15 $\pm$ 29%	344.5	1.9	38000	4000
08/24/95-09/07/95	1.7E-16 $\pm$ 210%	3.8E-15 $\pm$ 21%	330.1	1.9	37000	4000
09/07/95-09/28/95	-2.1E-17 $\pm$ 710%	3.2E-15 $\pm$ 20%	499.6	1.8	54000	4000
09/28/95-10/27/95	-2.9E-17 $\pm$ 360%	3.8E-15 $\pm$ 17%	700.8	1.9	79000	4000
10/27/95-11/09/95	9.6E-17 $\pm$ 670%	4.0E-15 $\pm$ 29%	312.6	1.1	20000	4000
11/09/95-11/27/95	5.2E-17 $\pm$ 390%	2.3E-15 $\pm$ 23%	430.8	2.1	53000	4000
11/27/95-12/07/95	-3.9E-17 $\pm$ 730%	2.8E-14 $\pm$ 8.8%	236.2	2.0	29000	4000
12/07/95-12/21/95	3.9E-16 $\pm$ 100%	7.5E-14 $\pm$ 4.5%	332.2	2.0	40000	4000
12/22/95-12/31/95			0.0	0.0	0	4000

SYMBOL KEY: * Concentration exceeds Warning Level.

*S MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack FlowRate of previous Sample.

06/21/96 11:21

Warming Levels:

On/off Dates	9-0E-12 Sr-90 µCi/ml	6-0E-10 Zr-95 µCi/ml	3-0E-11 Ru-106 µCi/ml	1-0E-09 Sr-113 µCi/ml	1-0E-09 Sr-125 µCi/ml	2-0E-10 Cs-134 µCi/ml	4-0E-10 Cs-137 µCi/ml	3-0E-11 Ce-144 µCi/ml	5-0E-11 Eu-152 µCi/ml
12/29/94-03/23/95	1.0E-16 ± 180k	2.4E-16 ± 300k	1.9E-16 ± 180k	2.2E-16 ± 160k	1.3E-17 ± 750k	4.9E-14 ± 18k	1.1E-16 ± 170k		
03/23/95-06/23/95	1.0E-16 ± 180k	2.4E-16 ± 300k	1.9E-16 ± 180k	2.2E-16 ± 160k	1.3E-17 ± 750k	4.9E-14 ± 18k	1.1E-16 ± 170k		
06/23/95-09/28/95	1.0E-16 ± 180k	2.4E-16 ± 300k	1.9E-16 ± 180k	2.2E-16 ± 160k	1.3E-17 ± 750k	4.9E-14 ± 18k	1.1E-16 ± 170k		
09/28/95-12/21/95	1.0E-16 ± 180k	2.4E-16 ± 300k	1.9E-16 ± 180k	2.2E-16 ± 160k	1.3E-17 ± 750k	4.9E-14 ± 18k	1.1E-16 ± 170k		

296-P-16: 105-C & 105-C TANK EXHAUSTER (X068)

01/01/95 to 12/31/95

Stack Flowrate of previous Sample

06/21/96 11:21

Warming Levels:

On/off Dates	5-0E-11 Eu-154 µCi/ml	3-0E-10 Eu-155 µCi/ml	3-0E-14 Pu-238 µCi/ml	2-0E-14 Pu-239/240 µCi/ml	2-0E-14 Am-241 µCi/ml	Collected Time Hours	Sample Flowrate CFM	Stack Flowrate CFM
12/29/94-03/23/95	1.0E-16 ± 280k	8.5E-17 ± 30k	2.4E-18 ± 470k	6.7E-18 ± 240k	9.1E-17 ± 40k	1967.9	1.7	4000
03/23/95-06/23/95	1.0E-16 ± 280k	8.5E-17 ± 30k	2.4E-18 ± 470k	6.7E-18 ± 240k	9.1E-17 ± 40k	2332.4	1.9	4000
06/23/95-09/28/95	1.0E-16 ± 280k	8.5E-17 ± 30k	2.4E-18 ± 470k	6.7E-18 ± 240k	9.1E-17 ± 40k	2023.1	1.8	4000
09/28/95-12/21/95	1.0E-16 ± 280k	8.5E-17 ± 30k	2.4E-18 ± 470k	6.7E-18 ± 240k	9.1E-17 ± 40k	2023.1	1.8	4000

296-P-16: 105-C & 105-C TANK EXHAUSTER (X068)

01/01/95 to 12/31/95

Stack Flowrate of previous Sample

WHC ENVIRONMENTAL RELEASE SUMMARY

06/14/96

13:13

296-P-31: 209-E CRITICALITY LABORATORY EXHAUST (E209)

01/01/95 through 12/31/95

Total System Flow: $3.3\text{E}+10$ Liters = $1.1\text{E}+09$ Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.91

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci}/\text{ml}$	
		Average	Peak
Total α	$6.4\text{E}-09$	$1.8\text{E}-16$	$1.3\text{E}-15$
Total β	$4.2\text{E}-08$	$1.2\text{E}-15$	$6.7\text{E}-15$

Warning Levels On/Off Dates	2.0E-14 Total α $\mu\text{Ci/ml}$	9.0E-12 Total β $\mu\text{Ci/ml}$	Collect Time Hours	Sample FlowRate CFM	Sample Volume Ft ³	Stack FlowRate CFM
12/29/94-01/12/95	7.2E-16 $\pm$ 77%	1.9E-15 $\pm$ 33%	341.8	1.9	38000	2200
01/12/95-01/19/95	2.0E-16 $\pm$ 200%	2.9E-16 $\pm$ 260%	166.9	1.8	18000	2200
01/19/95-01/26/95	2.8E-16 $\pm$ 260%	4.0E-16 $\pm$ 220%	162.2	2.0	19000	2200
01/26/95-02/03/95	1.5E-16 $\pm$ 230%	5.0E-16 $\pm$ 98%	194.3	2.0	23000	2200
02/03/95-07/15/95	4.2E-16 $\pm$ 120%	3.2E-16 $\pm$ 130%	287.6	2.0	34000	2200
02/15/95-02/23/95	3.5E-16 $\pm$ 170%	4.9E-15 $\pm$ 25%	191.2	2.0	23000	2200
02/23/95-03/02/95	1.3E-15 $\pm$ 77%	6.7E-15 $\pm$ 23%	167.9	2.0	20000	2200
03/02/95-03/09/95	3.9E-16 $\pm$ 10%	5.7E-15 $\pm$ 24%	171.7	2.0	20000	2200
03/09/95-03/16/95	2.9E-16 $\pm$ 230%	3.4E-15 $\pm$ 33%	168.0	2.0	20000	2200
03/16/95-03/30/95	1.5E-16 $\pm$ 230%	3.0E-16 $\pm$ 130%	330.8	2.0	39000	2200
04/06/95-04/20/95	8.0E-17 $\pm$ 390%	2.5E-16 $\pm$ 170%	336.4	1.6	33000	2200
04/20/95-05/04/95	8.1E-17 $\pm$ 390%	4.5E-17 $\pm$ 720%	336.6	1.8	36000	2200
05/04/95-05/18/95	9.8E-17 $\pm$ 340%	4.6E-16 $\pm$ 100%	332.0	1.8	35000	2200
05/18/95-06/01/95	8.2E-17 $\pm$ 350%	5.6E-16 $\pm$ 63%	338.7	2.0	40000	2200
06/01/95-06/15/95	6.5E-17 $\pm$ 430%	8.7E-16 $\pm$ 48%	332.0	2.1	41000	2200
06/15/95-06/29/95	2.8E-16 $\pm$ 130%	3.4E-16 $\pm$ 110%	337.8	2.0	40000	2200
06/29/95-07/13/95	4.0E-16 $\pm$ 110%	4.9E-16 $\pm$ 89%	333.3	2.0	39000	2200
07/13/95-07/27/95	5.9E-17 $\pm$ 480%	1.7E-16 $\pm$ 200%	338.3	2.0	40000	2200
07/27/95-08/10/95	2.9E-17 $\pm$ 690%	4.0E-16 $\pm$ 100%	338.6	2.0	40000	2200
08/10/95-09/07/95	1.5E-16 $\pm$ 140%	7.4E-16 $\pm$ 37%	611.6	1.7	69000	2200
09/07/95-09/27/95	6.2E-17 $\pm$ 350%	1.5E-15 $\pm$ 30%	476.0	1.9	53000	2200
10/11/95-10/13/95	4.7E-16 $\pm$ 470%	3.8E-15 $\pm$ 87%	41.4	2.0	4900	2200
10/13/95-10/26/95	6.0E-17 $\pm$ 360%	5.1E-16 $\pm$ 88%	216.9	2.0	39000	2200
10/26/95-11/09/95	4.4E-17 $\pm$ 670%	1.7E-15 $\pm$ 30%	337.0	2.2	44000	2200
11/09/95-11/21/95	7.7E-17 $\pm$ 390%	1.9E-15 $\pm$ 32%	289.1	2.1	36000	2200
11/21/95-12/07/95	2.4E-17 $\pm$ 730%	8.9E-16 $\pm$ 44%	379.5	2.0	46000	2200
12/07/95-12/21/95	2.8E-16 $\pm$ 130%	1.7E-15 $\pm$ 32%	340.4	2.0	41000	2200
12/21/95-12/31/95			0.0	0.0	0	2200

SYMBOL KEY: * Concentration exceeds Warning Level.

*S MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack FlowRate of previous Sample.

WHC ENVIRONMENTAL RELEASE SUMMARY

06/15/96

16:44

296-P-32, 33, & 34: ROTARY MODE CORE SAMPLERS (E301-E399)

01/01/95 through 12/31/95

Total System Flow: 1.2E+09 Liters = 4.3E+07 Cubic Ft

Radionuclide	Halflife	Release, Ci
⁹⁰ Sr	29.12 Years	3.0E-08
¹⁰⁶ Pu	368 Days	ND
¹¹³ Sn	115 Days	4.6E-11
¹²⁵ Sb	2.8 Years	1.4E-09
¹³⁴ Cs	2.1 Years	1.1E-09
¹³⁷ Cs	30 Years	2.0E-09
¹⁵² Eu	13.3 Years	3.9E-10
¹⁵⁴ Eu	8.8 Years	4.1E-10
¹⁵⁵ Eu	4.96 Years	2.1E-09
²³⁸ Pu	87.8 Years	ND
^{239/240} Pu	24,131 Years*	3.9E-10
²⁴¹ Am	432 Years	8.3E-10
Total α	n/a	1.9E-09
Total β	n/a	6.9E-10

* The halflife shown for Total Uranium is the half-life of ²³⁸U. The halflife shown for mixed ^{239/240}Pu is the halflife of ²³⁹Pu.

01/01/95 to 12/31/95 Page 1

ROUTMOD: ROTARY MODE CORE SAMPLER(S) STACK (X303)

06/21/96 11:21

Warning Levels:

On/Off Dates	2.0E-14		9.0E-12		Collect Time	Sample Flowrate	Stack Flowrate
	Total	α	Total	α			
01/01/95-01/19/95	0.0	0.0	0.0	0.0	0	0	0
01/20/95-01/24/95	1.2E-15 ± 40%	1.5E-15 ± 40%	0.0	0.0	1700	200	0
01/25/95-12/31/95	0.0	0.0	0.0	0.0	0	0	0

SYMBOL KEY: * Concentration exceeds Warning Level.

*S MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack Flowrate of previous Sample.

06/21/96 11:21

ROUTMOD: ROTARY MODE CORE SAMPLER(S) STACK (X303)

Page 1

Warning Levels:

On/Off Dates	9.0E-12		3.0E-11		Collect Time	Sample Flowrate	Stack Flowrate
	Total	α	Total	α			
01/01/95-01/19/95	0.0	0.0	0.0	0.0	0	0	0
01/20/95-01/24/95	5.9E-14 ± 15%	6.5E-14 ± 320%	1.0E-09	1.0E-09	4.0E-10	4.0E-10	0
01/25/95-12/31/95	0.0	0.0	0.0	0.0	0	0	0

SYMBOL KEY: * Concentration exceeds Warning Level.

*S MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack Flowrate of previous Sample.

06/21/96 11:21

ROUTMOD: ROTARY MODE CORE SAMPLER(S) STACK (X303)

Page 2

Warning Levels:

On/Off Dates	3.0E-10		3.0E-14		Collect Time	Sample Flowrate	Stack Flowrate
	Total	α	Total	α			
01/01/95-01/19/95	0.0	0.0	0.0	0.0	0	0	0
01/20/95-01/24/95	8.2E-15 ± 360%	4.8E-16 ± 100%	2.0E-14	2.0E-14	0	0	0
01/25/95-12/31/95	0.0	0.0	0.0	0.0	0	0	0

SYMBOL KEY: * Concentration exceeds Warning Level.

*S MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack Flowrate of previous Sample.

01/01/96 to 12/31/95
Page 1

ROIMOD: ROTARY MODE CORE SAMPLER(S) STACK (E304)

06/21/96 11:21
Warning Levels: 2.0E-14 9.0E-12
Total α 9.0E-12
On Off Dates: 01/01/96-09/04/95 8.4E-16 $\pm$ 35% 4.5E-15 $\pm$ 91%
09/05/95-09/15/95 4.4E-16 $\pm$ 11% 0.0
09/16/95-12/31/95 0.0 0.0 0.0 0.0
SYMBOL KEY: * Concentration exceeds Warning Level
*S MDA exceeds Warning Level
? Reported MDA is negative

-- Stack Flowrate of previous Sample

01/01/95 to 12/31/95
Page 1

ROIMOD: ROTARY MODE CORE SAMPLER(S) STACK (X304)

06/21/96 11:21
Warning Levels: 3.0E-12 3.0E-11
On Off Dates: 01/01/95-09/04/95 1.0E-09 2.0E-10 4.0E-10
09/05/95-09/15/95 3.0E-16 $\pm$ 140% 9.9E-15 $\pm$ 100% 1.6E-15 $\pm$ 31% 1.2E-15 $\pm$ 41%
09/16/95-12/31/95 3.0E-16 $\pm$ 140% 9.9E-15 $\pm$ 100% 1.6E-15 $\pm$ 31% 1.2E-15 $\pm$ 41%
SYMBOL KEY: * Concentration exceeds Warning Level
*S MDA exceeds Warning Level
? Reported MDA is negative

-- Stack Flowrate of previous Sample

01/01/95 to 12/31/95
Page 2

ROIMOD: ROTARY MODE CORE SAMPLER(S) STACK (X304)

06/21/96 11:21
Warning Levels: 3.0E-10 3.0E-14
On Off Dates: 01/01/95-09/04/95 2.0E-14 2.0E-14
09/05/95-09/15/95 4.7E-15 $\pm$ 250% 2.6E-16 $\pm$ 170% 9.9E-16 $\pm$ 110%
09/16/95-12/31/95 4.7E-15 $\pm$ 250% 2.6E-16 $\pm$ 170% 9.9E-16 $\pm$ 110%
SYMBOL KEY: * Concentration exceeds Warning Level
*S MDA exceeds Warning Level
? Reported MDA is negative

-- Stack Flowrate of previous Sample

06/21/96 11:21
Page 1

ROTMD: ROTARY MODE CORE SAMPLER(S) STACK (X305)

06/21/96 11:21
Warning Levels:

On Off Dates	2.0E-14 Total g	9.0E-12 Total Bq	Collect Time hours	Sample Flowrate mL/min	Stack Flowrate mL/min
01/01/95-07/06/95	1.5E-15 ± 110%	4.1E-17 ± 2860%	0.0	0.0	0
07/07/95-10/20/95			11.2	0.0	200
10/21/95-12/31/95			0.0	0.0	0

SYMBOL KEY: * Concentration exceeds Warning Level.

*S MDA exceeds Warning Level.

? Reported MDA is negative

-- Stack Flowrate of previous Sample.

06/21/96 11:21
Page 1

ROTMD: ROTARY MODE CORE SAMPLER(S) STACK (X305)

06/21/96 11:21
Warning Levels:

On Off Dates	9.0E-12 Eu-155 μCi/ml	3.0E-11 Pu-238 μCi/ml	1.0E-09 Sr-90 μCi/ml	1.0E-09 Cs-137 μCi/ml	2.0E-10 Total μCi/ml	4.0E-10 Total μCi/ml	3.0E-11 Eu-155 μCi/ml	5.0E-11 Pu-238 μCi/ml
01/01/95-07/06/95								
07/07/95-10/20/95	2.3E-14 ± 35%	4.9E-15 ± 320%	9.2E-16 ± 200%	-3.0E-15 ± 160%	1.2E-15 ± 150%	1.3E-15 ± 120%	-4.9E-16 ± 630%	-5.6E-15 ± 110%
10/21/95-12/31/95								

SYMBOL KEY: * Concentration exceeds Warning Level.

*S MDA exceeds Warning Level.

? Reported MDA is negative

-- Stack Flowrate of previous Sample.

06/21/96 11:21
Page 2

ROTMD: ROTARY MODE CORE SAMPLER(S) STACK (X305)

06/21/96 11:21
Warning Levels:

On Off Dates	3.0E-10 Eu-155 μCi/ml	3.0E-14 Pu-238 μCi/ml	2.0E-14 Am-241 μCi/ml	Collect Time hours	Sample Flowrate mL/min	Stack Flowrate mL/min
01/01/95-07/06/95						
07/07/95-10/20/95	2.5E-17 ± 0.0%	4.9E-17 ± 120%	-6.4E-17 ± 360%	112.5	1.5	10000
10/21/95-12/31/95				0.0	0.0	0

SYMBOL KEY: * Concentration exceeds Warning Level.

*S MDA exceeds Warning Level.

? Reported MDA is negative.

-- Stack Flowrate of previous Sample.

06/21/96 11:21			ROTMO: ROTARY MODE CORE SAMPLER(S) STACK (E306)					01/01/95 to 12/31/95		Page 1
Warning Levels:		2.0E-14 Total α μCi/ml	9.0E-12 Total β μCi/ml	Collect Time Hours	Sample FlowRate CFM	Sample Volume ft ³	Stack FlowRate CFM			
On/Off Dates		-----	-----	-----	-----	-----	-----			
01/01/95-07/23/95				0.0	0.0	0	0			
07/24/95-08/18/95		3.1E-16 ± 430%	-1.0E-15 ± 140%	66.2	1.5	5900	200			
08/19/95-12/31/95				0.0	0.0	0	0			
SYMBOL KEY: * Concentration exceeds Warning Level. *S MDA exceeds Warning Level. ? Reported MDA is negative. ** Stack FlowRate of previous Sample.										

06/21/96 11:21			ROTMO: ROTARY MODE CORE SAMPLER(S) STACK (X306)						01/01/95 to 12/31/95			Page 1	
Warning Levels:													
9.0E-12		3.0E-11		1.0E-09		2.0E-10		4.0E-10		3.0E-11		5.0E-11	
Sr-90		Ru-106		Sn-113		Sb-125		Cs-134		Cs-137		Ce-144	
μCi/ml		μCi/ml		μCi/ml		μCi/ml		μCi/ml		μCi/ml		μCi/ml	
On/Off Dates													
01/01/95-07/23/95													
07/24/95-08/18/95													
08/19/95-12/31/95													
SYMBOL KEY: * Concentration exceeds Warning Level. *S MDA exceeds Warning Level. ? Reported MDA is negative. ** Stack FlowRate of previous Sample.													

06/21/96 11:21				ROTMO: ROTARY MODE CORE SAMPLER(S) STACK (X306)				01/01/95 to 12/31/95				Page 2
Warning Levels:	3.0E-10 Eu-155 μCi/ml	3.0E-14 Pu-238 μCi/ml	2.0E-14 Pu-239/40 μCi/ml	2.0E-14 Am-241 μCi/ml	Collect Time Hours	Sample FlowRate CFM	Sample Volume ft ³	Stack FlowRate CFM				
On/Off Dates	-----	-----	-----	-----	-----	-----	-----	-----				
01/01/95-07/23/95					0.0	0.0	0	0				
07/24/95-08/18/95	3.5E-15 ± 200%	1.6E-16 ± 300%	7.8E-16 ± 120%	4.9E-16 ± 1500%	66.2	1.5	5900	200				
08/19/95-12/31/95					0.0	0.0	0	0				
SYMBOL KEY: * Concentration exceeds Warning Level. *S MDA exceeds Warning Level. ? Reported MDA is negative. ** Stack FlowRate of previous Sample.												

2.4.4 242-A Evaporator

WHC ENVIRONMENTAL RELEASE SUMMARY

06/14/96

13:15

296-A-21: 242-A BUILDING EXHAUST (E645, X645)

01/01/95 through 12/31/95

Total System Flow: 3.4E+11 Liters = 1.2E+10 Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.79

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci/ml}$	
		Average	Peak
-----	-----	-----	-----
⁹⁰ Sr	7.3E-07	1.7E-15	8.3E-15
¹⁰⁶ Ru	4.0E-08	9.3E-17	2.9E-16
¹¹³ Sn	ND	-6.2E-17	2.1E-16
¹²⁵ Sb	7.6E-09	1.8E-17	1.5E-16
¹³⁴ Cs	ND	-5.4E-18	2.8E-17
¹³⁷ Cs	8.5E-09	2.0E-17	1.1E-16
¹⁵² Eu	2.3E-09	5.4E-18	8.9E-17
¹⁵⁴ Eu	7.1E-08	1.7E-16	2.6E-16
¹⁵⁵ Eu	1.6E-09	3.7E-18	7.4E-17
²³⁸ Pu	1.1E-09	2.7E-18	8.8E-18
^{239/240} Pu	1.4E-08	3.4E-17	1.2E-16
²⁴¹ Am	1.1E-08	2.5E-17	4.7E-17
Total α	5.1E-08	1.2E-16	4.7E-16
Total β	3.5E-07	8.2E-16	4.7E-15

296 A Z1, 142 A BUILDING EXHAUST (E645)

06/21/96 11:21

Warning Levels:

On Off Dates

2.0E-14

µCi/l

9.0E-12

µCi/l

Collect

Hours

Sample

Volume

µCi

Sample

Volume

µCi

Stack

Flowrate

CFM

Stack

Flowrate

CFM

Reported MDL is negative.

** Stack Flowrate of previous Sample.

* Reported MDL is negative.

* Concentration exceeds Warning Level

06/21/96 11:21

296-A-21: 747-A BUILDING EXHAUST (X645)

01/01/95 to 12/31/95

Warning Levels:

On/Off Dates	9.0E-12 µCi/m	3.0E-11 µCi/m	1.0E-09 µCi/m	1.0E-09 µCi/m	2.0E-10 µCi/m	4.0E-10 µCi/m	5.0E-11 µCi/m	5.0E-11 µCi/m	3.0E-10 µCi/m
12/29/94-03/23/95	3.0E-12 ± 2.0E-12	2.0E-11 ± 1.0E-11	7.0E-17 ± 3.0E-17	7.0E-17 ± 3.0E-17	2.0E-17 ± 1.0E-17	2.0E-17 ± 1.0E-17	2.0E-17 ± 1.0E-17	2.0E-17 ± 1.0E-17	2.0E-17 ± 1.0E-17
03/23/95-06/29/95	3.0E-12 ± 2.0E-12	2.0E-11 ± 1.0E-11	7.0E-17 ± 3.0E-17	7.0E-17 ± 3.0E-17	2.0E-17 ± 1.0E-17	2.0E-17 ± 1.0E-17	2.0E-17 ± 1.0E-17	2.0E-17 ± 1.0E-17	2.0E-17 ± 1.0E-17
06/29/95-09/28/95	3.0E-12 ± 2.0E-12	2.0E-11 ± 1.0E-11	7.0E-17 ± 3.0E-17	7.0E-17 ± 3.0E-17	2.0E-17 ± 1.0E-17	2.0E-17 ± 1.0E-17	2.0E-17 ± 1.0E-17	2.0E-17 ± 1.0E-17	2.0E-17 ± 1.0E-17
09/28/95-12/22/95	3.0E-12 ± 2.0E-12	2.0E-11 ± 1.0E-11	7.0E-17 ± 3.0E-17	7.0E-17 ± 3.0E-17	2.0E-17 ± 1.0E-17	2.0E-17 ± 1.0E-17	2.0E-17 ± 1.0E-17	2.0E-17 ± 1.0E-17	2.0E-17 ± 1.0E-17

Symbol Key: * Concentration exceeds Warning Level.

* NDA exceeds Warning Level.

* Reported NDA is negative.

-- Stack Flowrate of previous Sample.

06/21/96 11:23

296-A-21: 747-A BUILDING EXHAUST (X645)

01/01/95 to 12/31/95

Warning Levels:

On/Off Dates	3.0E-14 Pu-238 µCi/m	2.0E-14 Pu-239/40 µCi/m	2.0E-14 Am-241 µCi/m	Collect Time	Sample Volume	Stack Flowrate
12/29/94-03/23/95	4.1E-18 ± 2.0E-18	3.1E-18 ± 2.0E-18	1.0E-17 ± 2.0E-17	2011.3	23000	23000
03/23/95-06/29/95	4.1E-18 ± 2.0E-18	3.1E-18 ± 2.0E-18	1.0E-17 ± 2.0E-17	2011.3	23000	23000
06/29/95-09/28/95	4.1E-18 ± 2.0E-18	3.1E-18 ± 2.0E-18	1.0E-17 ± 2.0E-17	2011.3	23000	23000
09/28/95-12/22/95	4.1E-18 ± 2.0E-18	3.1E-18 ± 2.0E-18	1.0E-17 ± 2.0E-17	2011.3	23000	23000

Symbol Key: * Concentration exceeds Warning Level.

* NDA exceeds Warning Level.

* Reported NDA is negative.

-- Stack Flowrate of previous Sample.

WHC ENVIRONMENTAL RELEASE SUMMARY

06/15/96

20:46

296-A-22: 242-A EVAPORATOR (E643, E001)

01/01/95 through 12/31/95 ***

Total System Flow: 9.6E+09 Liters = 3.4E+08 Cubic Ft

Radionuclide	Halflife	Release, Ci
⁹⁰ Sr	29.12 Years	5.4E-08
¹⁰⁶ Ru	368 Days	4.8E-07
¹¹³ Sn	115 Days	4.7E-08
¹²⁵ Sb	2.8 Years	7.4E-08
¹²⁹ I	1.57E+7 Years	3.7E-06
¹³⁴ Cs	2.1 Years	6.4E-10
¹³⁷ Cs	30 Years	5.5E-10
¹⁵² Eu	13.3 Years	ND
¹⁵⁴ Eu	8.8 Years	ND
¹⁵⁵ Eu	4.96 Years	4.0E-10
²³⁸ Pu	87.8 Years	1.7E-11
^{239/240} Pu	24,131 Years*	1.8E-10
²⁴¹ Am	432 Years	4.0E-10
Total α	n/a	3.4E-09
Total β	n/a	4.9E-08

* The halflife shown for Total Uranium is the half-life of ²³⁸U. The halflife shown for mixed ^{239/240}Pu is the halflife of ²³⁹Pu.

*** Values for one or more files projected forward to cover report period.

06/21/96 11.21

296-A-22: 747-A EVAPORATOR (E643)

01/01/95 to 12/31/95

Page 1

Warning Levels:		2.0E-14	9.0E-12	Collect	Sample	Sample	Stack
On/Off Dates		Total α $\mu\text{Ci}/\text{ml}$	Total R $\mu\text{Ci}/\text{ml}$	Time Hours	FlowRate CFM	Volume ft^3	FlowRate CFM
12/29/94	01/12/95	7.8E-17 $\pm$ 1300	1.7E-15 $\pm$ 398	331.5	1.6	32000	670
01/12/95	01/26/95	7.2E-17 $\pm$ 4701	2.7E-15 $\pm$ 798	341.7	1.7	34000	670
01/26/95	02/09/95	5.6E-16 $\pm$ 1001	1.0E-15 $\pm$ 554	331.4	1.7	33000	670
02/09/95	02/23/95	1.7E-16 $\pm$ 2601	5.6E-16 $\pm$ 892	334.6	1.6	31000	670
02/23/95	03/09/95	4.0E-16 $\pm$ 1201	4.6E-15 $\pm$ 228	337.0	1.5	31000	670
03/09/95	03/23/95	2.5E-16 $\pm$ 1701	5.4E-15 $\pm$ 208	335.1	1.6	32000	670
03/23/95	04/06/95	1.9E-16 $\pm$ 2301	8.6E-16 $\pm$ 618	335.2	1.5	30000	670
04/06/95	04/20/95	1.1E-15 $\pm$ 654	1.1E-15 $\pm$ 485	337.4	1.6	32000	670
04/20/95	05/04/95	3.6E-16 $\pm$ 1301	5.0E-15 $\pm$ 209	339.7	1.6	32000	670
05/04/95	05/18/95	-2.9E-17 $\pm$ 8301	2.4E-16 $\pm$ 1508	331.9	1.7	35000	670
05/18/95	06/01/95	9.8E-17 $\pm$ 3501	3.8E-16 $\pm$ 1208	335.3	1.7	33000	49
06/01/95	06/15/95	-5.2E-17 $\pm$ 4801	6.9E-16 $\pm$ 642	338.1	1.6	32000	670
06/15/95	06/19/95	9.6E-16 $\pm$ 1501	4.9E-14 $\pm$ 138	100.8	1.2	7500	670
06/19/95	06/20/95	2.0E-15 $\pm$ 4001	3.7E-14 $\pm$ 378	21.1	1.1	1400	670
06/20/95	06/29/95	5.2E-16 $\pm$ 1901	1.3E-14 $\pm$ 192	217.7	1.0	14000	670
06/29/95	07/13/95	3.0E-16 $\pm$ 1901	2.1E-14 $\pm$ 118	331.6	1.2	24000	670
07/13/95	07/27/95	4.1E-16 $\pm$ 2001	1.6E-14 $\pm$ 164	255.9	0.8	16000	670
07/27/95	08/10/95	-5.8E-17 $\pm$ 6901	1.3E-15 $\pm$ 582	334.6	1.0	20000	670
08/10/95	08/24/95	-6.7E-17 $\pm$ 5301	7.0E-16 $\pm$ 1008	340.2	1.1	23000	670
08/24/95	09/07/95	4.7E-16 $\pm$ 1401	1.6E-16 $\pm$ 3508	331.4	1.2	23000	670
09/07/95	09/28/95	3.5E-16 $\pm$ 1301	8.6E-16 $\pm$ 538	506.0	1.1	34000	670
09/28/95	10/16/95	8.1E-16 $\pm$ 821	2.1E-15 $\pm$ 342	430.9	1.1	30000	670
10/16/95	10/26/95	6.4E-16 $\pm$ 1401	8.2E-15 $\pm$ 228	243.5	1.1	17000	670
10/26/95	11/09/95	8.0E-17 $\pm$ 6701	1.9E-15 $\pm$ 414	333.7	1.2	24000	670
11/09/95	11/22/95	-6.0E-17 $\pm$ 5501	1.1E-15 $\pm$ 556	309.3	1.3	24000	670
11/22/95	12/07/95	-4.6E-17 $\pm$ 7301	3.1E-15 $\pm$ 1808	362.1	1.1	25000	670
12/07/95	12/22/95	1.0E-16 $\pm$ 3501	3.0E-16 $\pm$ 1508	357.8	1.4	30000	670
12/22/95	12/31/95			0.0	0.0	0	670

SYMBOL KEY: * Concentration exceeds Warning Level.

*S MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack FlowRate of previous Sample.

06/21/96 11:21		296-A-27: 242-A EVAPORATOR (E001)							01/01/95 to 12/31/95				Page 1	
Warning Levels:		2.0E-09	3.0E-11	1.0E-09	1.0E-09	7.0E-11	4.0E-10	4.0E-10	Collect	Sample	Sample			
		Ru-103	Ru-106	Sn-113	Sn-125	I-129	I-131	Cs-137	Time	FlowRate	Volume			
On/Off Dates		µCi/ml	µCi/ml	µCi/ml	µCi/ml	µCi/ml	µCi/ml	µCi/ml	Hours	CFM	ft ³	FlowRate	CFM	
12/29/94-01/26/95	<3.1E-14	<1.8E-15	<4.2E-15	<1.8E-13	<4.2E-13	<3.4E-13	<3.4E-13	<3.4E-13	673.1	1.9	75000	670		
01/26/95-02/09/95	<3.1E-14	<3.5E-15	<8.9E-15	<3.4E-13	<8.9E-13	<4.3E-13	<4.3E-13	<4.3E-13	351.4	1.9	37000	670		
02/09/95-02/22/95	<3.6E-14	<4.3E-15	<9.7E-15	<4.3E-13	<9.7E-13	<4.3E-13	<4.3E-13	<4.3E-13	314.7	1.7	33000	670		
02/22/95-03/08/95	<3.4E-14	<4.2E-15	<9.4E-15	<4.2E-13	<9.4E-13	<4.2E-13	<4.2E-13	<4.2E-13	332.9	1.7	34000	670		
03/08/95-03/22/95	<3.4E-14	<4.1E-15	<9.2E-15	<4.1E-13	<9.2E-13	<4.1E-13	<4.1E-13	<4.1E-13	334.7	1.7	35000	670		
03/22/95-04/05/95	<3.4E-14	<4.1E-15	<9.3E-15	<4.1E-13	<9.3E-13	<4.1E-13	<4.1E-13	<4.1E-13	336.4	1.7	34000	670		
04/05/95-04/12/95	<3.3E-14	<4.0E-15	<9.0E-15	<4.0E-13	<9.0E-13	<4.0E-13	<4.0E-13	<4.0E-13	166.4	3.5	35000	670		
04/19/95-05/03/95	<3.5E-14	<4.9E-15	<9.9E-15	<4.0E-13	<9.9E-13	<4.0E-13	<4.0E-13	<4.0E-13	335.3	1.8	36000	670		
05/03/95-05/17/95	<3.1E-14	<3.8E-15	<8.5E-15	<3.7E-13	<8.5E-13	<3.7E-13	<3.7E-13	<3.7E-13	334.3	1.9	37000	670		
05/17/95-05/31/95	<2.9E-14	<3.8E-15	<8.5E-15	<2.9E-13	<8.5E-13	<2.9E-13	<2.9E-13	<2.9E-13	336.9	1.9	37000	93		
05/31/95-06/14/95	4.6E-14 ± 64%	<3.9E-15	<8.8E-15	<3.1E-13	<8.8E-13	<3.1E-13	<3.1E-13	<3.1E-13	334.0	1.8	36000	670		
06/14/95-06/21/95	2.6E-13 ± 33%	<1.3E-14	<2.6E-14	<7.8E-13	<2.6E-14	<7.8E-13	<7.8E-13	<7.8E-13	170.4	1.3	14000	670		
06/21/95-07/05/95	2.1E-13 ± 29%	<7.5E-15	<1.5E-14	<4.5E-13	<1.5E-14	<4.5E-13	<4.5E-13	<4.5E-13	334.9	1.2	24000	670		
07/05/95-07/19/95	8.8E-14 ± 45%	<7.0E-15	<1.4E-14	<4.2E-13	<1.4E-14	<4.2E-13	<4.2E-13	<4.2E-13	330.6	1.3	23000	670		
07/19/95-08/02/95	<8.7E-14	<1.2E-14	<2.5E-14	<5.5E-13	<2.5E-14	<5.5E-13	<5.5E-13	<5.5E-13	336.6	0.7	14000	670		
08/02/95-08/17/95	4.7E-14 ± 0.0%	<6.1E-15	<1.1E-14	<4.2E-13	<1.1E-14	<4.2E-13	<4.2E-13	<4.2E-13	356.7	1.2	27000	670		
08/17/95-08/30/95	<3.3E-14	<7.6E-15	<1.5E-14	<4.6E-13	<1.5E-14	<4.6E-13	<4.6E-13	<4.6E-13	316.8	1.2	23000	670		
08/30/95-09/13/95	<5.4E-14	<7.7E-15	<1.5E-14	<4.6E-13	<1.5E-14	<4.6E-13	<4.6E-13	<4.6E-13	330.7	1.2	23000	670		
09/13/95-09/27/95	<5.5E-14	<7.8E-15	<1.6E-14	<4.7E-13	<1.6E-14	<4.7E-13	<4.7E-13	<4.7E-13	335.8	1.1	23000	670		
09/27/95-10/11/95	<6.6E-14	<7.9E-15	<1.6E-14	<4.8E-13	<1.6E-14	<4.8E-13	<4.8E-13	<4.8E-13	334.2	1.1	27000	670		
10/11/95-10/25/95	-5.6E-15 ± 520%	4.4E-16 ± 820%	-4.1E-14 ± 100%	8.2E-14 ± 340%	4.4E-16 ± 360%	-4.1E-14 ± 100%	8.2E-14 ± 340%	4.4E-15 ± 100%	336.9	1.1	22000	670		
10/25/95-11/09/95	-5.8E-15 ± 600%	7.9E-16 ± 360%	-2.6E-14 ± 100%	1.5E-13 ± 150%	-5.8E-15 ± 460%	7.9E-16 ± 360%	-2.6E-14 ± 100%	1.5E-13 ± 150%	359.8	1.3	28000	670		
11/09/95-11/22/95	-5.6E-15 ± 460%	-1.0E-15 ± 300%	7.5E-16 ± 880%	4.9E-14 ± 500%	-5.6E-15 ± 460%	-1.0E-15 ± 300%	7.5E-16 ± 880%	4.9E-14 ± 500%	309.3	1.4	25000	670		
11/22/95-12/06/95	1.2E-14 ± 200%	-3.4E-15 ± 100%	3.7E-15 ± 190%	4.5E-14 ± 570%	1.2E-14 ± 200%	-3.4E-15 ± 100%	3.7E-15 ± 190%	4.5E-14 ± 570%	2.3E-16 ± 200%	339.5	1.2	25000	670	
12/06/95-12/20/95	-2.5E-17 ± 9999%	-1.0E-15 ± 270%	-2.3E-15 ± 250%	1.0E-13 ± 150%	-2.5E-17 ± 9999%	-1.0E-15 ± 270%	-2.3E-15 ± 250%	1.0E-13 ± 150%	337.8	1.4	29000	670		

SYMBOL KEY: * Concentration exceeds Warning Level. *S MDA exceeds Warning Level. ? Reported MDA is negative. ** Stack FlowRate of previous Sample.

[illegible][illegible]

2.4.5 Effluent Treatment Facility (ETF)

WHC-SD-EN-TI-308

WHC ENVIRONMENTAL RELEASE SUMMARY

06/14/96

13:13

296-E-1: ETF Stack (E036)

01/01/95 through 12/31/95

Total System Flow: 1.2E+11 Liters = 4.1E+09 Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.72

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci/ml}$	
		Average	Peak
-----	-----	-----	-----
Total α	9.6E-08	6.0E-16	1.7E-15
Total β	2.1E-07	1.3E-15	3.8E-15

06/21/96 11:21

796 E-1: ETF Stack (t036)

01/01/95 to 12/31/95

Page 1

Warning Levels:		2.0E-14	9.0E-12	Collect	Sample	Sample	Stack
On/Off Dates		Total g µCi/m ³	Total B µCi/ml	Time Hours	FlowRate CFM	Volume Ft ³	FlowRate CFM
01/01/95-11/10/95				0.0	0.0	0	0
11/11/95-11/12/95				0.0	0.0	0	55000
11/12/95-11/22/95		5.3E-16 ± 110%	3.5E-16 ± 140%	233.0	2.1	29000	55000
11/22/95-12/05/95		1.7E-16 ± 200%	5.8E-16 ± 61%	313.4	2.1	39000	55000
12/05/95-12/19/95		1.6E-16 ± 200%	1.0E-15 ± 40%	336.3	2.1	43000	55000
12/19/95-12/21/95		1.1E-15 ± 200%	1.7E-15 ± 140%	47.4	2.1	6100	55000
12/21/95-12/28/95		1.7E-15 ± 66%	3.8E-15 ± 31%	155.1	2.1	20000	55000
12/28/95-12/31/95				0.0	0.0	0	55000**

SYMBOL KEY: * Concentration exceeds Warning Level.

*S MDA exceeds Warning Level

? Reported MDA is negative.

** Stack FlowRate of previous Sample.

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2.5 200 West Area

2.5.1 222-S Laboratory

WHC ENVIRONMENTAL RELEASE SUMMARY

06/15/96

17:55

296-S-16: 219-S WASTE TANKS (S264)

01/01/95 through 12/31/95

Total System Flow: 1.6E+09 Liters = 5.6E+07 Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.73

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci}/\text{ml}$	
		Average	Peak
Total α	2.7E-08	1.2E-14	1.9E-13
Total β	5.4E-07	2.5E-13	3.9E-12

06/21/96 11:21

296-S-16, 219-S WASTE TANKS (S264)

01/01/95 to 12/31/95

Page 1

Warning Levels:		2.0E-14	9.0E-17	Collect	Sample	Sample	Stack
		Total α	Total R	Time	FlowRate	Volume	FlowRate
On/Off Dates		$\mu\text{Ci/ml}$	$\mu\text{Ci/ml}$	Hours	CFM	ft ³	CFM
<hr/>							
12/26/94-01/02/95		2.7E-15 ± 45%	8.6E-15 ± 22%	167.5	1.6	16000	130
01/02/95-01/09/95		4.4E-15 ± 37%	6.9E-14 ± 7.7%	169.7	1.5	15000	130
01/09/95-01/16/95		2.5E-15 ± 48%	3.0E-15 ± 40%	162.4	1.7	17000	130
01/16/95-01/23/95		1.1E-15 ± 230%	5.0E-15 ± 30%	162.5	1.7	17000	130
01/23/95-01/30/95		5.5E-16 ± 470%	2.6E-14 ± 12%	168.4	1.6	16000	130
01/30/95-02/06/95		1.1E-15 ± 100%	1.4E-14 ± 17%	172.9	1.6	17000	130
02/06/95-02/13/95		1.6E-15 ± 79%	1.4E-14 ± 16%	163.3	1.6	16000	130
02/13/95-02/20/95		9.7E-16 ± 100%	1.0E-14 ± 20%	166.5	1.7	17000	130
02/20/95-02/27/95		1.7E-14 ± 17%	3.5E-13 ± 3.2%	168.7	1.7	17000	130
02/27/95-03/06/95		1.2E-15 ± 59%	4.3E-14 ± 9.1%	172.4	1.7	18000	130
03/06/95-03/13/95		1.1E-15 ± 100%	2.1E-14 ± 13%	162.0	1.8	17000	130
03/13/95-03/20/95		2.1E-16 ± 310%	2.4E-14 ± 12%	169.4	1.7	17000	100
03/20/95-03/27/95		2.2E-15 ± 63%	3.6E-14 ± 40%	167.7	1.6	17000	100
03/27/95-04/10/95	*	3.1E-14 ± 9.1%	6.5E-13 ± 1.7%	238.6	1.6	39000	100
04/10/95-04/17/95		9.5E-16 ± 100%	6.7E-15 ± 25%	168.9	1.7	17000	100
04/17/95-04/25/95		3.8E-16 ± 190%	1.4E-14 ± 16%	194.9	1.6	19000	100
04/25/95-05/09/95		4.6E-16 ± 110%	1.6E-14 ± 11%	313.7	1.8	35000	100
05/09/95-05/16/95		1.8E-15 ± 68%	1.1E-14 ± 18%	166.6	1.8	18000	100
05/16/95-05/23/95		2.5E-15 ± 45%	2.1E-14 ± 13%	169.5	1.8	18000	100
05/23/95-06/06/95		1.8E-15 ± 38%	2.4E-14 ± 8.8%	341.4	1.6	34000	100
06/06/95-06/20/95		1.3E-15 ± 45%	7.7E-15 ± 16%	329.7	1.7	35000	90
06/20/95-07/04/95		1.7E-15 ± 39%	1.7E-14 ± 13%	334.4	1.7	34000	90
07/04/95-07/18/95		9.5E-16 ± 65%	5.2E-15 ± 19%	337.7	1.8	36000	90
07/18/95-08/01/95		1.2E-15 ± 45%	1.0E-14 ± 14%	338.7	1.7	34000	90
08/01/95-08/15/95		5.9E-16 ± 90%	4.6E-15 ± 20%	332.2	1.7	34000	90
08/15/95-08/29/95		4.6E-16 ± 110%	4.9E-15 ± 20%	330.8	1.7	33000	90
08/29/95-09/12/95		3.2E-15 ± 45%	1.5E-14 ± 11%	337.8	1.7	34000	90
09/12/95-09/26/95	*	1.9E-13 ± 3.6%	3.9E-12 ± 0.7%	336.2	1.6	33000	120
09/26/95-10/10/95	*	4.4E-14 ± 10%	5.0E-13 ± 2.0%	333.6	1.6	31000	120
10/10/95-10/24/95		5.5E-15 ± 22%	1.2E-13 ± 4.1%	338.5	1.6	32000	120
10/24/95-11/07/95		3.5E-15 ± 28%	5.6E-14 ± 6.0%	338.2	1.6	32000	120
11/07/95-11/21/95		9.4E-16 ± 70%	2.1E-14 ± 2.6%	330.6	1.6	32000	120
11/21/95-12/05/95		2.7E-15 ± 13%	3.4E-14 ± 7.4%	340.4	1.7	34000	120
12/05/95-12/19/95		3.9E-15 ± 25%	9.4E-14 ± 4.4%	335.5	1.7	35000	100
12/20/95-12/31/95				0.0	0.0	0	100

SYMBOL KEY: * Concentration exceeds Warning Level.

*S MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack FlowRate of previous Sample.

WHC ENVIRONMENTAL RELEASE SUMMARY

06/15/96

17:42

296-S-21: 222-S LAB EXHAUST (S289, X289)

01/01/95 through 12/31/95 ***

Total System Flow: 1.1E+12 Liters = 3.7E+10 Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.73

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci/ml}$	
		Average	Peak
²³⁸ Pu	7.1E-09	4.9E-18	2.2E-17
^{239/240} Pu	8.0E-08	5.5E-17	2.2E-16
²⁴¹ Am	4.5E-08	3.1E-17	5.7E-17
Total α	1.8E-07	1.2E-16	9.0E-16
Total β	5.8E-07	4.0E-16	1.9E-15

*** Values projected for period 12/19/95 to 12/31/95.

06/21/95 11:21

296-S-21. 222-S LAB EXHAUST (S289)

01/01/95 to 12/31/95

Page 1

Warning Levels:	2.0E-14	9.0E-12	Collect	Sample	Sample	Stack
On/Off Dates	Total or µCi/ml	Total or µCi/ml	Time Hours	FlowRate CFM	Volume ft3	FlowRate CFM
12/26/94 01/02/95	-2.3E-16 ± 230A	-1.9E-15 ± 47A	139.1	1.9	15900	63000
01/02/95-01/09/95	-2.1E-16 ± 230A	-8.6E-16 ± 68A	168.7	1.7	17000	63000
01/09/95-01/16/95	5.1E-17 ± 1300A	-1.1E-16 ± 750A	168.4	1.7	17000	63000
01/16/95 01/23/95	5.7E-16 ± 160A	1.0E-15 ± 89E	166.2	1.7	17000	63000
01/23/95-01/30/95	1.4E-16 ± 470A	-2.3E-16 ± 260A	169.1	1.7	17000	63000
01/30/95-02/13/95	8.8E-17 ± 370A	-9.0E-17 ± 330A	337.1	1.7	35000	63000
02/13/95-02/20/95	-7.6E-17 ± 620A	2.0E-16 ± 370A	166.9	1.7	17000	63000
02/20/95-02/27/95	9.4E-16 ± 150A	4.6E-16 ± 220A	168.4	1.7	17000	63000
02/27/95-03/13/95	2.6E-17 ± 1300A	-5.7E-17 ± 750A	336.3	1.7	34000	63000
03/13/95-03/27/95	1.7E-16 ± 230A	5.2E-16 ± 53A	335.1	1.7	34000	77000
03/27/95-04/10/95	2.2E-16 ± 180A	1.6E-15 ± 37A	336.7	1.7	34000	77000
04/10/95-04/25/95	2.0E-16 ± 190A	8.8E-17 ± 380A	368.2	1.7	37000	77000
04/25/95-05/09/95	-4.8E-17 ± 510A	2.3E-16 ± 180A	318.4	1.7	32000	77000
05/09/95-05/23/95	3.0E-16 ± 150A	1.5E-17 ± 2500A	335.6	1.7	34000	77000
05/23/95-06/06/95	-3.3E-17 ± 710A	-1.9E-16 ± 130A	343.1	1.7	36000	77000
06/06/95-06/20/95	9.0E-16 ± 70A	1.5E-15 ± 39A	328.2	1.7	33000	72000
06/20/95-07/04/95	9.3E-17 ± 360A	3.9E-16 ± 110A	354.7	1.8	35000	72000
07/04/95-07/18/95	-3.2E-17 ± 690A	3.8E-16 ± 110A	337.2	1.8	37000	72000
07/18/95-08/01/95	8.6E-17 ± 380A	3.5E-17 ± 930A	336.5	1.7	35000	72000
08/01/95-08/15/95	3.8E-17 ± 600A	1.9E-15 ± 32A	335.2	1.8	36000	72000
08/15/95-08/29/95	2.0E-16 ± 190A	9.9E-17 ± 350A	336.4	1.8	35000	72000
08/29/95-09/12/95	-4.1E-17 ± 530A	8.9E-18 ± 3500A	336.5	1.8	35000	72000
09/12/95-09/26/95	6.0E-17 ± 390A	5.6E-16 ± 88A	336.1	1.6	33000	71000
09/26/95-10/10/95	-5.2E-17 ± 420A	-9.1E-17 ± 310A	334.3	1.8	36000	71000
10/10/95-10/24/95	-3.4E-17 ± 660A	4.5E-16 ± 100A	337.3	1.8	36000	71000
10/24/95-11/07/95	2.2E-16 ± 180A	9.4E-16 ± 54A	337.1	1.7	35000	71000
11/07/95-11/21/95	9.7E-17 ± 350A	1.3E-16 ± 290A	333.2	1.7	34000	71000
11/21/95-12/05/95	-3.7E-17 ± 730A	1.1E-15 ± 46A	337.0	1.7	35000	71000
12/05/95-12/19/95	2.0E-16 ± 190A	3.6E-16 ± 120A	338.8	1.8	36000	69000
12/20/95 12/31/95			0.0	0.0	0	69000

SYMBOL KEY: * Concentration exceeds Warning Level.

*S MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack FlowRate of previous Sample.

06/21/96 11:21		296 S 21- 222 S LAB EXHAUST (K289)		01/01/95 to 12/31/95		Page 1	
Warning Levels:		3.0E-14		2.0E-14		2.0E-14	
On/Off Dates		μCi/ml		μCi/ml		μCi/ml	
03/27/95-03/27/95		2.2E-14 ± 1.00E-14		7.7E-18 ± 3.40E-18		2.10000 ± 1.7	
03/27/95-06/20/95		2.2E-14 ± 1.00E-14		7.7E-18 ± 3.40E-18		2.10000 ± 1.7	
06/20/95-09/26/95		1.1E-14 ± 1.50E-15		4.4E-17 ± 7.0E-18		2.50000 ± 1.7	
09/26/95-12/19/95		3.8E-15 ± 1.00E-15		2.2E-17 ± 3.0E-18		2.10000 ± 1.7	
SMBOL KEY: *		Concentration exceeds Warning Level		*SMDA exceeds Warning Level		? Reported MDA is negative.	
						?? Stack Floodate of previous Sample	

2.5.2 T-Plant

WHC ENVIRONMENTAL RELEASE SUMMARY

06/14/96

13:16

291-T-1: 221-T CANYON & CELLS (T785, X785)

01/01/95 through 12/31/95 ***

Total System Flow: 5.2E+11 Liters = 1.9E+10 Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.73

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci/ml}$	
		Average	Peak
-----	-----	-----	-----
⁹⁰ Sr	2.7E-05	3.7E-14	4.4E-14
¹⁰⁶ Ru	ND	-8.7E-16	-1.8E-16
¹¹³ Sn	ND	-5.2E-17	5.6E-19
¹²⁵ Sb	2.0E-08	2.8E-17	1.3E-16
¹³⁴ Cs	1.7E-08	2.4E-17	8.3E-17
¹³⁷ Cs	1.5E-05	2.1E-14	2.4E-14
¹⁵² Eu	5.2E-08	7.2E-17	1.4E-16
¹⁵⁴ Eu	1.3E-07	1.9E-16	3.5E-16
¹⁵⁵ Eu	1.1E-07	1.5E-16	2.9E-16
²³⁸ Pu	3.2E-07	4.5E-16	9.5E-16
^{239/240} Pu	2.4E-05	3.4E-14	5.1E-14
²⁴¹ Am	1.8E-06	2.5E-15	2.7E-15
Total α	5.2E-05	7.2E-14	4.6E-13
Total β	1.6E-04	2.2E-13	1.4E-12

*** Values projected for period 09/12/95 to 12/31/95.

06/21/95 11:21

291 T-1: 221-T CANYON & CELLS (T785)

01/01/95 to 12/31/95

Page 1

Warning Levels:	2.0E-13	9.0E-11	Collect	Sample	Sample	Stack
	Total α	Total β	Time	FlowRate	Volume	FlowRate
On/Off Dates	$\mu\text{Ci}/\text{ml}$	$\mu\text{Ci}/\text{ml}$	Hours	CFM	ft3	CFM
12/27/94-01/03/95	1.2E-14 $\pm$ 21%	3.2E-14 $\pm$ 11%	169.1	1.7	18000	36000
01/03/95-01/10/95	1.6E-14 $\pm$ 17%	3.3E-14 $\pm$ 10%	167.6	1.8	18000	36000
01/10/95-01/17/95	1.7E-14 $\pm$ 17%	4.0E-14 $\pm$ 9.6%	167.4	1.7	17000	36000
01/17/95-01/24/95	9.6E-15 $\pm$ 23%	2.0E-14 $\pm$ 14%	168.0	1.7	18000	36000
01/24/95-01/31/95	9.4E-15 $\pm$ 23%	1.9E-14 $\pm$ 18%	167.5	1.7	18000	36000
01/31/95-02/07/95	1.4E-14 $\pm$ 19%	1.9E-14 $\pm$ 14%	167.6	1.7	17000	36000
02/07/95-02/14/95	1.1E-14 $\pm$ 21%	3.6E-14 $\pm$ 9.9%	175.1	1.7	18000	36000
02/14/95-02/21/95	1.3E-14 $\pm$ 19%	4.1E-14 $\pm$ 9.7%	161.4	1.7	17000	36000
02/21/95-02/28/95	1.0E-14 $\pm$ 22%	2.7E-14 $\pm$ 12%	167.3	1.7	17000	36000
02/28/95-03/06/95	5.8E-15 $\pm$ 31%	1.9E-14 $\pm$ 15%	145.0	1.7	15000	36000
03/06/95-03/14/95	1.4E-14 $\pm$ 23%	5.3E-14 $\pm$ 10%	122.6	1.6	12000	36000
03/14/95-03/28/95	8.8E-15 $\pm$ 18%	2.2E-14 $\pm$ 9.4%	333.2	1.6	32000	36000
03/28/95-04/11/95	1.7E-14 $\pm$ 12%	7.0E-14 $\pm$ 5.2%	326.4	1.6	33000	36000
04/11/95-04/18/95	1.5E-15 $\pm$ 78%	9.1E-15 $\pm$ 21%	167.2	1.6	17000	34000
05/09/95-05/23/95	1.3E-14 $\pm$ 13%	4.3E-14 $\pm$ 6.5%	334.7	1.7	34000	34000
05/23/95-06/06/95	6.4E-15 $\pm$ 19%	2.6E-14 $\pm$ 8.4%	336.4	1.7	34000	34000
06/06/95-06/20/95	1.7E-14 $\pm$ 14%	4.7E-14 $\pm$ 6.4%	336.3	1.7	34000	34000
06/20/95-07/05/95	4.6E-15 $\pm$ 20%	1.9E-14 $\pm$ 8.6%	360.5	2.0	43000	34000
07/05/95-07/18/95	8.6E-15 $\pm$ 17%	3.1E-14 $\pm$ 7.7%	311.5	1.8	34000	34000
07/18/95-07/26/95	4.5E-15 $\pm$ 33%	1.5E-14 $\pm$ 17%	167.1	1.8	18000	34000
07/26/95-08/01/95	3.7E-14 $\pm$ 12%	1.0E-13 $\pm$ 6.1%	147.9	1.8	16000	34000
08/01/95-08/02/95	2.4E-14 $\pm$ 37%	9.1E-14 $\pm$ 16%	25.3	1.7	2600	34000
08/07/95-08/12/95	4.8E-14 $\pm$ 12%	1.4E-13 $\pm$ 6.0%	117.6	1.8	13000	34000
08/12/95-08/15/95	2.6E-14 $\pm$ 20%	7.8E-14 $\pm$ 10%	77.5	1.8	8200	34000
08/15/95-08/29/95	2.8E-14 $\pm$ 8.9%	9.1E-14 $\pm$ 4.3%	324.8	1.8	36000	34000
08/29/95-09/12/95	1.9E-14 $\pm$ 11%	6.5E-14 $\pm$ 5.1%	332.2	1.8	36000	34000
09/12/95-11/07/95			0.0	0.0	0	34000**
11/07/95-11/21/95	* 4.6E-13 $\pm$ 2.4%	1.4E-12 $\pm$ 1.2%	335.8	1.6	31000	34000
11/21/95-12/05/95	8.0E-14 $\pm$ 5.7%	2.7E-13 $\pm$ 2.7%	335.1	1.6	32000	38000
12/05/95-12/31/95			0.0	0.0	0	38000**

SYMBOL KEY: * Concentration exceeds Warning Level.

*S MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack FlowRate of previous Sample.

06/71/96 11:21		291 T-1: 221-T CANYON & CELLS (X785)								01/01/95 to 12/31/95		Page 1
Warning Levels:		9.0E-12 Sr-90	3.0E-11 Ru-106	1.0E-09 Sn-113	1.0E-09 Sb-125	2.0E-10 Cs-134	4.0E-10 Cs-137	5.0E-11 Eu-152	5.0E-11 Eu-154	3.0E-10 Eu-155		
On/Off Dates		μCi/ml	μCi/ml	μCi/ml	μCi/ml	μCi/ml	μCi/ml	μCi/ml	μCi/ml	μCi/ml		
12/27/94-03/28/95		7.3E-14 ± 10%	-1.8E-16 ± 450%	-9.0E-17 ± 170%	-2.6E-16 ± 180%	8.3E-17 ± 120%	1.0E-14 ± 20%	1.4E-16 ± 125%	3.1E-16 ± 95%	1.0E-16 ± 240%		
03/28/95-06/20/95		3.9E-14 ± 15%	-3.0E-16 ± 420%	-1.3E-16 ± 130%	1.3E-16 ± 280%	1.5E-17 ± 910%	1.9E-14 ± 20%	7.7E-17 ± 330%	3.5E-16 ± 120%	-1.0E-16 ± 360%		
06/20/95-09/12/95		4.4E-14 ± 10%	1.5E-15 ± 100%	5.6E-19 ± 9999%	1.2E-16 ± 290%	1.5E-18 ± 9000%	2.4E-14 ± 18%	3.9E-17 ± 530%	6.5E-17 ± 60%	2.9E-16 ± 100%		
SYMBOL KEY: * Concentration exceeds Warning Level. *S MDA exceeds Warning Level. ? Reported MDA is negative. ** Stack FlowRate of previous Sample.												

06/21/96 11:21		291-T-1: 221-T CANYON & CELLS (X785)							01/01/95 to 12/31/95		Page 2
Warning Levels:		3.0E-14 Pu-238	2.0E-14 Pu239/40	2.0E-14 Am-241	Collect Time	Sample FlowRate	Sample Volume	Stack FlowRate			
On/Off Dates		μCi/ml	μCi/ml	μCi/ml	Hours	CFM	ft3	CFM			
12/27/94-03/28/95		9.5E-16 ± 30%	* 5.1E-14 ± 15%	2.6E-15 ± 15%	2112.1	1.7	220000	36000			
03/28/95-06/20/95		2.5E-16 ± 30%	* 2.9E-14 ± 15%	2.0E-15 ± 20%	1511.0	1.7	150000	35000			
06/20/95-09/12/95		3.2E-16 ± 30%	* 3.1E-14 ± 15%	2.7E-15 ± 20%	1874.9	1.8	210000	34000			
SYMBOL KEY: * Concentration exceeds Warning Level. *S MDA exceeds Warning Level. ? Reported MDA is negative. ** Stack FlowRate of previous Sample.											

WHC ENVIRONMENTAL RELEASE SUMMARY

06/14/96

13:16

296-T-7: 2706-T Stack (T154)

01/01/95 through 12/31/95

Total System Flow: 2.3E+10 Liters = 8.0E+08 Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.70

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci/ml}$	
		Average	Peak
-----	-----	-----	-----
Total α	5.0E-09	1.5E-16	4.2E-15
Total β	4.6E-08	1.4E-15	1.5E-14

06/21/96 11:21									
Warning Levels:									
On/Off Dates									
2 UE-14 µS/l in	9 UE-12 µS/l in	Collect Hours	Sample Flow CFM	Sample Rate l/s	Stack Flow CFM				
21/10/95-02/14/96	2.65 ± 1.8	858	0.4	12000	1800				
02/14/95-03/07/95	1.08 ± 1.7	838	0.4	21000	1100				
03/07/95-04/01/95	0.38 ± 1.7	563	0.5	14000	1100				
04/01/95-05/05/95	3.48 ± 1.6	649	0.4	16000	1800				
05/05/95-06/06/95	3.18 ± 1.7	670	1.3	54000	1800				
06/06/95-07/05/95	2.48 ± 1.6	358	0.3	4100	890				
07/05/95-08/01/95	1.28 ± 1.4	651	0.5	28000	1400				
08/01/95-09/12/95	4.38 ± 1.6	676	1.1	46000	3200				
09/12/95-10/10/95	7.88 ± 1.7	666	0.4	16000	1700				
10/10/95-11/07/95	3.98 ± 1.6	670	0.0	12000	1500				
11/07/95-12/31/95	2.48 ± 1.6	670	0.0	12000	1500				

* Reported RMA is negative

* RMA exceeds Warning Level

* Concentration exceeds Warning Level

** Stack FlowRate of previous Sample

WHC ENVIRONMENTAL RELEASE SUMMARY

06/14/96

13:16

296-T-13: 221-T CANYON EXHAUST - ROOF EXHAUSTER (T786)

01/01/95 through 12/31/95

Total System Flow: 5.6E+11 Liters = 2.0E+10 Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.73

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci}/\text{ml}$	
		Average	Peak
Total α	1.1E-06	1.5E-15	1.2E-14
Total β	8.8E-06	1.2E-14	8.5E-14

$$\sim \text{Stack FlowRate of previous sample.}$$

? Reported MDA is negative.

[0A07]

SYMBOL KEY: * Concentration exceeds warning level.

[illegible]

296-T-13: 221-T CANYON EXHAUST - ROOF EXHAUSTER (1786)

01/01/95 to 12/31/95

2.5.3 TRUSAF

WHC ENVIRONMENTAL RELEASE SUMMARY

06/15/96

17:31

296-T-11: 224-T BUILDING EXHAUST/WEST (T783, X783)

01/01/95 through 12/31/95

Total System Flow: 5.8E+09 Liters = 2.1E+08 Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.73

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci}/\text{ml}$	
		Average	Peak
-----	-----	-----	-----
Total α	7.8E-10	9.8E-17	1.2E-16
Total β	3.8E-09	4.7E-16	5.8E-16

06/27/96 11:21 296-T-11- 224 T BUILDING EXHAUST/ACS1 (1/83) 01/01/96 to 12/31/96 Page 1

Warning Levels:	2 DE-14 Total µCi/ml	2 DE-12 Total µCi/ml	Collect Hours	Sample Flowrate CFM	Sample Flowrate Ft ³ /S	Stack Flowrate CFM
On/Off Dates						
01/01/96-05/31/96			0	0	0	0
05/22/96-06/30/96	1.2E-16 ± 770*	5.8E-16 ± 210*	93.8	2.1	12000	13000
06/31/96-07/18/96			0	0	0	0
07/19/96-07/21/96			0	0	0	13000
07/21/96-12/31/96			0	0	0	0

SYMBOL KEY: * Concentration exceeds Warning Level. *S MAX exceeds Warning Level. ? Reported MAX is negative. ** Stack Flowrate of previous Sample.

WHC ENVIRONMENTAL RELEASE SUMMARY

06/14/96

13:16

296-T-12: 224-T BUILDING EXHAUST/EAST (T784)

01/01/95 through 12/31/95

Total System Flow: 1.4E+11 Liters = 5.0E+09 Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.73

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci/ml}$	
		Average	Peak
Total α	1.2E-07	6.4E-16	3.6E-15
Total β	7.9E-07	4.1E-15	1.0E-14

06/21/96 11:21

Z96-T-12: 224-T BUILDING EXHAUST/EAST (T784)

01/01/95 to 12/31/95

Page 1

Warning Levels:		2.0E-14	9.0E-12	Collect	Sample	Sample	Stack
		Total α	Total β	Time	FlowRate	Volume	FlowRate
On/Off Dates		μCi/ml	μCi/ml	Hours	CFM	ft3	CFM
12/27/94-01/03/95	7.6E-16 ± 120%	4.5E-16 ± 150%	144.0	2.2	19000	10000	10000
01/03/95-01/10/95	2.9E-16 ± 260%	8.6E-15 ± 21%	162.0	1.9	18000	10000	10000
01/10/95-01/17/95	1.9E-16 ± 230%	1.0E-16 ± 750%	168.9	1.9	19000	10000	10000
01/17/95-01/24/95	4.7E-17 ± 1300%	2.7E-16 ± 260%	166.9	1.9	19000	10000	10000
01/24/95-01/31/95	1.3E-16 ± 470%	1.7E-15 ± 51%	166.0	1.9	19000	10000	10000
02/07/95-02/09/95	2.5E-16 ± 620%	2.5E-15 ± 120%	48.1	1.8	5200	10000	10000
02/09/95-02/21/95	9.5E-17 ± 370%	2.1E-16 ± 210%	287.2	1.9	32900	10000	10000
02/21/95-03/07/95	3.3E-16 ± 120%	4.1E-15 ± 21%	333.9	1.9	37000	10000	10000
03/07/95-03/09/95	1.3E-15 ± 200%	3.6E-15 ± 90%	47.1	1.9	5300	10000	10000
03/09/95-03/21/95	2.5E-16 ± 170%	4.6E-15 ± 22%	279.2	1.9	31000	10000	10000
03/21/95-04/04/95	2.8E-16 ± 150%	2.3E-15 ± 29%	329.7	1.9	37000	10000	10000
04/04/95-04/18/95	3.8E-16 ± 120%	8.6E-16 ± 51%	334.1	1.9	39000	10000	10000
04/18/95-05/02/95	1.6E-16 ± 68%	3.1E-15 ± 23%	339.1	2.0	41000	10000	10000
05/02/95-05/16/95	2.6E-16 ± 150%	4.2E-15 ± 20%	332.6	2.0	48000	10000	10000
05/16/95-05/30/95	5.0E-16 ± 97%	4.4E-15 ± 20%	330.5	1.9	38000	10000	10000
05/30/95-06/12/95	3.4E-16 ± 130%	3.5E-15 ± 24%	311.7	1.6	33000	10000	10000
06/12/95-06/27/95	5.5E-16 ± 95%	5.0E-15 ± 19%	335.9	1.7	35000	10000	10000
06/27/95-06/28/95	1.0E-15 ± 360%	3.1E-15 ± 150%	29.7	1.7	3100	10000	10000
06/29/95-07/11/95	7.0E-16 ± 89%	5.4E-15 ± 20%	288.0	1.7	34000	10000	10000
07/13/95-07/25/95	2.6E-16 ± 190%	2.8E-15 ± 30%	269.9	1.7	28000	9100	9100
07/25/95-08/08/95	1.9E-15 ± 35%	4.5E-15 ± 20%	336.3	1.8	35000	9100	9100
08/08/95-08/22/95	8.6E-17 ± 370%	2.6E-15 ± 27%	334.4	1.7	35000	9100	9100
08/22/95-09/05/95	8.2E-16 ± 71%	4.6E-15 ± 21%	336.8	1.7	35000	9100	9100
09/05/95-09/19/95	1.5E-15 ± 39%	8.3E-15 ± 15%	335.4	1.7	35000	9100	9100
09/19/95-10/03/95	2.8E-15 ± 23%	6.7E-15 ± 17%	337.2	1.8	36000	9100	9100
10/03/95-10/04/95	1.2E-15 ± 390%	7.8E-15 ± 89%	23.7	1.7	2500	9100	9100
10/04/95-10/05/95	3.6E-15 ± 190%	4.7E-15 ± 160%	18.8	1.8	2000	9100	9100
10/05/95-10/17/95	9.5E-16 ± 71%	2.9E-15 ± 28%	283.6	1.8	31800	9100	9100
10/17/95-10/31/95	8.0E-16 ± 71%	4.4E-15 ± 21%	335.7	1.8	36000	9100	9100
10/31/95-11/14/95	1.0E-15 ± 60%	1.0E-14 ± 13%	336.8	1.8	37000	9100	9100
11/14/95-11/28/95	6.6E-16 ± 73%	5.7E-15 ± 18%	331.8	1.8	35900	9100	9100
11/29/95-12/12/95	2.1E-16 ± 190%	5.0E-15 ± 20%	312.1	1.8	33000	9100	9100
12/12/95-12/29/95	5.5E-16 ± 79%	3.6E-15 ± 20%	412.2	1.8	45000	9100	9100
12/29/95-12/31/95			0.0	0.0	0	9100**	9100**

SYMOL KEY: * Concentration exceeds Warning Level.

*S MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack FlowRate of previous Sample

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2.5.4 West Tank Farms

WHC ENVIRONMENTAL RELEASE SUMMARY

06/15/96

17:19

296-P-22: ALL SY ANNULI (W191)

01/01/95 through 12/31/95

Total System Flow: 1.8E+10 Liters = 6.2E+08 Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.80

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci}/\text{ml}$	
		Average	Peak
-----	-----	-----	-----
Total α	1.7E-09	7.8E-17	5.2E-16
Total β	1.8E-08	8.3E-16	4.1E-15

06/21/96 11:22

Z96-P-22. ALL SY ANNUAL (W191)

01/01/95 to 12/31/95

Page 1

Warning Levels:		2.0E-14	9.0E-12	Collect.	Sample	Sample	Stack
		Total a	Total b	Time	FlowRate	Volume	FlowRate
On/Off Dates		µCi/ml	µCi/ml	Hours	CFM	ft3	CFM
12/28/94 01/11/95	1.0E-16 ± 230%	1.3E-16 ± 360%	337.2	1.7	34000	1200	
01/11/95 01/25/95	9.9E-17 ± 230%	3.6E-17 ±1200%	331.0	1.8	36000	1200	
01/25/95 02/08/95	2.5E-17 ±1300%	1.4E-15 ± 4%	331.9	1.8	36000	1200	
02/08/95 02/22/95	2.6E-17 ±1500%	1.5E-16 ± 200%	340.5	1.7	34000	1200	
02/22/95 03/08/95	2.4E-16 ± 170%	3.0E-15 ± 27%	332.0	1.7	33000	1200	
03/08/95 03/22/95	1.1E-16 ± 310%	4.1E-15 ± 22%	334.6	1.7	33000	1200	
03/22/95 04/05/95	1.6E-16 ± 230%	9.0E-16 ± 67%	333.8	1.8	36000	1200	
04/05/95 04/19/95	2.2E-16 ± 180%	7.9E-16 ± 56%	335.4	1.7	34000	1200	
04/19/95 05/03/95	4.4E-17 ± 530%	3.5E-16 ± 120%	340.9	1.7	35000	1200	
05/03/95 05/17/95	2.9E-16 ± 190%	7.6E-16 ± 91%	207.7	1.9	24000	1200	
05/17/95 05/31/95	1.7E-16 ± 230%	7.9E-16 ± 59%	335.0	1.7	34000	1200	
05/31/95 06/14/95	5.2E-17 ± 610%	6.3E-16 ± 64%	335.9	1.7	35000	1200	
06/14/95 06/28/95	1.9E-16 ± 270%	5.7E-16 ± 64%	335.8	1.7	33000	1200	
06/28/95 07/12/95	3.2E-16 ± 140%	2.8E-16 ± 150%	337.1	1.7	34000	1200	
07/12/95 07/26/95	5.1E-17 ± 440%	9.5E-17 ± 300%	334.6	1.7	34000	1200	
07/26/95 08/09/95	3.6E-17 ± 650%	2.8E-16 ± 150%	331.1	1.7	34000	1200	
08/09/95 08/23/95	6.0E-17 ± 390%	8.0E-16 ± 56%	335.8	1.7	35000	1200	
08/23/95 09/06/95	2.0E-16 ± 190%	9.2E-16 ± 50%	336.0	1.7	35000	1200	
09/06/95 09/20/95	1.8E-16 ± 200%	6.9E-16 ± 58%	340.2	1.8	36000	1200	
09/20/95 09/26/95	5.2E-16 ± 200%	7.5E-16 ± 150%	147.9	1.4	12000	850	
09/26/95 10/04/95	6.3E-17 ± 730%	2.7E-16 ± 270%	183.8	1.6	17000	1200	
10/04/95 10/18/95	3.1E-17 ± 730%	2.2E-16 ± 170%	295.1	2.0	36000	1800	
10/18/95 11/01/95	2.9E-17 ± 800%	7.6E-16 ± 56%	333.4	1.7	35000	1200	
11/01/95 11/15/95	3.0E-17 ± 800%	2.9E-15 ± 26%	332.0	1.7	35000	1200	
11/15/95 11/29/95	3.5E-17 ± 650%	6.4E-16 ± 66%	336.3	1.7	35000	1200	
11/29/95 12/13/95	8.3E-17 ± 380%	9.5E-17 ± 380%	339.8	1.7	34000	1200	
12/13/95 12/27/95	8.0E-17 ± 390%	3.5E-16 ± 120%	332.1	1.8	36000	1200	
12/27/95 12/31/95			0.0	0.0	0	1200	

SYMBOL KEY: * Concentration exceeds Warning Level.

^S MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack FlowRate of previous Sample.

ENVIRONMENTAL RELEASE SUMMARY REPORT

08/02/96

15:19

296-P-23 & 296-P-28: EXHAUSTERS FOR ALL SY TANKS (W190, W195)

01/01/95 through 12/31/95

Total System Flow: 1.8E+10 Liters = 6.4E+08 Cubic Ft

Radionuclide	Halflife	Release, Ci
⁹⁰ Sr	29.12 Years	1.3E-07
¹⁰⁶ Ru	368 Days	4.0E-09
¹¹³ Sn	115 Days	6.0E-10
¹²⁵ Sb	2.8 Years	3.4E-09
¹³⁴ Cs	2.1 Years	4.0E-10
¹³⁷ Cs	30 Years	4.0E-06
¹⁵² Eu	13.3 Years	1.7E-09
¹⁵⁴ Eu	8.8 Years	ND
¹⁵⁵ Eu	4.96 Years	2.4E-09
²³⁸ Pu	87.8 Years	3.9E-10
^{239/240} Pu	24,131 Years*	1.7E-09
²⁴¹ Am	432 Years	3.9E-09
Total α	n/a	1.1E-08
Total β	n/a	2.9E-06

* The half-life shown for Total Uranium is the half-life of ²³⁸U. The half-life shown for mixed ^{239/240}Pu is the half-life of ²³⁹Pu.

06/21/96 11:27

296 P 23: EXHAUSTER FOR ALL SY TANKS (w190)

01/01/95 to 12/31/95

Page 1

Warning Levels:		2.0E-14	9.0E-12	Collect	Sample	Sample	Stack
		Total d	Total R	Time	FlowRate	Volume	FlowRate
On/Off Dates		µCi/ml	µCi/ml	Hours	CFM	ft3	CFM

12/28/94-01/11/95	6.4E-16 ± 1200	3.3E-14 ± 9.44	337.4	1.1	22000	1100	1100
01/11/95-01/18/95	-3.0E-16 ± 2300	7.2E-15 ± 304	178.8	1.1	12000	1100	1100
01/19/95-01/25/95	-4.1E-16 ± 2300	7.2E-15 ± 364	143.5	1.0	8600	1100	1100
01/26/95-01/30/95	1.3E-16 ± 13000	4.3E-15 ± 594	119.8	1.0	7000	1100	1100
01/30/95-02/08/95	9.8E-16 ± 863	2.7E-14 ± 104	212.0	1.9	24000	1100	1100
02/08/95-02/22/95	6.4E-16 ± 863	5.6E-14 ± 5.63	336.7	1.8	36000	1100	1100
02/22/95-03/08/95	4.1E-16 ± 1000	2.1E-13 ± 2.74	335.5	2.0	41000	1100	1100
03/08/95-03/10/95	-4.5E-16 ± 3900	5.1E-14 ± 154	45.0	2.0	5300	1100	1100
03/10/95-03/22/95	7.5E-16 ± 771	1.0E-13 ± 4.33	283.6	2.0	34000	1100	1100
03/22/95-04/05/95	1.5E-15 ± 371	8.9E-14 ± 4.24	333.9	2.0	40000	1100	1100
04/05/95-04/19/95	4.0E-16 ± 1800	5.8E-14 ± 5.34	335.4	1.9	38000	1100	1100
04/19/95-05/03/95	-4.0E-17 ± 5300	4.2E-14 ± 6.23	340.8	1.9	39000	1100	1100
05/03/95-05/17/95	4.1E-16 ± 1100	1.4E-13 ± 3.44	331.4	1.9	37000	1100	1100
05/17/95-05/23/95	1.0E-15 ± 1000	1.6E-14 ± 104	143.7	1.9	17000	1100	1100
05/23/95-05/31/95	7.0E-16 ± 1200	3.3E-14 ± 9.63	186.9	1.8	21000	1100	1100
05/31/95-06/14/95	1.4E-16 ± 2200	6.0E-14 ± 4.94	330.7	2.2	44000	1100	1100
06/14/95-06/28/95	2.0E-16 ± 1500	2.2E-14 ± 7.41	335.8	2.6	52000	1100	1100
06/28/95-07/05/95	2.6E-16 ± 2000	1.2E-14 ± 142	165.9	2.6	26000	1100	1100
07/05/95-07/12/95	3.0E-16 ± 2000	6.3E-14 ± 6.63	146.2	2.6	22000	1100	1100
07/12/95-07/26/95	6.4E-16 ± 664	4.4E-14 ± 1.73	310.6	2.7	50000	1100	1100
07/26/95-08/09/95	1.3E-15 ± 341	1.5E-12 ± 0.92	331.7	2.7	53000	1100	1100
08/09/95-08/23/95	1.0E-15 ± 401	1.0E-13 ± 3.44	335.8	2.6	53000	1100	1100
08/23/95-09/06/95	5.2E-17 ± 4000	9.1E-14 ± 4.02	336.0	2.6	53000	1100	1100
09/06/95-09/20/95	3.7E-16 ± 901	5.7E-14 ± 4.54	331.5	2.7	53000	1100	1100
09/20/95-09/26/95	1.6E-15 ± 794	7.0E-13 ± 2.44	102.0	2.4	15000	1100	1100
09/26/95-10/04/95	5.8E-16 ± 1300	8.5E-14 ± 9.12	143.4	2.4	21000	1100	1100
10/04/95-10/18/95	5.5E-16 ± 781	1.4E-13 ± 3.22	289.4	2.7	46000	1100	1100
10/18/95-11/01/95	6.4E-17 ± 3402	2.4E-14 ± 7.02	333.7	2.7	54000	1100	1100
11/01/95-11/15/95	4.4E-16 ± 1300	2.5E-14 ± 9.52	178.6	2.6	28000	820	820
11/15/95-11/29/95	2.2E-16 ± 1300	2.1E-14 ± 7.52	336.3	2.6	53000	1100	1100
11/29/95-12/13/95	2.5E-17 ± 3800	2.2E-14 ± 7.32	326.6	2.7	52000	1100	1100
12/13/95-12/27/95	9E-17 ± 5600	5E-15 ± 318	309.8	2.6	49000	1100	1100
12/27/95-12/31/95		0.0	0.0	0	0	1100	1100

SYMBOL KEY: * Concentration exceeds Warning Level.

*S MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack FlowRate of previous Sample.

[illegible]

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    ** Stack FlowRate of previous sample.

```

? Reported MDA is negative.

MS MDA exceeds Warning Level.

SYMBOL KEY: * Concentration exceeds warning level.

Warning Levels		On Data		Concentration		Warning Level	
Symbol	Key	Symbol	Key	Symbol	Key	Symbol	Key
1100	28.29	4.6	1.6	1100	28.29	4.6	1.6
1100	60.76	6.9	1.6	1100	60.76	6.9	1.6
1100	94.85	7.2	1.6	1100	94.85	7.2	1.6
1100	96.96	6.9	1.6	1100	96.96	6.9	1.6
1100	97.85	4.6	1.6	1100	97.85	4.6	1.6
1100	99.00	6.9	1.6	1100	99.00	6.9	1.6
1100	100.00	7.5	1.6	1100	100.00	7.5	1.6
1100	101.00	6.9	1.6	1100	101.00	6.9	1.6
1100	102.00	7.5	1.6	1100	102.00	7.5	1.6
1100	103.00	6.9	1.6	1100	103.00	6.9	1.6
1100	104.00	7.5	1.6	1100	104.00	7.5	1.6
1100	105.00	6.9	1.6	1100	105.00	6.9	1.6
1100	106.00	7.5	1.6	1100	106.00	7.5	1.6
1100	107.00	6.9	1.6	1100	107.00	6.9	1.6
1100	108.00	7.5	1.6	1100	108.00	7.5	1.6
1100	109.00	6.9	1.6	1100	109.00	6.9	1.6
1100	110.00	7.5	1.6	1100	110.00	7.5	1.6
1100	111.00	6.9	1.6	1100	111.00	6.9	1.6
1100	112.00	7.5	1.6	1100	112.00	7.5	1.6
1100	113.00	6.9	1.6	1100	113.00	6.9	1.6
1100	114.00	7.5	1.6	1100	114.00	7.5	1.6
1100	115.00	6.9	1.6	1100	115.00	6.9	1.6
1100	116.00	7.5	1.6	1100	116.00	7.5	1.6
1100	117.00	6.9	1.6	1100	117.00	6.9	1.6
1100	118.00	7.5	1.6	1100	118.00	7.5	1.6
1100	119.00	6.9	1.6	1100	119.00	6.9	1.6
1100	120.00	7.5	1.6	1100	120.00	7.5	1.6
1100	121.00	6.9	1.6	1100	121.00	6.9	1.6
1100	122.00	7.5	1.6	1100	122.00	7.5	1.6
1100	123.00	6.9	1.6	1100	123.00	6.9	1.6
1100	124.00	7.5	1.6	1100	124.00	7.5	1.6
1100	125.00	6.9	1.6	1100	125.00	6.9	1.6
1100	126.00	7.5	1.6	1100	126.00	7.5	1.6
1100	127.00	6.9	1.6	1100	127.00	6.9	1.6
1100	128.00	7.5	1.6	1100	128.00	7.5	1.6
 
1100	215.00	6.9	1.6	1100	215.00	6.9	1.6
1100	216.00	7.5	1.6	1100	216.00	7.5	1.6
1100	217.00	6.9	1.6	1100	217.00	6.9	1.6
1100	218.00	7.5	1.6	1100	218.00	7.5	1.6
1100	219.00	6.9	1.6	1100	219.00	6.9	1.6
1100	220.00	7.5	1.6	1100	220.00	7.5	1.6
1100	221.00	6.9	1.6	1100	221.00	6.9	1.6
1100	222.00	7.5	1.6	1100	222.00	7.5	1.6
1100	223.00	6.9	1.6	1100	223.00	6.9	1.6
1100	224.00	7.5	1.6	1100	224.00	7.5	1.6
1100	225.00	6.9	1.6	1100	225.00	6.9	1.6
1100	226.00	7.5	1.6	1100	226.00	7.5	1.6
1100	227.00	6.9	1.6	1100	227.00	6.9	1.6
1100	228.00	7.5	1.6	1100	228.00	7.5	1.6
1100	229.00	6.9	1.6	1100	229.00	6.9	1.6
1100	230.00	7.5	1.6	1100	230.00	7.5	1.6
1100	231.00	6.9	1.6	1100	231.00	6.9	1.6
1100	232.00	7.5	1.6	1100	232.00	7.5	1.6
1100	233.00	6.9	1.6	1100	233.00	6.9	1.6
1100	234.00	7.5	1.6	1100	234.00	7.5	1.6
1100	235.00	6.9	1.6	1100	235.00	6.9	1.6
1100	236.00	7.5	1.6	1100	236.00	7.5	1.6
1100	237.00	6.9	1.6	1100	237.00	6.9	1.6
1100	238.00	7.5	1.6	1100	238.00	7.5	1.6
1100	239.00	6.9	1.6	1100	239.00	6.9	1.6
1100	240.00	7.5	1.6	1100	240.00	7.5	1.6
1100	241.00	6.9	1.6	1100	241.00	6.9	1.6
1100	242.00	7.5	1.6	1100	242.00	7.5	1.6
1100	243.00	6.9	1.6	1100	243.00	6.9	1.6
1100	244.00	7.5	1.6	1100	244.00	7.5	1.6
1100	245.00	6.9	1.6	1100	245.00	6.9	1.6
1100	246.00	7.5	1.6	1100	246.00	7.5	1.6
1100	247.00	6.9	1.6	1100	247.00	6.9	1.6
1100	248.00	7.5	1.6	1100	248.00	7.5	1.6
1100	249.00	6.9	1.6	1100	249.00	6.9	1.6
1100	250.00	7.5	1.6	1100	250.00	7.5	1.6
1100	251.00	6.9	1.6	1100	251.00	6.9	1.6
1100	252.00	7.5	1.6	1100	252.00	7.5	1.6
1100	253.00	6.9	1.6	1100	253.00	6.9	1.6
1100	254.00	7.5	1.6	1100	254.00	7.5	1.6
1100	255.00	6.9	1.6	1100	255.00	6.	

Stack FlowRate of previous Sample.

? Reported MDA is negative.

5. MDA exceeds Warning Level.

SYMBOL KEY: * Concentration exceeds warning level.

06/21/96 11:22

296-P-28: BACKUP EXHAUSTER FOR ALL SY TANKS (W195)

01/01/95 to 12/31/95

Page 1

Warning Levels:	2.0E-14	9.0E-12	Collect	Sample	Sample	Stack
On/Off Dates	Total α μCi/ml	Total β μCi/ml	Time Hours	FlowRate CFM	Volume T-3	FlowRate CFM
01/01/95-01/17/95			0.0	0.0	0	0
01/18/95-01/19/95	-7.2E-15 ± 230%	-9.0E-15 ± 68%	15.7	1.7	1600	890
01/20/95-03/09/95			0.0	0.0	0	0
03/10/95-03/11/95			0.0	0.0	0	890
03/12/95-05/22/95			0.0	0.0	0	0
05/23/95-05/24/95			0.0	0.0	0	890
05/25/95-06/08/95			0.0	0.0	0	0
06/09/95-06/10/95			0.0	0.0	0	890
06/11/95-07/04/95			0.0	0.0	0	0
07/05/95-07/06/95	1.4E-15 ± 450%	1.8E-15 ± 400%	26.1	1.1	1700	890
07/07/95-07/20/95			0.0	0.0	0	0
07/21/95-07/26/95	-8.1E-16 ± 440%	4.3E-15 ± 150%	24.4	1.5	2200	590
07/27/95-09/18/95			0.0	0.0	0	0
09/19/95-09/26/95	-2.1E-16 ± 560%	1.8E-15 ± 130%	56.9	2.0	6700	450
09/27/95-10/08/95			0.0	0.0	0	300
10/09/95-10/18/95	6.5E-16 ± 340%	2.6E-15 ± 110%	52.7	1.7	5300	400
10/19/95-11/01/95			0.0	0.0	0	150
11/02/95-11/15/95	8.0E-17 ± 890%	1.1E-15 ± 110%	128.9	1.7	13000	380
11/16/95-12/07/95			0.0	0.0	0	0
12/08/95-12/19/95	-1.0E-15 ± 580%	4.7E-14 ± 33%	15.2	1.7	1300	360
12/14/95-12/27/95	6.9E-16 ± 110%	6.0E-14 ± 22%	22.4	1.7	2300	190
12/28/95-12/29/95			0.0	0.0	0	890
12/30/95-12/31/95			0.0	0.0	0	0

SYMBOL KEY: * Concentration exceeds Warning Level.

*S MDA exceeds Warning Level

? Reported MDA is negative.

** Stack FlowRate of previous Sample.

06/21/96 11:22

Z96 P-28: BACKUP EXHAUSTER FOR ALL SY TANKS (X195)

01/01/95 to 12/31/95

Page 1

Warning Levels:	9.0E-12 Sr-90 µCi/ml	3.0E-11 Ru-106 µCi/ml	1.0E-09 Sm-113 µCi/ml	1.0E-09 Sb-125 µCi/ml	2.0E-10 Cs-134 µCi/ml	4.0E-10 Cs-137 µCi/ml	3.0E-11 Ce-144 µCi/ml	5.0E-11 Eu-152 µCi/ml	5.0E-11 Eu-154 µCi/ml
On/Off Dates									
01/01/95-01/17/95									
01/18/95-03/10/95	2.4E-13 ± 12%	-5.3E-14 ± 130%	-5.6E-15 ± 150%	-1.8E-15 ± 970%	7.2E-15 ± 110%	-2.4E-15 ± 310%		6.8E-15 ± 210%	-3.2E-15 ± 780%
03/11/95-07/04/95									
07/05/95-09/26/95	7.0E-14 ± 20%	-1.6E-15 ± 1200%	9.7E-17 ± 2600%	2.3E-15 ± 220%	-4.7E-17 ± 4900%	5.0E-16 ± 460%		-1.4E-15 ± 238%	-3.7E-15 ± 182%
09/27/95-10/08/95									
10/09/95-12/27/95	4.2E-15 ± 25%	1.5E-15 ± 620%	-4.2E-16 ± 260%	-2.7E-15 ± 100%	1.2E-16 ± 990%	2.9E-16 ± 390%		9.0E-16 ± 210%	1.2E-15 ± 320%
12/28/95-12/29/95									
12/30/95-12/31/95									

SYMBOL KEY: * Concentration exceeds Warning Level.

*S MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack FlowRate of previous Sample.

06/21/96 11:22

Z96 P-28: BACKUP EXHAUSTER FOR ALL SY TANKS (X195)

01/01/95 to 12/31/95

Page 2

Warning Levels:	3.0E-10 Eu-155 µCi/ml	3.0E-14 Pu-238 µCi/ml	2.0E-14 Pu-239/40 µCi/ml	2.0E-14 Am-241 µCi/ml	Collect Time Hours	Sample FlowRate CFM	Sample Volume FES	Stack FlowRate CFM
On/Off Dates								
01/01/95-01/17/95					0.0	0	0	
01/18/95-03/10/95	6.6E-15 ± 300%	1.5E-16 ± 640%	3.9E-16 ± 330%	1.1E-14 ± 40%	22.3	1.6	2400	34
03/11/95-07/04/95					0.0	0	0	46
07/05/95-09/26/95	-3.7E-15 ± 136%	2.1E-16 ± 270%	3.1E-16 ± 210%	6.4E-16 ± 70%	108.2	1.6	11000	100
09/27/95-10/08/95					0.0	300.0	0	300
10/09/95-12/27/95	5.4E-17 ± 4700%	1.1E-17 ± 680%	3.8E-16 ± 60%	4.0E-16 ± 70%	220.3	1.7	22000	190
12/28/95-12/29/95					0.0	890.0	0	890
12/30/95-12/31/95					0.0	0.0	0	0

SYMBOL KEY: * Concentration exceeds Warning Level.

*S MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack FlowRate of previous Sample.

WHC ENVIRONMENTAL RELEASE SUMMARY

06/15/96

16:50

296-S-15: EXHAUSTER FOR ALL SX TANKS (W111, X111)

01/01/95 through 12/31/95

Total System Flow: 8.7E+10 Liters = 3.1E+09 Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.84

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci/ml}$	
		Average	Peak
⁹⁰ Sr	6.6E-08	6.4E-16	1.2E-15
¹⁰⁶ Ru	ND	-2.6E-17	3.3E-16
¹¹³ Sn	2.1E-09	2.0E-17	5.1E-17
¹²⁵ Sb	ND	-4.8E-17	5.3E-17
¹³⁴ Cs	1.7E-09	1.6E-17	1.1E-16
¹³⁷ Cs	1.1E-07	1.1E-15	3.2E-15
¹⁵² Eu	2.7E-09	2.6E-17	1.2E-16
¹⁵⁴ Eu	5.4E-09	5.3E-17	2.4E-16
¹⁵⁵ Eu	6.5E-09	6.3E-17	1.3E-16
²³⁸ Pu	5.4E-10	5.3E-18	1.3E-17
^{239/240} Pu	1.8E-09	1.8E-17	3.5E-17
²⁴¹ Am	2.7E-09	2.6E-17	5.3E-17
Total α	2.7E-08	2.7E-16	8.5E-15
Total β	4.1E-07	4.0E-15	4.1E-14

06/21/96 11:21

Z96-S-15: EXHAUSTER FOR ALL SX TANKS (W111)

01/01/95 to 12/31/95

Page 1

Warning Levels:		2.0E-14	9.0E-12	Collect	Sample	Sample	Stack
		Total a	Total B	Time	FlowRate	Volume	FlowRate
On/Off Dates		$\mu\text{Ci}/\text{m}^3$	$\mu\text{Ci}/\text{m}^3$	Hours	CFM	ft ³	CFM

12/28/94	01/11/95	9.7E-16 + 69%	4.5E-15 + 22%	337.2	1.6	33000	6000
01/11/95	01/25/95	1.6E-16 + 260%	1.4E-16 + 360%	338.8	1.6	32000	6000
01/25/95	01/26/95	2.2E-15 + 230%	5.2E-15 + 150%	16.8	1.6	1600	6000
01/26/95	02/08/95	3.1E-17 + 1300%	8.3E-16 + 70%	309.4	1.5	29000	6000
02/08/95	02/22/95	5.6E-16 + 100%	2.3E-15 + 32%	336.7	1.6	33000	6000
02/22/95	03/08/95	5.0E-16 + 100%	5.9E-15 + 18%	335.0	1.7	33000	6000
03/08/95	03/20/95	6.1E-16 + 100%	6.1E-15 + 20%	281.6	1.6	27000	6000
03/20/95	03/22/95	1.0E-16 + 310%	3.3E-14 + 24%	85.3	1.7	3600	6000
03/22/95	03/28/95	8.7E-17 + 640%	1.6E-15 + 61%	141.7	1.7	15000	5200
03/29/95	04/05/95	6.0E-16 + 150%	2.1E-15 + 49%	163.7	1.7	17000	5300
04/05/95	04/19/95	9.8E-17 + 370%	9.6E-16 + 52%	335.5	1.6	32000	6000
04/19/95	04/20/95	8.5E-15 + 130%	8.4E-15 + 130%	14.5	1.6	1400	6000
04/20/95	05/03/95	5.7E-17 + 530%	8.1E-16 + 64%	300.7	1.5	27000	6000
05/03/95	05/17/95	9.1E-17 + 410%	1.0E-15 + 51%	328.3	1.5	29000	6000
05/17/95	05/31/95	9.5E-17 + 280%	2.5E-15 + 31%	335.2	1.5	30000	6000
05/31/95	06/14/95	2.5E-16 + 220%	1.4E-15 + 45%	326.0	1.3	25000	6000
06/14/95	06/28/95	1.1E-16 + 320%	9.3E-16 + 64%	331.7	1.2	24000	6000
06/28/95	07/12/95	9.6E-17 + 450%	4.1E-14 + 7.7%	332.8	1.3	25000	6000
07/12/95	07/26/95	9.4E-17 + 450%	5.0E-15 + 22%	335.0	1.3	26000	6000
07/26/95	08/09/95	4.1E-17 + 650%	3.6E-15 + 55%	332.8	1.5	30000	6000
08/09/95	08/23/95	2.6E-16 + 210%	1.5E-15 + 46%	335.9	1.3	25000	6000
08/23/95	08/29/95	9.5E-16 + 130%	4.9E-15 + 35%	146.7	1.3	12000	6000
08/30/95	09/04/95			0.0	0.0	0	0
09/05/95	09/06/95			0.0	0.0	0	6000
09/06/95	09/20/95	2.8E-16 + 190%	2.9E-15 + 30%	330.0	1.3	25000	6000
09/20/95	10/04/95	8.1E-16 + 91%	1.7E-15 + 43%	328.2	1.2	25000	5000
10/04/95	10/18/95	2.5E-16 + 180%	6.9E-16 + 81%	340.0	1.5	31000	6000
10/18/95	11/01/95	3.0E-17 + 800%	1.3E-15 + 49%	329.2	1.3	25000	6000
11/01/95	11/15/95	2.2E-16 + 190%	1.5E-15 + 47%	330.0	1.2	24000	5000
11/15/95	11/29/95	2.9E-16 + 180%	2.7E-15 + 33%	335.0	1.3	26000	6000
11/29/95	12/13/95	4.1E-16 + 190%	2.2E-15 + 45%	225.3	1.3	17000	4800
12/13/95	12/27/95	1.1E-16 + 390%	1.7E-15 + 43%	332.2	1.3	26000	5000
12/27/95	12/30/95			0.0	0.0	0	6000
12/31/95				0.0	0.0	0	0

SYMBOL KEY: * Concentration exceeds Warning Level.

* S MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack FlowRate of previous Sample.

06/21/96 11:21

Z96 S-15: EXHAUSTER FOR ALL SX TANKS (X111)

01/01/95 to 12/31/95

Page 1

Warning Levels:	9.0E-12 Sr-90	3.0E-11 Ru-106	1.0E-09 Sn-113	1.0E-09 Sh-125	2.0E-10 Cs-134	4.0E-10 Cs-137	3.0E-11 Ce-144	5.0E-11 Eu-152	5.0E-11 Eu-154
On/Off Dates	$\mu\text{Ci}/\text{ml}$	$\mu\text{Ci}/\text{ml}$	$\mu\text{Ci}/\text{ml}$	$\mu\text{Ci}/\text{ml}$	$\mu\text{Ci}/\text{ml}$	$\mu\text{Ci}/\text{ml}$	$\mu\text{Ci}/\text{ml}$	$\mu\text{Ci}/\text{ml}$	$\mu\text{Ci}/\text{ml}$
12/28/94-03/28/95	3.3E-16 $\pm$ 12%	3.3E-16 $\pm$ 275%	5.3E-18 $\pm$ 2100%	7.6E-17 $\pm$ 315%	7.6E-17 $\pm$ 150%	6.9E-16 $\pm$ 30%	1.2E-16 $\pm$ 160%	6.3E-17 $\pm$ 550%	3.0E-17 $\pm$ 1100%
03/29/95-06/28/95	3.6E-16 $\pm$ 75%	2.3E-16 $\pm$ 390%	3.6E-17 $\pm$ 330%	5.3E-17 $\pm$ 430%	1.7E-17 $\pm$ 670%	4.6E-16 $\pm$ 50%	6.7E-17 $\pm$ 260%	3.0E-17 $\pm$ 1100%	3.0E-17 $\pm$ 1100%
06/28/95-09/20/95	1.2E-15 $\pm$ 30%	9.3E-18 $\pm$ 9999%	5.1E-17 $\pm$ 286%	1.3E-16 $\pm$ 222%	1.1E-16 $\pm$ 116%	3.2E-15 $\pm$ 20%	6.1E-17 $\pm$ 348%	2.4E-16 $\pm$ 160%	2.4E-16 $\pm$ 160%
09/20/95-12/27/95	6.7E-16 $\pm$ 25%	5.9E-16 $\pm$ 210%	7.7E-18 $\pm$ 1900%	4.7E-17 $\pm$ 690%	7.7E-17 $\pm$ 190%	3.0E-16 $\pm$ 70%	1.0E-16 $\pm$ 230%	2.0E-17 $\pm$ 2300%	2.0E-17 $\pm$ 2300%

SYMBOL KEY: * Concentration exceeds Warning Level.

*S MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack FlowRate of previous Sample.

06/21/96 11:21

Z96 S-15: EXHAUSTER FOR ALL SX TANKS (X111)

01/01/95 to 12/31/95

Page 2

Warning Levels:	3.0E-10 Eu-155	3.0E-14 Pu-238	2.0E-14 Pu239/40	2.0E-14 Am-241	Collect Time Hours	Sample FlowRate CFM	Sample Volume ft3	Stack FlowRate CFM
On/Off Dates	$\mu\text{Ci}/\text{ml}$	$\mu\text{Ci}/\text{ml}$	$\mu\text{Ci}/\text{ml}$	$\mu\text{Ci}/\text{ml}$				
12/28/94-03/28/95	4.1E-17 $\pm$ 610%	3.7E-18 $\pm$ 460%		2.9E-18 $\pm$ 100%	1777.8	1.6	170000	6000
03/29/95-06/28/95	1.3E-16 $\pm$ 180%	6.1E-19 $\pm$ 1400%	1.3E-17 $\pm$ 110%	5.3E-18 $\pm$ 340%	2135.6	1.4	190000	6000
06/28/95-09/20/95	1.2E-16 $\pm$ 245%	2.7E-18 $\pm$ 460%	6.4E-18 $\pm$ 270%	4.7E-17 $\pm$ 80%	1825.5	1.3	140000	5600
09/20/95-12/27/95	2.8E-17 $\pm$ 1200%	1.3E-17 $\pm$ 170%	3.5E-17 $\pm$ 80%	5.3E-17 $\pm$ 60%	2220.1	1.3	170000	5800

SYMBOL KEY: * Concentration exceeds Warning Level.

*S MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack FlowRate of previous Sample.

WHC ENVIRONMENTAL RELEASE SUMMARY

06/15/96

20:47

296-S-18: 242-S BUILDING EXHAUST (W096, X096)

01/01/95 through 12/31/95

Total System Flow: 2.2E+11 Liters = 7.9E+09 Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.69

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci/ml}$	
		Average	Peak
Total α	3.8E-08	1.2E-16	5.5E-16
Total β	6.4E-07	2.0E-15	1.9E-14

06/21/96 11 21

296-S-J8: 242-S BUILDING EXHAUST (w096)

01/01/95 to 12/31/95

Page 1

Warning Levels:	2.0E-14	9.0E-12	Collect	Sample	Sample	Stack
	Total g	Total B	Time	FlowRate	Volume	FlowRate
On/Off Dates	µCi/m	µCi/m	Hours	CFM	ft3	CFM
12/28/94-01/11/95	2.5E-17 ± 13004	3.2E-15 ± 254	337.3	1.8	35000	23000
01/11/95-01/25/95	1.6E-16 ± 2604	2.3E-16 ± 2204	336.5	1.7	34000	23000
01/25/95-02/08/95	1.6E-16 ± 2604	1.3E-16 ± 3604	331.9	1.7	33000	23000
02/08/95-02/22/95	2.8E-17 ± 13004	6.6E-16 ± 784	330.6	1.6	31000	23000
02/22/95-03/08/95	2.6E-16 ± 1704	3.9E-15 ± 740	335.3	1.5	30000	23000
03/08/95-03/22/95	2.6E-16 ± 1704	6.9E-15 ± 184	334.0	1.6	31000	23000
03/22/95-04/05/95	8.5E-17 ± 2804	3.5E-16 ± 1304	335.3	1.7	34000	23000
04/05/95-04/19/95	1.6E-16 ± 3704	1.0E-15 ± 934	189.1	1.7	19000	15000
04/20/95-05/04/95			0.0	0.0	0	0
05/05/95-05/17/95	2.6E-16 ± 1904	1.6E-15 ± 434	275.8	1.6	26000	23000
05/17/95-05/31/95	-9.0E-17 ± 2804	1.5E-15 ± 414	319.7	1.7	32000	23000
05/31/95-06/14/95	-7.6E-17 ± 3204	1.6E-15 ± 394	332.5	1.6	33000	23000
06/14/95-06/28/95	5.8E-17 ± 6104	1.0E-15 ± 514	323.2	1.6	32000	23000
06/28/95-07/12/95	7.5E-17 ± 4504	3.9E-16 ± 1504	317.2	1.7	32000	10000
07/12/95-07/26/95	7.5E-17 ± 4504	9.5E-17 ± 4004	331.1	1.6	32000	10000
07/26/95-08/09/95	9.2E-17 ± 3704	6.8E-16 ± 634	330.2	1.6	33000	7200
08/09/95-08/23/95	6.9E-17 ± 5004	1.6E-16 ± 2704	319.5	1.7	33000	10000
08/23/95-09/06/95	3.2E-16 ± 1304	4.6E-16 ± 994	336.0	1.7	35000	10000
09/06/95-09/20/95	8.7E-17 ± 3904	9.5E-16 ± 514	340.6	1.6	32000	10000
09/20/95-10/04/95	8.3E-17 ± 4304	1.6E-15 ± 394	339.8	1.6	32000	10000
10/04/95-10/18/95	5.5E-16 ± 1004	1.1E-15 ± 484	340.0	1.5	30000	10000
10/18/95-11/01/95	1.1E-16 ± 3404	6.2E-16 ± 854	318.5	1.7	32000	10000
11/01/95-11/15/95	2.3E-16 ± 1804	4.9E-16 ± 974	332.0	1.7	34000	10000
11/15/95-11/29/95	9.8E-17 ± 3604	4.9E-16 ± 1104	327.3	1.6	32000	10000
11/29/95-12/13/95	4.1E-17 ± 5804	5.9E-16 ± 874	318.2	1.7	32000	10000
12/13/95-12/27/95	3.8E-16 ± 1304	1.9E-14 ± 104	332.9	1.5	31000	10000
12/28/95-12/29/95			0.0	0.0	0	10000
12/30/95-12/31/95			0.0	0.0	0	0

SYMBOL KEY: * Concentration exceeds Warning Level.

*S MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack FlowRate of previous Sample.

WHC ENVIRONMENTAL RELEASE SUMMARY

06/15/96

20:46

296-S-22: 244-S SALTWELL RECEIVER & ANNUL. (W880, X880)

** 01/01/95 through 12/31/95

Total System Flow: 1.7E+09 Liters = 5.9E+07 Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.72

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci/ml}$	
		Average	Peak
⁹⁰ Sr	2.1E-08	9.0E-15	1.6E-14
¹⁰⁶ Ru	ND	-4.0E-16	5.9E-16
¹¹³ Sn	ND	-8.6E-17	2.1E-17
¹²⁵ Sb	3.2E-10	1.4E-16	1.5E-16
¹³⁴ Cs	ND	-4.6E-17	-2.8E-17
¹³⁷ Cs	4.2E-10	1.8E-16	1.8E-16
¹⁵² Eu	ND	-4.3E-16	-1.1E-16
¹⁵⁴ Eu	ND	-1.2E-16	8.6E-18
¹⁵⁵ Eu	5.0E-10	2.2E-16	4.6E-16
²³⁸ Pu	ND	-1.8E-18	6.8E-18
^{239/240} Pu	1.4E-10	6.0E-17	5.9E-17
²⁴¹ Am	4.1E-10	1.8E-16	1.9E-16
Total α	6.1E-10	2.6E-16	1.8E-15
Total β	8.4E-09	3.6E-15	1.9E-14

** Values projected for period 01/01/95 to 05/17/95.

06/21/96 11:22

Z96-S-22: 244-S SALTWELL RECIFIER & ANNUL. (W880)

01/01/95 to 12/31/95

Page 1

Warning Levels:		2.0E-14	9.0E-12	Collect	Sample	Sample	Stack
		Total α	Total β	Time	FlowRate	Volume	FlowRate
On/Off Dates		$\mu\text{Ci}/\text{m}^3$	$\mu\text{Ci}/\text{m}^3$	Hours	CFM	ft ³	CFM

01/01/95-02/13/95				0.0	0.0	0	0
02/14/95-02/15/95				0.0	0.0	0	200
02/16/95-05/16/95				0.0	0.0	0	0
05/17/95-05/19/95				54.0	1.8	5800	200
05/20/95-05/23/95	1.8E-15 $\pm$ 150%		3.5E-15 $\pm$ 71%	0.0	0.0	0	200
05/24/95-05/31/95	6.8E-17 $\pm$ 770%		1.9E-15 $\pm$ 51%	171.3	2.1	22000	200
05/31/95-06/08/95	4.0E-16 $\pm$ 150%		3.3E-15 $\pm$ 28%	187.6	2.4	27000	200
06/09/95-06/19/95				0.0	0.0	0	0
06/20/95-06/28/95	8.5E-17 $\pm$ 610%		5.7E-16 $\pm$ 120%	180.5	2.0	22000	200
06/28/95-07/12/95	5.8E-16 $\pm$ 72%		1.0E-15 $\pm$ 31%	336.5	2.0	40000	200
07/12/95-07/26/95	2.2E-16 $\pm$ 200%		3.6E-15 $\pm$ 94%	335.0	1.5	30000	120
07/26/95-08/09/95	5.3E-16 $\pm$ 100%		3.2E-16 $\pm$ 150%	337.5	1.5	30000	200
08/09/95-08/23/95	2.7E-16 $\pm$ 140%		1.4E-15 $\pm$ 36%	335.8	2.0	41000	200
08/23/95-09/06/95	9E-16 $\pm$ 130%		1.6E-15 $\pm$ 34%	336.2	1.9	38000	200
09/06/95-09/20/95	6.4E-16 $\pm$ 71%		1.9E-15 $\pm$ 29%	344.0	2.1	44000	200
09/20/95-10/04/95	1.7E-16 $\pm$ 190%		1.0E-15 $\pm$ 31%	327.6	2.1	41000	200
10/04/95-10/18/95	2.7E-16 $\pm$ 130%		9.2E-16 $\pm$ 43%	339.9	2.2	44000	200
10/18/95-11/01/95	2.4E-16 $\pm$ 180%		6.2E-15 $\pm$ 18%	334.7	1.7	33000	200
11/02/95-11/14/95				0.0	0.0	0	200
11/15/95-11/19/95	-1.5E-16 $\pm$ 660%		2.3E-15 $\pm$ 91%	96.3	1.4	8400	200
11/20/95-12/18/95				0.0	0.0	0	200
12/19/95-12/27/95	-4.0E-16 $\pm$ 560%		1.9E-14 $\pm$ 33%	192.0	0.3	3600	47
12/28/95-12/31/95				0.0	0.0	0	0

SYMBOL KEY: * Concentration exceeds Warning Level.

** MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack FlowRate of previous Sample.

06/21/96 11:22

296 S Z2: 244 S SALTWELL RECEIVER & ANNULUS (4880)

01/01/95 to 12/31/95

Page 1

Warning Levels:	9.0E-17	3.0E-11	1.0E-09	1.0E-09	2.0E-10	4.0E-10	3.0E-11	5.0E-11	5.0E-11
On/Off Dates:	µCi/ml	µCi/ml	µCi/ml	µCi/ml	µCi/ml	µCi/ml	µCi/ml	µCi/ml	µCi/ml
05/17/95-06/28/95	2.0E-17 ± 20%	2.0E-17 ± 20%	1.0E-17 ± 20%	1.0E-17 ± 20%	1.0E-17 ± 20%	1.0E-17 ± 20%	1.0E-17 ± 20%	1.0E-17 ± 20%	1.0E-17 ± 20%
06/28/95-09/20/95	1.0E-17 ± 15%	1.0E-17 ± 15%	1.0E-17 ± 15%	1.0E-17 ± 15%	1.0E-17 ± 15%	1.0E-17 ± 15%	1.0E-17 ± 15%	1.0E-17 ± 15%	1.0E-17 ± 15%
09/20/95-12/27/95	4.0E-16 ± 30%	1.1E-16 ± 100%	1.0E-17 ± 1500%	3.5E-17 ± 910%	3.5E-17 ± 910%	1.1E-16 ± 150%	1.1E-16 ± 110%	1.1E-16 ± 110%	1.1E-16 ± 150%

SYMBOL KEY: * Concentration exceeds Warning Level. * SMDA exceeds Warning Level. ? Reported NDA is negative.

06/21/96 11:22

296 S Z2: 244 S SALTWELL RECEIVER & ANNULUS (4880)

01/01/95 to 12/31/95

Page 2

Warning Levels:	3.0E-10	3.0E-14	2.0E-14	2.0E-14	Collect Time	Sample Volume	Stack Flowrate
On/Off Dates:	µCi/ml	µCi/ml	µCi/ml	µCi/ml	Hours	ft ³	CFM
05/17/95-06/28/95	4.6E-16 ± 160%	9.5E-18 ± 300%	4.7E-17 ± 400%	1.9E-16 ± 70%	598.1	2.1	150
06/28/95-09/20/95	1.4E-16 ± 175%	2.9E-18 ± 200%	5.9E-17 ± 50%	5.8E-17 ± 60%	2024.2	1.9	196
09/20/95-12/27/95	6.2E-17 ± 500%	6.8E-18 ± 300%	1.4E-17 ± 160%	6.5E-17 ± 70%	1290.5	1.7	190

SYMBOL KEY: * Concentration exceeds Warning Level. * SMDA exceeds Warning Level. ? Reported NDA is negative.

WHC ENVIRONMENTAL RELEASE SUMMARY

06/14/96

13:17

296-T-17: 242-T CELLS (W117)

01/01/95 through 12/31/95

Total System Flow: 3.0E+10 Liters = 1.0E+09 Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.81

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci/ml}$	
		Average	Peak
Total α	2.2E-09	6.0E-17	8.4E-16
Total β	1.8E-08	5.1E-16	4.2E-15

06/21/95 11:21

296-T-17 247-T CFI LS (W117)

01/01/95 to 12/31/95

Page 1

Warning Levels:		2.0E-14	9.0E-12	Collect	Sample	Sample	Stack
		Total a	Total B	Time	FlowRate	Volume	FlowRate
On/Off Dates		µCi/ml	µCi/ml	Hours	CFM	ft ³	CFM

12/28/94 01/11/95		-9.8E-17 ± 2304	-5.3E-17 ± 7504	339.0	1.8	35000	2000
01/11/95 01/25/95		9.5E-17 ± 2304	2.9E-16 ± 1304	336.0	1.8	37000	2000
01/25/95 02/08/95		-1.0E-16 ± 2304	3.3E-16 ± 984	332.4	1.8	35000	2000
02/08/95 02/22/95		-1.5E-16 ± 2604	-5.3E-17 ± 7504	333.7	1.8	36000	2000
02/22/95 03/08/95		2.2E-16 ± 1704	3.7E-15 ± 236	336.7	1.8	36000	2000
03/08/95 03/22/95		2.2E-16 ± 1704	4.2E-15 ± 214	335.2	1.8	36000	2000
03/22/95 04/05/95		3.6E-16 ± 1204	5.3E-16 ± 674	337.0	2.0	40000	2000
04/05/95 04/19/95		8.6E-17 ± 3704	-7.6E-17 ± 3704	336.3	1.8	36000	2000
04/19/95 05/03/95		-4.2E-17 ± 5304	-1.7E-17 ± 19004	334.3	1.8	37000	2000
05/03/95 05/17/95		-4.0E-17 ± 5104	6.4E-17 ± 5104	340.1	1.9	38000	2000
05/17/95 05/31/95		-7.6E-17 ± 7804	1.3E-17 ± 42004	342.4	1.9	38000	2000
05/31/95 06/14/95		4.9E-17 ± 6104	1.6E-16 ± 2304	336.3	1.9	38000	2000
06/14/95 06/28/95		1.8E-16 ± 2204	3.6E-16 ± 1204	334.4	1.7	35000	2000
06/28/95 07/12/95		-5.0E-17 ± 4404	-2.7E-18 ± 19994	336.3	1.8	35000	2000
07/12/95 07/26/95		-5.2E-17 ± 4404	-1.9E-16 ± 1304	332.0	1.7	34000	2000
07/26/95 08/09/95		2.7E-17 ± 6504	4.9E-16 ± 634	333.9	2.2	45000	2000
08/09/95 08/16/95		6.4E-16 ± 1004	1.7E-16 ± 4004	165.1	1.9	18000	2000
08/16/95 08/23/95		1.2E-16 ± 5004	-7.2E-17 ± 8304	164.0	1.9	19000	2000
08/23/95 09/06/95		-3.7E-17 ± 5304	7.3E-17 ± 3504	336.4	1.9	39000	2000
09/06/95 09/20/95		-3.6E-17 ± 5604	1.4E-16 ± 2404	335.6	1.9	39000	2000
09/20/95 10/04/95		7.0E-17 ± 4304	4.2E-16 ± 1104	333.2	1.9	37000	2000
10/04/95 10/18/95		-3.1E-17 ± 7304	3.1E-16 ± 1304	336.3	1.8	36000	2000
10/18/95 11/01/95		-3.1E-17 ± 8004	8.1E-16 ± 54	304.2	1.8	33000	2000
11/01/95 11/15/95		3.3E-16 ± 1304	8.1E-16 ± 524	335.4	1.8	37000	2000
11/15/95 11/29/95		8.5E-17 ± 3604	6.0E-16 ± 654	335.6	1.8	37000	2000
11/29/95 12/13/95		7.7E-17 ± 3804	4.3E-16 ± 594	336.7	1.8	37000	2000
12/13/95 12/27/95		-3.9E-17 ± 5604	4.4E-16 ± 1004	335.0	1.8	36000	2000
12/27/95 12/31/95				0.0	0.0	0	2000

SYMBOL KEY: * Concentration exceeds Warning Level.

*S MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack FlowRate of previous Sample.

WHC ENVIRONMENTAL RELEASE SUMMARY

06/15/96

16:53

296-T-18: 244-TX SALT WELL RECEIVER & ANN. (W882, X882)

01/01/95 through 12/31/95

Total System Flow: 5.4E+09 Liters = 1.9E+08 Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.70

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci/ml}$	
		Average	Peak
⁹⁰ Sr	1.0E-10	1.3E-17	2.7E-16
¹⁰⁶ Ru	ND	-1.9E-16	9.4E-17
¹¹³ Sn	ND	-1.1E-17	3.0E-17
¹²⁵ Sb	ND	-6.7E-17	1.7E-17
¹³⁴ Cs	2.3E-10	3.0E-17	1.1E-16
¹³⁷ Cs	2.6E-08	3.4E-15	7.2E-15
¹⁵² Eu	ND	-3.6E-17	-2.4E-17
¹⁵⁴ Eu	ND	-5.5E-17	4.9E-17
¹⁵⁵ Eu	6.2E-10	7.9E-17	1.9E-16
²³⁸ Pu	2.1E-11	2.7E-18	1.1E-17
^{239/240} Pu	1.0E-09	1.3E-16	3.8E-16
²⁴¹ Am	5.8E-10	7.4E-17	8.9E-17
Total α	1.8E-09	2.3E-16	7.7E-16
Total β	2.5E-08	3.3E-15	2.8E-14

06/21/95 11:22

796-T-18: 244-1X SALT WELL RECEIVER & ANN. (W882)

01/01/95 to 12/31/95

Page 1

Warning Levels:	2.0E-14	9.0E-12	Collect	Sample	Sample	Stack
Dn/Dft Dates	Total α $\mu\text{Ci}/\text{m}$	Total β $\mu\text{Ci}/\text{m}$	Time Hours	FlowRate CFM	Volume ft ³	FlowRate CFM
12/28/94-01/05/95	4.7E-16 $\pm$ 160X	1.5E-15 $\pm$ 59X	199.3	1.7	21000	370
01/06/95-01/11/95	3.7E-16 $\pm$ 260X	9.9E-15 $\pm$ 22X	115.3	2.1	14000	370
01/11/95-01/25/95	1.5E-16 $\pm$ 260X	2.3E-15 $\pm$ 30X	335.9	1.8	36000	370
01/25/95-02/08/95	2.7E-16 $\pm$ 160X	1.1E-15 $\pm$ 49X	332.5	1.8	36000	370
02/08/95-02/22/95	5.9E-16 $\pm$ 120X	4.7E-16 $\pm$ 89X	334.5	1.8	37000	370
02/22/95-03/08/95	3.2E-16 $\pm$ 120X	4.7E-15 $\pm$ 19X	337.1	1.9	38000	370
03/08/95-03/22/95	4.4E-16 $\pm$ 100X	5.3E-15 $\pm$ 18X	335.1	1.9	38000	370
03/22/95-04/05/95	9E-16 $\pm$ 120X	1.3E-15 $\pm$ 40X	337.2	1.8	37000	370
04/05/95-04/19/95	3.2E-16 $\pm$ 130X	1.2E-15 $\pm$ 40X	336.3	1.9	38000	370
04/19/95-04/24/95	5.0E-16 $\pm$ 200X	3.1E-15 $\pm$ 47X	119.1	1.9	13000	370
04/25/95-04/26/95			0.0	0.0	0	0
04/27/95-05/03/95	7.7E-16 $\pm$ 130X	6.6E-15 $\pm$ 26X	142.4	1.8	15000	370
05/03/95-05/17/95	-4.1E-17 $\pm$ 510X	3.2E-15 $\pm$ 24X	340.5	1.8	37000	370
05/17/95-05/31/95	-8.0E-17 $\pm$ 280X	3.0E-15 $\pm$ 53X	332.5	1.8	36000	370
05/31/95-06/14/95	3.4E-16 $\pm$ 110X	2.8E-15 $\pm$ 23X	336.1	2.2	44000	370
06/14/95-06/28/95	3.7E-17 $\pm$ 610X	1.0E-15 $\pm$ 38X	334.5	2.5	49000	370
06/28/95-07/12/95	2.4E-16 $\pm$ 140X	2.8E-14 $\pm$ 6.7X	336.2	2.3	46000	370
07/12/95-07/26/95	5.0E-17 $\pm$ 450X	1.8E-15 $\pm$ 28X	337.8	2.4	49000	370
07/26/95-08/09/95	5.1E-16 $\pm$ 78X	1.6E-15 $\pm$ 30X	334.0	2.3	47000	370
08/09/95-08/16/95	3.2E-16 $\pm$ 180X	3.6E-15 $\pm$ 59X	164.8	2.3	23000	370
08/16/95-08/23/95	-8.9E-17 $\pm$ 390X	2.0E-15 $\pm$ 40X	171.0	2.3	24000	370
08/23/95-09/06/95	4.0E-16 $\pm$ 90X	1.4E-15 $\pm$ 32X	336.3	2.4	48000	370
09/06/95-09/20/95	1.5E-16 $\pm$ 190X	2.5E-15 $\pm$ 24X	335.5	2.3	46000	370
09/20/95-10/04/95	4.3E-16 $\pm$ 91X	1.4E-15 $\pm$ 34X	333.3	2.3	47000	370
10/04/95-10/18/95	1.6E-16 $\pm$ 180X	9.0E-16 $\pm$ 41X	336.3	2.4	49000	370
10/18/95-11/01/95	-7.1E-17 $\pm$ 800X	1.1E-15 $\pm$ 36X	335.1	2.4	49000	370
11/01/95-11/15/95	2.6E-16 $\pm$ 130X	7.8E-16 $\pm$ 47X	336.6	2.3	47000	370
11/15/95-11/29/95	-2.6E-17 $\pm$ 660X	1.7E-15 $\pm$ 30X	335.6	2.3	46000	370
11/29/95-12/13/95	7.4E-17 $\pm$ 380X	9.9E-16 $\pm$ 43X	337.0	1.9	38000	370
12/13/95-12/27/95	1.1E-16 $\pm$ 390X	3.4E-15 $\pm$ 28X	335.5	1.3	27000	250
12/28/95-12/31/95			0.0	0.0	0	370

SYMBOL KEY: * Concentration exceeds Warning Level.

*S MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack FlowRate of previous Sample.

06/21/96 11:22

296-T-18: 244 TX SALT WELL RECEIVER & ANNULUS (X887)

01/01/95 to 12/31/95

Page 1

Warning Levels:	9.0E-12 Sr-90 μCi/ml	3.0E-11 Ru-106 μCi/ml	1.0E-09 Sr-113 μCi/ml	1.0E-09 Sr-125 μCi/ml	2.0E-10 Cs-134 μCi/ml	4.0E-10 Cs-137 μCi/ml	3.0E-11 Ce-144 μCi/ml	5.0E-11 Eu-152 μCi/ml	5.0E-11 Eu-154 μCi/ml
On/Off Dates									
12/28/94-03/22/95	-3.2E-16 ± 100%	-6.2E-16 ± 170%	5.6E-17 ± 480%	-2.2E-16 ± 100%	1.1E-16 ± 95%	2.9E-15 ± 20%	-2.4E-17 ± 640%	-1.6E-16 ± 150%	
03/22/95-06/28/95	-5.3E-17 ± 400%	-3.3E-16 ± 190%	2.2E-17 ± 400%	-1.8E-17 ± 870%	-2.6E-17 ± 260%	2.9E-15 ± 20%	-3.8E-17 ± 300%	-1.0E-16 ± 220%	
06/28/95-09/20/95	1.1E-16 ± 160%	9.4E-17 ± 627%	3.0E-17 ± 264%	1.7E-17 ± 1080%	5.6E-17 ± 126%	7.2E-15 ± 19%	-3.9E-17 ± 335%	-2.2E-17 ± 944%	
09/20/95-12/27/95	2.7E-16 ± 80%	5.6E-17 ± 970%	-4.3E-17 ± 160%	-5.7E-17 ± 250%	6.9E-18 ± 1000%	9.4E-16 ± 25%	4.0E-17 ± 280%	4.9E-17 ± 400%	
SYMBOL KEY: * Concentration exceeds Warning Level. *S MDA exceeds Warning Level. ? Reported MDA is negative. ** Stack FlowRate of previous Sample									

06/21/96 11:22

296-T-18: 244 TX SALT WELL RECEIVER & ANNULUS (X882)

01/01/95 to 12/31/95

Page 2

Warning Levels:	3.0E-10 Eu-155 μCi/ml	3.0E-14 Pu-238 μCi/ml	2.0E-14 Pu239/40 μCi/ml	2.0E-14 Am-241 μCi/ml	Collect Time Hours	Sample FlowRate CFM	Sample Volume TL3	Stack FlowRate CFM
On/Off Dates								
12/28/94-03/22/95	1.9E-16 ± 115%	-1.6E-17 ± 110%	3.8E-16 ± 75%	5.8E-17 ± 55%	1989.7	1.8	220000	370
03/22/95-06/28/95	4.1E-17 ± 380%	1.1E-17 ± 110%	4.9E-17 ± 60%	8.4E-17 ± 50%	2278.5	2.0	270000	370
06/28/95-09/20/95	3.4E-19 ± 9999%	6.4E-18 ± 170%	6.5E-17 ± 50%	8.9E-17 ± 40%	2015.6	2.3	280000	370
09/20/95-12/27/95	9.2E-17 ± 180%	6.0E-18 ± 170%	7.1E-17 ± 40%	6.5E-17 ± 40%	2349.4	2.2	300000	360
SYMBOL KEY: * Concentration exceeds Warning Level. *S MDA exceeds Warning Level. ? Reported MDA is negative. ** Stack FlowRate of previous Sample								

WHC ENVIRONMENTAL RELEASE SUMMARY

06/14/96

13:16

296-W-3: 213-W WASTE COMPACTOR (W003)

01/01/95 through 12/31/95

Total System Flow: $3.1\text{E}+10$ Liters = $1.1\text{E}+09$ Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.73

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci}/\text{ml}$	
		Average	Peak
Total α	$1.4\text{E}-08$	$3.2\text{E}-16$	$1.0\text{E}-15$
Total β	$5.9\text{E}-08$	$1.4\text{E}-15$	$5.6\text{E}-15$

06/21/96 11:21

296-W-3: 213-W WASTE COMPACTOR (W003)

01/01/95 to 12/31/95

Page 1

Warning Levels:		2.0E-14	9.0E-12	Collect	Sample	Sample	Stack
		Total α	Total β	Time	FlowRate	Volume	FlowRate
On/Off Dates		μCi/ml	μCi/ml	Hours	CFM	ft3	CFM
12/27/94-01/03/95	4.8E-17 ± 13001	1.0E-16 ± 7501	168.8	1.8	18000	2100	
01/03/95-01/10/95	5.4E-16 ± 1601	4.3E-15 ± 321	167.3	1.8	18000	2100	
01/10/95-01/17/95	7.8E-16 ± 1201	4.2E-16 ± 2201	167.9	1.8	18000	2100	
01/17/95-01/24/95	6.7E-17 ± 11001	1.4E-16 ± 7501	107.4	2.1	13000	2100	
01/24/95-01/31/95	1.4E-16 ± 4701	1.2E-15 ± 651	168.4	1.8	18000	2100	
01/31/95-02/07/95	5.3E-16 ± 1601	5.9E-16 ± 1301	170.0	1.8	18000	2100	
02/07/95-02/14/95	7.4E-17 ± 6201	1.1E-15 ± 861	165.7	1.8	18000	2100	
02/14/95-02/21/95	7.2E-17 ± 6201	1.3E-15 ± 621	168.7	1.8	18000	2100	
02/21/95-02/28/95	3.8E-16 ± 1701	5.6E-15 ± 241	167.2	2.1	21000	2100	
02/28/95-03/07/95	1.0E-15 ± 871	5.6E-15 ± 241	167.5	2.1	21000	2100	
03/07/95-03/14/95	8.0E-16 ± 1201	4.2E-16 ± 2201	168.0	1.8	18000	2100	
03/14/95-03/21/95	9.2E-16 ± 1001	5.5E-15 ± 271	167.8	1.8	18000	2100	
03/28/95-04/04/95	7.9E-17 ± 7701	8.0E-16 ± 1101	168.3	1.9	19000	2100	
04/04/95-04/11/95	3.2E-16 ± 2301	1.8E-15 ± 511	164.0	1.8	18000	2100	
04/11/95-04/18/95	3.1E-16 ± 2501	6.9E-16 ± 1301	143.5	2.1	18000	2100	
04/18/95-04/25/95	8.3E-17 ± 7701	9.4E-16 ± 1001	168.0	1.8	18000	2100	
04/25/95-05/02/95	8.3E-17 ± 7701	3.4E-16 ± 1701	168.9	1.8	18000	2100	
05/02/95-05/09/95	8.4E-17 ± 7701	5.3E-16 ± 921	166.9	1.8	18000	2100	
05/09/95-05/16/95	8.2E-16 ± 1201	9.5E-16 ± 1901	167.5	1.8	18000	2100	
05/16/95-05/23/95	1.6E-16 ± 2801	7.6E-16 ± 1201	168.5	1.8	18000	2100	
05/23/95-05/30/95	3.3E-16 ± 2301	2.4E-15 ± 441	168.9	1.8	18000	2100	
05/30/95-06/06/95	6.6E-17 ± 7101	3.7E-15 ± 331	167.0	1.8	18000	2100	
06/06/95-06/13/95	6.6E-16 ± 1301	5.3E-16 ± 1601	164.0	1.8	18000	2100	
06/13/95-06/20/95	1.7E-16 ± 3901	2.1E-16 ± 3401	169.2	1.7	18000	2100	
06/20/95-09/02/95	2.7E-16 ± 411	8.4E-16 ± 211	1784.7	1.7	180000	2100	
09/02/95-10/04/95	4.8E-16 ± 641	1.3E-15 ± 271	761.7	1.6	72000	2100	
10/04/95-10/18/95	1.1E-16 ± 3401	5.4E-16 ± 571	332.3	1.6	31000	2100	
10/18/95-11/01/95	2.2E-16 ± 1901	2.3E-16 ± 1901	336.3	1.5	31000	2100	
11/01/95-11/15/95	3.4E-17 ± 8001	1.4E-15 ± 421	335.6	1.5	30000	2100	
11/15/95-11/29/95	6.6E-16 ± 891	2.4E-15 ± 311	338.0	1.5	31000	2100	
11/29/95-12/13/95	9.1E-17 ± 3801	2.0E-16 ± 1101	333.7	1.6	32000	2100	
12/13/95-12/27/95	4.7E-16 ± 1101	2.4E-15 ± 291	341.2	1.7	34000	2100	
12/27/95-12/31/95			0.0	0.0	0	2100	

SYMBOL KEY: * Concentration exceeds Warning Level.

*S MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack FlowRate of previous Sample.

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2.5.5 WSCF

WHC ENVIRONMENTAL RELEASE SUMMARY

06/14/96

13:16

696-W-1: WSCF LABORATORY MAIN STACK EXHAUST (W010)

01/01/95 through 12/31/95

Total System Flow: $7.4\text{E}+11$ Liters = $2.6\text{E}+10$ Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.73

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci}/\text{ml}$	
		Average	Peak
Total α	9.4E-08	9.2E-17	7.2E-16
Total β	5.0E-07	4.9E-16	4.8E-15

WHC ENVIRONMENTAL RELEASE SUMMARY

06/14/96

13:16

696-W-2: WSCF, NSL COUNTING ROOM EXHAUSTER (W011)

01/01/95 through 12/31/95

Total System Flow: 2.2E+10 Liters = 7.9E+08 Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.73

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci/ml}$	
		Average	Peak
Total α	6.1E-09	2.0E-16	2.2E-15
Total β	3.6E-08	1.2E-15	2.2E-14

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2.5.6 PFP

ENVIRONMENTAL RELEASE SUMMARY REPORT

08/02/96

15:45

291-Z-1: 232-Z, 234-5, 236-Z, 242-Z PROCESS & VENT (X810, Z810)

01/01/95 through 12/31/95 ***

Total System Flow: 3.7E+12 Liters = 1.3E+11 Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.73

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci/ml}$	
		Average	Peak
-----	-----	-----	-----
²³⁸ Pu	2.3E-06	4.5E-16	7.9E-16
^{239/240} Pu	7.6E-05	1.5E-14	2.1E-14
²⁴¹ Pu	2.0E-04	3.9E-14	6.9E-14
²⁴¹ Am	1.5E-05	2.9E-15	4.0E-15
Total α	1.2E-04	2.4E-14	1.5E-13
Total β	9.5E-06	1.9E-15	1.1E-14

*** Values projected for period 12/31/95 to 12/31/95.

06/21/96 11:22

291 Z 1: 737 7, 234 5, 236 2, 242 Z PROCESS & VENT (7810)

01/01/95 to 12/31/95

Page 1

Warning Levels:	2.0E-12	9.0E-11	Collect	Sample	Sample	Stack
On/Off Dates	Total α	Total β	Time	FlowRate	Volume	FlowRate
	$\mu\text{Ci/ml}$	$\mu\text{Ci/ml}$	Hours	CFM	FL3	CFM
12/28/94 01/04/95	1.7E-15 $\pm$ 69%	4.1E-16 $\pm$ 220%	173.1	1.8	19000	230000
01/04/95 01/18/95	4.3E-15 $\pm$ 24%	4.0E-16 $\pm$ 100%	331.1	1.8	35000	230000
01/18/95 02/01/95	3.3E-15 $\pm$ 28%	5.5E-16 $\pm$ 90%	337.7	1.7	34000	250000
02/01/95 02/15/95	7.2E-15 $\pm$ 18%	9.1E-16 $\pm$ 50%	335.1	1.8	36000	250000
02/15/95 03/01/95	9.7E-15 $\pm$ 16%	3.1E-16 $\pm$ 130%	336.0	1.7	35000	250000
03/01/95 03/15/95	5.4E-14 $\pm$ 91%	4.3E-15 $\pm$ 31%	334.4	0.9	19000	250000
03/15/95 03/29/95	1.2E-14 $\pm$ 13%	1.2E-15 $\pm$ 39%	338.6	2.0	40000	250000
03/29/95 04/12/95	8.6E-15 $\pm$ 17%	2.7E-15 $\pm$ 27%	333.8	1.7	35000	250000
04/12/95 04/26/95	1.9E-14 $\pm$ 11%	1.7E-15 $\pm$ 35%	336.7	1.7	34000	250000
04/26/95 05/10/95	1.4E-14 $\pm$ 13%	2.4E-16 $\pm$ 170%	334.9	1.7	34000	240000
05/10/95 05/24/95	5.3E-15 $\pm$ 21%	4.8E-16 $\pm$ 100%	337.7	1.7	35000	240000
05/24/95 06/07/95	1.4E-14 $\pm$ 25%		335.1	1.8	36000	240000
06/07/95 06/21/95	9.8E-15 $\pm$ 15%	4.7E-16 $\pm$ 97%	335.7	1.8	36000	240000
06/21/95 07/05/95	2.9E-15 $\pm$ 64%		338.8	1.9	39000	240000
07/05/95 07/24/95	3.9E-15 $\pm$ 20%	2.5E-16 $\pm$ 120%	454.4	1.9	51000	240000
07/24/95 08/02/95	2.0E-15 $\pm$ 43%	2.7E-16 $\pm$ 210%	219.4	1.7	23000	240000
08/02/95 08/16/95	8.6E-15 $\pm$ 16%	8.7E-16 $\pm$ 50%	330.7	1.9	37000	240000
08/16/95 08/30/95	5.0E-15 $\pm$ 21%	2.0E-16 $\pm$ 180%	359.1	1.9	38000	250000
08/30/95 09/13/95	4.6E-14 $\pm$ 76%	2.8E-15 $\pm$ 28%	336.4	1.6	32000	250000
09/13/95 09/27/95	3.9E-14 $\pm$ 81%	4.2E-15 $\pm$ 22%	335.7	1.6	33000	250000
09/27/95 10/11/95	9.4E-15 $\pm$ 17%	1.5E-15 $\pm$ 38%	336.5	1.6	33000	250000
10/11/95 10/25/95	2.5E-15 $\pm$ 120%		339.0	1.6	33000	250000
10/25/95 11/08/95	8.9E-15 $\pm$ 17%	5.6E-16 $\pm$ 89%	333.5	1.7	32000	250000
11/08/95 11/22/95	3.7E-15 $\pm$ 27%	1.7E-16 $\pm$ 9999%	333.0	1.6	32000	250000
11/22/95 12/06/95	4.2E-14 $\pm$ 78%	2.5E-15 $\pm$ 29%	337.0	1.6	33000	250000
12/06/95 12/20/95	1.5E-13 $\pm$ 47%	1.1E-14 $\pm$ 13%	337.7	1.8	37000	250000
12/20/95 12/31/95			0.0	0.0	0	250000

SYMBOL KEY: * Concentration exceeds Warning Level.

*S MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack FlowRate of previous Sample

[illegible]

ENVIRONMENTAL RELEASE SUMMARY REPORT

08/02/96

15:46

296-Z-3: 241-Z SUMP & VESSEL VENTS (X813, Z813)

01/01/95 through 12/31/95 ***

Total System Flow: 1.4E+10 Liters = 4.9E+08 Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.73

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci/ml}$	
		Average	Peak
²³⁸ Pu	3.5E-08	1.8E-15	4.1E-15
^{239/240} Pu	3.1E-08	1.6E-15	3.3E-15
²⁴¹ Pu	3.1E-06	1.6E-13	3.6E-13
²⁴¹ Am	1.5E-08	7.9E-16	1.8E-15
Total α	8.1E-08	4.3E-15	1.8E-14
Total β	4.0E-08	2.1E-15	1.2E-14

*** Values projected for period 12/31/95 to 12/31/95.

06/21/96 11:27

296 7 3 241 7 SUMP & VESSEL VENTS (2813)

01/01/95 to 12/31/95

Page 1

Warning Levels:	2 OE 13	9 OE 11	Collect	Sample	Sample	Stack
On/Off Dates	Total α μCi/ml	Total β μCi/ml	Time Hours	FlowRate CFM	Volume ft3	FlowRate CFM
12/28/94 01/04/95	1 1E 15 ± 1001	1 6E 15 ± 641	173 5	1.6	17000	1200
01/04/95 01/18/95	3 1E 16 ± 1601	2 0E 15 ± 361	331 1	1.6	31000	1200
01/18/95 02/01/95	6 3E 16 ± 921	1 4E 15 ± 421	336 7	1.6	32000	1200
02/01/95 02/15/95	2 7E 15 ± 311	1 8E 15 ± 351	335 9	1.6	32000	1200
02/15/95 03/01/95	1 2E 15 ± 691	1 7E 16 ± 3601	335 5	1.3	26000	1200
03/01/95 03/15/95	2 8E 15 ± 311	1 2E 14 ± 131	335 0	1.7	34000	1200
03/15/95 03/29/95	1 7E 15 ± 471	6 3E 16 ± 671	338 6	1.6	33000	1200
03/29/95 04/12/95	4 4E 15 ± 261	4 9E 15 ± 221	337 8	1.4	29000	1200
04/12/95 04/26/95	3 4E 15 ± 291	1 4E 15 ± 421	332 8	1.5	29000	1200
04/26/95 05/10/95	7 4E 15 ± 201	8 3E 16 ± 591	334 5	1.5	30000	870
05/10/95 05/24/95	2 1E 15 ± 371	9 9E 16 ± 551	337 5	1.5	30000	870
05/24/95 06/07/95	8 8E 15 ± 201		336 0	1.8	36000	870
06/07/95 06/21/95	5 9E 15 ± 211	4 1F 16 ± 1101	335 0	1.7	33000	870
06/21/95 07/05/95	8 0E 15 ± 321		338 5	1.6	32000	870
07/05/95 07/24/95	1 8E 14 ± 111	2 2E 15 ± 281	454 6	1.5	40000	870
07/24/95 08/02/95	5 6E 15 ± 271	1 6E 15 ± 501	219 4	1.5	20000	870
08/02/95 08/16/95	7 0E 15 ± 201	5 3E 16 ± 1001	330 9	1.5	31000	870
08/16/95 08/30/95	6 5E 15 ± 171	9 9E 16 ± 461	339 5	1.8	38000	780
08/30/95 09/13/95	2 2F 15 ± 351	2 1E 15 ± 331	336 4	1.5	31000	780
09/13/95 09/27/95	1 7E 15 ± 391	2 6E 15 ± 281	335 8	1.6	33000	780
09/27/95 10/11/95	8 5E 16 ± 701	6 0E 16 ± 811	336 5	1.7	35000	780
10/11/95 10/25/95	1 7E 14 ± 251	2 7E 15 ± 261	338 3	1.8	37000	780
10/25/95 11/08/95	4 7E 15 ± 221	2 7E 15 ± 261	333 5	1.8	37000	780
11/08/95 11/22/95	2 4E 15 ± 311	1 7E 15 ± 331	332 9	1.9	38000	780
11/22/95 12/06/95	2 0E 15 ± 331	2 1E 15 ± 291	337 3	1.9	39000	780
12/06/95 12/20/95	3 1E 16 ± 1501	2 4E 15 ± 281	337 4	1.8	37000	780
12/20/95 12/31/95			0 0	0	0	780

SYMBOL KEY: * Concentration exceeds Warning Level.

*S MUA exceeds Warning Level.

? Reported MUA is negative.

** Stack FlowRate of previous Sample

08/02/96 15:49

Warning Levels

Start Dates	3.0E-14 µCi/ml	2.0E-12 µCi/ml	1.0E-12 µCi/ml	2.0E-14 µCi/ml	Collect Time hr:min	Sample Volume ml	Stack Fluoride
12/28/94 03:29:45	2.2E-15 ± 2.0E-16	2.0E-15 ± 2.0E-16	1.0E-13 ± 0.0E-14	9.1E-16 ± 2.0E-16	2:05:6	1.6	10000
03/29/95 06:21:45	2.2E-15 ± 2.0E-16	2.0E-15 ± 2.0E-16	1.0E-13 ± 0.0E-14	9.1E-16 ± 2.0E-16	2:05:6	1.6	10000
06/21/95 09:27:45	4.1E-15 ± 1.8E-16	3.3E-15 ± 1.5E-16	3.0E-13 ± 0.0E-14	1.0E-15 ± 2.0E-16	2:09:2	1.6	19000
09/27/95 11:03:45	1.7E-16 ± 2.0E-17	9.7E-16 ± 2.0E-16	6.7E-14 ± 0.0E-15	4.2E-16 ± 3.0E-16	1:57:6	1.6	19000

Stack Fluoride of previous Sample

2 Reported NDA is negative

*SMD exceeds Warning Level

*SMD exceeds Warning Level

2 Reported NDA is negative

01/03/96 to 12/31/95

Page 1

WHC ENVIRONMENTAL RELEASE SUMMARY

06/14/96

13:18

296-Z-5: 2736-ZB BUILDING EXHAUST (Z913, X913)

01/01/95 through 12/31/95

Total System Flow: $1.4\text{E}+11$ Liters = $4.9\text{E}+09$ Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.73

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci}/\text{ml}$	
		Average	Peak
-----	-----	-----	-----
Total α	$1.9\text{E}-08$	$9.9\text{E}-17$	$9.1\text{E}-16$
Total β	$5.6\text{E}-08$	$3.0\text{E}-16$	$2.6\text{E}-15$

06/21/95 11:22

Z96 2.5: 2736 ZR BUILDING EXHAUST (Z913)

01/01/95 to 12/31/95

Page 1

Warning Levels:	2.0E 13	9.0E 11	Collect	Sample	Sample	Stack
On/Off Dates	Total α $\mu\text{Ci}/\text{ml}$	Total β $\mu\text{Ci}/\text{ml}$	Time Hours	FlowRate CFM	Volume ft^3	FlowRate CFM
12/28/94 01/04/95	4.9E 17 $\pm$ 1300X	4.7E 16 $\pm$ 150X	171.4	1.7	19000	13000
01/04/95 01/18/95	9.9E 17 $\pm$ 230X	3.6E 17 $\pm$ 1200X	331.3	1.8	36000	13000
01/18/95 02/01/95	3.2E 16 $\pm$ 140X	5.3E 16 $\pm$ 90X	341.7	1.7	36000	10000
02/01/95 02/15/95	3.8E 17 $\pm$ 620X	9.0E 17 $\pm$ 350X	331.1	1.8	35000	10000
02/15/95 03/01/95	2.7E 16 $\pm$ 160X	3.6E 17 $\pm$ 1200X	335.8	1.8	36000	10000
03/01/95 03/15/95	2.5E 17 $\pm$ 1300X	2.2E 16 $\pm$ 270X	334.6	1.8	35000	10000
03/15/95 03/29/95	8.2E 17 $\pm$ 280X	1.3E 16 $\pm$ 220X	337.7	1.8	36000	10000
03/29/95 04/12/95	9.1E 16 $\pm$ 75X	2.8E 16 $\pm$ 170X	338.5	1.5	30000	10000
04/12/95 04/26/95	4.6E 17 $\pm$ 540X	3.1E 16 $\pm$ 140X	331.3	1.6	32000	10000
04/26/95 05/10/95	4.8E 17 $\pm$ 510X	2.8E 17 $\pm$ 1200X	336.2	1.6	33000	12000
05/10/95 05/24/95	8.9E 17 $\pm$ 280X	1.3E 15 $\pm$ 40X	337.5	1.6	32000	12000
05/24/95 06/07/95	4.1E 16 $\pm$ 140X		334.0	1.6	32000	12000
06/07/95 06/21/95	2.3E 16 $\pm$ 190X	6.3E 16 $\pm$ 86X	337.4	1.6	32000	12000
07/24/95 08/02/95	6.8E 17 $\pm$ 440X	4.8E 16 $\pm$ 61X	220.0	1.5	20000	12000
08/02/95 08/16/95	3.9E 17 $\pm$ 690X	2.3E 16 $\pm$ 130X	330.1	1.5	30000	12000
08/16/95 08/30/95	7.8E 17 $\pm$ 390X	2.6E 15 $\pm$ 26X	338.1	1.9	38000	5500
08/30/95 09/13/95	9.2E 17 $\pm$ 380X	5.3E 16 $\pm$ 90X	336.1	1.6	33000	5500
09/13/95 09/27/95	4.6E 17 $\pm$ 520X	1.5E 16 $\pm$ 160X	335.8	1.7	33000	5500
09/27/95 10/11/95	2.3E 16 $\pm$ 180X	1.1E 15 $\pm$ 45X	336.2	1.6	33000	5500
10/11/95 10/25/95	3.9E 16 $\pm$ 140X		337.9	1.7	34000	5500
10/25/95 11/08/95	4.6E 17 $\pm$ 480X	3.4E 16 $\pm$ 120X	336.2	1.7	35000	5500
11/08/95 11/22/95	3.6E 17 $\pm$ 660X	1.6E 18 $\pm$ 9999X	332.8	1.7	34000	5500
11/22/95 12/06/95	4.3E 17 $\pm$ 500X	2.1E 16 $\pm$ 190X	337.2	1.7	34000	5500
12/06/95 12/20/95	5.5E 17 $\pm$ 710X	1.0E 16 $\pm$ 300X	337.3	1.7	34000	5500
12/20/95 12/31/95			0.0	0.0	0	5500

SYMBOL KEY: * Concentration exceeds Warning Level

*S MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack FlowRate of previous Sample

WHC ENVIRONMENTAL RELEASE SUMMARY

06/14/96

13:18

296-Z-6: 2736-ZA BUILDING EXHAUST (Z802)

01/01/95 through 12/31/95

Total System Flow: 1.3E+11 Liters = 4.7E+09 Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.73

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci}/\text{ml}$	
		Average	Peak
Total α	4.1E-08	2.2E-16	1.7E-15
Total β	1.6E-07	8.5E-16	4.7E-15

06/21/96 11 22	Morning Levels:		2.0 E 14	Level 0	Time	Sample
12/28/95 10:04:55	12/28/95	10:04:55	2.0 E 14	Level 0	Time	Sample
01/04/95 10:18:55	01/04/95	10:18:55	2.0 E 14	Level 0	Time	Sample
01/08/95 12:12:55	01/08/95	12:12:55	2.0 E 14	Level 0	Time	Sample
01/12/95 02:12:55	01/12/95	02:12:55	2.0 E 14	Level 0	Time	Sample
01/18/95 02:02:55	01/18/95	02:02:55	2.0 E 14	Level 0	Time	Sample
01/22/95 02:02:55	01/22/95	02:02:55	2.0 E 14	Level 0	Time	Sample
01/28/95 02:02:55	01/28/95	02:02:55	2.0 E 14	Level 0	Time	Sample
02/01/95 02:02:55	02/01/95	02:02:55	2.0 E 14	Level 0	Time	Sample
02/05/95 02:02:55	02/05/95	02:02:55	2.0 E 14	Level 0	Time	Sample
02/09/95 02:02:55	02/09/95	02:02:55	2.0 E 14	Level 0	Time	Sample
02/13/95 02:02:55	02/13/95	02:02:55	2.0 E 14	Level 0	Time	Sample
02/17/95 02:02:55	02/17/95	02:02:55	2.0 E 14	Level 0	Time	Sample
02/21/95 02:02:55	02/21/95	02:02:55	2.0 E 14	Level 0	Time	Sample
02/25/95 02:02:55	02/25/95	02:02:55	2.0 E 14	Level 0	Time	Sample
02/29/95 02:02:55	02/29/95	02:02:55	2.0 E 14	Level 0	Time	Sample
03/03/95 02:02:55	03/03/95	02:02:55	2.0 E 14	Level 0	Time	Sample
03/07/95 02:02:55	03/07/95	02:02:55	2.0 E 14	Level 0	Time	Sample
03/11/95 02:02:55	03/11/95	02:02:55	2.0 E 14	Level 0	Time	Sample
03/15/95 02:02:55	03/15/95	02:02:55	2.0 E 14	Level 0	Time	Sample
03/19/95 02:02:55	03/19/95	02:02:55	2.0 E 14	Level 0	Time	Sample
03/23/95 02:02:55	03/23/95	02:02:55	2.0 E 14	Level 0	Time	Sample
03/27/95 02:02:55	03/27/95	02:02:55	2.0 E 14	Level 0	Time	Sample
03/31/95 02:02:55	03/31/95	02:02:55	2.0 E 14	Level 0	Time	Sample
04/04/95 02:02:55	04/04/95	02:02:55	2.0 E 14	Level 0	Time	Sample
04/08/95 02:02:55	04/08/95	02:02:55	2.0 E 14	Level 0	Time	Sample
04/12/95 02:02:55	04/12/95	02:02:55	2.0 E 14	Level 0	Time	Sample
04/16/95 02:02:55	04/16/95	02:02:55	2.0 E 14	Level 0	Time	Sample
04/20/95 02:02:55	04/20/95	02:02:55	2.0 E 14	Level 0	Time	Sample
04/24/95 02:02:55	04/24/95	02:02:55	2.0 E 14	Level 0	Time	Sample
04/28/95 02:02:55	04/28/95	02:02:55	2.0 E 14	Level 0	Time	Sample
05/02/95 02:02:55	05/02/95	02:02:55	2.0 E 14	Level 0	Time	Sample
05/06/95 02:02:55	05/06/95	02:02:55	2.0 E 14	Level 0	Time	Sample
05/10/95 02:02:55	05/10/95	02:02:55	2.0 E 14	Level 0	Time	Sample
05/14/95 02:02:55	05/14/95	02:02:55	2.0 E 14	Level 0	Time	Sample
05/18/95 02:02:55	05/18/95	02:02:55	2.0 E 14	Level 0	Time	Sample
 			

WHC ENVIRONMENTAL RELEASE SUMMARY

06/14/96

13:18

296-Z-14: 232-Z BUILDING EXHAUST (Z814)

01/01/95 through 12/31/95

Total System Flow: $3.0\text{E}+10$ Liters = $1.1\text{E}+09$ Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.73

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci}/\text{ml}$	
		Average	Peak
-----	-----	-----	-----
Total α	$8.6\text{E}-09$	$2.1\text{E}-16$	$1.0\text{E}-15$
Total β	$4.9\text{E}-08$	$1.2\text{E}-15$	$4.1\text{E}-15$

06/21/96 11:27

296.7 14 237 Z BUILDING EXHAUST (2814)

01/01/95 to 12/31/95

Page 1

Warning Levels:		2.0E-13	9.0E-11	Collect Time Hours	Sample FlowRate CFM	Sample Volume ft ³	Stack FlowRate CFM
On/Off Dates		Total α μCi/ml	Total β μCi/ml				
12/28/94 01/04/95	4.1E-17 ± 100%	2.4E-16 ± 760%	1.7E-15 ± 34%	172.7	2.1	21000	1600
01/04/95 01/18/95	2.2E-17 ± 300%	1.7E-15 ± 34%	3.51 0	2.0	41000	1600	
01/18/95 02/01/95	5.7E-17 ± 410%	1.2E-15 ± 42%	340.7	1.9	39000	1800	
02/01/95 02/15/95	2.0E-16 ± 180%	1.3E-15 ± 39%	331.3	1.9	37000	1800	
02/15/95 03/01/95	1.4E-16 ± 260%	3.6E-16 ± 100%	337.3	1.9	39000	1800	
03/01/95 03/15/95	2.3E-17 ± 1300%	6.1E-16 ± 70%	334.6	1.9	39000	1800	
03/15/95 03/29/95	2.6E-16 ± 150%	5.4E-16 ± 67%	337.4	1.9	39000	1800	
03/29/95 04/12/95	5.7E-16 ± 120%	2.1E-15 ± 29%	336.8	2.0	40000	1800	
04/12/95 04/26/95	1.8E-16 ± 190%	5.7E-16 ± 61%	334.4	2.0	40000	1800	
04/26/95 05/10/95	3.9E-17 ± 510%	1.0E-16 ± 300%	335.4	2.0	40000	2100	
05/10/95 05/24/95	7.3E-17 ± 280%	5.8E-16 ± 64%	336.1	1.9	39000	2100	
05/24/95 06/07/95	4.3E-17 ± 390%		336.0	1.9	38000	2100	
06/07/95 06/21/95	1.9E-16 ± 190%	6.0E-16 ± 61%	336.6	1.9	39000	2100	
06/21/95 07/05/95	1.2E-16 ± 290%		336.5	2.0	41000	2100	
07/05/95 07/24/95	3.4E-17 ± 440%	6.0E-16 ± 50%	454.2	1.9	52000	2100	
07/24/95 08/07/95	7.0E-17 ± 440%	2.5E-16 ± 210%	219.6	1.9	25000	2100	
08/07/95 08/16/95	2.1E-16 ± 180%	4.1E-15 ± 21%	330.7	1.8	37000	2100	
08/16/95 08/30/95	4.2E-16 ± 110%	8.7E-16 ± 48%	338.6	1.9	39000	2100	
08/30/95 09/13/95	3.8E-17 ± 570%	1.3E-15 ± 38%	336.5	1.9	39000	2100	
09/13/95 09/27/95	5.0E-16 ± 130%	2.3E-15 ± 28%	335.6	1.9	38000	2100	
09/27/95 10/11/95	8.7E-17 ± 350%	3.9E-16 ± 110%	336.4	1.9	38000	2100	
10/11/95 10/25/95	9.1E-16 ± 170%		338.3	2.0	40000	2100	
10/25/95 11/08/95	5.6E-16 ± 91%	1.7E-15 ± 34%	334.8	1.7	35000	2100	
11/08/95 11/22/95	1.0E-15 ± 60%	2.9E-15 ± 26%	333.0	1.9	37000	2100	
11/22/95 12/06/95	7.6E-17 ± 390%	2.8E-16 ± 52%	337.3	1.9	38000	2100	
12/06/95 12/20/95	3.1E-16 ± 150%	2.0E-15 ± 30%	337.4	1.9	38000	2100	
12/20/95 12/31/95			0.0	0.0	0	2100	

SYMBOL KEY: * Concentration exceeds Warning Level

*S MDA exceeds Warning Level

? Reported MDA is negative.

** Stack FlowRate of previous Sample.

WHC ENVIRONMENTAL RELEASE SUMMARY

06/14/96

13:18

296-Z-15: 243-Z LOW LEVEL WASTE WATER TREATMENT FACI (Z915)

01/01/95 through 12/31/95

Total System Flow: $2.4\text{E}+10$ Liters = $8.4\text{E}+08$ Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.73

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci}/\text{ml}$	
		Average	Peak
Total α	$3.9\text{E}-09$	$1.2\text{E}-16$	$1.2\text{E}-16$

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2.5.7 200-W BHI Facilities

WHC ENVIRONMENTAL RELEASE SUMMARY

06/14/96

13:15

291-S-1: 202-S CANYON EXHAUST (S006)

01/01/95 through 12/31/95

Total System Flow: $3.1\text{E}+11$ Liters $\approx$ $1.1\text{E}+10$ Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.73

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci}/\text{ml}$	
		Average	Peak
-----	-----	-----	-----
Total α	2.1E-07	5.0E-16	6.3E-16
Total β	6.7E-07	1.6E-15	3.0E-15

06/21/96 11:21

291 S 1. 202 S CANYON EXHAUST (S006)

01/01/95 to 12/31/95

Page 1

Warning Levels:	2.0E-14	9.0E-12	Collect	Sample	Sample	Stack
On/Off Dates	Total α	Total β	Time	FlowRate	Volume	FlowRate
	μCi/ml	μCi/ml	Hours	CFM	ft3	CFM
01/01/95-03/14/95			0	0	0	19000
03/15/95-03/22/95	6.3E-16 ± 130%	4.2E-16 ± 170%	168	1.8	18000	19000
03/23/95-05/09/95			0	0	0	19000
05/10/95-05/17/95	4.2E-16 ± 190%	1.6E-15 ± 56%	142	1.9	16000	19000
05/18/95-07/04/95			0	0	0	22000
07/05/95-07/12/95	1.8E-16 ± 380%	3.6E-16 ± 230%	170	1.7	17000	22000
07/13/95-10/01/95			0	0	0	22000
10/02/95-10/09/95	6.2E-16 ± 140%	3.0E-15 ± 37%	168	1.8	18000	22000
10/10/95-12/31/95			0	0	0	22000

SYMBOL KEY: * Concentration exceeds Warning Level.

*S MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack FlowRate of previous Sample

WHC ENVIRONMENTAL RELEASE SUMMARY

06/14/96

13:15

296-S-2: 202-S NORTH SAMPL. GAL., HOOD, & PR ROOM (S032)

01/01/95 through 12/31/95

Total System Flow: 1.9E+10 Liters = 6.8E+08 Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.73

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci/ml}$	
		Average	Peak
Total α	6.9E-09	2.6E-16	6.2E-16
Total β	1.6E-08	6.0E-16	8.9E-16

06/21/96 11:21

296-5-2: 202-5 NORTH SAMPLE, GAL., HOOD, & PR. ROOM (S032)

01/01/95 to 12/31/95

Page 1

Warning Levels	2.0E-14	9.0E-12	Collect	Sample	Sample	Stack
On/Off Dates	Total α	Total β	Time	FlowRate	Volume	FlowRate
	$\mu\text{Ci}/\text{ml}$	$\mu\text{Ci}/\text{ml}$	Hours	CFM	FL3	CFM
01/01/95 03/14/95			0.0	0.0	0	1800
03/15/95 03/22/95	1.7E 16 $\pm$ 400%	6.4E 16 $\pm$ 130%	168.1	1.7	17000	1800
03/23/95 05/10/95			0.0	0.0	0	1800
05/11/95 05/17/95	1.9E 16 $\pm$ 400%	2.7E 16 $\pm$ 320%	143.0	1.7	14000	1800
05/18/95 07/04/95			0.0	0.0	0	1800
07/05/95 07/12/95	1.7E 16 $\pm$ 380%	8.9E 16 $\pm$ 100%	170.0	1.7	18000	770
07/12/95 10/02/95	3.2E 16 $\pm$ 37%	4.8E 16 $\pm$ 27%	1966.9	1.7	200000	770
10/02/95 10/09/95	6.2E 16 $\pm$ 140%	8.4E 16 $\pm$ 110%	168.5	1.8	18000	770
10/09/95 12/31/95			0.0	0.0	0	770

SYMBOL KEY: * Concentration exceeds Warning Level.

*S MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack FlowRate of previous Sample.

WHC ENVIRONMENTAL RELEASE SUMMARY

06/14/96

13:15

296-S-4: 202-S: SWP LOBBY, DECON RM, REG. SHOP (S008)

01/01/95 through 12/31/95

Total System Flow: 4.4E+09 Liters = 1.6E+08 Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.73

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci/ml}$	
		Average	Peak
-----	-----	-----	-----
Total α	4.4E-09	7.3E-16	7.3E-16
Total β	1.4E-08	2.3E-15	2.3E-15

06/27/96 11:21 296 S 4 200 S SMP (DEBY DECON RM, REG SHIP (5008) 01/01/95 to 12/31/95 Page 1

Warning Levels:	2 DE-14 Total B of 10	9.0E-12	Collect Time	Sample Flowrate	Stack Flowrate
On Off Dates					
03/15/95 03/22/95	2.3E-15 ± 453	0.0	0.0	0.0	950
03/15/95 03/22/95	7.3E-16 ± 1303	19.0	0.0	16000	950
03/23/95 04/24/95		0.0	0.0	0.0	950
04/25/95 12/31/95		0.0	0.0	0.0	0

SMP01 KEY * Concentration exceeds Warning Level *5 MDA exceeds Warning Level.

** Stack Flowrate of previous Sample

? Reported MDA is negative.

WHC ENVIRONMENTAL RELEASE SUMMARY

06/14/96

13:15

296-S-6: UNFILTERED AIR FROM 202-S SILO (S004)

01/01/95 through 12/31/95

Total System Flow: 1.2E+10 Liters = 4.3E+08 Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.73

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci/ml}$	
		Average	Peak
-----	-----	-----	-----
Total α	2.2E-08	1.3E-15	2.2E-15
Total β	8.0E-08	4.8E-15	7.1E-15

06/21/96 11 21										296.5 G. UNFILTERED AIR FROM 202.5 SILO (S004)										01/01/95 to 12/31/95										Page 1									
Warning Levels:										Collect										Sample										Stack									
On/Off Dates:										Time										Flowrate										Flowrate									
-----										-----										-----										-----									
03/15/95 03:27:05										0.0										0.0										2100									
03/15/95 03:27:05										142.9										15000										2100									
03/23/95 05:10:05										0.0										0.0										2100									
03/23/95 05:10:05										142.9										1.5										2100									
05/18/95 05:23:05										0.0										0.0										2100									
05/24/95 12:31:05										0.0										0.0										0									
SYMBOL KEY: *										Concentration exceeds Warning Level										* MDA exceeds Warning Level										? Reported MDA is negative.									

WHC ENVIRONMENTAL RELEASE SUMMARY

06/15/96

15:26

296-S-7W & 296-S-7E: 233-S BUILDING EXHAUSTERS (S016, S015)

01/01/95 through 12/31/95

Total System Flow: 1.4E+11 Liters = 4.8E+09 Cubic Ft

Radionuclide	Halflife	Release, Ci
Total α	n/a	5.6E-07
Total β	n/a	2.9E-07

06/21/96 11:21

296 S-7W, 233 S BUILDING EXHAUST (S016)

01/01/95 to 12/31/95

Page 1

Warning Levels On/Off Dates	2 0E-13 Total α $\mu\text{Ci}/\text{m}^3$	9.0E-11 Total β $\mu\text{Ci}/\text{m}^3$	Collect Time Hours	Sample FlowRate CFM	Sample Volume FLS	Stack FlowRate CFM
12/28/94 01/04/95	1.5E-15 ± 704	3.6E-15 ± 314	161.8	2.1	20000	9500
01/04/95 01/11/95	1.6E-16 ± 3401	3.8E-15 ± 308	168.3	2.0	20000	9500
01/11/95 01/18/95	-5.0E-17 ± 8001	-1.5E-16 ± 3504	167.2	2.0	20000	9500
01/18/95 01/25/95	6.5E-16 ± 1304	5.1E-16 ± 644	168.6	1.8	19000	9500
01/25/95 02/01/95	8.1E-16 ± 1004	1.8E-16 ± 3504	167.9	2.0	20000	9500
02/01/95 02/08/95	8.2E-16 ± 1004	5.0E-16 ± 1404	168.6	2.0	20000	9500
02/08/95 02/15/95	1.7E-15 ± 644	1.8E-16 ± 3504	167.4	2.0	20000	9500
02/15/95 02/22/95	9.9E-16 ± 804	-1.4E-16 ± 3504	168.6	2.1	21000	9500
02/22/95 03/01/95	3.6E-15 ± 644	3.2E-16 ± 2004	168.3	2.2	27000	9500
03/01/95 03/08/95	2.8E-15 ± 384	4.6E-16 ± 1404	167.9	2.2	22000	9500
03/08/95 03/15/95	-4.7E-17 ± 8004	3.2E-16 ± 2004	168.6	2.1	22000	9500
03/15/95 03/22/95	1.4E-15 ± 704	-4.3E-16 ± 644	168.8	2.2	27000	9500
03/22/95 03/29/95	7.4E-15 ± 224	4.7E-16 ± 1404	169.1	2.1	22000	9500
03/29/95 04/05/95	2.9E-15 ± 364	6.1E-16 ± 1204	167.2	2.2	22000	9500
04/05/95 04/12/95	9E-16 ± 454	2.7E-16 ± 1404	172.6	2.2	23000	9500
04/12/95 04/19/95	3.4E-15 ± 384	3.9E-16 ± 2004	163.0	1.8	18000	9500
04/19/95 04/26/95	5.1E-15 ± 274	2.4E-15 ± 354	167.5	2.2	22000	9500
04/26/95 05/03/95	1E-14 ± 194	3.6E-15 ± 524	168.0	2.3	23000	9500
05/03/95 05/10/95	2.8E-15 ± 384	3.5E-15 ± 314	169.3	2.1	22000	9500
05/10/95 05/17/95	1.7E-16 ± 3404	8.4E-16 ± 984	167.3	2.0	20000	9500
05/17/95 05/24/95	2.3E-15 ± 414	1.9E-15 ± 424	167.6	2.2	22000	9500
05/24/95 05/31/95	3.7E-16 ± 324	2.7E-15 ± 354	167.9	2.2	22000	9500
05/31/95 06/07/95	1.9E-15 ± 454	1.5E-17 ± 35004	168.0	2.2	22000	9000
06/07/95 06/14/95	3.3E-15 ± 344	1.5E-17 ± 35004	167.7	2.2	22000	9000
06/14/95 06/28/95	2.0E-16 ± 314	3.8E-16 ± 984	336.0	2.2	44000	9000
06/28/95 07/08/95	3.6E-15 ± 324	1.6E-16 ± 3504	246.4	1.6	23000	9000
07/08/95 07/26/95	3.6E-15 ± 224	2.3E-15 ± 244	425.9	2.0	50000	9000
07/27/95 12/31/95			0.0	0.0	0	9000

SYMBOL KEY: * Concentration exceeds Warning Level.

** MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack FlowRate of previous Sample.

WHC ENVIRONMENTAL RELEASE SUMMARY

06/14/96

13:16

291-U-1: 221-U CANYON & CELLS (U771, X771)

01/01/95 through 12/31/95

Total System Flow: 3.7E+11 Liters = 1.3E+10 Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.73

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci/ml}$	
		Average	Peak
Total α	2.5E-07	5.0E-16	6.3E-16
Total β	5.4E-05	1.1E-13	1.7E-13

06/21/96 11:21

291 U-1: 221 U CANYON & CELLS (U771)

01/01/95 to 12/31/95

Page 1

Warning Levels	2.0E-14 Total α $\mu\text{Ci}/\text{ml}$	9.0E-12 Total β $\mu\text{Ci}/\text{ml}$	Collect Time Hours	Sample FlowRate CFM	Sample Volume ft ³	Stack FlowRate CFM
On/Off Dates						
01/01/95 03/14/95			0 0	0 0	0	23000
03/15/95 03/22/95	6.1E-16 $\pm$ 130%	7.9E-14 $\pm$ 6.4%	168 3	1 9	19000	23000
03/23/95 05/09/95			0 0	0 0	0	23000
05/10/95 05/17/95	4.0E-16 $\pm$ 190%	7.1E-14 $\pm$ 7.0%	168 6	1 7	17000	23000
05/18/95 07/04/95			0 0	0 0	0	23000
07/05/95 07/12/95	1.5E-16 $\pm$ 360%	4.2E-14 $\pm$ 8.5%	169 4	2 0	21000	23000
07/13/95 10/01/95			9 0	0 0	0	27000
10/02/95 10/09/95	6.3E-16 $\pm$ 130%	1.7E-13 $\pm$ 4.4%	166 5	1 9	19000	27000
10/10/95 12/31/95			0 0	0 0	0	27000

SYMBOL KEY * Concentration exceeds Warning Level

*S MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack FlowRate of previous Sample.

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2.6 300 Area

WHC ENVIRONMENTAL RELEASE SUMMARY

04/09/96

11:17

340-NT-EX: 340 Vault Tank Vent Exhaust (F002, F017, F602)

01/01/95 through 12/31/95

Total System Flow: 2.9E+10 Liters = 1.0E+09 Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.73
 Halogens: 0.87

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci/ml}$	
		Average	Peak
^{90}Sr	ND	<3.3E-16	n/a
^{131}I	ND	<4.2E-14	n/a
^{137}Cs	ND	<4.2E-16	n/a
$^{239/240}\text{Pu}$	ND	<3.9E-17	n/a
Total α	6.7E-08	1.7E-15	3.4E-14
Total β	1.3E-07	3.2E-15	5.8E-14

04/10/96 10.21

340-NT-EX: 340 Vault Tank Vent Exhaust (F002)

01/01/95 to 12/31/95

Page 1

Warning Levels:	2.0E-14	9.0E-12	Collect	Sample	Sample	Stack
On/Off Dates	Total α μCi/ml	Total β μCi/ml	Time Hours	FlowRate CFM	Volume ft ³	FlowRate CFM
12/27/94-01/03/95	<6.7E-16	<1.0E-15	168.1	7.0	20000	2000
01/03/95-01/10/95	* 3.4E-14 ± 0.01	5.8E-14 ± 0.01	167.4	3.1	11000	2000
01/10/95-01/17/95	2.7E-15 ± 0.01	2.9E-15 ± 0.01	169.0	3.1	32000	2000
01/17/95-01/24/95	1.1E-15 ± 0.01	<1.2E-15	167.8	3.2	32000	2000
01/24/95-01/31/95	1.2E-15 ± 0.01	1.5E-15 ± 0.01	168.3	3.1	31000	2000
01/31/95-02/07/95	<3.6E-16	<1.3E-15	167.3	3.1	31000	2000
02/07/95-02/21/95	<2.7E-16	<6.5E-16	336.3	3.1	63000	2000
02/21/95-03/07/95	8.1E-15 ± 0.01	1.3E-14 ± 0.01	335.9	3.1	62000	2000
03/07/95-03/21/95	7.0E-15 ± 0.01	1.1E-14 ± 0.01	334.9	3.1	62000	2000
03/21/95-04/04/95	3.0E-16 ± 0.01	<6.4E-16	335.3	3.1	62000	2000
04/04/95-04/18/95	<3.2E-16	<1.1E-15	336.4	3.1	63000	2000
04/18/95-05/02/95	4.7E-16 ± 0.01	<1.1E-15	335.7	3.1	62000	2000
05/02/95-05/16/95	4.4E-16 ± 0.01	<1.1E-15	329.3	3.1	61000	2000
05/16/95-05/30/95	<3.6E-16	<1.1E-15	336.0	3.1	63000	2000
05/30/95-06/13/95	6.4E-16 ± 0.01	<1.1E-15	336.8	3.1	63000	2000
06/13/95-06/27/95	<3.4E-16	<1.2E-15	336.0	3.1	62000	2000
06/27/95-06/30/95	<1.2E-15	<4.7E-15	78.9	3.1	15000	2000
06/30/95-07/11/95	<3.7E-16	<1.4E-15	256.6	3.1	48000	2000
07/11/95-07/26/95	7.3E-16 ± 0.01	1.8E-15 ± 0.01	325.3	3.1	60000	2000
07/26/95-08/08/95	<4.2E-16	<1.2E-15	307.3	3.1	57000	2000
08/08/95-08/22/95	<4.3E-16	<1.2E-15	321.8	3.1	60000	2000
08/22/95-09/06/95	<3.5E-16	<1.2E-15	320.7	3.1	60000	2000
09/06/95-09/19/95	<3.6E-16	<1.2E-15	333.7	3.1	62000	2000
09/19/95-10/03/95	<3.6E-16	<1.1E-15	332.4	3.1	62000	1800
10/03/95-10/17/95	<3.6E-16	<1.1E-15	334.5	3.1	62000	1800
10/17/95-10/31/95	<3.9E-16	<1.1E-15	340.0	3.1	63000	1800
10/31/95-11/14/95	<3.4E-16	<1.1E-15	323.4	3.1	60000	1800
11/14/95-11/28/95	<3.9E-16	<1.1E-15	338.4	3.1	63000	1800
11/28/95-12/12/95	<3.6E-16	<1.1E-15	343.7	3.1	63000	1800
12/12/95-12/27/95	<3.0E-16	<1.1E-15	343.3	3.1	64000	1800
12/27/95-01/09/96	<3.7E-16	<1.1E-15	312.6	3.1	58000	1800

SYMBOL KEY: * Concentration exceeds Warning Level.

* S MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack FlowRate of previous Sample.

340-MT-EX 340 Vault Tank Exhaust I-131 Charcoal Cart (F07) 01/01/95 to 12/31/95

04/10/95 10:21

Warning Levels:

On/Off Dates:	4 OE-10 I-131 µCi/ml	Collect Time hours	Sample FlowRate CFM	Stack FlowRate CFM
12/27/94-01/03/95	<1.4E-14	167.6	2.0	2000
01/03/95-04/04/95	<1.6E-14	2183.0	3.1	410000
04/04/95-06/03/95	<1.6E-14	1300.0	3.1	2000
07/11/95-10/03/95	<5.7E-14	2018.1	3.1	380000
10/03/95-01/09/96	<4.2E-14	2351.3	3.1	440000

SYMBOL KEY: * Concentration exceeds Warning Level. *S MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack FlowRate of previous Sample.

Page 1

340-MT-EX 340 Vault Tank Exhaust Quarterly Composite (F602) 01/01/95 to 12/31/95

04/10/95 10:21

Warning Levels:

On/Off Dates:	9 OE-12 Sr-90 µCi/ml	4 OE-10 Cs-137 µCi/ml	9 OE-14 Pu-239/240 µCi/ml	Collect Time hours	Sample FlowRate CFM	Stack FlowRate CFM
12/27/94-04/04/95	<1.1E-16	<2.2E-16	<5.8E-17	2350.3	3.0	430000
04/04/95-06/03/95	<1.6E-16	<1.2E-16	<3.5E-17	1763.2	3.7	390000
06/03/95-07/11/95	<1.6E-16	<1.2E-16	<3.5E-17	1763.2	3.7	390000
10/03/95-12/27/95	<1.6E-16	<1.2E-16	<3.5E-17	2016.5	3.1	380000

SYMBOL KEY: * Concentration exceeds Warning Level. *S MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack FlowRate of previous Sample.

Page 1

WHC ENVIRONMENTAL RELEASE SUMMARY

04/09/96

11:19

340-B-BLD: 340 B BUILDING (F008)

01/01/95 through 12/31/95

Total System Flow: 5.0E+09 Liters = 1.8E+08 Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.73

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci}/\text{ml}$	
		Average	Peak
-----	-----	-----	-----
Total α	ND	<9.0E-16	n/a
Total β	ND	<2.9E-15	n/a

Page 1

01/01/95 to 12/31/95

340 B BLD. 340 B BUILDING (F008)

04/10/95 10:21

Warning Levels:

On/Off Dates:	2.0E-14	9.0E-12	Sample	Sample	Stack
	Total g	Total g	Flowrate	Flowrate	Flowrate
			CM	CM	CM
12/27/94 01/03/95	<3.2E-15	<1.0E-15	2.0	29000	1800
01/04/95 01/10/95	<3.2E-15	<1.4E-14	2.0	3000	1800
01/11/95 01/16/95	<5.5E-16		0.0	0	0
01/16/95 01/20/95	<3.2E-15	<1.7E-15	2.0	22000	1800
01/20/95 01/24/95	<3.2E-15	<1.0E-15	2.0	40000	1800
02/07/95 02/21/95	<3.2E-15	<1.0E-15	2.0	40000	1800
02/21/95 03/06/95	<3.5E-16	<1.0E-15	2.0	38000	1800
03/06/95 05/01/95	<3.2E-15		0.0	0	0
05/01/95 05/09/95	<5.8E-14	<3.2E-13	2.0	270	0
05/09/95 06/24/95			0.0	0	0
06/24/95 06/25/95	<6.6E-15	<2.0E-14	2.0	3400	1800
06/25/95 06/28/95	<3.4E-15	<1.3E-14	44.3	5300	1800
06/28/95 07/09/95	<2.7E-15	<8.6E-15	2.0	8200	1800
07/09/95 12/08/95	<1.1E-15	<3.1E-15	0.0	0	0
12/08/95 12/12/95	<1.1E-15	<3.1E-15	187.7	2.0	1800
12/12/95 12/31/95			0.0	0	0

SYMBOL KEY: * Concentration exceeds Warning Level.

* MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack Flowrate of previous Sample.

WHC ENVIRONMENTAL RELEASE SUMMARY

04/09/96

11:19

340-DECON: 340 DECONTAMINATION FACILITY (F009)

01/01/95 through 12/31/95

Total System Flow: 1.1E+11 Liters = 3.8E+09 Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.73

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci/ml}$	
		Average	Peak
Total α	2.7E-07	1.8E-15	2.1E-14
Total β	8.5E-07	5.8E-15	5.7E-14

04/10/96 10:21

340-DECON: 340 DECONTAMINATION FACILITY (F009)

01/01/96 to 12/31/95

Page 1

Warning Levels:	2 DE-14 Total α μCi/ml	9 DE-12 Total β μCi/ml	Collect Time Hours	Sample FlowRate CFM	Sample Volume ft ³	Stack FlowRate CFM
On/Off Dates						
12/27/94-01/03/95	<5 DE-16	5 SE-15 ± 0.01	169.0	2.0	20000	7300
01/03/95-01/10/95	* 2 IE-14 ± 0.01	5 IE-14 ± 0.01	167.3	2.0	20000	7300
01/10/95-01/17/95	<6 IE-16	<1 IE-15	169.2	2.0	20000	7300
01/17/95-01/24/95	4 IE-16 ± 0.01	9 SE-15 ± 0.01	168.2	2.0	20000	7300
01/24/95-01/31/95	1 IE-16 ± 0.01	1 IE-14 ± 0.01	167.5	2.0	20000	7300
01/31/95-02/07/95	<5 IE-16	<2 IE-15	168.1	2.0	20000	7300
02/07/95-02/21/95	3 SE-16 ± 0.01	5 SE-15 ± 0.01	336.0	2.0	40000	7300
02/21/95-03/07/95	1 SE-14 ± 0.01	3 SE-14 ± 0.01	335.9	2.0	40000	7300
03/07/95-03/21/95	1 SE-15 ± 0.01	2 SE-15 ± 0.01	335.1	2.0	40000	7300
03/21/95-04/04/95	1 SE-15 ± 0.01	2 SE-15 ± 0.01	335.3	2.0	40000	7300
04/04/95-04/18/95	<5 SE-16	<1 IE-15	336.3	2.0	40000	7300
04/18/95-05/02/95	8 IE-16 ± 0.01	4 IE-15 ± 0.01	335.0	2.0	40000	7300
05/02/95-05/16/95	6 IE-16 ± 0.01	2 SE-15 ± 0.01	336.1	2.0	40000	7300
05/16/95-05/30/95	6 IE-16 ± 0.01	6 SE-15 ± 0.01	336.0	2.0	40000	7300
05/30/95-06/13/95	6 IE-16	1 SE-15 ± 0.01	337.1	2.0	40000	7300
06/13/95-06/27/95	<5 SE-16	<1 IE-15	335.7	2.0	40000	7300
06/27/95-07/11/95	<4 SE-16	<1 IE-15	335.5	2.0	40000	7100
07/11/95-07/26/95	1 IE-15 ± 0.01	2 SE-15 ± 0.01	341.5	2.0	41000	7100
07/26/95-08/08/95	<6 SE-16	3 SE-15 ± 0.01	312.5	2.0	38000	7100
08/08/95-08/22/95	<6 IE-16	2 SE-15 ± 0.01	321.8	2.0	39000	7100
08/22/95-09/05/95	<5 SE-16	<1 SE-15	320.9	2.0	39000	7100
09/05/95-09/18/95	7 SE-16 ± 0.01	6 SE-15 ± 0.01	309.7	2.0	37000	7100
09/18/95-10/03/95	<5 SE-16	3 SE-15 ± 0.01	331.7	2.0	40000	7100
10/03/95-10/17/95	<5 SE-16	<1 SE-15	334.5	2.0	40000	7100
10/17/95-10/31/95	<6 SE-16	<1 IE-15	340.0	2.0	41000	7100
10/31/95-11/14/95	<5 SE-16	4 SE-15 ± 0.01	323.6	2.0	39000	7100
11/14/95-11/28/95	<6 IE-16	2 SE-15 ± 0.01	334.4	2.0	41000	7100
11/28/95-12/12/95	6 IE-16 ± 0.01	3 IE-15 ± 0.01	334.0	2.0	40000	7100
12/12/95-12/27/95	<4 SE-16	3 SE-15 ± 0.01	360.1	2.0	43000	7100
12/27/95-01/09/96	<5 IE-16	1 SE-14 ± 0.01	312.5	2.0	38000	7100

SYMBOL KEY: * Concentration exceeds Warning Level.

* MDA exceeds Warning Level

* Reported MDA is negative.

** Stack FlowRate of previous Sample.

WHC ENVIRONMENTAL RELEASE SUMMARY

04/09/96

11:17

306E-ULAB: 306 Facility (F003)

01/01/95 through 12/31/95

Total System Flow: 4.4E+10 Liters = 1.5E+09 Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.73

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci/ml}$	
		Average	Peak
-----	-----	-----	-----
Total α	2.2E-08	3.6E-16	8.6E-16
Total β	5.0E-08	8.4E-16	1.5E-15

01/01/95 to 12/31/95

306C (U&B: 306 Facility (F003)

04/10/96 10:21

Warning Levels:		On/Off Dates	
2	05:14	μCi/m	
Total 0		μCi/m	
9	05:12	μCi/m	
Total 8		Hours	
Collect	Sample	Sample	Stack
Time	Flowrate	Flowrate	Flowrate
μCi/m	CFM	ft3	CFM
1010.7	2.0	120000	4600
< 2	20000	4600	
< 2	20000	4600	
163.0	2.0	81000	4600
33.8	2.0	81000	4600
671.3	2.0	81000	4600
670.2	2.0	81000	4600
640.5	2.0	100000	4600
697.6	2.0	84000	4600
543.3	2.0	77000	4600
0.0	0.0	64000	4600
0.0	0.0	0	0

* MHA exceeds Warning Level

? Reported MHA is negative

** Stack flowrate of previous Sample.

SYMBOL KEY: * Concentration exceeds Warning Level

WHC ENVIRONMENTAL RELEASE SUMMARY

04/09/96

11:19

308-TRIGA: 308 E-8-9 (F006, F007)

** 01/01/95 through 12/31/95 ***

Total System Flow: 2.7E+10 Liters = 9.6E+08 Cubic Ft

The following factor(s) has (or have) been applied to the radio-nuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.73
 Halogens: 0.87

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci/ml}$	
		Average	Peak
¹³¹ I	ND	<3.7E-14	n/a
Total α	5.3E-08	1.4E-15	2.3E-15
Total β	1.2E-07	3.2E-15	2.6E-15

** Values projected for period 01/01/95 to 06/13/95.

*** Values projected for period 12/18/95 to 12/31/95.

01/01/95 to 12/31/95

Page 1

308-19(GA, 308 E-B-9 (F006)

Warning Levels:	4 DE-10 1-31	2 DE-14 Total α	9 DE-17 Total β	Collect Time Hours	Sample Flowrate CFM	Stack Flowrate CFM
On/Off Dates:	μCi/m ³	μCi/m ³	μCi/m ³	Hours	CFM	CFM
03/09/95-03/16/95	-9.3E-15	2.3E-15 ± 0.01	2.6E-15 ± 0.04	170.0	2.0	1800
06/13/95-06/20/95	<3.1E-15	<3.1E-15	<3.4E-15	168.0	2.0	1800
08/13/95-08/20/95	<3.1E-15	<3.1E-15	<3.4E-15	168.0	2.0	1800
12/04/95-12/18/95	<3.1E-15	<3.1E-15	<3.4E-15	337.1	1.0	1800

SYNOL KEY: * Concentration exceeds Warning Level. ** MDA exceeds Warning Level. ? Reported MDA is negative.

** Stack Flowrate of previous Sample.

01/01/95 to 12/31/95

Page 1

308-19(GA, 308 E-B-9 (Charcoal) (F007)

Warning Levels:	4 DE-10 1-31	2 DE-14 Total α	9 DE-17 Total β	Collect Time Hours	Sample Flowrate CFM	Stack Flowrate CFM
On/Off Dates:	μCi/m ³	μCi/m ³	μCi/m ³	Hours	CFM	CFM
06/13/95-06/20/95	<3.1E-15	<3.1E-15	<3.4E-15	168.0	2.0	1800
08/13/95-08/20/95	<3.1E-15	<3.1E-15	<3.4E-15	168.0	2.0	1800
12/04/95-12/18/95	<3.1E-15	<3.1E-15	<3.4E-15	337.1	1.0	1800

SYNOL KEY: * Concentration exceeds Warning Level. ** MDA exceeds Warning Level. ? Reported MDA is negative.

** Stack Flowrate of previous Sample.

WHC ENVIRONMENTAL RELEASE SUMMARY

04/09/96

11:20

377-GEL: 377 GEOTECHNICAL ENGINEERING LABORATORY (F010)

01/01/95 through 12/31/95 ***

Total System Flow: 1.2E+11 Liters = 4.4E+09 Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.73

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci/ml}$	
		Average	Peak
Total α	ND	<5.4E-16	n/a
Total β	ND	<1.6E-15	n/a

*** Values projected for period 10/16/95 to 12/31/95.

01/01/95 to 12/31/95

377-GEI 377 GEOTECHNICAL ENGINEERING LABORATORY (F010)

04/10/95 to 21

Warning Levels:		2 DE-14		9 DE-12		Collect Sample		Sample FlowRate		Stack	
Warning Levels:		Total g		Total g		Time FlowRate		Volume FlowRate		FlowRate	
Warning Levels:		g/cm3		g/cm3		Hours		ft3		CFM	
12/27/94 01/03/95	< 26.16	< 1.96.15		< 1.96.15		20000		2.0		8300	
01/03/95 02/07/95	< 11.16	< 1.96.16		< 1.96.16		10000		2.0		8300	
02/07/95 03/07/95	< 16.16	< 4.96.16		< 4.96.16		81000		2.0		8300	
03/07/95 04/04/95	< 1.76.16	< 5.06.16		< 5.06.16		81000		2.0		8300	
05/02/95 06/11/95	< 5.46.16	< 1.56.16		< 1.56.16		43000		2.0		8300	
07/06/95 07/17/95	< 8.36.16	< 2.36.15		< 2.36.15		32000		2.0		8300	
10/06/95 10/16/95	< 7.16.16	< 2.36.15		< 2.36.15		31000		2.0		8300	

SYMBOL KEY: * Concentration exceeds Warning Level.

* MDA exceeds Warning Level.

* Reported MDA is negative.

** Stack FlowRate of previous Sample.

2.7 400 Area

WHC ENVIRONMENTAL RELEASE SUMMARY

04/09/96

11:20

FFTF-RESB: FFTF LOWER REACTOR SERVICE BUILDING (F012, F016)

01/01/95 through 12/31/95

Total System Flow: 2.7E+11 Liters = 9.7E+09 Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.73
 Halogens: 0.87

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci/ml}$	
		Average	Peak
^{131}I	ND	<1.7E-14	n/a
Total α	8.1E-07	2.1E-15	1.5E-14
Total β	3.2E-06	8.5E-15	5.2E-14

Rev. 0

Warning Levels:		0E-14	9.0E-12	Collect	Sample	Sample	Stack
On/Off Dates	total $\mu\text{Ci/ml}$	total $\mu\text{Ci/ml}$	Time	FlowRate	FlowRate	FlowRate	FlowRate
			min	CM	CM	CM	CM
12/27/94-01/03/95	-6.2E-16	1.0E-14 + 0.01	167.1	2.0	20900	20900	20900
01/10/95-01/16/95	1.7E-14 + 0.01	5.2E-14 + 0.01	168.4	4.0	20900	20900	20900
01/17/95-01/24/95	2.1E-15 + 0.01	7.5E-15 + 0.01	168.3	2.0	20900	20900	20900
01/25/95-01/31/95	8.3E-16 + 0.01	8.9E-15 + 0.01	168.6	2.0	20900	20900	20900
02/01/95-02/07/95	1.0E-15 + 0.01	1.9E-15 + 0.01	167.9	2.0	20900	20900	20900
02/08/95-02/14/95	-6.9E-16	7.1E-15 + 0.01	167.8	2.0	20900	20900	20900
02/15/95-02/21/95	-6.9E-16	-2.0E-15	168.7	2.0	20900	20900	20900
02/22/95-03/07/95	1.2E-14 + 0.01	3.1E-14 + 0.01	167.5	2.0	20900	20900	20900
03/08/95-03/14/95	2.5E-15 + 0.01	8.7E-15 + 0.01	168.0	2.0	20900	20900	20900
03/15/95-03/21/95	1.7E-15 + 0.01	1.0E-14 + 0.01	167.9	2.0	20900	20900	20900
03/22/95-03/28/95	-6.7E-16	4.9E-15 + 0.01	168.1	2.0	20900	20900	20900
03/29/95-04/04/95	-3.3E-15 + 0.01	4.4E-15 + 0.01	171.4	4.0	21000	20900	20900
04/04/95-04/18/95	-1.0E-15	-3.4E-15	166.6	2.0	20900	20900	20900
04/19/95-04/25/95	-1.0E-15	-3.4E-15	166.6	2.0	20900	20900	20900
04/26/95-05/02/95	-1.1E-15	-3.5E-15	169.1	2.0	20900	20900	20900
05/02/95-05/09/95	1.4E-15 + 0.01	4.9E-15 + 0.01	174.3	2.0	21000	20900	20900
05/10/95-05/16/95	1.4E-15 + 0.01	4.9E-15 + 0.01	174.3	2.0	21000	20900	20900
05/16/95-05/23/95	2.5E-15 + 0.01	7.9E-15 + 0.01	167.1	2.0	20900	20900	20900
05/23/95-05/30/95	2.7E-15 + 0.01	1.1E-14 + 0.01	167.8	2.0	20900	20900	20900
05/31/95-06/06/95	1.1E-15 + 0.01	4.1E-15 + 0.01	167.9	2.0	20900	20900	20900
06/06/95-06/13/95	1.1E-15 + 0.01	4.1E-15 + 0.01	168.5	2.0	20900	20900	20900
06/13/95-06/20/95	1.3E-15 + 0.01	-3.4E-15	167.9	2.0	20900	20900	20900
06/21/95-06/27/95	-1.0E-15	4.7E-15 + 0.01	168.0	2.0	20900	20900	20900
06/27/95-07/05/95	-9.5E-16	-3.0E-15	194.3	2.0	23300	20900	20900
07/05/95-07/11/95	1.2E-15 + 0.01	5.4E-15 + 0.01	141.4	1.9	16000	20900	20900
07/12/95-07/18/95	7.7E-15 + 0.01	3.1E-14 + 0.01	168.0	2.0	20900	20900	20900
07/18/95-07/25/95	-9.8E-16	7.1E-15 + 0.01	167.2	2.0	20900	20900	20900
07/25/95-08/01/95	3.1E-15	8.3E-15 + 0.01	168.3	1.8	18000	20900	20900
08/02/95-08/08/95	1.0E-15 + 0.01	3.1E-14 + 0.01	167.8	2.0	20900	20900	20900
08/08/95-08/15/95	2.2E-15 + 0.01	4.9E-15 + 0.01	167.8	2.0	20900	20900	20900
08/15/95-08/22/95	2.3E-15 + 0.01	6.7E-15 + 0.01	167.8	2.0	20900	20900	20900
08/22/95-08/29/95	1.0E-15 + 0.01	1.6E-14 + 0.01	167.8	2.0	20900	20900	20900
08/29/95-09/05/95	2.8E-15 + 0.01	1.2E-14 + 0.01	168.2	2.0	20900	20900	20900
09/05/95-09/12/95	2.1E-15 + 0.01	1.4E-14 + 0.01	168.8	2.0	20900	20900	20900
09/12/95-09/19/95	1.5E-15 + 0.01	1.6E-14 + 0.01	168.8	2.0	20900	20900	20900
09/19/95-09/26/95	-1.6E-15	1.2E-14 + 0.01	168.8	1.8	18000	20900	20900
09/26/95-10/03/95	-1.6E-15	1.2E-14	167.2	1.8	18000	20900	20900
10/03/95-10/10/95	-1.6E-15	-3.1E-15	167.8	1.8	18000	20900	20900
10/10/95-10/17/95	-1.2E-15	-3.9E-15	168.1	1.8	18000	20900	20900
10/17/95-10/24/95	-1.2E-15 + 0.01	4.8E-15 + 0.01	168.3	1.8	18000	20900	20900
10/24/95-10/31/95	-1.1E-15	1.6E-14 + 0.01	168.3	1.8	18000	13000	20900
10/31/95-11/07/95	-1.1E-15	-3.8E-15	167.8	1.8	18000	13000	20900
11/07/95-11/14/95	-1.1E-15	-3.8E-15	168.3	1.8	18000	13000	20900
11/14/95-11/21/95	-1.1E-15	1.7E-15 + 0.01	167.5	1.9	17000	13000	20900
11/21/95-11/28/95	-1.1E-15	7.3E-15 + 0.01	167.5	1.9	17000	13000	20900
11/28/95-12/05/95	-1.1E-15 + 0.01	1.6E-14 + 0.01	167.8	1.9	17000	13000	20900
12/05/95-12/12/95	-1.1E-15	1.0E-14 + 0.01	167.8	1.9	17000	13000	20900
12/12/95-12/19/95	-1.1E-15	-3.5E-15	168.3	1.9	17000	13000	20900
12/19/95-12/26/95	-1.1E-15	1.9E-14 + 0.01	167.8	1.9	17000	13000	20900
12/26/95-01/02/96	-1.3E-15	2.0E-14 + 0.01	143.8	2.0	20900	17000	20900

SYMBOL KEY: * Concentration exceeds Warning Level. *S MOA exceeds Warning Level

? Reported MDA is negative

^{^^} Stack FlowRate of previous Sample.

237

04/10/96 10:21

Warning Levels: 4 DE 10 1-131

Unit/Off Dates

FFTF-RESB: FFTF Lower Reactor Service Building 1-131 (016)

01/01/95 to 12/31/95

Page 1

Unit/Off Dates	Collect Time	Sample FlowRate	Stack FlowRate
12/27/94 01/10/95	335.4	2.0	40000
01/10/95 01/24/95	335.4	2.0	40000
01/24/95 02/07/95	335.4	2.0	40000
02/07/95 02/21/95	335.4	2.0	40000
02/21/95 03/07/95	335.4	2.0	40000
03/07/95 03/21/95	335.4	2.0	40000
03/21/95 04/04/95	335.4	2.0	40000
04/04/95 04/18/95	335.4	2.0	40000
04/18/95 05/02/95	335.4	2.0	40000
05/02/95 05/16/95	335.4	2.0	40000
05/16/95 06/30/95	335.4	2.0	40000
06/30/95 07/11/95	335.4	2.0	40000
07/11/95 08/27/95	335.4	2.0	40000
08/27/95 09/06/95	335.4	2.0	40000
09/06/95 09/19/95	335.4	2.0	40000
09/19/95 09/26/95	335.4	2.0	40000
09/26/95 10/10/95	335.4	2.0	40000
10/10/95 11/07/95	335.4	2.0	40000
11/07/95 11/27/95	335.4	2.0	40000
11/27/95 12/19/95	335.4	2.0	40000
12/19/95 01/02/96	335.4	2.0	40000

54000 KEY: * Concentration exceeds Warning Level

? Reported data is negative.

** Stack Flowrate of previous Sample.

WHC ENVIRONMENTAL RELEASE SUMMARY

04/09/96

11:20

437-MN&ST: MASF 437-MN&ST (F014)

01/01/95 through 12/31/95

Total System Flow: 2.1E+11 Liters = 7.4E+09 Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.73

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci/ml}$	
		Average	Peak
Total α	3.2E-07	1.1E-15	2.1E-15
Total β	9.5E-07	3.3E-15	4.2E-15

WHC ENVIRONMENTAL RELEASE SUMMARY

04/09/96

11:20

FFTF-CB-E: FFTF COMBINED EXHAUST (FO11, FO18, FO24)

** 01/01/95 through 12/31/95 **

Total System Flow: 3.2E+11 Liters = 1.1E+10 Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates:	0.73
Halogens:	0.87
Others:	0.87

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci/ml}$	
		Average	Peak
^3H	2.5E-02	6.7E-11	9.0E-11
^{131}I	ND	<1.7E-14	n/a
Total α	4.9E-07	1.1E-15	3.9E-15
Total β	1.4E-06	3.3E-15	1.4E-14

** Values projected for period 01/01/95 to 09/12/95.

*** Values projected for period 10/17/95 to 12/31/95.

04/10/96 10:21

FFTF-CB-E: FFTF COMBINED EXHAUST (F011)

01/01/95 to 12/31/95

Page 1

Warning Levels:	2.0E-14 Total α $\mu\text{Ci}/\text{ml}$	9.0E-12 Total β $\mu\text{Ci}/\text{ml}$	Collect Time Hours	Sample FlowRate CFM	Sample Volume ft ³	Stack FlowRate CFM
On/Off Dates						
12/27/94 01/03/95	<6.3E-16	<1.9E-15	166.8	2.0	20000	24000
01/03/95 01/10/95	1.1E-15	<2.0E-15	168.5	2.0	20000	24000
01/10/95 01/17/95	<6.6E-16	<1.9E-15	167.7	2.0	20000	24000
01/17/95 01/24/95	<7.2E-16	<1.9E-15	168.2	2.0	20000	24000
01/24/95 01/31/95	<7.2E-16	<1.9E-15	170.3	2.0	20000	24000
01/31/95 02/07/95	<5.7E-16	<2.0E-15	165.8	2.0	20000	24000
02/07/95 02/14/95	<6.9E-16	<2.0E-15	167.9	2.0	20000	24000
02/14/95 02/21/95	<6.9E-16	<2.0E-15	168.3	2.0	20000	24000
02/21/95 02/28/95	6.3E-16 + 0.01	<2.0E-15	167.6	2.0	20000	24000
02/28/95 03/07/95	3.9E-15 + 0.01	6.9E-15 + 0.01	168.7	2.0	20000	24000
03/07/95 03/14/95	<5.9E-16	<1.9E-15	168.2	2.0	20000	24000
03/14/95 03/21/95	1.4E-15 + 0.01	<2.0E-15	167.1	2.0	20000	24000
03/21/95 03/28/95	<6.7E-16	<2.0E-15	168.0	2.0	20000	24000
03/28/95 04/04/95	<6.6E-16	<1.9E-15	171.5	2.0	21000	24000
04/04/95 04/11/95	<9.0E-16	<3.5E-15	165.4	2.0	20000	24000
04/11/95 04/18/95	<1.0E-15	<3.4E-15	166.3	2.0	20000	24000
04/18/95 04/25/95	<1.2E-15	<3.7E-15	168.8	2.0	20000	24000
04/25/95 05/02/95	<1.1E-15	<3.5E-15	169.0	2.0	20000	24000
05/02/95 05/09/95	<1.1E-15	<3.4E-15	174.3	2.0	20000	24000
05/09/95 05/16/95	<9.7E-16	<3.5E-15	168.9	2.0	20000	24000**
05/16/95 05/23/95	<1.2E-15	<3.7E-15	166.9	2.0	20000	24000
05/23/95 05/30/95	<1.1E-15	<3.4E-15	167.9	2.0	20000	24000
05/30/95 06/06/95	<8.5E-16	<3.6E-15	167.8	2.0	20000	24000
06/06/95 06/13/95	<9.4E-16	<3.9E-15	168.7	2.0	20000	24000
06/13/95 06/20/95	<1.1E-15	<3.4E-15	167.6	2.0	20000	20000
06/20/95 06/27/95	<1.0E-15	<3.4E-15	168.5	2.0	20000	20000**
06/27/95 07/05/95	<9.5E-16	<3.0E-15	191.4	2.0	21000	20000**
07/05/95 07/11/95	<1.0E-15	<4.0E-15	144.2	2.0	17000	20000**
07/11/95 07/18/95	<1.3E-15	<3.4E-15	168.5	2.0	20000	20000**
07/18/95 07/25/95	<9.0E-16	<3.5E-15	167.4	2.0	20000	20000**
07/25/95 08/01/95	<1.6E-15	<4.6E-15	168.3	1.5	14000	20000**
08/01/95 08/08/95	<1.3E-15	<3.9E-15	168.5	1.8	18000	20000**
08/08/95 08/15/95	<1.1E-15	<3.7E-15	167.6	1.8	18000	20000**
08/15/95 08/22/95	<1.4E-15	<3.9E-15	168.2	1.8	18000	20000**
08/22/95 08/29/95	<1.0E-15	<3.4E-15	167.3	2.0	20000	20000**
08/29/95 09/05/95	<1.0E-15	<3.5E-15	168.3	2.0	20000	20000**
09/05/95 09/12/95	1.4E-15 + 0.01	<3.5E-15	168.2	2.0	20000	20000**
09/12/95 09/19/95	<1.1E-15	<3.6E-15	168.3	2.0	20000	20000**
09/19/95 09/26/95	<1.5E-15	<3.8E-15	168.8	2.0	20000	20000**
09/26/95 10/03/95	<1.1E-15	<3.5E-15	167.1	2.0	20000	20000**
10/03/95 10/10/95	<9.7E-16	<3.4E-15	167.8	2.0	20000	20000**
10/10/95 10/17/95	<1.1E-15	<3.4E-15	168.2	2.0	20000	20000**
10/17/95 10/24/95	<1.1E-15	<3.3E-15	168.3	2.0	20000	20000**
10/24/95 10/31/95	<1.2E-15	<3.5E-15	167.7	2.0	20000	20000**
10/31/95 11/07/95	<1.0E-15	<3.4E-15	167.8	2.0	20000	20000**
11/07/95 11/14/95	<1.0E-15	<3.4E-15	168.1	2.0	20000	20000**
11/14/95 11/21/95	<8.2E-16	<3.3E-15	168.3	2.0	20000	20000**
11/21/95 11/28/95	<1.2E-15	<3.5E-15	167.5	2.0	20000	20000**
11/28/95 12/05/95	<8.8E-16	<3.4E-15	168.3	2.0	20000	20000**
12/05/95 12/12/95	<1.1E-15	<3.4E-15	167.9	2.0	20000	20000**
12/12/95 12/19/95	<1.1E-15	<3.5E-15	168.2	1.9	19000	20000**
12/19/95 12/27/95	<8.3E-16	<2.9E-15	192.3	2.0	23000	20000**
12/27/95 01/02/96	<1.3E-15	1.4E-14 + 0.01	143.4	2.0	17000	20000**

SYMBOL KEY * Concentration exceeds Warning Level

** MDA exceeds Warning Level

? Reported MDA is negative.

** Stack FlowRate of previous Sample.

04/10/96 10:21

FFTF CB-E: FFTF Combined Exhaust I-131 (F018)

01/01/96 to 12/31/96

Page 1

Warning Levels:	4.0E-10	Collect	Sample	Sample	Stack
On/Off Dates	I-131	Time	FlowRate	Volume	FlowRate
	µCi/mi	Hours	CFM	ft ³	CFM
12/27/94-01/10/95	<4.2E-15	335.0	2.0	40000	24000
01/10/95-01/24/95	<4.4E-15	336.1	2.0	40000	24000
01/24/95-02/07/95	<7.0E-15	336.0	2.0	40000	24000
02/07/95-02/21/95	<8.0E-15	336.1	2.0	40000	24000
02/21/95-03/07/95	<5.5E-15	336.3	2.0	40000	24000
03/07/95-03/21/95	<5.8E-15	335.3	2.0	40000	24000
03/21/95-04/04/95	<5.4E-15	339.5	2.0	41000	24000
04/04/95-04/18/95	<3.4E-14	331.8	2.0	40000	24000
04/18/95-05/02/95	<2.3E-14	337.8	2.0	41000	24000**
05/02/95-05/16/95	<2.1E-14	342.1	2.0	41000	24000**
05/16/95-05/30/95	<2.3E-14	335.9	2.0	40000	24000
05/30/95-06/13/95	<2.2E-14	336.5	2.0	40000	24000
06/13/95-06/27/95	<2.3E-14	336.1	2.0	40000	20000
06/27/95-07/11/95	<1.5E-14	335.6	2.0	40000	20000**
07/11/95-07/25/95	<2.4E-14	335.8	2.0	40000	20000**
07/25/95-08/08/95	<1.8E-14	336.8	1.9	38000	20000**
08/08/95-08/22/95	<1.7E-14	335.8	2.0	40000	20000**
08/22/95-09/05/95	<1.8E-14	335.7	2.0	40000	20000**
09/05/95-09/19/95	<1.8E-14	336.5	2.0	40000	20000**
09/19/95-09/26/95	<2.4E-14	168.7	2.0	20000	20000**
09/26/95-10/10/95	<1.3E-14	335.0	2.0	40000	20000**
10/10/95-10/24/95	<1.7E-14	336.4	2.0	40000	20000**
10/24/95-11/07/95	<1.8E-14	335.4	2.0	40000	20000**
11/07/95-11/21/95	<2.4E-14	336.4	2.0	40000	20000**
11/21/95-12/05/95	<1.4E-14	335.8	2.0	40000	20000**
12/05/95-12/19/95	<1.6E-14	336.1	1.9	38000	20000**
12/19/95-01/02/96	<2.4E-14	335.7	2.0	40000	20000**

SYMBOL KEY: * Concentration exceeds Warning Level.

*S MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack FlowRate of previous Sample.

04/10/96 10:21

FFTF CB-E: FFTF Combined Exhaust H-3 (1024)

01/01/96 to 12/31/96

Page 1

Warning Levels:	1.0E-07	Collect	Sample	Sample	Stack
On/Off Dates	H-3	Time	FlowRate	Volume	FlowRate
	µCi/ml	Hours	CFM	ft ³	CFM
09/12/95-09/13/95	9.0E-11 + 0.0E	3.4	2.1	430	20000
09/13/95-09/19/95	2.7E-12 + 0.0E	139.9	2.1	18000	20000**
09/19/95-09/26/95	8.3E-11 + 0.0E	168.7	1.8	18000	20000**
09/26/95-10/03/95	3.2E-11 + 0.0E	167.3	2.1	21000	20000**
10/03/95-10/10/95	3.8E-11 + 0.0E	167.8	1.8	18000	20000**
10/10/95-10/17/95	3.6E-11 + 0.0E	168.3	1.8	18000	20000**

SYMBOL KEY: * Concentration exceeds Warning Level.

*S MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack FlowRate of previous Sample.

WHC ENVIRONMENTAL RELEASE SUMMARY

04/09/96

11:20

FFTF-HT-T: FFTF REACTOR HEAT TRANSPORT SYSTEM (F013)

01/01/95 through 12/31/95

Total System Flow: $6.7\text{E}+10$ Liters = $2.4\text{E}+09$ Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 0.73

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci}/\text{ml}$	
		Average	Peak
Total α	1.1E-07	1.2E-15	6.3E-15
Total β	3.5E-07	3.8E-15	1.7E-14

Page 1

01/01/95 to 12/31/95

FFI-MT-T: fff reactor heat transport system (f013)

Sample Stack	Collect Start	Collect End	Total Hours	Total Volume ft3	Flowrate ft3 CFM	Warning Levels:		On/off Dates	Warning Levels:
						2 00 14	2 00 14		
						9 00 12	9 00 12		
						10 00 12	10 00 12		
						11 00 12	11 00 12		
						12 00 12	12 00 12		
						13 00 12	13 00 12		
						14 00 12	14 00 12		
						15 00 12	15 00 12		
						16 00 12	16 00 12		
						17 00 12	17 00 12		
						18 00 12	18 00 12		
						19 00 12	19 00 12		
						20 00 12	20 00 12		
						21 00 12	21 00 12		
						22 00 12	22 00 12		
						23 00 12	23 00 12		
						24 00 12	24 00 12		
						25 00 12	25 00 12		
						26 00 12	26 00 12		
						27 00 12	27 00 12		
						28 00 12	28 00 12		
						29 00 12	29 00 12		
						30 00 12	30 00 12		
						31 00 12	31 00 12		
						32 00 12	32 00 12		
						33 00 12	33 00 12		
						34 00 12	34 00 12		
						35 00 12	35 00 12		
						36 00 12	36 00 12		
						37 00 12	37 00 12		
						38 00 12	38 00 12		
						39 00 12	39 00 12		
						40 00 12	40 00 12		
						41 00 12	41 00 12		
						42 00 12	42 00 12		
						43 00 12	43 00 12		
						44 00 12	44 00 12		
						45 00 12	45 00 12		
						46 00 12	46 00 12		
						47 00 12	47 00 12		
						48 00 12	48 00 12		
						49 00 12	49 00 12		
						50 00 12	50 00 12		
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						67 00 12	67 00 12		
						68 00 12	68 00 12		
						69 00 12	69 00 12		
						70 00 12	70 00 12		
						71 00 12	71 00 12		
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						76 00 12	76 00 12		
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						78 00 12	78 00 12		
						79 00 12	79 00 12		
						80 00 12	80 00 12		
						81 00 12	81 00 12		
						82 00 12	82 00 12		
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						90 00 12	90 00 12		
						91 00 12	91 00 12		
						92 00 12	92 00 12		
						93 00 12	93 00 12		
						94 00 12	94 00 12		
						95 00 12	95 00 12		
						96 00 12	96 00 12		
						97 00 12	97 00 12		
						98 00 12	98 00 12		
						99 00 12	99 00 12		
						100 00 12	100 00 12		

Stack Flowrate of previous Sample

2 Reported NMA is negative

5 NMA records Warning Level

< 1E-15

< 1E-15

< 1E-15

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WHC ENVIRONMENTAL RELEASE SUMMARY

04/09/96

11:21

437-1-61: MASF 437-1-61 (F019)

** 01/01/95 through 12/31/95 **

Total System Flow: 2.4E+11 Liters = 8.4E+09 Cubic Ft

The following factor(s) has (or have) been applied to the radionuclide concentrations used in the calculation of this release to account for sampling filter efficiency, line and bend loss, and humidity. The concentrations vary inversely with the size of the factor(s).

Particulates: 1.00

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci}/\text{ml}$	
		Average	Peak
Total α	ND	<8.9E-16	n/a
Total β	ND	<3.0E-15	n/a

** Values projected for period 01/01/95 to 09/26/95.

*** Values projected for period 11/07/95 to 12/31/95.

Page 1

01/01/95 to 12/31/95

437 1 61 MW# 437-1-61 (7019)

04/10/96 10-21

Sampling Levels	2 DE-14		9 DE-12		Collect		Sample		Stack		
	Total g		µg/m ³ /hr		Time	FlowRate	Volume	FlowRate	FlowRate	CFM	
OnOff Dates	µg/m ³ /hr		µg/m ³ /hr		Hours	CFM	ft ³	ft ³	CFM	CFM	
09/26/95-10/03/95	<9	21	16	<3	21	15	168	6	2.5	25000	10000
10/03/95-10/10/95	<9	41	16	<2	41	15	167	6	2.5	25000	10000
10/10/95-10/17/95	<9	41	16	<2	41	15	167	6	2.5	25000	10000
10/17/95-10/24/95	<9	41	16	<2	41	15	169	0	2.5	25000	10000
10/24/95-10/31/95	<9	41	16	<2	41	15	167	3	2.5	25000	10000
10/31/95-11/07/95	<9	31	15	<2	31	15	167	3	2.5	25000	10000

SYMBOL KEY * Concentration, records, sampling level. *5 MPA exceeds sampling level

? Reported MPA is noise

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3.0 LIQUID EFFLUENT RELEASES & DATA

This section contains all of the radioactive liquid effluent release reports and the sample collection and analysis supporting data. Sub-section 3.1 contains the liquid effluent releases calculated for each major operating area, with active source terms. The remaining sub-sections include the sample collection and analysis supporting data (trend reports) and radioactive liquid effluent releases (release reports) for individual discharge points or source terms. No release or trend reports were included for those discharge points or source terms which did not operate in CY-1995.

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3.1 All Area Liquid Release Reports

WHC ENVIRONMENTAL RELEASE SUMMARY

04/01/96

15:13

Radionuclides Discharged to the Columbia River from 100 Areas

01/01/95 through 12/31/95 ***

Total System Flow: 1.6E+09 Liters = 4.3E+08 Gallons

Radionuclide	Half-life	Release, Ci
³ H	12.3 Years	1.5E-01
⁶⁰ Co	5.27 Years	1.1E-04
⁹⁰ Sr	29.12 Years	2.1E-01
¹⁰⁶ Ru	368 Days	ND
¹²⁵ Sb	2.8 Years	2.7E-04
¹³⁴ Ca	2.1 Years	ND
¹³⁷ Cs	30 Years	2.1E-03
¹⁵⁴ Eu	8.8 Years	4.1E-03
¹⁵⁵ Eu	4.96 Years	ND
²³⁸ Pu	87.8 Years	ND
^{239/240} Pu	24,131 Years*	4.3E-07
²⁴¹ Am	432 Years	1.2E-05

* The half-life shown for Total Uranium is the half-life of ²³⁸U. The half-life shown for mixed ^{239/240}Pu is the half-life of ²³⁹Pu.

*** Values for one or more files projected forward to cover report period.

WHC ENVIRONMENTAL RELEASE SUMMARY

04/01/96

15:08

Radionuclides Discharged to Ground from 200 Areas

** 01/01/95 through 12/31/95

Total System Flow: 4.9E+09 Liters = 1.3E+09 Gallons

Radionuclide	Halflife	Release, Ci
³ H	12.3 Years	1.5E-02
⁶⁰ Co	5.27 Years	9.5E-03
⁹⁰ Sr	29.12 Years	1.2E-01
⁹⁹ Tc	2.13E+5 Years	2.3E-04
¹⁰³ Ru	39 Days	ND
¹⁰⁶ Ru	368 Days	1.9E-01
¹¹³ Sn	115 Days	1.0E-02
¹²⁵ Sb	2.8 Years	3.8E-03
¹³⁴ Cs	2.1 Years	1.2E-03
¹³⁷ Cs	30 Years	4.5E-02
¹⁴⁷ Pm	2.6 Years	ND
¹⁵² Eu	13.3 Years	1.1E-03
¹⁵⁴ Eu	8.8 Years	3.3E-02
¹⁵⁵ Eu	4.96 Years	2.3E-02
Total U	4.5E+9 Years*	5.5E-04
²³⁸ Pu	87.8 Years	7.5E-04
^{239/240} Pu	24,131 Years*	7.2E-03
²⁴¹ Am	432 Years	1.2E-03

* The half-life shown for Total Uranium is the half-life of ²³⁸U. The half-life shown for mixed ^{239/240}Pu is the half-life of ²³⁹Pu.

** Values for one or more files projected backward to cover report period.

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3.2 100 Areas

WHC ENVIRONMENTAL RELEASE SUMMARY

05/08/96

09:55

1LK004: 1908-K OUTFALL (Y130)

01/01/95 through 12/31/95

Total System Flow: 1.6E+09 Liters = 4.3E+08 Gallons

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci}/\text{ml}$	
		Average	Peak
^3H	ND	<4.3E-08	n/a
^{40}K	2.0E-01	1.3E-07	3.0E-07
^{60}Co	ND	-4.0E-10	4.3E-09
^{90}Sr	4.9E-04	3.0E-10	5.3E-09
^{106}Ru	ND	-2.5E-09	1.9E-08
^{125}Sb	ND	-1.9E-10	4.0E-09
^{134}Cs	ND	-1.0E-11	4.9E-09
^{137}Cs	5.6E-04	3.4E-10	8.8E-09
^{154}Eu	3.9E-03	2.4E-09	1.2E-08
^{155}Eu	ND	-1.1E-09	4.7E-09
^{238}Pu	5.5E-06	3.4E-12	2.7E-10
$^{239/240}\text{Pu}$	7.9E-07	4.9E-13	1.6E-12
^{241}Am	1.2E-05	7.5E-12	1.7E-11
Total α	3.5E-04	2.2E-10	8.5E-10
Total β	1.2E-02	7.7E-09	2.2E-08

05/08/96, 10.01		11/03/1998 ± 0.01/0.1 (7/100)		01/01/96 to 12/31/96		Page 1	
Warning Levels:		K-40		3.00, 05		2.00, 05	
01/04/96		01/11/96		01/18/96		01/25/96	
02/01/96		02/08/96		02/15/96		02/22/96	
03/01/96		03/08/96		03/15/96		03/22/96	
04/01/96		04/08/96		04/15/96		04/22/96	
05/01/96		05/08/96		05/15/96		05/22/96	
06/01/96		06/08/96		06/15/96		06/22/96	
07/01/96		07/08/96		07/15/96		07/22/96	
08/01/96		08/08/96		08/15/96		08/22/96	
09/01/96		09/08/96		09/15/96		09/22/96	
10/01/96		10/08/96		10/15/96		10/22/96	
11/01/96		11/08/96		11/15/96		11/22/96	
12/01/96		12/08/96		12/15/96		12/22/96	
01/01/97		01/08/97		01/15/97		01/22/97	
02/01/97		02/08/97		02/15/97		02/22/97	
03/01/97		03/08/97		03/15/97		03/22/97	
04/01/97		04/08/97		04/15/97		04/22/97	
05/01/97		05/08/97		05/15/97		05/22/97	
06/01/97		06/08/97		06/15/97		06/22/97	
07/01/97		07/08/97		07/15/97		07/22/97	
08/01/97		08/08/97		08/15/97		08/22/97	
09/01/97		09/08/97		09/15/97		09/22/97	
10/01/97		10/08/97		10/15/97		10/22/97	
11/01/97		11/08/97		11/15/97		11/22/97	
12/01/97		12/08/97		12/15/97		12/22/97	
01/01/98		01/08/98		01/15/98		01/22/98	
02/01/98		02/08/98		02/15/98		02/22/98	
03/01/98		03/08/98		03/15/98		03/22/98	
04/01/98		04/08/98		04/15/98		04/22/98	
05/01/98		05/08/98		05/15/98		05/22/98	
06/01/98		06/08/98		06/15/98		06/22/98	
07/01/98		07/08/98		07/15/98		07/22/98	
08/01/98		08/08/98		08/15/98		08/22/98	
09/01/98		09/08/98		09/15/98		09/22/98	
10/01/98		10/08/98		10/15/98		10/22/98	
11/01/98		11/08/98		11/15/98		11/22/98	
12/01/98		12/08/98		12/15/98		12/22/98	
01/01/99		01/08/99		01/15/99		01/22/99	
02/01/99		02/08/99		02/15/99		02/22/99	
03/01/99		03/08/99		03/15/99		03/22/99	
04/01/99		04/08/99		04/15/99		04/22/99	
05/01/99		05/08/99		05/15/99		05/22/99	
06/01/99		06/08/99		06/15/99		06/22/99	
07/01/99		07/08/99		07/15/99		07/22/99	
 			

WHC ENVIRONMENTAL RELEASE SUMMARY

05/08/96

09:55

1LN130: 100-N AREA RIVER SPRINGS (Y101) WELL N-46 (Y101)

01/01/95 through 12/31/95 ***

Total System Flow: 2.0E+07 Liters = 5.3E+06 Gallons

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci/ml}$	
		Average	Peak
^3H	1.5E-01	7.4E-06	1.3E-05
^{60}Co	1.1E-04	5.7E-09	3.6E-08
^{90}Sr	2.1E-01	1.0E-05	2.6E-04
^{106}Ru	ND	-8.8E-08	8.2E-08
^{125}Sb	2.7E-04	1.4E-08	2.1E-08
^{134}Cs	ND	-7.5E-10	7.6E-09
^{137}Cs	1.6E-03	8.0E-08	1.8E-07
^{154}Eu	1.8E-04	8.8E-09	4.0E-08
^{155}Eu	ND	<1.9E-09	n/a
^{238}Pu	ND	?2.7E-12	n/a
$^{239/240}\text{Pu}$	4.3E-07	2.2E-11	1.9E-10
Total α	5.9E-05	3.0E-09	3.1E-08
Total β	2.3E-01	1.1E-05	2.1E-05

*** Values projected for period 09/06/95 to 12/31/95.

? A question mark (" ? ") indicates an average concentration less than a negative value.

05/08/96 12:01

LIN30: 100 N AREA RIVER SPRINGS (F101) WELL N 46 (F101)

01/01/95 to 12/31/95

Page 1

Warning Levels:	2 OF 03	5 OF 06	1 OF 06	6 OF 06	6 OF 06	2 OF 06	3 OF 06	5 OF 154	5 OF 155
On/Off Dates	H 3 µCi/ml	Co 60 µCi/ml	Sp-90 µCi/ml	Ra-226 µCi/ml	Sr-90 µCi/ml	Cs-137 µCi/ml	Co 60 µCi/ml	Fu 154 µCi/ml	Fu 155 µCi/ml
01/04/95	8.3E-06 ± 9.2E-06	<5.9E-06	* 4.9E-06 ± 2.7E-06	8.7E-08 ± 8.7E-08	<9.9E-09	<2.1E-09	<1.6E-09	<1.6E-08	<1.6E-08
01/11/95	3.4E-06 ± 1.3E-06	25.4E-09	* 3.8E-06 ± 2.3E-06	2.4E-08	<2.1E-08 ± 8.7E-09	<2.3E-09	25.2E-09	28.1E-09	<1.6E-08
01/18/95	7.4E-06 ± 9.4E-06	36.0E-09	* 3.5E-06 ± 2.3E-06	23.0E-08	28.4E-09	<1.0E-09	22.9E-09	<1.7E-08	<9.3E-09
01/25/95	8.0E-06 ± 9.2E-06	<8.8E-09	* 6.6E-06 ± 2.1E-06	23.6E-08	<1.3E-09	<2.3E-09	<5.0E-09	7.6E-08	24.9E-09
02/01/95	1.0E-06 ± 1.7E-06	<3.6E-09	* 1.3E-05 ± 1.9E-05	27.6E-08	22.1E-08	<2.6E-09	<1.1E-09	22.8E-08	22.4E-08
02/08/95	4.7E-06 ± 1.1E-06	<8.8E-09	* 6.3E-06 ± 2.2E-06	<3.7E-08	<8.3E-09	<2.0E-09	1.1E-07 ± 26E-09	<1.4E-08	<1.2E-08
02/15/95	1.8E-06 ± 1.0E-06	<1.8E-09	* 3.5E-06 ± 26E-09	<5.0E-08	<6.7E-09	26.3E-10	8.5E-08 ± 25E-09	22.3E-08	<3.5E-09
02/22/95	1.5E-06 ± 2.1E-06	25.4E-09	<1.2E-07	23.0E-09	<2.1E-09	<2.2E-09	5.7E-08 ± 34E-09	<1.3E-08	21.5E-08
03/01/95	1.8E-06 ± 1.8E-06	29.7E-09	* 2.6E-04 ± 2.1E-04	21.0E-07	<1.5E-08	21.9E-09	6.8E-08 ± 2.7E-08	2.2E-08 ± 76E-09	<1.6E-08
03/08/95	1.9E-06 ± 1.7E-06	21.1E-08	* 4.8E-06 ± 28E-09		24.6E-09	24.6E-09	1.2E-07 ± 2.0E-07	21.4E-08	<1.3E-08
03/15/95	5.1E-06 ± 1.2E-06	24.7E-09	* 4.8E-06 ± 1.2E-06		23.4E-09	23.4E-09	1.3E-07 ± 1.8E-07	7.3E-08 ± 76E-09	<3.5E-09
03/22/95	7.4E-06 ± 1.0E-06	<4.0E-09	* 6.3E-06 ± 2.1E-06		<4.6E-09	<8.3E-09	<8.3E-09	<1.3E-08	26.0E-09
03/29/95	4.6E-06 ± 1.2E-06	<6.6E-09	* 4.7E-06 ± 2.2E-06		<9.4E-11	9.9E-08 ± 23E-09	9.9E-08 ± 23E-09	22.4E-08	21.7E-08
04/05/95	6.7E-06 ± 1.0E-06	<1.1E-08	* 6.7E-06 ± 2.0E-06		21.0E-08	<5.0E-09	<5.0E-09	25.1E-08	<1.4E-08
04/12/95	6.5E-06 ± 1.0E-06	<8.1E-09	* 5.6E-06 ± 2.1E-06		<2.9E-09	21.2E-10	<1.2E-08	<1.5E-09	<1.5E-09
04/19/95	1.1E-07 ± 8.9E-08	1.4E-08 ± 74E-09	* 7.0E-06 ± 2.0E-06		<4.3E-09	3.3E-08 ± 36E-09	<1.0E-08	21.4E-08	21.4E-08
04/26/95	9.9E-06 ± 9.1E-06	23.7E-09	* 5.7E-06 ± 2.2E-06		<3.6E-09	3.2E-08 ± 40E-09	4.0E-08	77E-09	27.7E-09
05/03/95	3.5E-06 ± 1.1E-06	21.5E-09	* 4.2E-06 ± 2.3E-06		<4.0E-09	1.4E-08 ± 5.1E-08	26.9E-09	23.1E-09	23.1E-09
05/10/95	4.0E-06 ± 1.2E-06	<3.7E-10	* 5.1E-06 ± 2.2E-06		22.3E-09	<2.8E-09	<4.9E-09	<5.0E-10	<8.8E-09
05/16/95	2.7E-06 ± 1.4E-06	<1.7E-09	* 5.0E-06 ± 2.2E-06		<1.7E-09	2.5E-08 ± 4.9E-08	21.6E-09	31.0E-09	31.0E-09
05/24/95	2.2E-06 ± 1.6E-06	27.1E-09	* 5.4E-06 ± 2.3E-06		22.4E-09	3.7E-08 ± 5.7E-08	<1.2E-08	22.0E-08	22.0E-08
05/31/95	1.1E-06 ± 2.4E-06	<6.5E-09	* 4.8E-06 ± 26E-09		24.6E-09	4.7E-08 ± 35E-09	22.5E-09	22.5E-09	22.5E-09
06/07/95	1.6E-06 ± 1.8E-06	<3.3E-09	* 4.7E-06 ± 25E-09		<4.3E-09	<2.1E-09	26.0E-09	26.0E-09	26.0E-09
06/14/95	1.8E-06 ± 1.9E-06	<6.1E-09	* 4.7E-06 ± 2.3E-06		22.8E-09	2.7E-08 ± 94E-09	1.8E-08 ± 56E-09	<8.9E-09	22.7E-10
06/21/95	1.2E-06 ± 2.5E-06	27.7E-09	* 4.9E-06 ± 2.2E-06		<5.0E-09	4.0E-08 ± 38E-09	<1.5E-09	<1.1E-08	<1.1E-08
06/28/95	7.5E-07 ± 3.1E-07	<5.7E-09	* 4.5E-06 ± 2.7E-06		<5.0E-09	4.0E-08 ± 38E-09	<1.5E-09	<1.1E-08	<1.1E-08
07/05/95	7.6E-07 ± 3.7E-07	3.5E-08 ± 49E-09	* 9.8E-06 ± 2.0E-06		<5.7E-09	1.6E-08 ± 5.0E-08	29.4E-09	<4.6E-09	<4.6E-09
07/12/95	1.9E-06 ± 1.8E-06	1.7E-08 ± 6.7E-08	* 4.9E-06 ± 2.5E-06		<7.6E-09 ± 5.2E-09	3.2E-08 ± 4.1E-08	<1.5E-09	<1.9E-09	<1.9E-09
07/20/95	2.7E-06 ± 1.4E-06	<9.0E-09	* 5.4E-06 ± 2.6E-06		<7.6E-09	9.5E-07 ± 16E-08	<4.5E-09	25.5E-09	25.5E-09
07/26/95	4.0E-06 ± 1.2E-06	<1.1E-08	* 5.1E-06 ± 2.7E-06		<2.4E-09	<2.7E-09	<2.4E-09	<2.4E-09	<2.4E-09
08/02/95	3.5E-06 ± 1.3E-06	1.4E-08 ± 5.9E-09	* 5.0E-06 ± 26E-09		28.8E-09	2.2E-09	<1.9E-08	23.3E-08	23.3E-08
08/09/95	7.9E-06 ± 9.5E-06	1.8E-09	* 5.7E-06 ± 2.4E-06		<4.1E-09	2.4E-09	<1.9E-08	<3.0E-09	<3.0E-09
08/16/95	9.4E-06 ± 9.3E-06	<6.1E-09	* 5.8E-06 ± 2.2E-06		21.6E-08	<7.7E-09	<3.0E-09	<7.7E-09	<7.7E-09
08/23/95	1.1E-05 ± 9.0E-06	<1.7E-09	* 4.8E-06 ± 2.2E-06		<3.7E-09	2.0E-08 ± 55E-09	27.5E-09	26.0E-09	26.0E-09
08/30/95	9.6E-06 ± 9.3E-06	28.3E-09	* 5.6E-06 ± 2.2E-06		<3.8E-09	2.9E-08 ± 52E-09	<1.2E-08	23.0E-09	23.0E-09
09/06/95	1.3E-05 ± 8.8E-06	<1.1E-08	* 6.0E-06 ± 2.2E-06		22.6E-09	1.8E-07 ± 20E-08	2.2E-08 ± 72E-09	<9.2E-09	<9.2E-09

SYMBOL KEY: * Concentration exceeds Warning Level

^5 MDA exceeds Warning Level.

^? Reported MDA is negative.

^^ Slack flowRate of previous Sample.

WHC-SD-EN-TI-308

Rev.0

01/01/96 to 12/31/96

100 M AGFA RIVER SPRINGS (Y101) WELL R 46 (Y101)

05/08/96 10:01

Warning Levels:

06/07 Dates	4.0E 07 Pb-210B	3.0E 07 Pb-210B	3.0E 08 Total n	3.0E 06 Total n	Master Stream 1 Headgate Volume
01/04/95	<2.4E 11	<6.9E 12	<3.1E 09	<1.4E 06 ± 9.1E 11	0
01/18/95	<4.5E 12	<7.7E 12	<4.7E 09	<2.5E 06 ± 1.1E 11	0
01/25/95	<1.7E 12	<3.7E 12	<2.0E 09	<1.1E 06 ± 9.4E 11	0
02/08/95	<9.4E 13	<6.9E 11 ± 8.1E 11	<7.5E 09	<1.8E 06 ± 9.0E 11	0
02/15/95	<2.4E 11	<1.4E 10 ± 5.1E 11	<3.1E 09	<1.7E 06 ± 9.3E 11	0
03/01/95	<1.6E 13	<3.5E 11	<3.1E 09	<1.8E 06 ± 9.0E 11	0
03/08/95	<2.4E 12	<7.7E 12 ± 9.1E 12	<4.4E 09	<2.1E 06 ± 1.1E 11	0
03/22/95	<1.5E 11	<7.7E 12	<5.0E 10	<1.8E 06 ± 9.1E 11	0
04/05/95	<3.6E 13	<4.5E 11	<5.6E 09	<1.0E 06 ± 9.2E 11	0
04/12/95	<3.4E 11	<6.4E 12	<2.9E 09	<1.0E 06 ± 9.2E 11	0
05/03/95	<5.9E 12	<2.3E 11	<2.7E 09	<1.0E 06 ± 9.3E 11	0
05/10/95	<7.5E 11	<7.1E 11	<2.7E 09	<1.0E 06 ± 9.3E 11	0
05/24/95	<1.7E 12	<4.8E 11	<5.0E 09	<1.0E 06 ± 9.4E 11	0
06/04/95	<2.8E 11	<3.5E 11	<3.1E 09	<1.0E 06 ± 9.4E 11	0
06/14/95	<2.8E 11	<3.5E 11	<3.1E 09	<1.0E 06 ± 9.4E 11	0
06/21/95	<3.5E 11	<1.7E 10 ± 5.8E 11	<5.4E 10	<1.0E 06 ± 9.4E 11	0
07/06/95	<1.3E 11	<4.5E 11	<2.7E 09 ± 5.9E 11	<1.0E 06 ± 9.4E 11	0
07/12/95	<3.3E 12	<4.5E 11	<2.7E 09	<1.0E 06 ± 9.4E 11	0
07/26/95	<3.3E 12	<4.5E 11	<2.7E 09	<1.0E 06 ± 9.4E 11	0
08/02/95	<3.9E 12	<8.7E 12	<2.5E 09	<1.0E 06 ± 9.4E 11	0
08/16/95	<1.0E 11	<2.7E 11	<5.6E 09	<1.0E 06 ± 9.4E 11	0
08/23/95	<3.5E 11	<4.1E 11	<3.1E 10	<1.0E 06 ± 9.4E 11	0
08/30/95	<3.5E 11	<7.7E 12	<4.4E 09	<1.0E 06 ± 9.4E 11	0
09/06/95	<3.3E 11	<7.7E 12	<4.4E 09	<1.0E 06 ± 9.4E 11	0

SYNOPSIS KEY: * Concentration exceeds Warning Level.

*5 MHA exceeds Warning Level.

? Relative MHA is negative.

** Slack Floodgate of previous Sample.

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3.3 200 East Area

WHC ENVIRONMENTAL RELEASE SUMMARY

03/23/96

10:11

ACW: 242-A EVAPORATOR COOLING WATER (H108)

01/01/95 through 12/31/95

Total System Flow: 7.8E+08 Liters = 2.1E+08 Gallons

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci}/\text{ml}$	
		Average	Peak
^3H	ND	<4.5E-07	n/a
^{60}Co	ND	<4.0E-09	n/a
^{90}Sr	ND	-5.9E-09	1.4E-09
^{106}Ru	ND	<4.0E-08	n/a
^{113}Sn	ND	<5.0E-09	n/a
^{137}Cs	ND	<4.6E-09	n/a
Total U	4.2E-04	5.3E-10	5.8E-10
^{238}Pu	9.7E-06	1.2E-11	1.3E-11
$^{239/240}\text{Pu}$	ND	-7.9E-11	1.5E-11
^{241}Am	6.3E-05	8.1E-11	1.1E-10
Total α	3.4E-04	4.3E-10	6.9E-10
Total β	4.0E-04	5.1E-10	5.8E-10

05/08/96 10:57

ACM: 247-A FANWATER COOLING WATER (HOB)

Warning Levels:

Date/Off Bates	6.0E-05 µg/l/ml	5.0E-05 µg/l/ml	2.0E-05 µg/l/ml	1.0E-04 µg/l/ml	6.0E-05 µg/l/ml	5.0E-05 µg/l/ml	3.0E-05 µg/l/ml	2.4E-08 µg/l/ml	4.0E-08 µg/l/ml
04/01/95 02/31/95	<4.5E-07	1.4E-09 ± 1.0E-10							
04/01/95 04/30/95	<4.5E-07	1.4E-09 ± 1.0E-10							
05/01/95 05/31/95	<4.5E-07	1.4E-09 ± 1.0E-10							
06/01/95 06/30/95	<4.5E-07	1.4E-09 ± 1.0E-10							
07/01/95 07/31/95	<4.5E-07	1.4E-09 ± 1.0E-10							
08/01/95 12/31/95	<4.5E-07	1.4E-09 ± 1.0E-10							

SYMBOL KEY: * Concentration exceeds Warning Level.

*5 HBA exceeds Warning Level.

* Reported HBA is negative.

-- Slack Exceeds of previous Sample.

01/01/95 to 12/31/95

Page 1

05/08/96 10:57

ACM: 247-A FANWATER COOLING WATER (HOB)

Warning Levels:

Date/Off Bates	6.0E-08 µg/l/ml	4.0E-07 µg/l/ml	1.2E-09 µg/l/ml	4.0E-08 µg/l/ml	Maxile Stress Flowrate Volume µg/l/ml
04/01/95 02/31/95	9.6E-12 ± 1.0E-13	1.1E-10 ± 1.7E-11	1.9E-10 ± 1.1E-11	3.4E-10 ± 8.7E-11	1.0E-10 1.7E-10
04/01/95 04/30/95	9.6E-12 ± 1.0E-13	1.1E-10 ± 1.7E-11	1.9E-10 ± 1.1E-11	3.4E-10 ± 8.7E-11	1.0E-10 1.7E-10
05/01/95 05/31/95	1.5E-11 ± 3.0E-12	6.1E-11 ± 1.2E-11	5.9E-10 ± 5.6E-11	5.3E-10 ± 0.0E-11	1.0E-10 1.7E-10
06/01/95 06/30/95	1.5E-11 ± 3.0E-12	6.1E-11 ± 1.2E-11	5.9E-10 ± 5.6E-11	5.3E-10 ± 0.0E-11	1.0E-10 1.7E-10
07/01/95 07/31/95	1.5E-11 ± 3.0E-12	6.1E-11 ± 1.2E-11	5.9E-10 ± 5.6E-11	5.3E-10 ± 0.0E-11	1.0E-10 1.7E-10
08/01/95 12/31/95	1.5E-11 ± 3.0E-12	6.1E-11 ± 1.2E-11	5.9E-10 ± 5.6E-11	5.3E-10 ± 0.0E-11	1.0E-10 1.7E-10

SYMBOL KEY: * Concentration exceeds Warning Level.

*5 HBA exceeds Warning Level.

* Reported HBA is negative.

-- Slack Exceeds of previous Sample.

01/01/95 to 12/31/95

Page 2

WHC ENVIRONMENTAL RELEASE SUMMARY

03/23/96

10:21

ASC: 242-A EVAPORATOR STEAM CONDENSATE (H110)

01/01/95 through 12/31/95

Total System Flow: 2.3E+07 Liters = 6.0E+06 Gallons

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci/ml}$	
		Average	Peak
^3H	1.5E-02	6.6E-07	8.9E-07
^{60}Co	ND	<4.0E-09	n/a
^{90}Sr	ND	-6.1E-09	2.3E-09
^{106}Ru	ND	<6.3E-08	n/a
^{113}Sn	ND	<5.0E-09	n/a
^{137}Cs	ND	<4.6E-09	n/a
^{238}Pu	2.2E-06	9.6E-11	2.1E-10
$^{239/240}\text{Pu}$	1.7E-06	7.6E-11	9.5E-11
^{241}Am	2.0E-06	8.7E-11	1.3E-10
Total α	2.0E-06	8.8E-11	3.0E-10
Total β	7.9E-06	3.5E-10	7.3E-10

ASC: 242 A LAMPROBIO S/H/PM CUMULICAT (U/LIO)									
05/08/96 10:57									
Warning Levels:									
On/off Dates	8.0E-05 µCi/ml	5.0E-05 µCi/ml	2.0E-05 µCi/ml	5.0E-04 µCi/ml	5.0E-05 µCi/ml	5.0E-05 µCi/ml	3.0E-05 µCi/ml	2.0E-05 µCi/ml	4.0E-08 µCi/ml
01/01/95 01/31/95									
02/01/95 02/28/95									
03/01/95 03/31/95									
04/01/95 04/30/95									
05/01/95 05/31/95									
06/01/95 06/30/95									
07/01/95 07/31/95									
08/01/95 08/31/95									
09/01/95 09/30/95									
10/01/95 10/31/95									
11/01/95 11/30/95									
12/01/95 12/31/95									
SYMBOL KEY: * Concentration exceeds Warning Level. ** MDA exceeds Warning Level. ? Reported MDA is negative.									

ASC: 242 A LAMPROBIO S/H/PM CUMULICAT (U/LIO)									
05/08/96 10:57									
Warning Levels:									
On/off Dates	8.0E-08 µCi/ml	4.0E-07 µCi/ml	1.7E-07 µCi/ml	4.0E-08 µCi/ml	5.0E-05 µCi/ml	5.0E-05 µCi/ml	3.0E-05 µCi/ml	2.0E-05 µCi/ml	4.0E-08 µCi/ml
01/01/95 01/31/95									
02/01/95 02/28/95									
03/01/95 03/31/95									
04/01/95 04/30/95									
05/01/95 05/31/95									
06/01/95 06/30/95									
07/01/95 07/31/95									
08/01/95 08/31/95									
09/01/95 09/30/95									
10/01/95 10/31/95									
11/01/95 11/30/95									
12/01/95 12/31/95									
SYMBOL KEY: * Concentration exceeds Warning Level. ** MDA exceeds Warning Level. ? Reported MDA is negative.									

ASC: 242 A LAMPROBIO S/H/PM CUMULICAT (U/LIO)									
01/01/95 to 12/31/95									
On/off Dates	8.0E-08 µCi/ml	4.0E-07 µCi/ml	1.7E-07 µCi/ml	4.0E-08 µCi/ml	5.0E-05 µCi/ml	5.0E-05 µCi/ml	3.0E-05 µCi/ml	2.0E-05 µCi/ml	4.0E-08 µCi/ml
01/01/95 01/31/95									
02/01/95 02/28/95									
03/01/95 03/31/95									
04/01/95 04/30/95									
05/01/95 05/31/95									
06/01/95 06/30/95									
07/01/95 07/31/95									
08/01/95 08/31/95									
09/01/95 09/30/95									
10/01/95 10/31/95									
11/01/95 11/30/95									
12/01/95 12/31/95									
SYMBOL KEY: * Concentration exceeds Warning Level. ** MDA exceeds Warning Level. ? Reported MDA is negative.									

ENVIRONMENTAL RELEASE SUMMARY REPORT

08/05/96

08:46

CA8: 241-A TANK FARM COOLING WATER (H115)

01/01/95 through 12/31/95

Total System Flow: 8.3E+08 Liters = 2.2E+08 Gallons

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci}/\text{ml}$	
		Average	Peak
-----	-----	-----	-----
⁶⁰ Co	1.7E-03	2.0E-09	-3.2E-10
⁹⁰ Sr	ND	-1.0E-09	8.7E-09
¹⁰⁶ Ru	3.4E-02	4.1E-08	2.8E-08
¹¹³ Sn	8.5E-04	1.0E-09	-1.2E-09
¹²⁵ Sb	ND	-2.6E-10	1.4E-08
¹³⁴ Cs	9.0E-04	1.1E-09	1.5E-09
¹³⁷ Cs	1.2E-03	1.5E-09	3.0E-10
²³⁸ Pu	8.0E-06	9.6E-12	6.1E-11
^{239/240} Pu	1.8E-05	2.2E-11	7.6E-11
²⁴¹ Am	8.6E-05	1.0E-10	2.8E-10
Total α	3.3E-04	4.0E-10	1.8E-09
Total β	3.0E-04	3.6E-10	6.8E-10

08/05/96 08:44

CAB: 241-A TANK FARM COOLING WATER (H115)

01/01/95 to 12/31/95

Page 1

Warning Levels:	5.0E-06 Co-60 μCi/ml	2.0E-05 Sr-90 μCi/ml	5.0E-04 Ru-103 μCi/ml	6.0E-05 Ru-106 μCi/ml	5.0E-05 Sn-113 μCi/ml	5.0E-05 Sb-125 μCi/ml	2.0E-06 Cs-134 μCi/ml	3.0E-05 Cs-137 μCi/ml	4.0E-08 Pu-238 μCi/ml
On/Off Dates									
12/30/94 01/26/95		9.0E-10 ± 14%		<8.0E-08	<5.0E-09			<5.0E-09	1.7E-11 ± 370%
01/27/95 02/23/95		8.7E-09 ± 20%		<4.5E-08	<4.0E-09			<3.0E-09	4.2E-12 ± 100%
02/24/95 03/30/95		1.2E-10 ± 200%		<7.6E-08	<5.0E-09			<5.0E-09	2.0E-11 ± 300%
03/31/95 04/27/95		1.5E-09 ± 14%		<4.1E-08	<5.0E-09			<4.0E-09	1.1E-11 ± 300%
04/28/95 05/25/95		2.7E-09 ± 14%		<3.9E-08	<5.0E-09			<4.0E-09	8.9E-12 ± 190%
05/26/95 06/30/95		-9.9E-09 ± 100%		<4.0E-08	<3.0E-09			<4.0E-09	1.3E-11 ± 100%
07/01/95 07/27/95	<4.0E-09	-9.2E-09 ± 100%		<4.0E-08	<5.0E-09			<4.0E-09	6.4E-12 ± 620%
07/28/95 08/31/95	<5.0E-09	-1.3E-09 ± 100%		<9.0E-08	<5.0E-09			<5.0E-09	5.1E-11 ± 185%
09/01/95 09/21/95	1.6E-09 ± 250%	1.2E-09 ± 100%		3.7E-10 ± 100%	-1.2E-09 ± 496%	-1.8E-09 ± 803%	1.5E-09 ± 333%	1.3E-09 ± 340%	1.2E-11 ± 100%
09/22/95 10/26/95	2.6E-09 ± 160%	4.0E-11 ± 870%		4.4E-09 ± 890%	8.1E-09 ± 100%	1.3E-09 ± 900%	3.3E-10 ± 1206%	3.0E-10 ± 1400%	2.6E-11 ± 720%
10/27/95 11/30/95	-3.2E-10 ± 1500%	-3.8E-10 ± 100%		1.5E-09 ± 260%	-5.0E-09 ± 130%	-2.6E-09 ± 480%	5.1E-10 ± 770%	-6.7E-09 ± 100%	-1.1E-11 ± 290%
12/01/95 12/28/95	-2.5E-09 ± 150%	-4.7E-10 ± 100%		2.8E-08 ± 140%	-5.3E-09 ± 120%	1.4E-08 ± 90%	6.4E-10 ± 850%	-6.6E-09 ± 100%	6.1E-11 ± 130%

SYMBOL KEY: * Concentration exceeds Warning Level.

*S MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack FlowRate of previous Sample.

08/05/96 08:44

CAB: 241-A TANK FARM COOLING WATER (H115)

01/01/95 to 12/31/95

Page 2

Warning Levels:	5.0E-08 Pu239/40 μCi/ml	4.8E-07 Am-241 μCi/ml	1.2E-09 Total α μCi/ml	4.0E-08 Total β μCi/ml	Waste Stream FlowRate Volume GPM Liters
On/Off Dates					
12/30/94 01/26/95	1.7E-11 ± 370%	2.8E-10 ± 60%	1.9E-10 ± 178%	4.1E-10 ± 0.0%	260 39000000
01/27/95 02/23/95	3.8E-11 ± 170%	8.9E-11 ± 100%	2.8E-10 ± 93%	4.5E-10 ± 71%	370 56000000
02/24/95 03/30/95	2.0E-11 ± 300%	1.0E-10 ± 110%	* 1.8E-09 ± 27%	3.6E-10 ± 96%	440 84000000
03/31/95 04/27/95	1.5E-11 ± 220%	2.5E-11 ± 58%	3.3E-10 ± 79%	3.2E-10 ± 0.0%	360 55000000
04/28/95 05/25/95	2.4E-11 ± 190%	3.7E-11 ± 140%	1.2E-10 ± 167%	3.4E-10 ± 82%	380 58000000
05/26/95 06/30/95	6.0E-12 ± 620%	8.9E-11 ± 130%	3.0E-10 ± 88%	6.8E-10 ± 0.0%	340 66000000
07/01/95 07/27/95	8.6E-12 ± 100%	5.1E-12 ± 900%	2.5E-10 ± 103%	5.7E-10 ± 0.0%	500 73000000
07/28/95 08/31/95	7.0E-11 ± 170%	2.4E-10 ± 65%	1.2E-10 ± 184%	3.4E-10 ± 64%	520 79000000
09/01/95 09/21/95	7.6E-11 ± 110%	3.8E-11 ± 170%	2.7E-10 ± 94%	1.8E-10 ± 100%	460 53000000
09/22/95 10/26/95	2.6E-11 ± 710%	1.1E-10 ± 70%	2.8E-10 ± 101%	2.6E-10 ± 85%	480 92000000
10/27/95 11/30/95	1.8E-11 ± 250%	7.7E-11 ± 80%	2.8E-10 ± 105%	4.0E-10 ± 60%	460 87000000
12/01/95 12/28/95	7.3E-11 ± 220%	1.5E-10 ± 80%	3.0E-10 ± 100%	2.8E-10 ± 80%	400 61000000

SYMBOL KEY: * Concentration exceeds Warning Level.

*S MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack FlowRate of previous Sample.

ENVIRONMENTAL RELEASE SUMMARY REPORT

08/05/96

08:46

CAR: 244-AR VAULT COOLING WATER (H116)

01/01/95 through 12/31/95

Total System Flow: 4.8E+06 Liters = 1.3E+06 Gallons

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci/ml}$	
		Average	Peak
-----	-----	-----	-----
⁶⁰ Co	2.1E-05	4.4E-09	4.0E-09
⁹⁰ Sr	ND	-1.0E-09	6.5E-09
¹⁰⁶ Ru	2.4E-04	5.1E-08	-3.1E-10
¹¹³ Sn	1.1E-05	2.3E-09	-3.0E-09
¹²⁵ Sb	4.0E-05	8.3E-09	6.9E-11
¹³⁴ Cs	1.6E-05	3.2E-09	4.0E-09
¹³⁷ Cs	1.5E-05	3.1E-09	8.6E-10
²³⁸ Pu	1.4E-07	2.9E-11	2.8E-10
^{239/240} Pu	3.7E-07	7.6E-11	6.4E-10
²⁴¹ Am	3.3E-07	6.9E-11	1.6E-10
Total α	2.5E-06	5.3E-10	2.4E-09
Total β	2.5E-06	5.2E-10	8.3E-10

08/05/96 08:46

CAR: 244 AR VAULT COOLING WATER (H116)

01/01/95 to 12/31/95

Page 1

Warning Levels:	5.0E-06 Co-60 µCi/ml	2.0E-05 Sr-90 µCi/ml	5.0E-04 Ru-103 µCi/ml	6.0E-05 Ru-106 µCi/ml	5.0E-05 Sn-113 µCi/ml	5.0E-05 Sb-125 µCi/ml	2.0E-06 Cs-134 µCi/ml	3.0E-05 Cs-137 µCi/ml	4.0E-08 Pu-238 µCi/ml
On/Off Dates									
12/27/94-01/30/95		1.5E-09 ± 14%		<9.0E-08	<5.0E-09			<5.0E-09	2.2E-11 ± 310%
01/31/95-02/27/95		6.5E-09 ± 25%		<7.3E-08	<5.0E-09			<4.0E-09	2.7E-12 ± 100%
02/28/95-03/27/95		3.7E-09 ± 55%		<7.9E-08	<5.0E-09			<4.0E-09	6.6E-12 ± 100%
03/28/95-04/17/95		1.6E-09 ± 14%		<4.4E-08	<5.0E-09			<4.0E-09	1.3E-11 ± 260%
04/18/95-05/15/95		2.0E-09 ± 25%		<3.7E-08	<5.0E-09			<5.0E-09	1.2E-11 ± 100%
05/16/95-06/19/95		9.3E-09 ± 100%		<9.0E-08	<5.0E-09			<5.0E-09	2.0E-10 ± 50%
06/20/95-07/24/95	<5.0E-09	1.1E-08 ± 100%		<9.0E-08	<5.0E-09	<1.2E-08	<5.0E-09	<5.0E-09	2.0E-12 ± 1900%
07/25/95-08/28/95	<5.0E-09	1.0E-09 ± 15%		<9.0E-08	<5.0E-09			<5.0E-09	1.6E-11 ± 300%
08/29/95-09/25/95	<5.0E-09	1.3E-09 ± 20%		<9.0E-08	<5.0E-09			<5.0E-09	1.2E-11 ± 100%
09/26/95-10/31/95	4.0E-09 ± 100%	2.6E-10 ± 140%		3.4E-08 ± 120%	4.8E-09 ± 130%		2.3E-09 ± 180%	8.0E-10 ± 540%	6.6E-12 ± 300%
11/01/95-11/20/95		6.3E-10 ± 110%		4.5E-08 ± 100%	3.0E-09 ± 220%	6.9E-11 ± 9999%	7.6E-10 ± 590%	4.8E-09 ± 100%	5.7E-12 ± 480%
11/21/95-12/25/95	1.6E-09 ± 250%	1.2E-10 ± 210%		3.1E-10 ± 1000%	6.2E-09 ± 100%	3.6E-10 ± 1000%	4.0E-09 ± 110%	1.9E-09 ± 240%	1.4E-11 ± 400%

SYMBOL KEY: * Concentration exceeds Warning Level

*S MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack FlowRate of previous Sample.

08/05/96 08:46

CAR: 244 AR VAULT COOLING WATER (H116)

01/01/95 to 12/31/95

Page 2

Warning Levels:	6.0E-08 Pu239/40 µCi/ml	4.0E-07 Am-241 µCi/ml	1.2E-09 Total α µCi/ml	4.0E-08 Total β µCi/ml	Waste Stream FlowRate: Volume GPM Liters
On/Off Dates					
12/27/94-01/30/95	9.3E-11 ± 130%	1.3E-11 ± 370%	4.8E-10 ± 84%	5.1E-10 ± 0.0%	2 460000
01/31/95-02/27/95	6.4E-10 ± 40%	5.2E-11 ± 180%	2.9E-10 ± 78%	5.5E-10 ± 50%	2 370000
02/28/95-03/27/95	1.3E-11 ± 300%	6.1E-11 ± 110%	2.4E-09 ± 25%	2.4E-10 ± 0.0%	2 370000
03/28/95-04/17/95	5.0E-11 ± 110%	4.5E-11 ± 30%	8.0E-11 ± 22%	2.7E-10 ± 0.0%	2 280000
04/18/95-05/15/95	3.9E-11 ± 100%	8.9E-11 ± 90%	2.3E-10 ± 103%	2.7E-10 ± 0.0%	2 370000
05/16/95-06/19/95	4.0E-11 ± 150%	5.0E-11 ± 220%	5.2E-10 ± 68%	5.4E-10 ± 51%	2 460000
06/20/95-07/24/95	1.6E-11 ± 100%	1.0E-10 ± 85%	3.6E-10 ± 77%	5.3E-10 ± 0.0%	2 460000
07/25/95-08/28/95	4.9E-15 ± 100%	1.4E-10 ± 90%	1.3E-10 ± 184%	6.7E-10 ± 0.0%	2 460000
08/29/95-09/25/95	1.6E-11 ± 460%	1.6E-10 ± 95%	3.6E-10 ± 83%	6.3E-10 ± 0.0%	2 370000
09/26/95-10/31/95	7.6E-12 ± 100%	2.7E-11 ± 170%	4.4E-10 ± 75%	6.9E-10 ± 0.0%	2 480000
11/01/95-11/20/95	1.3E-11 ± 270%	4.0E-11 ± 90%	3.8E-10 ± 80%	8.3E-10 ± 0.0%	2 260000
11/21/95-12/25/95	8.7E-11 ± 90%	4.0E-11 ± 150%	6.1E-10 ± 60%	4.3E-10 ± 60%	2 460000

SYMBOL KEY: * Concentration exceeds Warning Level

*S MDA exceeds Warning Level.

? Reported MDA is negative.

** Stack FlowRate of previous Sample.

ENVIRONMENTAL RELEASE SUMMARY REPORT

08/05/96

08:46

CBC: B-PLANT COOLING WATER (H117)

01/01/95 through 12/31/95

Total System Flow: 3.0E+09 Liters = 7.9E+08 Gallons

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci/ml}$	
		Average	Peak
⁶⁰ Co	7.4E-03	2.5E-09	7.8E-10
⁹⁰ Sr	1.1E-03	3.8E-10	4.0E-09
¹⁰⁶ Ru	1.6E-01	5.2E-08	3.3E-08
¹¹³ Sn	9.3E-03	3.1E-09	1.5E-09
¹²⁵ Sb	3.1E-03	1.0E-09	2.3E-09
¹³⁴ Cs	ND	-2.8E-09	-2.7E-09
¹³⁷ Cs	5.1E-03	1.7E-09	5.1E-09
Total α	1.1E-03	3.6E-10	7.9E-10
Total β	3.8E-03	1.3E-09	2.9E-09

SYMBOL KEY * Concentration exceeds warning level. * S MDA exceeds warning level. * ? Reported MDA is negative. ** Stack flowrate of previous sample

WHC ENVIRONMENTAL RELEASE SUMMARY

03/23/96

09:50

CSL: PUREX CHEMICAL SEWER (H118)

01/01/95 through 12/31/95

Total System Flow: 1.8E+08 Liters = 4.9E+07 Gallons

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci}/\text{ml}$	
		Average	Peak
^3H	ND	<4.5E-07	n/a
^{90}Sr	6.3E-04	3.4E-09	6.7E-09
^{99}Tc	2.3E-04	1.2E-09	2.4E-09
^{106}Ru	ND	<6.2E-08	n/a
^{113}Sn	ND	<5.0E-09	n/a
^{137}Cs	ND	<4.4E-09	n/a
Total U	5.1E-05	2.7E-10	5.9E-10
^{238}Pu	2.6E-05	1.4E-10	8.4E-10
$^{239/240}\text{Pu}$	5.1E-04	2.8E-09	1.3E-08
^{241}Am	9.1E-05	4.9E-10	2.0E-09
Total α	3.2E-05	1.7E-10	4.0E-10
Total β	1.1E-04	5.9E-10	8.8E-10

05/08/96, 10:57									
CSL - PUREX CHEMICAL SLUR (0118)									
Warning Levels:									
06/07/ Bales	8.0E-05 n.s.	5.0E-06 Co.60	2.0E-05 Sr.90	4.0E-04 Zr.90	6.0E-04 Ba.137	1.0E-06 Pu.239	3.0E-06 Pu.240	1.0E-04 Pu.241	5.0E-05 Sr.90
12/20/94 01/20/95	<4.5E-07		1.7E-09 ± 1.3E-10	4.4E-09 ± 4.0E-10	2.4E-09 ± 1.7E-10	7.2E-09 ± 1.2E-10	2.4E-09 ± 1.1E-10	7.2E-09 ± 1.2E-10	6.0E-05 ± 5.0E-06
01/20/95 02/26/95	<4.5E-07		4.4E-09 ± 4.0E-10	4.4E-09 ± 4.0E-10	2.4E-09 ± 1.7E-10	7.2E-09 ± 1.2E-10	2.4E-09 ± 1.1E-10	7.2E-09 ± 1.2E-10	<5.0E-09
02/26/95 03/20/95	<4.5E-07		2.3E-09 ± 1.4E-10	2.3E-09 ± 1.4E-10	2.4E-09 ± 1.7E-10	7.2E-09 ± 1.2E-10	2.4E-09 ± 1.1E-10	7.2E-09 ± 1.2E-10	<5.0E-09
03/20/95 04/30/95	<4.5E-07		2.6E-09 ± 1.0E-10	2.6E-09 ± 1.0E-10	2.4E-09 ± 1.7E-10	7.2E-09 ± 1.2E-10	2.4E-09 ± 1.1E-10	7.2E-09 ± 1.2E-10	<5.0E-09
04/30/95 05/28/95	<4.5E-07								<5.0E-09
05/28/95 12/31/95									
SPDR KEY: * Concentration exceeds Warning Level. *5. MIX exceeds Warning Level. * Reported HRA is negative. ** Stack fluidate of previous Sample.									
05/08/96, 10:57									
CSL - PUREX CHEMICAL SLUR (0118)									
Warning Levels:									
06/07/ Bales	5.0E-05 Sr.90	2.0E-06 Pu.239	3.0E-06 Pu.240	1.0E-04 Pu.241	4.0E-07 Pu.242	4.0E-07 Pu.243	4.0E-07 Pu.244	4.0E-08 Pu.245	4.0E-08 Pu.246
12/20/94 01/20/95									
01/20/95 02/26/95									
02/26/95 03/20/95									
03/20/95 04/30/95									
04/30/95 05/28/95									
05/28/95 12/31/95									
SPDR KEY: * Concentration exceeds Warning Level. *5. MIX exceeds Warning Level. * Reported HRA is negative. ** Stack fluidate of previous Sample.									
05/08/96, 10:57									
CSL - PUREX CHEMICAL SLUR (0118)									
Warning Levels:									
06/07/ Bales	3.0E-07 Sr.90	4.0E-07 Pu.239	1.2E-09 Pu.240	4.0E-08 Pu.241	4.0E-08 Pu.242	4.0E-08 Pu.243	4.0E-08 Pu.244	4.0E-08 Pu.245	4.0E-08 Pu.246
12/20/94 01/20/95									
01/20/95 02/26/95									
02/26/95 03/20/95									
03/20/95 04/30/95									
04/30/95 05/28/95									
05/28/95 12/31/95									
SPDR KEY: * Concentration exceeds Warning Level. *5. MIX exceeds Warning Level. * Reported HRA is negative. ** Stack fluidate of previous Sample.									

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3.4 200 West Area

WHC ENVIRONMENTAL RELEASE SUMMARY

03/23/96

09:56

207-SL: 222-2 LABORATORY CHEMICAL SEWER (H101)

01/01/95 through 12/31/95

Total System Flow: 2.4E+06 Liters = 6.2E+05 Gallons

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci/ml}$	
		Average	Peak
^{90}Sr	9.9E-06	4.2E-09	1.2E-08
^{106}Ru	ND	<8.2E-08	n/a
^{113}Sn	ND	<5.2E-09	n/a
^{137}Cs	1.2E-05	5.3E-09	9.9E-09
^{238}Pu	ND	-5.6E-12	2.4E-11
$^{239/240}\text{Pu}$	3.0E-07	1.3E-10	2.9E-10
^{241}Am	4.7E-07	2.0E-10	3.4E-10
Total α	6.6E-07	2.8E-10	3.9E-10
Total β	3.1E-06	1.3E-09	6.8E-09

05/08/96 10:57

207-SL-222-2 LABORATORY CHEMICAL SAMPLING

01/01/96 to 12/31/96

Page 1

Warming Levels:	2 RE 05 50.00	5 RE 04 50.10	6 RE 05 50.10	5 RE 03 50.10	3 RE 05 50.10	2 RE 04 50.10	4 RE 03 50.10	6 RE 04 50.10	4 RE 02 50.10	4 RE 01 50.10
01/01/96-02/31/96	1.7E 10 ± 1.7E	1.7E 10 ± 1.7E	1.7E 10 ± 1.7E	1.7E 10 ± 1.7E	1.7E 10 ± 1.7E	1.7E 10 ± 1.7E	1.7E 10 ± 1.7E	1.7E 10 ± 1.7E	1.7E 10 ± 1.7E	1.7E 10 ± 1.7E
03/01/96-04/31/96	1.7E 10 ± 1.7E	1.7E 10 ± 1.7E	1.7E 10 ± 1.7E	1.7E 10 ± 1.7E	1.7E 10 ± 1.7E	1.7E 10 ± 1.7E	1.7E 10 ± 1.7E	1.7E 10 ± 1.7E	1.7E 10 ± 1.7E	1.7E 10 ± 1.7E
05/01/96-06/30/96	1.7E 10 ± 1.7E	1.7E 10 ± 1.7E	1.7E 10 ± 1.7E	1.7E 10 ± 1.7E	1.7E 10 ± 1.7E	1.7E 10 ± 1.7E	1.7E 10 ± 1.7E	1.7E 10 ± 1.7E	1.7E 10 ± 1.7E	1.7E 10 ± 1.7E
07/01/96-08/31/96	1.7E 10 ± 1.7E	1.7E 10 ± 1.7E	1.7E 10 ± 1.7E	1.7E 10 ± 1.7E	1.7E 10 ± 1.7E	1.7E 10 ± 1.7E	1.7E 10 ± 1.7E	1.7E 10 ± 1.7E	1.7E 10 ± 1.7E	1.7E 10 ± 1.7E
09/01/96-12/31/96	1.7E 10 ± 1.7E	1.7E 10 ± 1.7E	1.7E 10 ± 1.7E	1.7E 10 ± 1.7E	1.7E 10 ± 1.7E	1.7E 10 ± 1.7E	1.7E 10 ± 1.7E	1.7E 10 ± 1.7E	1.7E 10 ± 1.7E	1.7E 10 ± 1.7E

SYMBOL KEY: * Concentration exceeds Warning Level. * N/A exceeds Warning Level. * Reported BUA is negative. ** Slack. ** Update of previous Sample.

05/08/96 10:57

207-SL-222-2 LABORATORY CHEMICAL SAMPLING

01/01/96 to 12/31/96

Page 2

Warming Levels:	1.7E 09 Total R	4 RE 08 Total R	Waste Stream Fluoride Volume
01/01/96-02/31/96	2.4E 10 ± 2.4E	2.4E 10 ± 2.4E	5.00000
03/01/96-04/31/96	2.4E 10 ± 2.4E	2.4E 10 ± 2.4E	5.00000
05/01/96-06/30/96	2.4E 10 ± 2.4E	2.4E 10 ± 2.4E	5.00000
07/01/96-08/31/96	2.4E 10 ± 2.4E	2.4E 10 ± 2.4E	5.00000
09/01/96-12/31/96	2.4E 10 ± 2.4E	2.4E 10 ± 2.4E	5.00000

SYMBOL KEY: * Concentration exceeds Warning Level. * N/A exceeds Warning Level. * Reported BUA is negative. ** Slack. ** Update of previous Sample.

ENVIRONMENTAL RELEASE SUMMARY REPORT

08/05/96

08:46

2904-ZA: 234-5-Z PLANT COOLING WATER (H103)

01/01/95 through 12/31/95

Total System Flow: 7.2E+06 Liters = 1.9E+06 Gallons

Radionuclide	Release, Ci	Concentrations, $\mu\text{Ci/ml}$	
		Average	Peak
¹³⁷ Cs	ND	<4.2E-09	n/a
²³⁸ Pu	7.6E-06	1.1E-09	2.6E-09
^{239/240} Pu	1.1E-04	1.5E-08	3.1E-08
²⁴¹ Am	3.6E-05	5.0E-09	9.6E-09
Total α	1.4E-04	1.9E-08	4.1E-08
Total β	9.6E-06	1.3E-09	2.2E-09

08/05/96 08:43

2904-2A: 234-b-2 PLANT COOLING WATER (H103)

01/01/95 to 12/31/95

Page 1

Warning Levels:	2.0E-05	3.0E-05	4.0E-07	2.0E-06	2.0E-04	3.0E-07	1.2E-09	4.0E-08	Waste Stream
On/Off Dates	Sr-90 μCi/ml	Cs-137 μCi/ml	Pu-238 μCi/ml	Pu-239/40 μCi/ml	Pu-241 μCi/ml	Am-241 μCi/ml	Total α μCi/ml	Total β μCi/ml	FlowRate Volume GPM Liters
01/01/95-01/31/95	<5.0E-09	2.2E-11 ± 100%	6.7E-10 ± 60%	9.8E-11 ± 120%	5.5E-11 ± 1300%	1.4E-09 ± 15%	7	1100000	
02/01/95-02/28/95	<4.0E-09	2.6E-09 ± 24%	3.1E-08 ± 17%	9.8E-09 ± 20%	* 3.3E-08 ± 10%	1.1E-09 ± 37%	7	990000	
03/01/95-03/31/95	<4.0E-09	3.0E-10 ± 67%	1.7E-09 ± 32%	5.5E-10 ± 47%	* 2.6E-09 ± 25%	6.1E-10 ± 0.0%	9	1500000	
04/01/95-04/30/95	<3.0E-09	1.5E-09 ± 29%	3.0E-08 ± 17%	7.7E-09 ± 20%	* 4.1E-08 ± 12%	2.2E-09 ± 26%	11	1700000	
05/01/95-05/30/95	<5.0E-09	1.1E-09 ± 37%	1.4E-08 ± 18%	6.5E-09 ± 19%	* 1.8E-08 ± 12%	1.7E-09 ± 33%	12	1900000	
06/01/95-12/31/95							0	0	

SYMBOL KEY: * Concentration exceeds Warning Level

** S MDA exceeds Warning Level.

? Reported MDA is negative

** Stack FlowRate of previous Sample.

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4.0 DEFINITION FILES USED

This section contains definition files used to generate release and trend reports from the ERS database. Only the portions from each definition file, used to generate reports, are included in this document. For Example, the GROUPS.DEF file contains many facility definitions that are not used for the annual effluent reports, only the portions used for the annual effluent reports are included in this document.

The ERS definition files included are: EIS_ODIS.DEF, DOSE_MOD.DEF, GROUPS.DEF, and PLANTS.DAT.

EIS_ODIS.DEF

Sheet 1 of 3

2.185E-06	8	1	R	DKR003002A950101951231	16 105-KE STORAGE BASIN ROOF VENTS (Y245-Y248)
				Y245 Y246 Y246 Y247 Y247 Y248 Y248	
2.061E-06	6	1	R	DKR003004A950101951231	16 105-KW STORAGE BASIN ROOF VENTS (Y234-Y236)
				Y234 Y234 Y235 Y235 Y236 Y236	
1.525E-07	2	1	R	DKR003013A950101951231	16 1706-KER -27 FT LAB EXHAUST (Y244)
				Y244 Y244	
7.420E-07	2	1	R	DKR003001A950101951231	16 1706-KE LAB EXHAUST (Y243)
				Y243 Y243	
6.595E-06	2	1	R	DNR001002A950101951231	15 116-N STACK (Y211)
				Y211 Y211	
3.916E-07	2	1	R	DNR001011A950101951231	15 105-N 14 FT STACK (Y259)
				Y259 Y260	
4.535E-07	2	1	R	DNR001012A950101951231	15 107-N STACK (Y265)
				Y265 Y266	
0.000E+00	3	1	R	DNR001006A950101951231	15 109-N-Z-1, 109-N BLDG. ZONE 1 STACK (Y221)
				Y221 Y222 Y223	
0.000E+00	3	1	R	DNR001008A950101951231	15 109-N-C-6, 109-N BLDG. CELL 6 STACK (Y231)
				Y231 Y232 Y233	
7.135E-07	4	1	R	AEP151151A950101951231	1 291-A-1, PUREX MAIN STACK (A552)
				A552 A566 X562 A511	
1.291E-07	2	1	R	AEP151152A950101951231	1 296-A-1, FILTR N & Q CELLS, PR ROOM (A540)
				A540 X540	
7.220E-08	1	1	R	AEP151153A950101951231	1 296-A-2, WEST SAMPLE GALLERY HOOD EXH (A542)
				A542	
9.627E-08	1	1	R	AEP151154A950101951231	1 296-A-3, PUREX EAST SAMPLE GAL. HOOD EXHAUST (A543)
				A543	
6.126E-07	2	1	R	AEP151157A950101951231	1 296-A-5A AND 296-A-5B, 202-A LAB HOOD EXHAUST (A545, A546)
				A546 A545	
3.938E-07	1	1	R	AEP151158A950101951231	1 296-A-6, EAST SAMPLE GALLERY & U-CELL (A547)
				A547	
5.908E-07	1	1	R	AEP151159A950101951231	1 296-A-7, WEST SAMPLE GALLERY & R-CELL (A548)
				A548	
4.595E-07	1	1	R	AEP151160A950101951231	1 296-A-8, WEST P & Q GALLERIES (A549)
				A549	
2.407E-07	1	1	R	AEP151162A950101951231	1 296-A-10, PUREX EQUIPMENT DISPOSAL TUNNEL 2 (A550)
				A550	
1.553E-07	1	1	R	AEP151166A950101951231	1 296-A-14, 293-A 'OUTBACK FACILITY' EXHAUST (A544)
				A544	
2.759E-07	2	1	R	AEB151176A950101951231	2 291-B-1, B-PLANT MAIN STACK (B691)
				B691 X691	
4.814E-08	1	1	R	AEB151181A950101951231	2 296-B-5, 221-BB BUILDING EXHAUST (B686)
				B686	
6.546E-07	2	1	R	AEB151185A950101951231	2 296-B-10, 225 BUILDING EXHAUST (B748)
				B748	
2.188E-08	1	1	R	AEB151184A950101951231	2 296-B-13, 221-BF BCP TANKS & CONDENSATE (B690)
				B690	
0.000E+00	2	1	R	AEP151164A950101951231	3 296-A-12, 244-AR VAULT: VESSEL VENT (E058)
				E058 X058	
0.000E+00	1	1	R	AEP151165A950101951231	3 296-A-13, 244-AR VAULT: CANYON & CELL (E052)
				E052	
2.013E-07	6	1	R	AEP151169A950101951231	3 296-A-17 AND 296-P-26, 241-AY & AX TANK EXHAUSTS (E059, E039)
				E059 E026 X059 E039 E040 X039	
0.000E+00	1	1	R	AEP151170A950101951231	3 296-A-18, 241-101-AY ANNULUS (E060)
				E060	
0.000E+00	1	1	R	AEP151171A950101951231	3 296-A-19, 241-102-AY ANNULUS (E061)
				E061	
3.501E-08	1	1	R	AEP151172A950101951231	3 296-A-20, 241-AX T. F. 101, 102-AZ ANNULI (E197)
				E197	
7.439E-07	2	1	R	AEP151173A950101951231	3 296-A-21, 242-A EVAP/CRYSTALLIZER BLDG. (E645)
				E645 X645	
2.100E-08	3	1	R	AEP151174A950101951231	3 296-A-22, 242-A EVAP/CRYSTALLIZER & VESSEL VENTILATION (E643)
				E643 E001 X643	
5.689E-09	2	1	R	AEP151175A950101951231	3 296-A-25, 244-A LIFT STATION CATCH TANK (E080)
				E080 X080	
6.345E-08	1	1	R	AEP151559A950101951231	3 296-A-26, 204-AR WASTE BLDG. EXHAUST (E297)
				E297	
3.938E-08	3	1	R	AEP151545A950101951231	3 296-A-27, ALL AW TANK EXHAUSTS (E270)
				E270 E933 X270	
2.013E-07	1	1	R	AEP151546A950101951231	3 296-A-28, ALL AW ANNULI (E272)
				E272	
3.063E-08	2	1	R	AEP151555A950101951231	3 296-A-29, ALL AN TANK EXHAUSTS (E901)
				E901 X901	

EIS_ODIS.DEF (cont.)

Sheet 2 of 3

2.013E-07 1 1 R AEF151556A950101951231	3 296-A-30, ALL AN TANK ANNULI EXHAUSTS (E903)
E903	
3.063E-08 3 1 R AEF151579A950101951231	3 296-A-40, ALL AP TANK EXHAUSTS (E013)
E013 E028 X013	
3.282E-07 1 1 R AEF151580A950101951231	3 296-A-41, 241-AP TANK FARM ANNULUS (E015)
E015	
9.189E-09 2 1 R AEF151569A950101951231	3 296-B-28, 244-BX SALT WELL TANK & ANN. (E886)
E886 X886	
1.641E-07 2 1 R AEF151191A950101951231	3 296-C-5, 244-CR VAULT CELL & VESSEL VENT (E069)
E069 X069	
0.000E+00 3 1 R AEF151600A950101951231	3 296-C-6, TANK C-106 EXHAUSTER (E083)
E083 E084 X083	
0.000E+00 1 1 R AEF151606A950101951231	3 296-C-7, TANK C-103 VAPOR MIXER EXHAUSTER (E044)
E044	
1.313E-07 2 1 R AEF151200A950101951231	3 296-P-16, C-105 & C-106 TANK EXHAUST (E068)
E068 X068	
0.000E+00 2 1 R AEF151196A950101951231	3 296-P-17, 241-105-A TANK VESSEL VENT (E120)
E120 X120	
7.220E-08 1 1 R AEF151028A950101951231	3 296-P-31, 209-E CRITICALITY LABORATORY EXHAUST (E209)
E209	
2.626E-09 8 1 R AEF151601A950101951231	3 296-P-32, 33, 34 ROTARY MODE CORE SAMPLERS (E301-E399)
E303 X303 E304 X304 E305 X305	
0.000E+00 1 1 R AEF151588A950101951231	3 296-G-1, GROUT, TGE AIR FILTRATION MODULE (E032)
E032	
2.626E-07 1 1 R AET151036A950101951231	27 296-E-1, EFFLUENT TREATMENT FACILITY (E036)
E036	
4.157E-09 1 1 R AWL216232A950101951231	5 296-S-16, 219-S VAULT AND WASTE TANKS EXHAUSTS (S264)
S264	
2.057E-06 2 1 R AWL216227A950101951231	5 296-S-21, 222-S LAB HOODS & HOT CELLS (S289)
S289 X289	
1.475E-07 1 1 R AWR216216A950101951231	13 291-S-1, S-PLANT MAIN STACK (S006)
S006	
4.157E-08 1 1 R AWR216218A950101951231	13 296-S-2, 202-S NORTH SAMPL. GAL., HOOD, & PR ROOM (S032)
S032	
9.627E-09 1 1 R AWR216220A950101951231	13 296-S-4, 202-S: SWP LOBBY, DECON RM, REG. SHOP (S008)
S008	
5.708E-09 1 1 R AWR216222A950101951231	13 296-S-6, 202-S SILO GALLERY, FEED TK & ELEVATOR (S004)
S004	
3.063E-07 2 1 R AWR216548A950101951231	13 296-S-7W AND 296-S-7E, 233-S G.H. & PROCESS V.V. (S015, S016)
S016 S015	
1.760E-07 1 1 R AWU216256A950101951231	14 291-U-1, U-PLANT MAIN STACK (U771)
U771	
2.473E-07 2 1 R AWT216236A950101951231	6 291-T-1, T-PLANT MAIN STACK (T785)
T785 X785	
5.032E-08 1 1 R ATM216602A950101951231	6 296-T-7, 2706-T BUILDING EXHAUST (T154)
T154	
1.225E-06 1 1 R AWT216249A950101951231	6 296-T-13, T-PLANT VENTILATION AIR (T786)
T786	
1.269E-08 1 1 R AWZ216547A950101951231	29 296-T-11, 224-T BLDG. W FAN EXH. (T783)
T783	
3.063E-07 1 1 R AWZ216248A950101951231	29 296-T-12, 224-T BLDG. E FAN EXH. (T784)
T784	
3.938E-08 1 1 R AWF216215A950101951231	8 296-P-22, ALL SY TANK ANNULI (W191)
W191	
3.720E-08 4 1 R AWF216508A950101951231	8 296-P-23 AND 296-P-28, ALL SY TANKS (W190, W195)
W190 X190 W195 X195	
1.904E-07 2 1 R AWF216231A950101951231	8 296-S-15, ALL SX TANKS (W111)
W111 X111	
4.814E-07 1 1 R AWF216234A950101951231	6 296-S-18, 242-S WASTE EVAPORATOR (W096)
W096	
3.720E-09 2 1 R AWF216560A950101951231	8 296-S-22, 244-S SALTWELL RECEIVER & ANNUL. (W880)
W880 X880	
6.564E-08 1 1 R AWF216253A950101951231	8 296-T-17, 242-T WASTE EVAP. AND CELL EXH. (W117)
W117	
1.182E-08 2 1 R AWF216554A950101951231	8 296-T-18, 244-TX SALT WELL RECEIVER & ANN. (W882)
W882 X882	
0.000E+00 2 1 R AWF216603A950101951231	8 296-U-11, 244-U SALT WELL EXHAUST (W884)
W884 X884	
6.783E-08 1 1 R AWF216589A950101951231	8 296-W-3, 213-W WASTE COMPACTOR (W003)
W003	
1.619E-06 1 1 R AWS216010A950101951231	26 696-W-1, WSCF MAIN STACK (W010)
W010	

EIS_ODIS.DEF (cont.)

Sheet 3 of 3

4.814E-08 1 1 R AWS216011A950101951231 26 696-W-2. WSCF NSL COUNTING ROOM STACK (W011)
 W011
 0.000E+00 1 1 R AWR216604A950101951231 28 296-W-4. WRAP 1, 2336-W BLDG STACK (W123)
 W123
 1.760E-06 2 1 R AWZ216271A950101951231 9 291-Z-1. Z-PLANT MAIN STACK (Z810)
 Z810 X810
 3.063E-08 2 1 R AWZ216274A950101951231 9 296-Z-3. 241-Z SUMP AND V.V (Z813)
 Z813 X813
 3.063E-07 1 1 R AWZ216575A950101951231 9 296-Z-5. 2736-ZB BLDG. EXH. (Z913)
 Z913
 2.844E-07 1 1 R AWZ216543A950101951231 9 296-Z-6. 2736-ZA BUILDING EXHAUST (Z802)
 Z802
 6.564E-08 1 1 R AWZ216950A950101951231 9 296-Z-14. 232-Z BUILDING EXHAUST (Z814)
 Z814
 5.251E-08 1 1 R AZL216605A950101951231 9 296-Z-15. 243-Z BUILDING STACK (Z915)
 Z915
 1.195E-06 3 1 R WLJ106126A950101951231 18 340-NT-EX. 340 TANK VENT (F002)
 F002 F017 F602
 2.061E-07 1 1 R WLJ106127A950101951231 18 340-B-BLD. 340 B BUILDING (F008)
 F008
 4.635E-06 1 1 R WLJ106128A950101951231 18 340-DECON. 340 DECONTAMINATION FACILITY (F009)
 F009
 1.814E-06 1 1 R WLB076076A950101951231 17 306-E-ULAB. 306 LABS 158 AND 159 (F003)
 F003
 0.000E+00 1 1 R WLC096096A950101951231 19 308-GL-EX. 308 BUILDING EXHAUST (F004)
 F004
 1.113E-06 2 1 R WLC097097A950101951231 20 308-TRIGA. REACTOR HALL EXHAUST (F006)
 F006 F007
 0.000E+00 1 1 R WLC098098A950101951231 21 308-ET-EX. 308 ETCH AND CLEAN EXHAUST (F005)
 F005
 4.947E-06 1 1 R BPJ034034A950101951231 24 377-GEL. 377 GEOTECHNICAL ENGINEERING LABORATORY (F010)
 F010
 9.418E-07 2 1 R WTA141003A950101951231 22 FFTF-RE-SB. 417 BLDG. LOWER AREA H&V EXHAUST (F012)
 F012 F016
 7.325E-07 1 1 R WTA141004A950101951231 23 437-MN&ST. MASF. 437 BLDG. (F014)
 F014
 1.116E-06 2 1 R WTA141001A950101951231 22 FFTF-CB-E. COMBINED EXHAUST. BLDG.S 405, 4621, 4717 (F011)
 F011 F018
 2.337E-07 1 1 R WTA141002A950101951231 22 FFTF-HT-T. 419-S BLDG.. H&V DISCHARGE (F013)
 F013
 1 2 R DKR003003L950101951231 16 100-K. 1908-K OUTFALL
 Y130
 1 2 R DNR001001L950101951231 15 100-M. 102" OUTFALL
 Y122
 1 2 R DNR001003L950101951231 15 100-N. N-SPRINGS
 Y101
 8 2 R AEF151329M950101951231 10 216-B-3 POND
 H116 H115 H108 H104 H110 H119 H118 H117
 1 2 R AEF151391M950101951231 2 216-B-63 TRENCH
 H112
 2 2 R AWR216410M950101951231 5 216-S-10 DITCH
 H125 H123
 2 2 R AWF216476M950101951231 11 216-U-14 DITCH
 H122 H102
 1 2 R AEB151383M950101951231 2 216-B-55 CRIB
 H114
 1 2 R AWL216573M950101951231 5 216-S-26 CRIB
 H101
 1 2 R AWW216552M950101951231 12 216-W-LWC CRIB
 H120
 1 2 R AWU216585M950101951231 7 216-U-17 CRIB
 H126
 1 2 R AEP151310M950101951231 1 216-A-30 CRIB
 H105 H124 --- 33% of H124
 1 2 R AEP151578M950101951231 1 216-A-37-2 CRIB
 H106 H124 --- 67% of H124
 1 2 R AWZ216553M950101951231 9 216-Z-20 CRIB
 H103 Z31-Z --- Z31-Z is Sanitary Water

DOSE_MOD.DEF

```

100_AIR 26 2 Radionuclides Discharged to the Atmosphere from 100 Areas
Y211 X211 Y221 Y222 Y223 Y231 Y232 Y233 Y234 X234 Y235 X235 Y236
X236 Y243 X243 Y244 X244 Y245 X245 Y246 X246 Y247 X247 Y248 X248
Y259 Y265 Y266
200E_AIR 84 2 Radionuclides Discharged to the Atmosphere from 200-East Area
A540 X540 A542 X542 A543 A544 A545 X545 A546 X546 A547 X547 A548
X548 A549 X549 A550 A552 A511 X552 A940 A566 A578 B686 B690 B691
X691 B698 B748 X748 E013 E028 X013 E015 E032 E036 E039 E040 X039
E044 E052 E058 X058 E059 E026 X059 E060 E061 E068 X068 E069 X069
E080 X080 E083 E084 X083 E120 X120 E197 E209 E270 E933 X270 E272
E297 E303 X303 E304 X304 E305 X305 E306 X306 E643 E001 X643 E645
X645 E886 X886 E901 X901 E903
200W_AIR 48 2 Radionuclides Discharged to the Atmosphere from 200-West Area
S004 S006 S008 S015 S016 S032 S264 S289 X289 T154 T783 T784 T785
X785 T786 U771 X771 W003 W010 W011 W096 X096 W111 X111 W117 W123
W145 X145 W190 X190 W191 W195 X195 W880 X880 W882 X882 W884 X884
Z802 Z810 X810 Z813 X813 Z814 Z913 X913 Z915
300_AIR 12 2 Radionuclides Discharged to the Atmosphere from the 300 Area
F001 F002 F017 F602 F003 F004 F005 F006 F007 F008 F009 F010
400_AIR 9 2 Radionuclides Discharged to the Atmosphere from the 400 Area
F011 F018 F024 F012 F016 F013 F014 F019 F024
100_WATER 3 2 Radionuclides Discharged to the Columbia River from 100 Areas
Y101 Y122 Y130
200_WATER 18 2 Radionuclides Discharged to Ground from 200 Areas
H101 H102 H103 H104 H108 H110 H112 H114 H115 H116 H117 H118 H119
H120 H122 H123 H124 H126
300_WATER 1 2 Radionuclides Discharged to Ground from 300 Areas
F021

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GROUPS.DEF

ROTMODE 8 2 296-P-32, 33, & 34: ROTARY MODE CORE SAMPLERS (E301-E399)
 E303 X303 E304 X304 E305 X305 E306 X306
 105-KE 8 2 105-KE BASIN ROOF VENTS (Y245-Y248)
 Y245 X245 Y246 X246 Y247 X247 Y248 X248
 105-KW 6 2 105-KW BASIN ROOF VENTS (Y234-Y236)
 Y234 X234 Y235 X235 Y236 X236
 1706-KE 2 2 1706-KE Lab (Y243)
 Y243 X243
 1706-KER 2 2 1706-KER -27 FT. LAB EXHAUST (Y244)
 Y244 X244
 296-A-5AB 4 2 296-5-A & 296-5-B: PUREX LAB EXHAUSTERS (A545, A546)
 A545 X545 A546 X546
 296-A-17 6 2 296-A-17 & 296-P-26: 241-AZ, AZ TANK EXHAUSTERS (E059, E039)
 E059 E026 X059 E039 E040 X039
 296-A-22 3 2 296-A-22: 242-A EVAPORATOR (E643, E001)
 E643 E001 X643
 296-A-27 3 2 296-A-27: ALL 241-AW TANKS' EXHAUSTER (E270, E933)
 E270 E933 X270
 296-A-40 3 2 296-A-40: 241-AP TANK FARM EXHAUSTER (E013, E028)
 E013 E028 X013
 296-P-23 4 2 296-P-23 & 296-P-28: EXHAUSTERS FOR ALL SY TANKS (W190, W195)
 W190 X190 W195 X195
 296-S-7W 2 2 296-S-7W & 296-S-7E: 233-S BUILDING EXHAUSTERS (S016, S015)
 S016 S015

5.0 ERS FILE SETUPS

The ERS files setup data is contained in the audit reports for the airborne and liquid effluent EDP codes. This section contains the audit files for the radioactive airborne and liquid effluent streams.

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5.1 Audit Report for Air Effluent Files

EDP Sample Code Medium	Waste Stream or Stack	File Title	Release Factor	Substitutions Alpha Beta	Associated Files
1. A511 1/2	291-A-1	PUREX MAIN STACK	0.87		A552 X552 A940 A566
2. A539 1/1	296-A-24	PUREX AMMONIA SCRUBBER	0.91	Pu239/40 Sr-90	X539
3. A540 1/1	296-A-1	PUREX L. N. Q CELLS & PR ROOM	0.73	Sr-90	X540
4. A542 1/1	296-A-2	PUREX WEST SAMPLE GAL. HOOD EXHAUST	0.73	Pu239/40 Sr-90	X542
5. A543 1/1	296-A-3	PUREX EAST SAMPLE GAL. HOOD EXHAUST	0.73	Pu239/40 Sr-90	
6. A544 1/1	296-A-14	293-A 'OUTBACK FACILITY' EXHAUST	0.73	Pu239/40 Sr-90	
7. A545 1/1	296-A-5A	PUREX LAB: W WEST EXHAUSTER	0.73	Pu239/40 Sr-90	X545
8. A546 1/1	296-A-5B	PUREX LAB: W EAST EXHAUSTER	0.73	Pu239/40 Sr-90	X546
9. A547 1/1	296-A-6	PUREX EAST SAMPLE GAL. & U CELL	0.73	Pu239/40 Sr-90	X547
10. A548 1/1	296-A-7	PUREX WEST SAMPLE GAL. & U CELL	0.73	Pu239/40 Sr-90	X548
11. A549 1/1	296-A-8	PUREX WHITE ROOM EXHAUSTER	0.73	Pu239/40 Sr-90	X549
12. A550 1/1	296-A-10	PUREX EQUIPMENT DISPOSAL TUNNEL 2	0.73	Pu239/40 Sr-90	
13. A552 1/1	291-A-1	Purex Main Stack	0.52		A511 X552 A940 A566
14. A566 1/5	291-A-1	PUREX MAIN STACK	0.73		A552 A511 X552 A940
15. A578* 1/1	296-A-33	PUREX WALL EXHAUSTER F-3-5	0.91	Pu239/40 Sr-90	
16. A579* 1/1	296-A-34	PUREX WALL EXHAUSTER F-3-6	0.91	Pu239/40 Sr-90	
17. A580 1/1	296-A-35	PUREX WALL EXHAUSTER F-3-7	0.91	Pu239/40 Sr-90	
18. A582 1/1	296-A-36	PUREX WALL EXHAUSTER F-3-8	0.91	Pu239/40 Sr-90	
19. A583* 1/1	296-A-37	PUREX WALL EXHAUSTER F-3-9	0.91	Pu239/40 Sr-90	
20. A584 1/1	296-A-38	PUREX WALL EXHAUSTER F-3-10	0.91	Pu239/40 Sr-90	
21. A940 1/4	291-A-1	PUREX MAIN STACK	0.91		A552 A511 X552 A566
22. B686 1/1	296-B-5	221-BB BUILDING EXHAUST	0.73	Pu239/40 Sr-90	
23. B690 1/1	296-B-13	221-BF BCP TANKS & CONDENSATE	0.73	Pu239/40 Sr-90	
24. B691 1/1	291-B-1	221-B BLDG & CANYON (B-PLANT MAIN STK)	0.73		X691
25. B698 1/1	296-B-14	221-B VESSEL VENT. SYSTEM #2	0.73	Pu239/40 Sr-90	

EDP Code	Sample Medium	Waste Stream or Stack	File Title	Release Factor	Substitutions Alpha	Beta	Associated Files
=====	=====	=====	=====	=====	=====	=====	=====
26. B748	1/1	296-B-10	225-B BUILDING & CELLS	0.73			X748
27. E001	1/2	296-A-22	242-A EVAPORATOR	0.87			E643 X643
28. E013	1/1	296-A-40	241-AP TANK FARM EXHAUST	0.80	Pu239/40		E028 X013
29. E015	1/1	296-A-41	241-AP TANK FARM ANNULUS	0.80	Pu239/40	Sr-90	
30. E026	1/2	296-A-17	241-AY, AZ TANKS	0.87			E059 X059
31. E028	1/2	296-A-40	241-AP TANK FARM EXHAUST	0.87			
32. E032	1/1	296-G-1	TGE AIR FILTRATION MODULE (243-G-8)	0.73	Pu239/40	Sr-90	E013 X013
33. E036	1/1	296-E-1	ETF Stack	0.72	Pu239/40	Sr-90	
34. E039	1/1	296-P-26	241-AY, AZ EXHAUSTER, BACKUP RP 296-A-17	0.70			X039
35. E040*	1/2	296-P-26	241-AY, AZ EXHAUSTER, BACKUP TO 296-A-17	0.70			E039 X039
36. E052	1/1	296-A-13	244-AR VAULT: CANYON & CELL	0.73	Pu239/40	Sr-90	
37. E058	1/1	296-A-12	244-AR VAULT: VESSEL VENT	0.73	Pu239/40	Sr-90	
38. E059	1/1	296-A-17	241-AY, AZ TANKS	0.71	Pu239/40		E026 X059
39. E060	1/1	296-A-18	101-AY ANNULUS	0.73	Pu239/40	Sr-90	
40. E061	1/1	296-A-19	102-AY ANNULUS	0.73	Pu239/40	Sr-90	
41. E068	1/1	296-P-16	105-C & 106-C TANK EXHAUSTER	0.73			X068
42. E069	1/1	296-C-5	244-CR VAULT CELL & VESSEL VENT	0.83			X069
43. E080	1/1	296-A-25	244-A LIFT STATION CATCH TANK	0.81	Pu239/40	Sr-90	X080
44. E083*	1/1	296-C-6	296-C-6 STACK SAMPLER	0.73			E084 X083
45. E084*	1/2	296-C-6	296-C-6 STACK SAMPLER	0.73			E083 X083
46. E120	1/1	296-P-17	105-A TANK VESSEL VENT	0.73	Pu239/40	Sr-90	
47. E197	1/1	296-A-20	ALL AZ ANNULI	0.84	Pu239/40	Sr-90	
48. E209	1/1	296-P-31	209-E CRITICALITY LABORATORY EXHAUST	0.91	Pu239/40	Sr-90	
49. E270	1/1	296-A-27	ALL AW TANKS	0.52			E933 X270
50. E272	1/1	296-A-28	ALL AW ANNULI	0.47	Pu239/40	Sr-90	

	EDP Sample Code	Medium	Waste Stream or Stack	File Title	Release Factor	Substitutions Alpha	Beta	Associated Files
51.	E297	1/1	296-A-26	204-AR WASTE UNLOADING FACILITY	0.73	Pu239/40	Sr-90	
52.	E301*	1/1	ROTMOD	ROTARY MODE CORE SAMPLER(S) STACK	0.73			X301
53.	E302*	1/1	ROTMOD	ROTARY MODE CORE SAMPLER(S) STACK	0.73			X302
54.	E303	1/1	ROTMOD	ROTARY MODE CORE SAMPLER(S) STACK	0.73	Pu239/40	Sr-90	X303
55.	E304	1/1	ROTMOD	ROTARY MODE CORE SAMPLER(S) STACK	0.73	Pu239/40	Sr-90	X304
56.	E305	1/1	ROTMOD	ROTARY MODE CORE SAMPLER(S) STACK	0.73	Pu239/40	Sr-90	X305
57.	E306	1/1	ROTMOD	ROTARY MODE CORE SAMPLER(S) STACK	0.73	Pu239/40	Sr-90	X306
58.	E643	1/1	296-A-22	242-A EVAPORATOR	0.79			E001 X643
59.	E645	1/1	296-A-21	242-A BUILDING EXHAUST	0.79	Pu239/40	Sr-90	X645
60.	E886	1/1	296-B-28	244-BX SALT WELL RECEIVER & ANN.	0.72			X886
61.	E901	1/1	296-A-29	ALL AN TANKS	0.53			X901
62.	E903	1/1	296-A-30	241-AN ALL ANNULI	0.55	Pu239/40	Sr-90	
63.	E933	1/2	296-A-27	ALL AW TANKS	0.87			E270 X270
64.	F001	1/1	304-CON-E	304 Concretion Exhaust	0.73	Total U	Sr-90	
65.	F002	1/1	340-NT-EX	340 Vault Tank Vent Exhaust	0.73	Pu239/40	Sr-90	F017 F602
66.	F003	1/1	306E-ULAB	306 Facility	0.73	Total U	Sr-90	
67.	F004	1/1	308-GL-EX	308 E-4-5	0.73	Pu239/40	Sr-90	
68.	F005	1/1	308-ET-EX	308 E-6-7	0.73	Pu239/40	Sr-90	
69.	F006	1/1	308-TRIGA	308 E-8-9	0.73	Pu239/40	Sr-90	F007
70.	F007	1/2	308-TRIGA	308 E-8-9 (Charcoal)	0.87			F006
71.	F008	1/1	340-B-BLD	340 B BUILDING	0.73	Pu239/40	Sr-90	
72.	F009	1/1	340-DECON	340 DECONTAMINATION FACILITY	0.73	Pu239/40	Sr-90	
73.	F010	1/1	377-GEL	377 GEOTECHNICAL ENGINEERING LABORATORY	0.73	Pu239/40	Sr-90	
74.	F011	1/1	FFTF-CB-E	FFTF COMBINED EXHAUST	0.73	Pu239/40	Cs-137	F018
75.	F012	1/1	FFTF-RESB	FFTF LOWER REACTOR SERVICE BUILDING	0.73	Pu239/40	Cs-137	F016

EDP Code	Sample Medium	Waste Stream or Stack	File Title		Release Factor	Substitutions		Associated Files	
						Alpha	Beta		
76.	F013	1/1	FFTF-HT-T	FFTF REACTOR HEAT TRANSPORT SYSTEM	0.73	Pu239/40	Cs-137		
77.	F014	1/1	437-MN&ST	MASF 437-MN&ST	0.73	Pu239/40	Cs-137		
78.	F015	1/1	12632	309 Facility PTRAEU	0.73	Pu239/40	Sr-90		
79.	F016	1/2	FFTF-RESB	FFTF Lower Reactor Service Building I-131	0.87			F012	
80.	F017	1/2	340-NT-EX	340 Vault Tank Exhaust I-131 Charcoal Cart	0.87			F002	F602
81.	F018	1/2	FFTF-CB-E	FFTF Combined Exhaust I-131	0.87			F011	
82.	F019	1/1	437-1-61	MASF 437-1-61	0.73	Pu239/40	Cs-137		
83.	F024	1/4	FFTF-CB-E	FFTF Combined Exhaust H-3	0.87			F011	F018
84.	F602	1/3	340-NT-EX	340 Vault Tank Exhaust Quarterly Composite	0.73			F002	F017
85.	L100	1/1	296-W-1	LAUNDRY - DRYER/ROTOCLONE	0.73	Pu239/40	Sr-90	X100	
86.	S004	1/1	296-S-6	UNFILTERED AIR FROM 202-S SILO	0.73	Pu239/40	Sr-90		
87.	S006	1/1	291-S-1	202-S CANYON EXHAUST	0.73	Pu239/40	Sr-90	X006	
88.	S008	1/1	296-S-4	202-S: SWP LOBBY, DECON RM, REG. SHOP	0.73	Pu239/40	Sr-90		
89.	S015*	1/1	296-S-7E	233-S Building Exhaust, East	0.73	Pu239/40	Sr-90		
90.	S016	1/1	296-S-7W	233-S BUILDING EXHAUST	0.73	Pu239/40	Sr-90	X016	
91.	S032	1/1	296-S-2	202-S NORTH SAMPL. GAL., HOOD, & PR ROOM	0.73	Pu239/40	Sr-90		
92.	S264	1/1	296-S-16	219-S WASTE TANKS	0.73	Pu239/40	Sr-90		
93.	S289	1/1	296-S-21	222-S LAB EXHAUST	0.73		Sr-90	X289	
94.	T154	1/1	296-T-7	2706-T Stack	0.70	Pu239/40	Sr-90		
95.	T783	1/1	296-T-11	224-T BUILDING EXHAUST/WEST	0.73	Pu239/40	Sr-90	X783	
96.	T784	1/1	296-T-12	224-T BUILDING EXHAUST/EAST	0.73	Pu239/40	Sr-90	X784	
97.	T785	1/1	291-T-1	221-T CANYON & CELLS	0.73			X785	
98.	T786	1/1	296-T-13	221-T CANYON EXHAUST - ROOF EXHAUSTER	0.73	Pu239/40	Sr-90	X786	
99.	U133	1/1	296-U-2	POWDER HANDLING SYSTEM OFFGAS	0.73	Pu239/40	Sr-90	X133	
100.	U771	1/1	291-U-1	221-U CANYON & CELLS	0.73	Pu239/40	Sr-90	X771	

EDP Code	Sample Medium	Waste Stream or Stack	File Title	Release Factor	Substitutions Alpha	Beta	Associated Files
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101.	U777	1/1	296-U-4	U03 CALCINATORS & CONCENTRATORS	0.80	Pu239/40	X777
102.	U878	1/1	296-U-13	224-U LOADOUT ROOM EXHAUST	0.73	Pu239/40	Sr-90 X878
103.	W003	1/1	296-W-3	213-W WASTE COMPACTOR	0.73	Pu239/40	Sr-90
104.	W010	1/1	696-W-1	WSCF LABORATORY MAIN STACK EXHAUST	0.73	Pu239/40	Sr-90
105.	W011	1/1	696-W-2	WSCF, NSL COUNTING ROOM EXHAUSTER	0.73	Pu239/40	Pu239/40
106.	W096	1/1	296-S-18	242-S BUILDING EXHAUST	0.69	Pu239/40	Sr-90 X096
107.	W111	1/1	296-S-15	EXHAUSTER FOR ALL SX TANKS	0.84		X111
108.	W117	1/1	296-T-17	242-T CELLS	0.81	Pu239/40	Sr-90
109.	W145*	1/1	296-S-25	EXHAUSTER FOR ALL SY TANKS	0.72		X145
110.	W190	1/1	296-P-23	EXHAUSTER FOR ALL SY TANKS	0.79		X190
111.	W191	1/1	296-P-22	ALL SY ANNULI	0.80	Pu239/40	Sr-90
112.	W195	1/1	296-P-28	BACKUP EXHAUSTER FOR ALL SY TANKS	0.73		X195
113.	W880	1/1	296-S-22	244-S SALTWELL RECEIVER & ANNUL.	0.72		X880
114.	W882	1/1	296-T-18	244-TX SALT WELL RECEIVER & ANN.	0.70		X882
115.	W884*	1/1	296-U-11	296-U-11 STACK SAMPLER	0.73		X884
116.	X006	1/3	291-S-1	202-S CANYON EXHAUST	0.73		S006
117.	X013	1/3	296-A-40	241-AP TANK FARM EXHAUST	0.80		E013 E028
118.	X016	1/3	296-S-7W	233-S BUILDING EXHAUST	0.73		S016
119.	X039*	1/3	296-P-26	241-AY, AZ EXHAUSTER, BACKUP RP	0.70	296-A-17	E039 E040
120.	X058*	1/3	296-A-12	296-A-12 STACK SAMPLER	0.73		E058
121.	X059	1/3	296-A-17	241-AY,AZ TANKS	0.71		E059 E026
122.	X068	1/3	296-P-16	105-C & 106-C TANK EXHAUSTER	0.73		E068
123.	X069	1/3	296-C-5	244-CR VAULT CELL & VESSEL VENT	0.83		E069
124.	X080	1/3	296-A-25	244-A LIFT STATION CATCH TANK	0.81		E080
125.	X083*	1/3	296-C-6	296-C-6 STACK SAMPLER	0.73		E083 E084

EDP Code	Sample Medium	Waste Stream or Stack	File Title	Release Factor	Substitutions Alpha	Beta	Associated Files
=====	=====	=====	=====	=====	=====	=====	=====
126.	X096	1/3	296-S-18	242-S BUILDING EXHAUST	0.69		W096
127.	X100	1/3	296-W-1	LAUNDRY - DRYER/ROTOCLONE	0.73		L100
128.	X111	1/3	296-S-15	EXHAUSTER FOR ALL SX TANKS	0.84		W111
129.	X120*	1/3	296-P-17	296-P-17 STACK SAMPLER	0.73		E120
130.	X133	1/3	296-U-2	Powder Handling System Offgas	0.73		U133
131.	X145*	1/3	296-S-25	EXHAUSTER FOR ALL SY TANKS	0.72		W145
132.	X190	1/3	296-P-23	EXHAUSTER FOR ALL SY TANKS	0.79		W190
133.	X195	1/3	296-P-28	BACKUP EXHAUSTER FOR ALL SY TANKS	0.73		W195
134.	X211	1/3	1AN116	116-N STACK PARTICULATE	0.73		Y211
135.	X234	1/3	100-K-5W	KW LOW BAY EAST (RV 11)	0.91		Y234
136.	X235	1/3	100-K-5W	KW LOW BAY WEST (RV10)	0.91		Y235
137.	X236	1/3	100-K-5W	KW MEZZ (RV 6&7)	0.91		Y236
138.	X241	1/3	1AKEBASN	KE BASIN EXHAUST	1.00		Y241
139.	X242	1/3	1AKWBASN	KW BASIN EXHAUST COMPOSITE	1.00		Y242
140.	X243	1/3	100-K-LAB	1706-KE Lab Exhaust	0.73		Y243
141.	X244	1/3	100-K-KER	1706-KER -27 ft Lab Exhaust	0.73		Y244
142.	X245	1/3	100-K-5E	KE LOW BAY EAST (RV11)	0.91		Y245
143.	X246	1/3	100-K-5E	KE LOW BAY WEST (RV10)	0.91		Y246
144.	X247	1/3	100-K-5E	KE NORTH MEZZANINE (RV7)	0.91		Y247
145.	X248	1/3	100-K-5E	KE SOUTH MEZZANINE (RV6)	0.91		Y248
146.	X263	1/3	1ANNWMEZZ	N BASIN NW MEZZANINE	0.91		Y263
147.	X264	1/3	1ANSWMEZZ	N BASIN SW MEZZANINE	0.91		Y264
148.	X270	1/3	296-A-27	ALL AW TANKS	0.52		E270
149.	X289	1/3	296-S-21	222-S LAB EXHAUST	0.73		S289
150.	X301*	1/3	ROTMOD	ROTARY MODE CORE SAMPLER(S) STACK	0.73		E301

EDP Sample Code	Medium	Waste Stream or Stack	File Title	Release Factor	Substitutions Alpha	Beta	Associated Files
151.	X302*	1/3	ROTMOD	ROTARY MODE CORE SAMPLER(S) STACK	0.73		E302
152.	X303	1/3	ROTMOD	ROTARY MODE CORE SAMPLER(S) STACK	0.73		E303
153.	X304	1/3	ROTMOD	ROTARY MODE CORE SAMPLER(S) STACK	0.73		E304
154.	X305	1/3	ROTMOD	ROTARY MODE CORE SAMPLER(S) STACK	0.73		E305
155.	X306	1/3	ROTMOD	ROTARY MODE CORE SAMPLER(S) STACK	0.73		E306
156.	X539	1/3	296-A-24	PUREX AMMONTA SCRUBBER (COMPOSITES)	0.91		A539
157.	X540	1/3	296-A-1	PUREX L. N. Q CELLS & PR ROOM (COMPOSITES)	0.73		A540
158.	X542	1/3	296-A-2	PUREX WEST SAMPLE GAL. HOOD EXHAUST (QC)	0.73		A542
159.	X545	1/3	296-A-5A	PUREX LAB: W WEST EXHAUSTER	0.73		A545
160.	X546	1/3	296-A-5B	PUREX LAB: W EAST EXHAUSTER	0.73		A546
161.	X547	1/3	296-A-6	PUREX EAST SAMPLE GAL. & U CELL	0.73		A547
162.	X548	1/3	296-A-7	PUREX WEST SAMPLE GAL. & U CELL	0.73		A548
163.	X549	1/3	296-A-8	PUREX WHITE ROOM EXHAUSTER	0.73		A549
164.	X552	1/3	291-A-1	PUREX MAIN STACK (QC)	0.52		A552
165.	X643	1/3	296-A-22	242-A EVAP/CRYSTALLIZER AND V.V.	0.79		E643
166.	X645	1/3	296-A-21	242-A BUILDING EXHAUST	0.79		E645
167.	X691	1/3	291-B-1	221-B BLDG & CANYON (B-PLANT MAIN STK)	0.73		B691
168.	X748	1/3	296-B-10	225-B BUILDING & CELLS	0.73		B748
169.	X771	1/3	291-U-1	221-U CANYON & CELLS	0.73		U771
170.	X777	1/3	296-U-4	U03 CALCINATORS & CONCENTRATORS	0.80		U777
171.	X783	1/3	296-T-11	224-T BUILDING EXHAUST/WEST	0.73		T783
172.	X784	1/3	296-T-12	224-T BUILDING EXHAUST/EAST	0.73		T784
173.	X785	1/3	291-T-1	221-T CANYON & CELLS	0.73		T785
174.	X786	1/3	296-T-13	221-T CANYON EXHAUST - ROOF EXHAUSTER	0.73		T786
175.	X810	1/3	291-Z-1	232-Z, 234-S, 236-Z, 242-Z PROCESS & VENT	0.73		Z810

	EDP Code	Sample Medium	Waste or Stack	File Title	Release Factor	Substitutions		Associated Files
						Alpha	Beta	
176.	X813	1/3	296-Z-3	241-Z SUMP & VESSEL VENTS	0.73			Z813
177.	X878	1/3	296-U-13	LOADOUT ROOM EXHAUST	0.73			U878
178.	X880	1/3	296-S-22	244-S SALTWELL RECIEVER & ANNULUS	0.72			W880
179.	X882	1/3	296-T-18	244-TX SALT WELL RECEIVER & ANNULUS	0.70			W882
180.	X884*	1/3	296-U-11	296-U-11 STACK SAMPLER	0.73			W884
181.	X886	1/3	296-B-28	296-B-28 STACK SAMPLER	0.72			E886
182.	X901	1/3	296-A-29	ALL AN TANKS	0.53			E901
183.	X913	1/3	296-Z-5	2736-ZB BUILDING EXHAUST	0.73			Z913
184.	Y211	1/1	1AN116	116-N STACK PARTICULATE	0.73			X211
185.	Y212	1/1	1AN116	116-N STACK CHARCOAL	0.73			
186.	Y213	1/1	1AN116	116-N STACK (NOBLE GASES)	0.73			
187.	Y214	1/1	EAL	EAL HO-64-4276	0.73	Pu239/40	Sr-90	
188.	Y215	1/1	EAL	EAL HO-64-4230	0.73	Pu239/40	Sr-90	
189.	Y221	1/1	1AN09Z1	109-ZONE I PARTICULATE	0.73			
190.	Y222	1/1	1AN09Z1	109 ZONE I CHARCOAL	0.73			
191.	Y223	1/1	1AN09Z1	109 ZONE I (NOBLE GASES)	0.73			
192.	Y231	1/1	1AN09C6	CELL #6 PARTICULATE	0.73			
193.	Y232	1/1	1AN09C6	CELL #6 CHARCOAL	0.73			
194.	Y233	1/1	1AN09C6	CELL #6 (NOBLE GASES)	0.73			
195.	Y234	1/1	100-K-5W	KW LOW BAY EAST (RV 11)	0.91			X234
196.	Y235	1/1	100-K-5W	KW LOW BAY WEST (RV 10)	0.91			X235
197.	Y236	1/1	100-K-5W	KW MEZZ. (RV 6&7)	0.91			X236
198.	Y241	1/1	1AKWBASN	KE BASIN EXHAUSE	1.00			X241
199.	Y242	1/1	1AKWBASN	KW BASIN EXHAUST	0.73			X242
200.	Y243	1/1	100-K-LAB	1706-KE Lab Exhaust	0.73			X243

EDP Sample Code Medium	Waste Stream or Stack	File Title	Release Factor	Substitutions Alpha Beta	Associated Files
201. Y244	1/1	100-K-KER 1706-KER -27 ft Lab Exhaust	0.73		X244
202. Y245	1/1	100-K-5E KE LOW BAY EAST (RV11)	0.91		X245
203. Y246	1/1	100-K-5E KE LOW BAY WEST (RV10)	0.91		
204. Y247	1/1	100-K-5E KE NORTH MEZZANINE (RV7)	0.91		X247
205. Y248	1/1	100-K-5E KE South Mezzanine (RV 6)	0.91		X248
206. Y251	1/1	1AN09Z2 ZONE II (EF 7.8) PARTICULATE	0.73		
207. Y252	1/1	1AN09Z2 ZONE II (EF 7.8) CHARCOAL	0.73		
208. Y253	1/1	1AN09Z3 ZONE III (EF 10) PARTICULATE	0.73		
209. Y254	1/1	1AN09Z5 ZONE III (EF 10) CHARCOAL	0.73		
210. Y255	1/1	1AN09Z4 ZONE IV (EF 14,15) PARTICULATE	0.73		
211. Y256	1/1	1AN09Z4 ZONE IV (EF 14,15) CHARCOAL	0.73		
212. Y257	1/1	1AN05DDCN DUMMY SPACER EXHAUST PARTICULATE	0.73		
213. Y258	1/1	1AN05DDCN DUMMY SPACER EXHAUST CHARCOAL	0.73		
214. Y259	1/1	1AN05DCN 14' DECON FACILITY PARTICULATE	0.73		
215. Y260	1/1	1AN05DCN 14' DECON FACILITY CHARCOAL	0.73		
216. Y261	1/1	1AN05TRN TRANSFER AREA PARTICULATE	0.91		
217. Y262	1/1	1AN05TRN TRANSFER AREA CHARCOAL	0.73		
218. Y263	1/1	1ANNWMEZZ N BASIN NW MEZZANINE	0.91		X263
219. Y264*	1/1	1ANSWMEZZ N BASIN SW MEZZANINE	0.91		X264
220. Y265	1/1	1AN07ROOF 107-N EXHAUST PARTICULATE	0.73		
221. Y266	1/1	1AN07ROOF 107-N EXHAUST CHARCOAL	0.73		
222. Z802	1/1	296-Z-6 2736-ZA BUILDING EXHAUST	0.73	Pu239/40	Sr-90
223. Z810	1/1	291-Z-1 232-Z, 234-5, 236-Z, 242-Z PROCESS & VENT	0.73		Sr-90
224. Z813	1/1	296-Z-3 241-Z SUMP & VESSEL VENTS	0.73		Sr-90
225. Z814	1/1	296-Z-14 232-Z BUILDING EXHAUST	0.73	Pu239/40	Sr-90

300

WHC-SD-EN-TI-308

Rev.0

AUDIT

All Users' ERS Data Files
Airborne Effluent Files
05/13/96

Page 10

EDP Code	Sample Medium	Waste Stream or Stack	File Title	Release Factor	Substitutions Alpha	Beta	Associated Files
226.	Z913	1/1	296-Z-5	2736-ZB BUILDING EXHAUST	0.73	Pu239/40	Sr-90
227.	Z915	1/1	296-Z-15	243-Z LOW LEVEL WASTE WATER TREATMENT FACI	0.73	Pu239/40	Sr-90
							X913

* Denotes empty file.

Total 227 files, of which 20 are empty.

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5.2 Audit Report for Liquid Effluent Files

EDP Sample Code Medium	Waste Stream or Stack	File Title	Release Factor	Substitutions Alpha Beta	Associated Files
=====	=====	=====	=====	=====	=====
1. F020	2/D	300-ASS	300 Area Sanitary Sewer	1.00	
2. F021	2/N	300-APT	300 Area Process Trench	1.00	
3. F023	2/N	400-APS	400 Area Process Sewer	1.00	
4. H101	2/N	207-SL	222-2 LABORATORY CHEMICAL SEWER	1.00	
5. H102	2/N	207-U	PLANT COOLING WATER/STREAM CONDENSATE	1.00	
6. H103	2/N	2904-ZA	234-5-Z PLANT COOLING WATER	1.00	
7. H104	2/N	A42B3	PUREX A-42 DIVERSION BASIN TO 216-B-3 POND	1.00	
8. H105	2/D	SCD-A-30	PUREX STEAM COIL CONDENSATE TO 216-A-30	1.00	
9. H106	2/D	SCD-A37-2	PUREX STEAM COIL CONDENSATE TO 216-A-37-2	1.00	
10. H107*	2/N	A8	241-AY-AZ TANK FARM STEAM COIL CONDENSATE	1.00	
11. H108	2/N	ACW	242-A EVAPORATOR COOLING WATER	1.00	
12. H109*	2/N	AFPC	242-A EVAPORATOR PROCESS CONDENSATE	1.00	
13. H110	2/N	ASC	242-A EVAPORATOR STEAM CONDENSATE	1.00	
14. H111*	2/N	ASD	PUREX AMMONIA SCRUBBER WASTE	1.00	
15. H112	2/N	BCE	B-PLANT CHEMICAL SEWER	1.00	
16. H113*	2/N	BCP	B-PLANT PROCESS CONDENSATE	1.00	
17. H114	2/N	BCS	B-PLANT STEAM CONDENSATE	1.00	
18. H115	2/N	CAB	241-A TANK FARM COOLING WATER	1.00	
19. H116	2/N	CAR	244-AR VAULT COOLING WATER	1.00	
20. H117	2/N	CBC	B-PLANT COOLING WATER	1.00	
21. H118	2/N	CSL	PUREX CHEMICAL SEWER	1.00	
22. H119	2/N	CWL	PUREX COOLING WATER	1.00	
23. H120	2/N	LWC	200-W LAUNDRY WASTE WATER	1.00	
24. H121*	2/N	PDD	PUREX PROCESS CONDENSATE	1.00	
25. H122	2/N	RC1	242-S STEAM CONDENSATE	1.00	

EDP Sample Code	Medium	Waste Stream or Stack	File Title	Release Factor	Substitutions Alpha	Beta	Associated Files
26.	H123	2/N	RM-28	222-S (REDOX) CHEMICAL SEWER	1.00		
27.	H124	2/N	SCD	PUREX STEAM COIL COND (67%-H105, 33%-H106)	1.00		
28.	H125*	2/N	S-10	222-S LABORATORY CHEMICAL SEWER	1.00		
29.	H126	2/N	U-17	U03 PLANT PROCESS CONDENSATE	1.00		
30.	H127*	2/N	A42-30	A-42 DIVERSION BASIN TO 216-A-30 CRIB	1.00		
31.	H128*	2/N	A42-372	A-42 DIVERSION BASIN TO 216-A-37-2 CRIB	1.00		
32.	H999	2/N	UNKNOWN	UNKNOWN LIQUID DATA FILE (H105 '90 Data)	1.00		
33.	Y101	2/N	1LN130	100-N AREA RIVER SPRINGS (Y101) WELL N-46	1.00		
34.	Y120	2/N	1LN009M	102" LINE - (MONTHLY)	1.00		
35.	Y121	2/N	1LN009	102" LINE - PARTICULATE	1.00		
36.	Y122	2/A	1LN009R	102" LINE - CATIONIC	1.00		
37.	Y123	2/A	1LN009	102" LINE - ANIONIC	1.00		
38.	Y130	2/N	1LK004	1908-K OUTFALL	1.00		
39.	Y131	2/N	1LK01	1908-KW OUTFALL	1.00		
40.	Y136	2/N	1LN005	36" TANK FARM OVERFLOW	1.00		
41.	Y142	2/N	1LN006	42" RAW WATER DRAIN	1.00		
42.	Y150	2/N	1LN01	12" SHIELD COOLANT DRAIN (D-0.0)	1.00		
43.	Y160	2/N	1LN02	GAS PENETRATION DRAIN	1.00		
44.	Y170	2/N	1LN03	ROUGHING COOLERS	1.00		
45.	Y181	2/N	1LN04	N REACTOR RAW WATER INTAKE/DRINKING	1.00		
46.	Y199	2/N	1LN05	107-N HEX DRAIN	1.00		
47.	Y331	2/A	1LN1325	1325-N CRIB: SOLUBLE	1.00		
48.	Y333	2/N	1LN1325	1325-N: PARTICULATE	1.00		

* Denotes empty file.

Total 48 files, of which 8 are empty.

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6.0 ^{241}Pu CALCULATIONS

Concentrations of ^{241}Pu are calculated using weight percent data provided from PFP along with the $^{239/240}\text{Pu}$ and ^{238}Pu concentrations from the applicable emission point. The ^{241}Pu releases are calculated using the procedure in WHC-IP-1066. The concentrations calculated using the ^{238}Pu data were used to calculate the CY-1995 releases, since they were typically larger than values calculated using $^{239/240}\text{Pu}$ concentrations.

**Weight Percent Values Used
for CY-1995 Releases**

Author: Richard A Hamilton at WHC167 11/1/95 11:20 AM
 TO: James L (Jim) Brand at WHC120
 CC: Jose L Aranda at WHC103
 CC: Eugene S (Scott) Baker
 CC: E W (Liz) Curfman at WHC27
 CC: Larry P Diediker at WHC171
 CC: Robert E (Rob) Gregory at WHC30
 Subject: PFP/WIPP ISOTOPIC VALUES - NOV 95

----- Message Contents -----

DON'T SAY IT --- Write It!

DATE 1 Nov 95

TO JL Brand / T5-54 / 3-2390

FROM RA Hamilton / T5-06 / 3-2584

SUBJECT: PU ISOTOPIC COMPOSITION FOR NOVEMBER 95, PFP-WIPP CALCULATIONS

cc: J Aranda, ES Baker, EW Curfman, LP Diediker, RE Gregory

As proposed in Internal Memo 16300-AC90-041, the following Pu isotopic composition, decay corrected to 15 November 95, is provided. This set of values should be used for PFP-WIPP and other PFP solid waste activity calculations, based on assay measurements made during the month of November 95.

Pu-238	0.0288 Wt% of Pu
Pu-239	93.8251 "
Pu-240	5.7116 "
Pu-241	0.4149 "
Pu-242	0.0196 "
Am-241	0.1616 "

SUPPLEMENTAL DATA FOR CALCULATING Pu-241 CONCENTRATIONS

Isotopic Composition of PFP Plutonium:

	(Weight %)	(fraction)
Pu-239	93.8251	0.938251
Pu-240	5.7116	0.057116
Pu-241	0.4149	0.004149
Pu-238	0.0288	0.000288
Pu-242	0.0196	0.000196
Total	100.0000	1.000000

Specific Activities of Plutonium Isotopes:

	Half Life (y)	Half Life (s)	Specific Activity (Ci/g)
Pu-239	24131	7.610E+11	6.197E-02
Pu-240	6569	2.072E+11	2.267E-01
Pu-241	14.4	4.541E+08	1.030E+02
Pu-238	87.75	2.767E+09	1.711E+01
Pu-242	375800	1.185E+13	3.930E-03

Specific Activity of Pu-239 and Pu-240 Mixture:

For 1 g of mixture: 0.942618 g Pu-239
 0.057382 g Pu-240

Isotopic activities in mixture:

$$(0.942618 \text{ g})(0.06197 \text{ Ci/g}) = 5.8410\text{E-}02 \text{ Ci Pu-239}$$

$$(0.057382 \text{ g})(0.2267 \text{ Ci/g}) = 1.3007\text{E-}02 \text{ Ci Pu-240}$$

Activity per gram of mixture (SpA):

$$\text{SpA} = (\text{Ci Pu-239}) + (\text{Ci Pu-240}) = 7.1418\text{E-}02 \text{ Ci/g of Pu-239/240 mixture}$$

CALCULATING PUREX Pu-241 CONCENTRATIONS

291-A-1

Composite Date	Pu-239/240 Concentration (uCi/mL)	Sample Volume (cuft)	(mL)	Pu-239/240 Activity (uCi)	Pu-239/240 Mass (g)	Pu-239 Mass (g)	Total Pu Mass (g)	Pu-241 Mass (g)	Pu-241 Activity (uCi)	Pu-241 Concentration (uCi/mL)
12/21/94-03/29/95	2.7E-15	2.80E+05	7.93E+09	2.14E-05	3.00E-10	2.89E-10	3.01E-10	1.25E-12	1.29E-04	1.62E-14
03/29/95-06/21/95	1.5E-15	2.40E+05	6.80E+09	1.02E-05	1.43E-10	1.35E-10	1.43E-10	5.95E-13	6.13E-05	9.02E-15
06/21/95-09/27/95	9.7E-16	2.80E+05	7.93E+09	7.69E-06	1.08E-10	1.02E-10	1.08E-10	4.49E-13	4.62E-05	5.83E-15
09/27/95-12/20/95	9.2E-16	2.20E+05	6.23E+09	5.73E-06	8.03E-11	7.57E-11	8.06E-11	3.35E-13	3.45E-05	5.53E-15

Composite Date	Pu-238 Concentration (uCi/mL)	Sample Volume (cuft)	(mL)	Pu-238 Activity (uCi)	Pu-238 Mass (g)	Total Pu Mass (g)	Pu-241 Mass (g)	Pu-241 Activity (uCi)	Pu-241 Concentration (uCi/mL)
12/21/94-03/29/95	5.1E-16	2.80E+05	7.93E+09	4.04E-06	2.36E-13	8.21E-10	3.40E-12	3.51E-04	4.42E-14
03/29/95-06/21/95	1.2E-16	2.40E+05	6.80E+09	8.16E-07	4.77E-14	1.65E-10	6.87E-13	7.07E-05	1.04E-14
06/21/95-09/27/95	5.0E-17	2.80E+05	7.93E+09	3.96E-07	2.32E-14	8.04E-11	3.34E-13	3.44E-05	4.33E-15
09/27/95-12/20/95	6.2E-17	2.20E+05	6.23E+09	3.86E-07	2.26E-14	7.84E-11	3.25E-13	3.35E-05	5.38E-15

296-A-1

Composite Date	Pu-239/240 Concentration (uCi/mL)	Sample Volume (cuft)	(mL)	Pu-239/240 Activity (uCi)	Pu-239/240 Mass (g)	Pu-239 Mass (g)	Total Pu Mass (g)	Pu-241 Mass (g)	Pu-241 Activity (uCi)	Pu-241 Concentration (uCi/mL)
12/21/94-03/29/95	4.7E-14	1.70E+05	4.81E+09	2.26E-04	3.17E-09	2.99E-09	3.18E-09	1.32E-11	1.36E-03	2.82E-13
03/29/95-06/21/95	1.4E-14	1.60E+05	4.53E+09	6.34E-05	8.88E-10	8.37E-10	8.82E-10	3.70E-12	3.81E-04	8.41E-14
06/21/95-09/27/95	1.2E-14	1.90E+05	5.38E+09	6.46E-05	9.04E-10	8.52E-10	9.08E-10	3.77E-12	3.88E-04	7.21E-14
09/27/95-12/20/95	1.9E-14	1.60E+05	4.53E+09	8.61E-05	1.21E-09	1.14E-09	1.21E-09	5.02E-12	5.17E-04	1.14E-13

Composite Date	Pu-238 Concentration (uCi/mL)	Sample Volume (cuft)	(mL)	Pu-238 Activity (uCi)	Pu-238 Mass (g)	Total Pu Mass (g)	Pu-241 Mass (g)	Pu-241 Activity (uCi)	Pu-241 Concentration (uCi/mL)
12/21/94-03/29/95	3.4E-15	1.70E+05	4.81E+09	1.64E-05	9.57E-13	3.32E-09	1.38E-11	1.42E-03	2.95E-13
03/29/95-06/21/95	6.3E-16	1.60E+05	4.53E+09	2.85E-06	1.67E-13	5.79E-10	2.40E-12	2.47E-04	5.46E-14
06/21/95-09/27/95	6.4E-16	1.90E+05	5.38E+09	3.44E-06	2.01E-13	6.99E-10	2.90E-12	2.99E-04	5.55E-14
09/27/95-12/20/95	9.6E-16	1.60E+05	4.53E+09	4.35E-06	2.54E-13	8.83E-10	3.66E-12	3.77E-04	8.32E-14

CALCULATING PFP Pu-241 CONCENTRATIONS

291-Z-1

Composite Date	Pu-239/240 Concentration (uCi/mL)	Sample Volume (cuft)	(mL)	Pu-239/240 Activity (uCi)	Pu-239/240 Mass (g)	Pu-239 Mass (g)	Total Pu Mass (g)	Pu-241 Mass (g)	Pu-241 Activity (uCi)	Pu-241 Concentration (uCi/mL)
12/21/94-03/29/95	2.7E-15	2.80E+05	7.93E+09	2.14E-05	3.00E-10	2.83E-10	3.01E-10	1.25E-12	1.29E-04	1.82E-14
03/29/95-06/21/95	1.5E-15	2.40E+05	6.80E+09	1.02E-05	1.43E-10	1.35E-10	1.43E-10	5.95E-13	6.13E-05	9.02E-15
06/21/95-09/27/95	9.7E-16	2.80E+05	7.93E+09	7.69E-06	1.08E-10	1.02E-10	1.08E-10	4.49E-13	4.62E-05	5.83E-15
09/27/95-12/20/95	9.2E-16	2.20E+05	6.23E+09	5.73E-06	8.03E-11	7.57E-11	8.06E-11	3.35E-13	3.45E-05	5.53E-15

Composite Date	Pu-238 Concentration (uCi/mL)	Sample Volume (cuft)	(mL)	Pu-238 Activity (uCi)	Pu-238 Mass (g)	Total Pu Mass (g)	Pu-241 Mass (g)	Pu-241 Activity (uCi)	Pu-241 Concentration (uCi/mL)
12/21/94-03/29/95	7.9E-16	2.80E+05	7.93E+09	6.26E-06	3.86E-13	1.27E-09	5.27E-12	5.43E-04	6.85E-14
03/29/95-06/21/95	2.8E-16	2.40E+05	6.80E+09	1.90E-06	1.11E-13	3.86E-10	1.60E-12	1.65E-04	2.43E-14
06/21/95-09/27/95	3.2E-16	2.80E+05	7.93E+09	2.54E-06	1.48E-13	5.15E-10	2.14E-12	2.20E-04	2.77E-14
09/27/95-12/20/95	4.0E-16	2.20E+05	6.23E+09	2.48E-06	1.48E-13	5.06E-10	2.10E-12	2.16E-04	3.47E-14

296-Z-3

Composite Date	Pu-239/240 Concentration (uCi/mL)	Sample Volume (cuft)	(mL)	Pu-239/240 Activity (uCi)	Pu-239/240 Mass (g)	Pu-239 Mass (g)	Total Pu Mass (g)	Pu-241 Mass (g)	Pu-241 Activity (uCi)	Pu-241 Concentration (uCi/mL)
12/21/94-03/29/95	4.8E-16	2.10E+05	5.95E+09	2.85E-06	4.00E-11	3.77E-11	4.02E-11	1.67E-13	1.72E-05	2.88E-15
03/29/95-06/21/95	2.0E-15	1.50E+05	4.25E+09	8.50E-06	1.19E-10	1.12E-10	1.20E-10	4.96E-13	5.11E-05	1.20E-14
06/21/95-09/27/95	3.3E-15	1.90E+05	5.38E+09	1.78E-05	2.48E-10	2.34E-10	2.50E-10	1.04E-12	1.07E-04	1.98E-14
09/27/95-12/20/95	9.7E-16	1.90E+05	5.38E+09	5.22E-06	7.31E-11	6.89E-11	7.34E-11	3.05E-13	3.14E-05	5.83E-15

Composite Date	Pu-238 Concentration (uCi/mL)	Sample Volume (cuft)	(mL)	Pu-238 Activity (uCi)	Pu-238 Mass (g)	Total Pu Mass (g)	Pu-241 Mass (g)	Pu-241 Activity (uCi)	Pu-241 Concentration (uCi/mL)
12/21/94-03/29/95	8.4E-16	2.10E+05	5.95E+09	3.81E-06	2.22E-13	7.72E-10	3.20E-12	3.30E-04	5.55E-14
03/29/95-06/21/95	2.2E-15	1.50E+05	4.25E+09	9.35E-06	5.48E-13	1.90E-09	7.87E-12	8.10E-04	1.91E-13
06/21/95-09/27/95	4.1E-15	1.90E+05	5.38E+09	2.21E-05	1.29E-12	4.48E-09	1.86E-11	1.91E-03	3.55E-13
09/27/95-12/20/95	7.2E-16	1.90E+05	5.38E+09	3.87E-06	2.26E-13	7.96E-10	3.26E-12	3.36E-04	6.24E-14