OSR 45-24 (Rev 1-20-2009)

Calculation Cover Sheet

Project/Task N/A	Calculation No. X-CLC-Z-00034	Project/Task No. N/A
Title Inventory Determination of PODD/SA Radionuclides in the Saltstone Disposal Facility Through 9/30/10	Functional Classification PS	Sheet 1 of 14
	Discipline X - Chemical Process	
Calculation Type ☒ Type 1 ☐ Type 2	Type 1 Calc Status ☐ Preliminary ☒ Confirmed	
Computer Program No. Microsoft Excel ☐ N/A	Version/Release No. 2002/SP3	
Purpose and Objective The purpose of this calculation is to determine the current radiological inventory being stored in Vaults 1 and 4 at the Saltstone Disposal Facility. This data will be used for comparison against the inventories given in the Saltstone Performance Objectives Demonstration Document (PODD) and Special Analysis limits as well as input to the Performance Assessment Annual Review.	DC/RO N/A	Date

Summary of Conclusion

A summary table has been created which shows the Vault 1 and Vault 4 inventories of the 64 radionuclides described in the PODD and SA as of 9/30/10.

Revisions

Rev #	Revision Description
0	Original Issue

Sign Off

Rev #	Originator (Print) Sign/Date	Verification/Checking Method	Verifier/Checker (Print) Sign/Date	Manager (Print) Sign/Date
0	Andrew Carter 12/14/10	☐ Design Check (GS/PS only) ☒ Document Review ☐ Qualification Testing ☐ Alternate Calculation ☐ Operational Testing	Jason L. Adams 12/16/10	Aaron Staub 12/17/10
		☐ Design Check (GS/PS only) ☐ Document Review ☐ Qualification Testing ☐ Alternate Calculation ☐ Operational Testing		

Additional Reviewer (Print) N/A	Signature	Date
Design Authority (Print) Aaron Staub	Signature	Date
Release to Outside Agency (Print) N/A	Signature	Date
Security Classification of the Calculation (U)		

Open Items:

None.

References:

1. Staub, A. V., Inventory Determination of PODD Radionuclides in the Saltstone Disposal Facility Through 9/30/09 X-CLC-Z-00029, Rev. 0, March 2010.

2. Rosenberger, K. H., et. al., "Saltstone Performance Objective Demonstration Document," CBU-PIT-2005-00146, Rev. 0, June 2005.

3. Staub, A. V., "Saltstone Facility Basis Information for Consent Order of Dismissal Section III.7 Website Data – First Quarter 2010," SRR-WSE-2010-00076, Rev 0.

4. Staub, A. V., "Saltstone Facility Basis Information for Consent Order of Dismissal Section III.7 Website Data – Second Quarter 2010," SRR-WSE-2010-00162, Rev. 0.

5. Carter, A. R., "Saltstone Facility Basis Information for Consent Order of Dismissal Section III.7 Website Data – Third Quarter 2010," X-CLC-Z-00032, Rev. 0.

6. Bannochie, C. J., "Radioactive Decay Calculations for Saltstone Vaults 1 and 4 2010 Inventories," SRNL-L3100-2010-00245, Rev. 0, December 10, 2010.

7. Waste Characterization System, \\Wg17\WCS1.5PROD\WCS 1.5.xls.

8. Le, T. A., "Alternative Determination of Saltstone Disposal Facility (SDF) Radionuclides Inventory from October 1 of 2009 to March 30 of 2010," X-ESR-H-00235, Rev. 0, April 2010.

9. Le, T. A., "Alternative Determination of Saltstone Disposal Facility (SDF) Radionuclides Inventory from April 1 of 2010 to Jun 30 of 2010," X-ESR-H-00284, Rev. 0, November 2010.

10. Reigel, M. M., Bibler, N. E., "Tables Containing Results for the Fourth Quarter 2009 Tank 50 WAC Slurry Sample: Chemical and Radionuclide Contaminant Results," SRNL-L3100-2009-00305, Rev. 1, December 2009

11. Reigel, M. M., Bibler, N. E., "Tables Containing Results for the First Quarter 2010 Tank 50 WAC Slurry Sample: Chemical and Radionuclide Contaminant Results," SRNL-L3100-2010-00016, Rev. 0, March 2010

12. Reigel, M. M., Bibler, N. E., "Tables Containing Results for the Second Quarter 2010 Tank 50 WAC Slurry Sample: Chemical and Radionuclide Contaminant Results," SRNL-L3100-2010-00080, Rev. 0, Jun 2010

13. Reigel, M. M., Bibler, N. E., "Tables Containing Results for the Third Quarter 2010 Tank 50 WAC Slurry Sample: Chemical and Radionuclide Contaminant Results," SRNL-L3100-2010-00179, Rev. 0, September 2010

14. Cook, J. R., et. al., "Special Analysis: Revision Of Saltstone Vault 4 Disposal Limits", WSRC-TR-2005-00074, Rev. 0, May 2005.

15. Rosenberger, K. H., "Unreviewed Disposal Question Evaluation: Evaluation of Updated Radionuclide Inventory in Saltstone Disposal Facility", SRNS-J2100-2009-00014, Rev. 1, June 2009

16. Staub, A. V., "Saltstone Facility Basis Information for Consent Order of Dismissal Section III.7 Website Data – Fourth Quarter 2009," SRR-WSE-2010-00011, Rev 0.

Input and Assumptions:

1. Existing inventory as of 9/30/09 in Saltstone Vaults 1 and 4 is given in Reference 1.
2. References 3, 4, and 5 detail the volumes of salt solution transferred from Tank 50 into Saltstone in FY10.
3. References 3, 8, 10, 11, 12 and 13 give the radionuclide concentrations in the salt solution transferred. Data in references 8 and 9 are given in Ci/gal and have been converted to pCi/mL for consistency with other inputs.
4. All inventories are accounted on the basis of salt solution transferred from Tank 50.
5. Existing inventory from Reference 1 is decay-corrected to 9/30/10 and reported in Reference 6.
6. FY10 receipts are not decay-corrected regardless of date of production and are assumed to be input as a single point on 9/30/10.
7. No new waste was received into Vault 1. The data from Reference 6 shows the current decay-corrected inventory for Vault 1.

Analytical Methods and Computations:

The Saltstone Performance Objective Demonstration Document (PODD, Ref. 2) details projected final disposal inventories for 64 different radionuclides. The purpose of this calculation is to determine the radionuclide inventory in Saltstone Vaults 1 and 4 as of 9/30/2010 for each of the nuclides discussed in the PODD.

Table 1 provides the inventory in Vault 4 as of 9/30/2009 as reported in Reference 1. These data were decay-corrected to 9/30/2010 in Reference 6 and are also reported in Table 1. All new inventory added to the disposal facility during the current year will then be input on the last day of the year. This methodology is consistent with previous Performance Assessment Annual Reviews.

Table 2 summarizes all new radionuclide receipts that occurred during FY10. The concentration data (in pCi/mL) for each quarter are given along with the associated transfer volume (in gallons) for that quarter. The total inventory for each quarter is calculated by multiplying the concentration by the transfer volume (and accounting for unit conversions) and then a sum is provided for the annual addition.

Since the radionuclide concentration data used in this inventory calculation involves multiple source documents for each month, a summary table has been attached for clarity. The input documents are sorted by color to show where they have been applied.

Table 3 adds the decay corrected inventory for Vault 4 with the new additions from FY10. The final inventory of Vault 4 as of 9/30/10 is reported in Table 3.

Table 4 takes the radionuclide inventory in Vault 1 and shows the decay correction to 9/30/10. The input for Table 4 comes from References 1 and 6.

Finally, Table 5 adds the inventories of Vaults 1 and 4 to give a total for the Saltstone Disposal Facility. These inventories are then compared against the published values from the PODD (Ref. 2) and the Vault 4 Special Analysis (Ref. 14).

The Tank 50 Material Balance provides no characterization for the following radionuclides which are in radioactive equilibrium with another radionuclide reported due to their short half-lives. In these cases, the concentration reported in Appendix 1 is identical to that reported for the parent radionuclide:

a. Y-90 Sr-90 (parent)
b. Rh-106 Ru-106 (parent)
c. Te-125m Sb-125 (parent)
d. Pr-144 Ce-144 (parent)

Results:

The total radionuclide inventories for Vault 4 as of 9/30/2010 are shown in Table 3. The total radionuclide inventories for Vault 1 as of 9/30/2010 are shown in Table 4. The total radionuclide inventories for the Saltstone Disposal Facility as of 9/30/2010 are shown in Table 5.

Conclusion:

The radionuclide inventories for Saltstone Disposal Vaults 1 and 4 have been updated as of 9/30/10.

Table 1: Vault 4 Inventory as of 9/30/09, Decay Corrected to 9/30/10

Nuclide	Vault 4 Total as of 9/30/09 (Ci)	Vault 4 Decay Corrected to 9/30/10 (Ci)	Nuclide	Vault 4 Total as of 9/30/09 (Ci)	Vault 4 Decay Corrected to 9/30/10 (Ci)
H-3	3.54E+01	3.35E+01	Ra-226[1]	7.26E+00	7.26E+00
C-14	7.29E+00	7.29E+00	Ac-227[1]	7.65E-07	8.32E-07
Na-22[1]	2.89E+01	2.21E+01	Ra-228[1]	1.52E-06	1.41E-05
Al-26[1]	1.06E-01	1.06E-01	Th-228	7.99E-02	7.22E-02
Co-60	1.18E-01	1.03E-01	Th-229[1]	8.63E-05	4.21E-04
Ni-59	3.49E-01	3.49E-01	Th-230[1]	2.28E-02	2.28E-02
Ni-63	2.70E+00	2.68E+00	Pa-231[1]	2.13E-06	3.67E-06
Se-79	6.91E+00	6.91E+00	Th-232	1.12E-04	1.12E-04
Sr-90	2.57E+03	2.51E+03	Np-237	1.85E-01	1.85E-01
Y-90	2.57E+03	2.51E+03	U-232	5.48E-02	5.43E-02
Mo-93	2.35E+03	2.35E+03	U-233	3.55E+00	3.55E+00
Nb-93m	5.62E+00	1.22E+02	U-234	3.82E+00	3.82E+00
Nb-94	9.92E-04	9.92E-04	U-235	7.31E-02	7.31E-02
Tc-99	2.57E+02	2.57E+02	U-236	1.11E-01	1.11E-01
Ru-106	1.02E+00	5.13E-01	U-238	1.25E-01	1.25E-01
Rh-106	1.02E+00	5.13E-01	Pu-238	1.86E+02	1.85E+02
Sb-125	1.69E+02	1.32E+02	Pu-239	7.96E+00	7.96E+00
Sb-126[1]	6.19E-02	1.02E-01	Pu-240	1.26E+01	1.26E+01
Sb-126m[1]	4.42E-01	7.28E-01	Pu-241	1.78E+02	1.70E+02
Te-125m	7.23E+01	3.22E+01	Pu-242	1.13E-02	1.13E-02
Sn-126	7.28E-01	7.28E-01	Pu-244[1]	3.67E-05	3.67E-05
I-129	2.45E-01	2.45E-01	Am-241	1.19E+01	1.22E+01
Cs-134	1.54E+01	1.10E+01	Am-242m	1.55E-02	1.54E-02
Cs-135	1.18E+00	1.18E+00	Am-243	2.08E-01	2.08E-01
Cs-137	2.02E+05	1.97E+05	Cm-242	1.28E-02	1.27E-02
Ba-137m	1.91E+05	1.87E+05	Cm-243	7.19E-02	7.02E-02
Ce-144	1.10E+00	4.52E-01	Cm-244	2.75E+01	2.65E+01
Pr-144	1.10E+00	4.52E-01	Cm-245[1]	1.41E-05	1.41E-05
Pm-147	2.13E+01	1.64E+01	Cm-247[1]	7.70E-15	7.70E-15
Sm-151	1.13E+01	1.12E+01	Cm-248[1]	8.04E-15	8.04E-15
Eu-152	2.18E-02	2.07E-02	Bk-249[1]	5.87E-22	2.66E-22
Eu-154	3.88E+00	3.59E+00	Cf-249[1]	4.45E-14	4.44E-14
Eu-155	1.06E+00	9.22E-01	Cf-251[1]	1.52E-15	1.52E-15
Pb-210	1.34E-10	2.19E-01	Cf-252[1]	4.93E-17	3.79E-17

Note 1:

Many radionuclides were not reported until the "Inventory Determination of PODD Radionuclides in Saltstone Disposal Facility Through 9/30/09" (Ref 1). The inventories for these radionuclides are measures of additional radioactive inventory since the reporting was initiated.

Table 2: Vault 4 Inventory Additions in FY10

Nuclide	4thQ 2009 Additions (pCi/mL)	4thQ 2009 Additions (Ci)	1stQ 2010 Additions (pCi/mL)	1stQ 2010 Additions (Ci)	2ndQ 2010 Additions (pCi/mL)	2ndQ 2010 Additions (Ci)	3rdQ 2010 Additions (pCi/mL)	3rdQ 2010 Additions (Ci)	**Total Fiscal Year 2010 Additions (Ci)**
H-3	6.86E+02	1.32E+00	7.06E+02	2.51E-01	6.68E+02	6.83E-01	8.95E+02	4.67E-01	**2.73E+00**
C-14	3.58E+02	6.91E-01	8.96E+02	3.19E-01	6.34E+02	6.48E-01	5.74E+02	3.00E-01	**1.96E+00**
Na-22[1]	4.83E+03	9.33E+00	4.76E+03	1.69E+00	4.36E+03	4.45E+00	3.70E+03	1.93E+00	**1.74E+01**
Al-26[1]	1.78E+01	3.43E-02	1.74E+01	6.20E-03	1.62E+01	1.66E-02	1.39E+01	7.27E-03	**6.43E-02**
Co-60	3.30E+00	6.37E-03	5.68E+00	2.02E-03	1.23E+01	1.26E-02	7.87E+00	4.11E-03	**2.51E-02**
Ni-59	<1.51E+01	<2.91E-02	<1.00E+01	<3.56E-03	<1.05E-01	<1.07E-04	<3.32E-01	<1.73E-04	**<3.30E-02**
Ni-63	7.99E+01	1.54E-01	2.81E+02	1.00E-01	3.25E+02	3.32E-01	4.26E+02	2.23E-01	**8.09E-01**
Se-79	1.35E+02	2.61E-01	3.00E+02	1.07E-01	4.56E+02	4.66E-01	3.57E+02	1.86E-01	**1.02E+00**
Sr-90	1.07E+05	2.07E+02	6.29E+04	2.24E+01	1.10E+05	1.12E+02	1.01E+05	5.28E+01	**3.94E+02**
Y-90	1.07E+05	2.07E+02	6.29E+04	2.24E+01	1.10E+05	1.12E+02	1.01E+05	5.28E+01	**3.94E+02**
Mo-93	<6.56E+04	<1.27E+02	1.00E+05	3.56E+01	2.07E+05	2.12E+02	2.31E+05	1.21E+02	**4.94E+02**
Nb-93m	<1.46E+02	<2.82E-01	2.23E+02	<7.93E-02	4.61E+02	4.71E-01	5.16E+02	2.70E-01	**<1.10E+00**
Nb-94	9.99E-05	1.93E-07	1.00E-04	3.57E-08	1.15E-04	1.17E-07	1.19E-04	6.21E-08	**4.08E-07**
Tc-99	3.82E+04	7.37E+01	3.58E+04	1.27E+01	3.47E+04	3.55E+01	3.03E+04	1.58E+01	**1.38E+02**
Ru-106	<7.07E+00	<1.36E-02	<5.99E+00	<2.13E-03	<6.31E+00	<6.45E-03	<3.33E+00	<1.74E-03	**<2.40E-02**
Rh-106	<7.07E+00	<1.36E-02	<5.99E+00	<2.13E-03	<6.31E+00	<6.45E-03	<3.33E+00	<1.74E-03	**<2.40E-02**
Sb-125	1.36E+03	2.63E+00	3.22E+03	1.15E+00	8.21E+03	8.39E+00	9.26E+03	4.84E+00	**1.70E+01**
Sb-126[1]	8.96E+00	1.73E-02	9.03E+00	3.21E-03	1.03E+01	1.06E-02	1.07E+01	5.59E-03	**3.66E-02**
Sb-126m[1]	6.39E+01	1.23E-01	6.45E+01	2.29E-02	7.40E+01	7.56E-02	7.63E+01	3.99E-02	**2.62E-01**
Te-125m	1.36E+03	2.63E+00	3.22E+03	1.15E+00	8.21E+03	8.39E+00	9.26E+03	4.84E+00	**1.70E+01**
Sn-126	8.76E+01	1.69E-01	8.81E+01	3.13E-02	9.79E+01	1.00E-01	9.28E+01	4.85E-02	**3.49E-01**
I-129	1.69E+01	3.26E-02	8.87E+00	3.16E-03	1.00E+01	1.02E-02	1.45E+01	7.57E-03	**5.36E-02**
Cs-134	<2.91E+03	<5.62E+00	<2.48E+02	<8.82E-02	<1.23E+03	<1.26E+00	<8.33E+01	<4.35E-02	**<7.01E+00**
Cs-135	7.35E+01	1.42E-01	6.37E+01	2.27E-02	5.43E+01	5.55E-02	5.21E+01	2.72E-02	**2.47E-01**
Cs-137	1.76E+07	3.40E+04	1.07E+07	3.81E+03	8.22E+06	8.40E+03	6.90E+06	3.60E+03	**4.98E+04**
Ba-137m	1.67E+07	3.22E+04	1.02E+07	3.63E+03	7.77E+06	7.94E+03	6.53E+06	3.41E+03	**4.72E+04**
Ce-144	<6.71E+00	<1.30E-02	<7.75E+00	<2.76E-03	<1.07E+01	<1.09E-02	<4.45E+00	<2.32E-03	**<2.90E-02**

Calculation Continuation Sheet

Calculation No.	Sheet No.	Rev.
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Nuclide	4thQ 2009 Additions	4thQ 2009 Additions	1stQ 2010 Additions	1stQ 2010 Additions	2ndQ 2010 Additions	2ndQ 2010 Additions	3rdQ 2010 Additions	3rdQ 2010 Additions	**Total Fiscal Year 2010 Additions**
	(pCi/mL)	(Ci)	(pCi/mL)	(Ci)	(pCi/mL)	(Ci)	(pCi/mL)	(Ci)	(Ci)
Pr-144	<6.71E+00	<1.30E-02	<7.75E+00	<2.76E-03	<1.07E+01	<1.09E-02	<4.45E+00	<2.32E-03	**<2.90E-02**
Pm-147	<2.70E+02	<5.21E-01	<4.13E+02	<1.47E-01	<3.72E+02	<3.80E-01	<6.58E+02	<3.44E-01	**<1.39E+00**
Sm-151	5.98E+02	1.15E+00	<3.55E+02	<1.26E-01	9.52E+02	9.73E-01	6.07E+02	3.17E-01	**2.57E+00**
Eu-152	2.96E+00	5.71E-03	2.99E+00	1.06E-03	3.41E+00	3.48E-03	3.51E+00	1.84E-03	**1.21E-02**
Eu-154	1.35E+02	2.61E-01	1.84E+02	6.55E-02	4.46E+02	4.56E-01	2.65E+02	1.38E-01	**9.20E-01**
Eu-155	<4.07E+00	<7.86E-03	<4.55E+00	<1.62E-03	3.87E+01	3.95E-02	<2.38E+00	<1.24E-03	**<5.03E-02**
Ra-226[1]	5.89E+02	1.14E+00	5.65E+02	2.01E-01	4.86E+02	4.97E-01	3.80E+02	1.99E-01	**2.03E+00**
Ac-227[1]	9.67E-05	1.87E-07	9.46E-05	3.36E-08	8.56E-05	8.75E-08	7.08E-05	3.70E-08	**3.45E-07**
Ra-228[1]	1.01E-05	1.94E-08	9.59E-06	3.41E-09	8.24E-06	8.42E-09	6.42E-06	3.35E-09	**3.46E-08**
Th-228	<2.08E+01	<4.02E-02	<2.52E+01	<8.97E-03	<3.58E+01	<3.66E-02	<1.55E+01	<8.10E-03	**<9.38E-02**
Th-229[1]	1.64E-02	3.17E-05	1.59E-02	5.67E-06	1.46E-02	1.49E-05	1.24E-02	6.46E-06	**5.88E-05**
Th-230[1]	1.55E+00	2.99E-03	1.49E+00	5.29E-04	1.28E+00	1.31E-03	1.01E+00	5.26E-04	**5.35E-03**
Pa-231[1]	2.69E-04	5.20E-07	2.63E-04	9.36E-08	2.37E-04	2.43E-07	1.97E-04	1.03E-07	**9.59E-07**
Th-232	<5.35E-03	<1.03E-05	<8.29E-03	<2.95E-06	<6.37E-03	<6.51E-06	<9.09E-03	<4.75E-06	**<2.45E-05**
Np-237	1.07E+01	2.07E-02	9.48E+00	3.37E-03	<1.36E+01	<1.39E-02	<1.46E+01	<7.63E-03	**<4.56E-02**
U-232	1.88E+01	3.63E-02	5.22E+00	1.86E-03	9.65E+00	9.86E-03	7.62E+00	3.98E-03	**5.20E-02**
U-233	5.76E+00	1.11E-02	5.60E+00	1.99E-03	5.12E+00	5.24E-03	4.33E+00	2.26E-03	**2.06E-02**
U-234	6.95E+00	1.34E-02	6.82E+00	2.42E-03	6.08E+00	6.21E-03	4.97E+00	2.59E-03	**2.46E-02**
U-235	3.70E-01	7.14E-04	4.50E-01	1.60E-04	4.40E-01	4.50E-04	5.00E-01	2.61E-04	**1.59E-03**
U-236	1.74E+00	3.36E-03	1.77E+00	6.30E-04	<2.50E+00	<2.55E-03	1.68E+00	8.78E-04	**<7.42E-03**
U-238	1.18E+00	2.28E-03	1.77E+00	6.30E-04	1.45E+00	1.48E-03	1.53E+00	7.99E-04	**5.19E-03**
Pu-238	8.51E+03	1.64E+01	2.81E+03	1.00E+00	2.19E+04	2.24E+01	2.03E+04	1.06E+01	**5.04E+01**
Pu-239	2.07E+04	4.00E+01	6.98E+01	2.48E-02	5.33E+02	5.45E-01	1.17E+03	6.11E-01	**4.11E+01**
Pu-240	2.07E+04	4.00E+01	6.98E+01	2.48E-02	5.33E+02	5.45E-01	1.17E+03	6.11E-01	**4.11E+01**
Pu-241	8.16E+03	1.58E+01	1.10E+04	3.91E+00	2.86E+04	2.92E+01	5.12E+04	2.67E+01	**7.56E+01**
Pu-242	2.18E-01	4.22E-04	2.10E-01	7.46E-05	1.81E-01	1.85E-04	1.42E-01	7.41E-05	**7.55E-04**
Pu-244[1]	2.23E-03	4.30E-06	2.14E-03	7.61E-07	1.84E-03	1.88E-06	1.45E-03	7.55E-07	**7.70E-06**
Am-241	3.52E+02	6.79E-01	5.65E+02	2.01E-01	1.51E+03	1.54E+00	1.12E+03	5.85E-01	**3.01E+00**
Am-242m	1.86E-01	3.59E-04	3.48E-01	1.24E-04	5.20E-01	5.31E-04	<7.75E-01	<4.05E-04	**<1.42E-03**
Am-243	2.83E+00	5.46E-03	2.61E+00	9.28E-04	2.20E+00	2.25E-03	1.68E+00	8.76E-04	**9.51E-03**
Cm-242	1.53E-01	2.95E-04	2.88E-01	1.02E-04	4.30E-01	4.39E-04	<6.40E-01	<3.34E-04	**<1.17E-03**

Calculation Continuation Sheet

Calculation No.	Sheet No.	Rev.
X-CLC-Z-00034	Sheet 8 of 13	0

Nuclide	4thQ 2009 Additions	4thQ 2009 Additions	1stQ 2010 Additions	1stQ 2010 Additions	2ndQ 2010 Additions	2ndQ 2010 Additions	3rdQ 2010 Additions	3rdQ 2010 Additions	**Total Fiscal Year 2010 Additions**
	(pCi/mL)	(Ci)	(pCi/mL)	(Ci)	(pCi/mL)	(Ci)	(pCi/mL)	(Ci)	**(Ci)**
Cm-243	5.79E-03	1.12E-05	5.84E-03	2.08E-06	6.68E-03	6.83E-06	6.89E-03	3.60E-06	**2.37E-05**
Cm-244	1.25E+03	2.41E+00	2.21E+03	7.86E-01	2.92E+03	2.98E+00	1.84E+03	9.61E-01	**7.14E+00**
Cm-245[1]	2.04E-03	3.94E-06	2.06E-03	7.31E-07	2.35E-03	2.41E-06	2.43E-03	1.27E-06	**8.35E-06**
Cm-247[1]	1.12E-12	2.16E-15	1.13E-12	4.00E-16	1.29E-12	1.31E-15	1.33E-12	6.95E-16	**4.57E-15**
Cm-248[1]	1.17E-12	2.25E-15	1.17E-12	4.17E-16	1.34E-12	1.37E-15	1.39E-12	7.24E-16	**4.76E-15**
Bk-249[1]	8.51E-20	1.64E-22	8.56E-20	3.05E-23	9.80E-20	1.00E-22	1.01E-19	5.30E-23	**3.48E-22**
Cf-249[1]	6.45E-12	1.24E-14	6.50E-12	2.31E-15	7.42E-12	7.59E-15	7.69E-12	4.02E-15	**2.64E-14**
Cf-251[1]	2.21E-13	4.26E-16	2.22E-13	7.90E-17	2.55E-13	2.60E-16	2.63E-13	1.37E-16	**9.03E-16**
Cf-252[1]	7.16E-15	1.38E-17	7.21E-15	2.57E-18	8.24E-15	8.42E-18	8.53E-15	4.46E-18	**2.93E-17**
									Total Volume (gal)
Volume (gal)	5.10E+05		9.40E+04		2.70E+05		1.38E+05		1.01E+06

Note: Quarterly inventory equals concentration (pCi/mL) multiplied by volume (gal) multiplied by 3785 mL/gal and divided by 1E12 pCi/Ci.

Table 3: Vault 4 Total Inventory as of 9/30/10

Nuclide	Vault 4 Decay Corrected to 9/30/10 (Ci)	FY10 Additions (Ci)	Total Vault 4 Inventory (Ci)
H-3	3.35E+01	2.73E+00	3.62E+01
C-14	7.29E+00	1.96E+00	9.25E+00
Na-22[2]	2.21E+01	1.74E+01	3.96E+01
Al-26[2]	1.06E-01	6.43E-02	1.70E-01
Co-60	1.03E-01	2.51E-02	1.29E-01
Ni-59	3.49E-01	3.30E-02	3.82E-01
Ni-63	2.68E+00	8.09E-01	3.49E+00
Se-79	6.91E+00	1.02E+00	7.93E+00
Sr-90	2.51E+03	3.94E+02	2.90E+03
Y-90	2.51E+03	3.94E+02	2.90E+03
Mo-93	2.35E+03	4.94E+02	2.84E+03
Nb-93m	1.22E+02	1.10E+00	1.23E+02
Nb-94	9.92E-04	4.08E-07	9.92E-04
Tc-99	2.57E+02	1.38E+02	3.95E+02
Ru-106	5.13E-01	2.40E-02	5.37E-01
Rh-106	5.13E-01	2.40E-02	5.37E-01
Sb-125	1.32E+02	1.70E+01	1.49E+02
Sb-126[2]	1.02E-01	3.66E-02	1.39E-01
Sb-126m[2]	7.28E-01	2.62E-01	9.90E-01
Te-125m	3.22E+01	1.70E+01	4.92E+01
Sn-126	7.28E-01	3.49E-01	1.08E+00
I-129	2.45E-01	5.36E-02	2.99E-01
Cs-134	1.10E+01	7.01E+00	1.80E+01
Cs-135	1.18E+00	2.47E-01	1.43E+00
Cs-137	1.97E+05	4.98E+04	2.47E+05
Ba-137m	1.87E+05	4.72E+04	2.34E+05
Ce-144	4.52E-01	2.90E-02	4.81E-01
Pr-144	4.52E-01	2.90E-02	4.81E-01
Pm-147	1.64E+01	1.39E+00	1.77E+01
Sm-151	1.12E+01	2.57E+00	1.38E+01
Eu-152	2.07E-02	1.21E-02	3.28E-02
Eu-154	3.59E+00	9.20E-01	4.51E+00
Eu-155	9.22E-01	5.03E-02	9.72E-01
Pb-210	2.19E-01	0.00E+00	2.19E-01

Nuclide	Vault 4 Decay Corrected to 9/30/10 (Ci)	FY10 Additions (Ci)	Total Vault 4 Inventory (Ci)
Ra-226[2]	7.26E+00	2.03E+00	9.29E+00
Ac-227[2]	8.32E-07	3.45E-07	1.18E-06
Ra-228[2]	1.41E-05	3.46E-08	1.41E-05
Th-228	7.22E-02	9.38E-02	1.66E-01
Th-229[2]	4.21E-04	5.88E-05	4.80E-04
Th-230[2]	2.28E-02	5.35E-03	2.82E-02
Pa-231[2]	3.67E-06	9.59E-07	4.63E-06
Th-232	1.12E-04	2.45E-05	1.37E-04
Np-237	1.85E-01	4.56E-02	2.31E-01
U-232	5.43E-02	5.20E-02	1.06E-01
U-233	3.55E+00	2.06E-02	3.57E+00
U-234	3.82E+00	2.46E-02	3.85E+00
U-235	7.31E-02	1.59E-03	7.47E-02
U-236	1.11E-01	7.42E-03	1.18E-01
U-238	1.25E-01	5.19E-03	1.30E-01
Pu-238	1.85E+02	5.04E+01	2.35E+02
Pu-239	7.96E+00	4.11E+01	4.91E+01
Pu-240	1.26E+01	4.11E+01	5.37E+01
Pu-241	1.70E+02	7.56E+01	2.45E+02
Pu-242	1.13E-02	7.55E-04	1.21E-02
Pu-244[2]	3.67E-05	7.70E-06	4.44E-05
Am-241	1.22E+01	3.01E+00	1.52E+01
Am-242m	1.54E-02	1.42E-03	1.68E-02
Am-243	2.08E-01	9.51E-03	2.17E-01
Cm-242	1.27E-02	1.17E-03	1.39E-02
Cm-243	7.02E-02	2.37E-05	7.02E-02
Cm-244	2.65E+01	7.14E+00	3.36E+01
Cm-245[2]	1.41E-05	8.35E-06	2.24E-05
Cm-247[2]	7.70E-15	4.57E-15	1.23E-14
Cm-248[2]	8.04E-15	4.76E-15	1.28E-14
Bk-249[2]	2.66E-22	3.48E-22	6.14E-22
Cf-249[2]	4.44E-14	2.64E-14	7.08E-14
Cf-251[2]	1.52E-15	9.03E-16	2.42E-15
Cf-252[2]	3.79E-17	2.93E-17	6.72E-17

Note 1: Value in the 'Total' columns equal sum of previous 2 columns.

Note 2:

Many radionuclides were not reported until the "Inventory Determination of PODD Radionuclides in Saltstone Disposal Facility Through 9/30/09" (Ref 1). The inventories for these radionuclides are measures of additional radioactive inventory since the reporting was initiated.

Table 4: Vault 1 Inventory as of 9/30/09, Decay Corrected to 9/30/10

Nuclide	Vault 1 Total as of 9/30//09 (Ci)	Vault 1 Decay Corrected to 9/30/10 (Ci)	Nuclide	Vault 1 Total as of 9/30//09 (Ci)	Vault 1 Decay Corrected to 9/30/10 (Ci)
H-3	2.03E+01	1.92E+01	Ac-227	2.35E-09	6.45E-09
C-14	1.28E+00	1.28E+00	Ra-228	1.09E-14	2.76E-14
Na-22	N.R.	N.R.	Th-229	4.05E-05	6.74E-05
Al-26	N.R.	N.R.	Th-230[1]	1.29E-06	3.85E-06
Co-60	1.39E-03	1.22E-03	Pa-231	1.00E-07	1.67E-07
Ni-59	3.46E-02	3.46E-02	Th-232[1]	7.84E-14	2.35E-13
Ni-63	9.04E-01	8.98E-01	Np-237	4.49E-03	4.49E-03
Se-79	3.02E-01	3.02E-01	U-232	N.R.	N.R.
Sr-90	1.16E-02	1.13E-02	U-233	2.85E-01	2.85E-01
Y-90	1.16E-02	1.13E-02	U-234	2.85E-01	2.85E-01
Nb-94	2.51E-03	2.51E-03	U-235	3.17E-03	3.17E-03
Tc-99	1.08E+02	1.08E+02	U-236	3.17E-03	3.17E-03
Ru-106	3.08E-04	1.55E-04	U-238	7.36E-03	7.36E-03
Rh-106	3.08E-04	1.55E-04	Pu-238	9.24E-03	9.17E-03
Sb-125	3.47E+01	2.70E+01	Pu-239	1.23E-02	1.23E-02
Sb-126	1.40E-01	1.40E-01	Pu-240	1.23E-02	1.23E-02
Sb-126m	9.97E-01	9.97E-01	Pu-241	2.78E-02	2.65E-02
Te-125m	8.44E+00	6.54E+00	Pu-242	9.03E-04	9.03E-04
Sn-126	9.97E-01	9.97E-01	Pu-244	N.R.	N.R.
I-129	1.12E-01	1.12E-01	Am-241	6.05E-04	6.48E-04
Cs-134	N.R.	N.R.	Am-242m	N.R.	N.R.
Cs-135	N.R.	N.R.	Am-243	N.R.	N.R.
Cs-137	7.05E+00	6.89E+00	Cm-242	N.R.	N.R.
Ba-137m	6.67E+00	6.52E+00	Cm-243	N.R.	N.R.
Ce-144[1]	4.10E-01	1.68E-01	Cm-244	N.R.	N.R.
Pr-144[1]	4.10E-01	1.68E-01	Cm-245	N.R.	N.R.
Pm-147[1]	6.42E+00	4.93E+00	Cm-247	N.R.	N.R.
Sm-151[1]	5.71E+00	5.67E+00	Cm-248	N.R.	N.R.
Eu-152	5.29E-03	5.02E-03	Bk-249	N.R.	N.R.
Eu-154	1.34E-03	1.24E-03	Cf-249	N.R.	N.R.
Eu-155	N.R.	N.R.	Cf-251	N.R.	N.R.
Ra-226	6.97E-10	1.81E-09	Cf-252	N.R.	N.R.

Note 1:

Many radionuclides were not reported until the "Inventory Determination of PODD Radionuclides in Saltstone Disposal Facility Through 9/30/09" (Ref 1). The Inventories for these radionuclides are measures of additional radioactive inventory since the reporting was initiated.

Table 5: Total Radionuclide Inventory in SDF as of 9/30/10

Nuclide	Vault 1 Inventory (Ci) (Table 4)	Vault 4 Inventory (Ci) (Table 3)	Total[1] (Ci)	PODD limit[2] (Ci) (Ref. 2, Table 3-2, Ref. 13)	Percent of PODD Total[3] (%)	SA limit (Ci) (Ref. 14)	SA Sum of Fractions[4]
H-3	1.92E+01	3.62E+01	5.54E+01	9.43E+03	0.6%	5.50E+11	1.01E-10
C-14	1.28E+00	9.25E+00	1.05E+01	5.20E+02	2.0%	4.40E+07	2.39E-07
Na-22[5]	N.R.	3.96E+01	3.96E+01	5.05E+03	0.8%		
Al-26[5]	N.R.	1.70E-01	1.70E-01	2.35E+01	0.7%		
Co-60	1.22E-03	1.29E-01	1.30E-01	1.10E+02	0.1%	5.80E+09	2.24E-11
Ni-59	3.46E-02	3.82E-01	4.17E-01	**1.43E+02**	0.3%	2.50E+17	1.67E-18
Ni-63	8.98E-01	3.49E+00	4.39E+00	2.51E+02	1.7%		
Se-79	3.02E-01	7.93E+00	8.23E+00	8.94E+01	9.2%	1.00E+03	8.23E-03
Sr-90	1.13E-02	2.90E+03	2.90E+03	7.43E+03	39.1%	2.40E+16	1.21E-13
Y-90	1.13E-02	2.90E+03	2.90E+03	7.43E+03	39.1%		
Mo-93[5]	N.R.	2.84E+03	2.84E+03			6.20E+05	4.59E-03
Nb-93m[5]	N.R.	1.23E+02	1.23E+02			1.50E+05	8.21E-04
Nb-94	2.51E-03	9.92E-04	3.50E-03	**2.11E-01**	1.7%	1.00E+03	3.50E-06
Tc-99	1.08E+02	3.95E+02	5.03E+02	3.31E+04	1.5%	3.70E+13	1.36E-11
Ru-106	1.55E-04	5.37E-01	5.37E-01	2.28E+03	0.0%		
Rh-106	1.55E-04	5.37E-01	5.37E-01	2.28E+03	0.0%		
Sb-125	2.70E+01	1.49E+02	1.76E+02	9.24E+03	1.9%	1.40E+17	1.25E-15
Sb-126[5]	1.40E-01	1.39E-01	2.78E-01	6.30E+01	4.42E-03		
Sb-126m[5]	9.97E-01	9.90E-01	1.99E+00	4.50E+02	4.42E-03		
Te-125m	6.54E+00	4.92E+01	5.58E+01	2.26E+03	2.5%		
Sn-126	9.97E-01	1.08E+00	2.07E+00	4.51E+02	0.5%	1.20E+03	1.73E-03
I-129	1.12E-01	2.99E-01	4.11E-01	1.80E+01	2.3%	2.20E+02	1.87E-03
Cs-134[5]	N.R.	1.80E+01	1.80E+01	2.71E+03	0.7%	4.10E+19	4.39E-19
Cs-135[5]	N.R.	1.43E+00	1.43E+00	**2.34E+02**	0.6%	8.10E+13	1.76E-14
Cs-137	6.89E+00	2.47E+05	2.47E+05	1.35E+06	18.3%	6.00E+06	4.12E-02
Ba-137m	6.52E+00	2.34E+05	2.34E+05	1.28E+06	18.3%		
Ce-144	1.68E-01	4.81E-01	6.49E-01	**3.14E+02**	0.2%		
Pr-144	1.68E-01	4.81E-01	6.49E-01	**3.14E+02**	0.2%		
Pm-147	4.93E+00	1.77E+01	2.27E+01	4.14E+03	0.5%		
Sm-151	5.67E+00	1.38E+01	1.94E+01	4.55E+03	0.4%		
Eu-152	5.02E-03	3.28E-02	3.78E-02	2.20E+01	0.2%	6.40E+06	5.91E-09
Eu-154	1.24E-03	4.51E+00	4.51E+00	9.74E+02	0.5%	1.20E+08	3.76E-08
Eu-155[5]	N.R.	9.72E-01	9.72E-01	2.57E+02	0.4%	1.10E+19	8.84E-20
Pb-210[5]	N.R.	2.19E-01	2.19E-01			3.90E+11	5.61E-13
Ra-226[5]	1.81E-09	9.29E+00	9.29E+00	1.30E+01	71.5%	4.20E+02	2.21E-02
Ac-227[5]	6.45E-09	1.18E-06	1.18E-06	1.91E-05	6.2%	8.80E+07	1.34E-14
Ra-228[5]	2.76E-14	1.41E-05	1.41E-05	1.04E-01	0.0%	3.70E+08	3.81E-14
Th-228[5]	N.R.	1.66E-01	1.66E-01			1.90E+19	8.74E-21
Th-229[5]	6.74E-05	4.80E-04	5.47E-04	7.53E-03	7.3%	8.60E+03	6.37E-08
Th-230[5]	3.85E-06	2.82E-02	2.82E-02	**1.77E+00**	1.6%	3.30E+02	8.54E-05
Pa-231[5]	1.67E-07	4.63E-06	4.80E-06	5.32E-05	9.0%	2.20E+04	2.18E-10
Th-232	2.35E-13	1.37E-04	1.37E-04	1.04E-01	0.1%	1.60E+02	8.53E-07
Np-237	4.49E-03	2.31E-01	2.35E-01	2.12E+00	11.1%	6.70E+04	3.51E-06
U-232[5]	N.R.	1.06E-01	1.06E-01	**1.55E+00**	6.9%	9.00E+03	1.18E-05

Nuclide	Vault 1 Inventory	Vault 4 Inventory	Total[1]	PODD limit[2]	Percent of PODD Total[3]	SA limit	SA Sum of Fractions[4]
	(Ci)	(Ci)	(Ci)	(Ci)	(%)	(Ci)	
	(Table 4)	(Table 3)		(Ref. 2, Table 3-2, Ref. 13)		(Ref. 14)	
U-233	2.85E-01	3.57E+00	3.86E+00	**1.11E+02**	3.5%	1.40E+04	2.75E-04
U-234	2.85E-01	3.85E+00	4.13E+00	7.72E+00	53.5%	4.50E+03	9.18E-04
U-235	3.17E-03	7.47E-02	7.79E-02	1.35E-01	57.7%	1.00E+05	7.79E-07
U-236	3.17E-03	1.18E-01	1.22E-01	**1.52E+01**	0.8%	3.20E+08	3.80E-10
U-238	7.36E-03	1.30E-01	1.38E-01	5.19E+00	2.7%	6.60E+04	2.08E-06
Pu-238	9.17E-03	2.35E+02	2.35E+02	1.36E+04	1.7%	1.30E+07	1.81E-05
Pu-239	1.23E-02	4.91E+01	4.91E+01	6.55E+02	7.5%	1.40E+10	3.51E-09
Pu-240	1.23E-02	5.37E+01	5.38E+01	1.75E+02	30.7%	3.00E+12	1.79E-11
Pu-241	2.65E-02	2.45E+02	2.45E+02	7.03E+03	3.5%	1.00E+10	2.45E-08
Pu-242	9.03E-04	1.21E-02	1.30E-02	**9.05E+00**	0.1%	4.90E+10	2.64E-13
Pu-244[5]	N.R.	4.44E-05	4.44E-05	7.96E-04	5.6%	3.70E+03	1.20E-08
Am-241	6.48E-04	1.52E+01	1.52E+01	9.50E+01	16.0%	3.40E+08	4.46E-08
Am-242m[5]	N.R.	1.68E-02	1.68E-02	5.27E-02	32.0%	9.80E+06	1.72E-09
Am-243[5]	N.R.	2.17E-01	2.17E-01	**1.09E+00**	20.0%	3.00E+05	7.25E-07
Cm-242[5]	N.R.	1.39E-02	1.39E-02	1.05E-01	13.2%	2.50E+09	5.56E-12
Cm-243[5]	N.R.	7.02E-02	7.02E-02	**1.34E+00**	5.2%	7.00E+09	1.00E-11
Cm-244[5]	N.R.	3.36E+01	3.36E+01	8.72E+01	38.5%	1.10E+15	3.06E-14
Cm-245[5]	N.R.	2.24E-05	2.24E-05	8.58E-03	0.3%	8.40E+06	2.67E-12
Cm-247[5]	N.R.	1.23E-14	1.23E-14	5.15E-12	0.2%	2.50E+04	4.91E-19
Cm-248[5]	N.R.	1.28E-14	1.28E-14	5.36E-12	0.2%		
Bk-249[5]	N.R.	6.14E-22	6.14E-22	6.31E-19	0.1%		
Cf-249[5]	N.R.	7.08E-14	7.08E-14	4.79E-11	0.1%		
Cf-251[5]	N.R.	2.42E-15	2.42E-15	2.47E-01	0.0%	1.80E+06	1.35E-21
Cf-252[5]	N.R.	6.72E-17	6.72E-17	5.32E-14	0.1%		
						Sum[5]	**8.19E-02**

Note 1: Value in the fourth column equals sum of second and third columns.

Note 2: Bolded limits are 50X original PODD per analysis in Ref. 13.

Note 3: Value in the sixth column equals fourth column divided by fifth column, multiplied by 100.

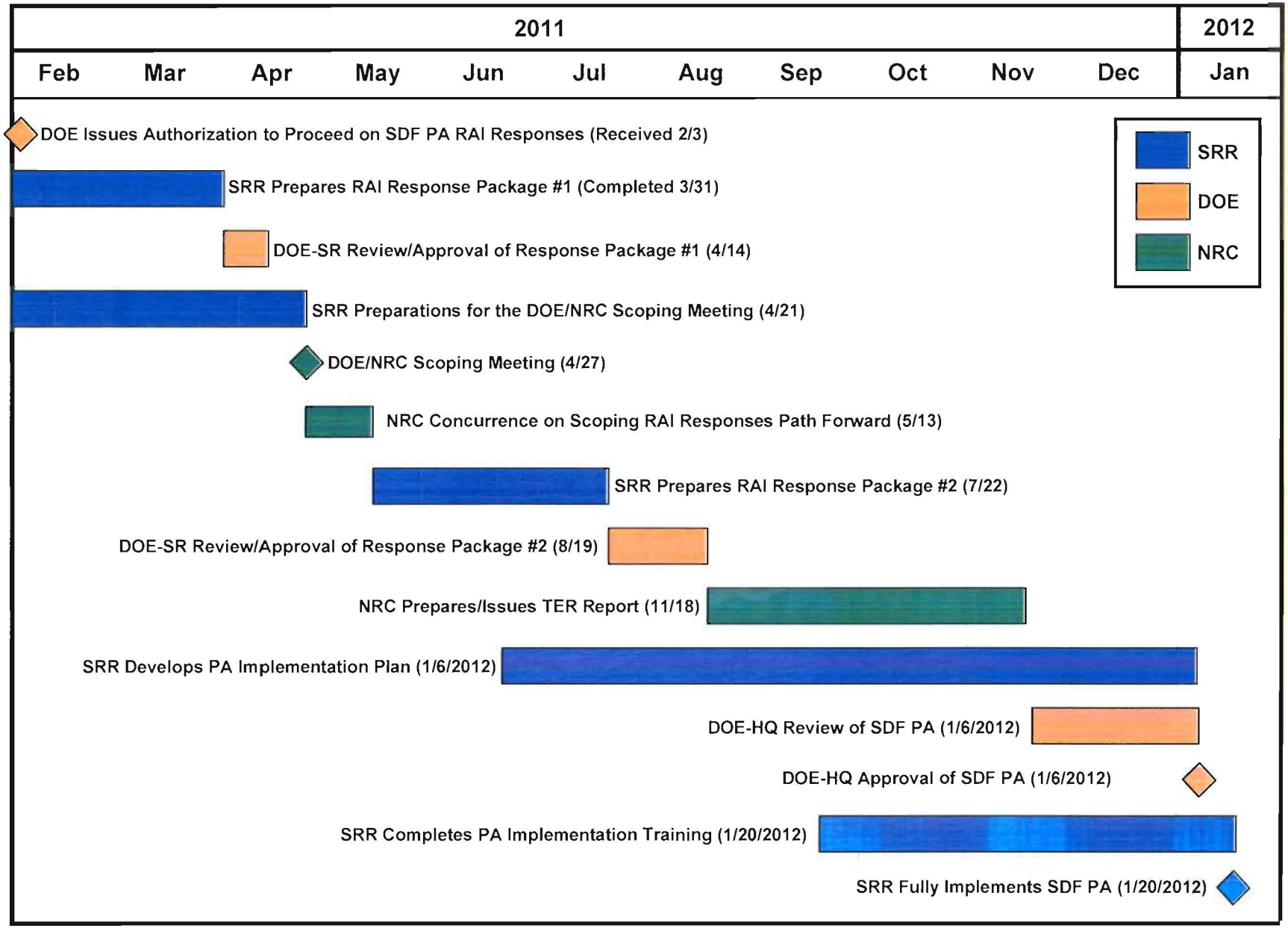
Note 4: Value in the eighth column equals fourth column divided by seventh column.

Note 5: Many radionuclides were not reported until the "Inventory Determination of PODD Radionuclides in Saltstone Disposal Facility Through 9/30/09" (Ref 1). The inventories for these radionuclides are measures of additional radioactive inventory since the reporting was initiated.

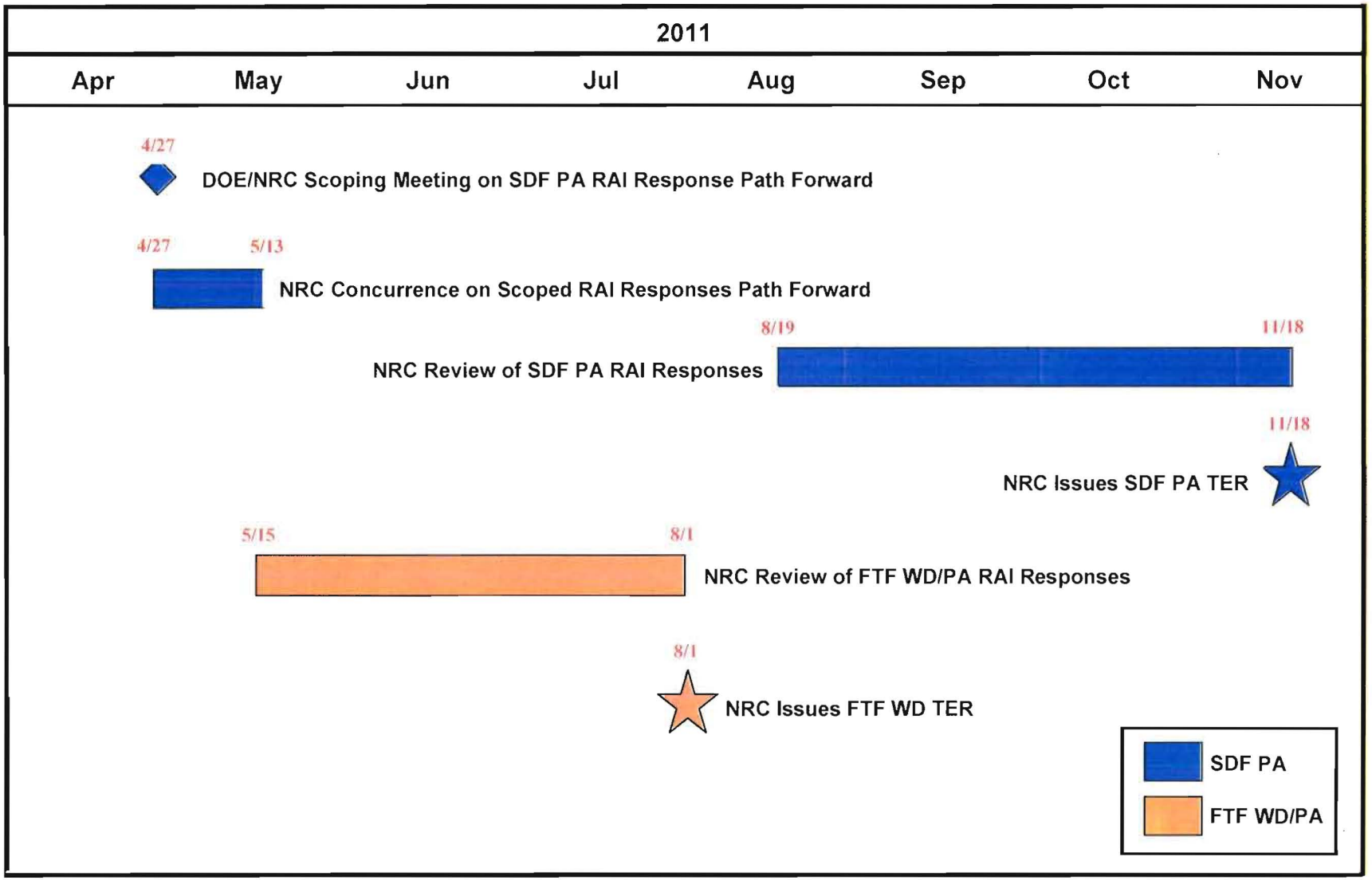
Attachment 1:

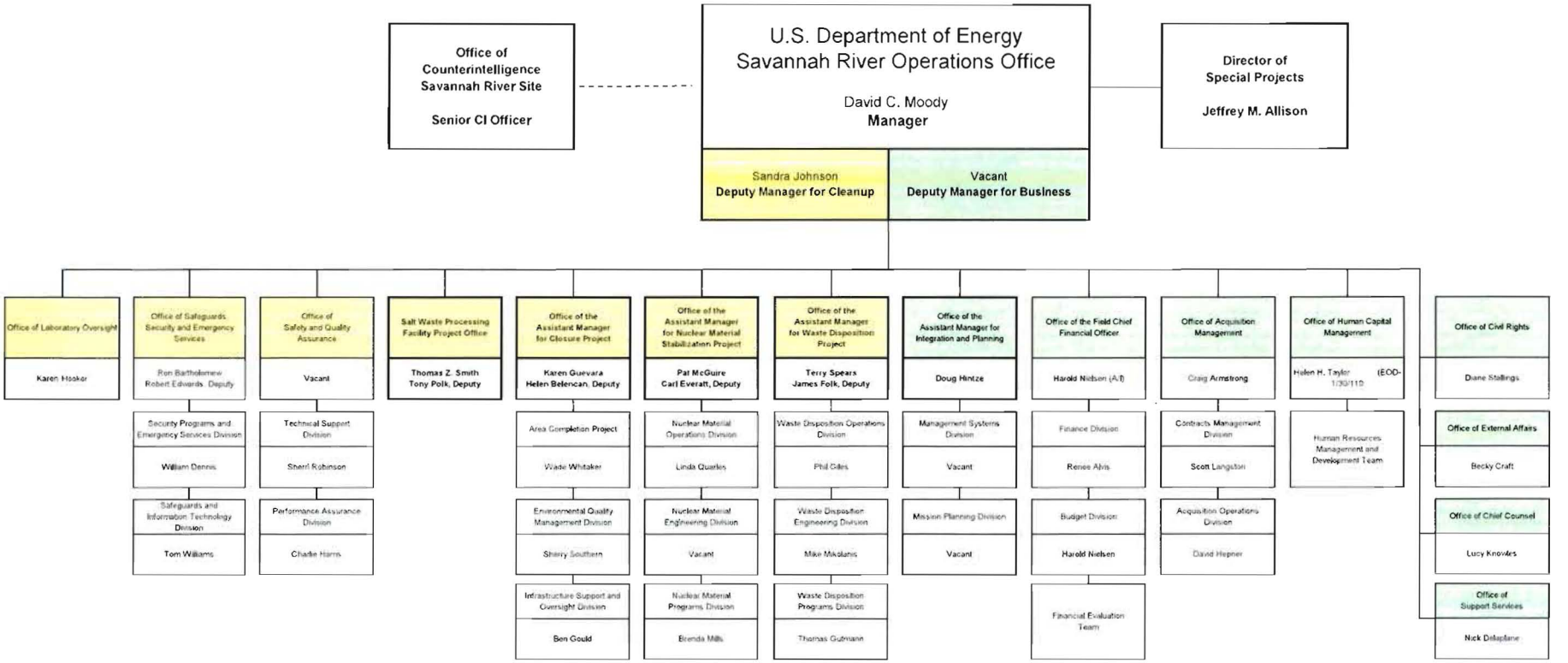
	4thQ-2009 pCi/mL	1stQ-2010 pCi/mL	2ndQ-2010 pCi/mL	3rdQ-2010 pCi/mL
H-3	6.86E+02	7.06E+02	6.68E+02	8.95E+02
C-14	3.58E+02	8.96E+02	6.34E+02	5.74E+02
Na-22	4.63E+03	4.76E+03	4.38E+03	3.70E+03
Al-26	1.78E+01	1.74E+01	1.62E+01	1.39E+01
Co-60	3.30E+00	5.68E+00	1.23E+01	7.87E+00
Ni-59	<1.51E+01	<1.00E+01	<1.05E-01	<3.32E-01
Ni-63	7.99E+01	2.81E+02	3.25E+02	4.26E+02
Se-79	1.35E+02	3.00E+02	4.56E+02	3.57E+02
Sr-90	1.07E+05	6.29E+04	1.10E+05	1.01E+05
Y-90	1.07E+05	6.29E+04	1.10E+05	1.01E+05
Mo-93	<6.58E+04	1.00E+05	2.07E+05	2.31E+05
Nb-93m	<1.46E+02	2.23E+02	4.81E+02	5.16E+02
Nb-94	9.99E-05	1.00E-04	1.15E-04	1.19E-04
Tc-99	3.82E+04	3.58E+04	3.47E+04	3.03E+04
Ru-106	<7.07E+00	<5.99E+00	<8.31E+00	<3.33E+00
Rh-106	<7.07E+00	<5.99E+00	<8.31E+00	<3.33E+00
Sb-125	1.38E+03	3.22E+03	8.21E+03	9.26E+03
Sb-126	8.96E+00	9.03E+00	1.03E+01	1.07E+01
Sb-126m	6.39E+01	6.45E+01	7.40E+01	7.63E+01
Te-125m	1.38E+03	3.22E+03	8.21E+03	9.26E+03
Sn-126	8.76E+01	8.81E+01	9.79E+01	9.26E+01
I-129	1.69E+01	8.87E+00	1.00E+01	1.45E+01
Cs-134	<2.91E+03	<2.48E+02	<1.23E+03	<8.33E+01
Cs-135	7.35E+01	6.37E+01	5.43E+01	5.21E+01
Cs-137	1.76E+07	1.07E+07	8.22E+06	6.90E+06
Ba-137m	1.67E+07	1.02E+07	7.77E+06	6.53E+06
Ce-144	<8.71E+00	<7.75E+00	<1.07E+01	<4.45E+00
Pr-144	<8.71E+00	<7.75E+00	<1.07E+01	<4.45E+00
Pm-147	<2.70E+02	<4.13E+02	<3.72E+02	<6.58E+02
Sm-151	5.98E+02	3.55E+02	9.52E+02	6.07E+02
Eu-152	2.96E+00	2.99E+00	3.41E+00	3.51E+00
Eu-154	1.35E+02	1.84E+02	4.46E+02	2.65E+02
Eu-155	<4.07E+00	<4.55E+00	3.87E+01	<2.38E+00
Ra-226	5.89E+02	5.65E+02	4.86E+02	3.80E+02
Ac-227	9.67E-05	9.46E-05	8.58E-05	7.08E-05
Ra-228	1.01E-05	9.59E-06	8.24E-06	6.42E-06
Th-228	<2.08E+01	<2.52E+01	<3.58E+01	<1.55E+01
Th-229	1.64E-02	1.59E-02	1.46E-02	1.24E-02
Th-230	1.55E+00	1.49E+00	1.28E+00	1.01E+00
Pa-231	2.69E-04	2.63E-04	2.37E-04	1.97E-04
Th-232	<5.35E-03	<8.29E-03	<6.37E-03	<9.09E-03
Np-237	1.07E+01	9.48E+00	<1.36E+01	<1.46E+01
U-232	1.88E+01	5.22E+00	9.65E+00	7.62E+00
U-233	5.76E+00	5.60E+00	5.12E+00	4.33E+00
U-234	6.95E+00	6.82E+00	6.08E+00	4.97E+00
U-235	3.70E-01	4.50E-01	4.40E-01	5.00E-01
U-236	1.74E+00	1.77E+00	<2.50E+00	1.68E+00
U-238	1.18E+00	1.77E+00	1.45E+00	1.53E+00
Pu-238	8.51E+03	2.81E+03	2.19E+04	2.03E+04
Pu-239	2.07E+04	6.98E+01	5.33E+02	1.17E+03
Pu-240	2.07E+04	6.98E+01	5.33E+02	1.17E+03
Pu-241	8.16E+03	1.10E+04	2.86E+04	5.12E+04
Pu-242	2.18E-01	2.10E-01	1.81E-01	1.42E-01
Pu-244	2.23E-03	2.14E-03	1.84E-03	1.45E-03
Am-241	3.52E+02	5.65E+02	1.51E+03	1.12E+03
Am-242m	1.86E-01	3.48E-01	5.20E-01	<7.75E-01
Am-243	2.63E+00	2.61E+00	2.20E+00	1.68E+00
Cm-242	1.53E-01	2.88E-01	4.30E-01	<8.40E-01
Cm-243	5.79E-03	5.84E-03	6.68E-03	6.89E-03
Cm-244	1.25E+03	2.21E+03	2.92E+03	1.84E+03
Cm-245	2.04E-03	2.06E-03	2.35E-03	2.43E-03
Cm-247	1.12E-12	1.13E-12	1.29E-12	1.33E-12
Cm-248	1.17E-12	1.17E-12	1.34E-12	1.39E-12
Bk-249	6.51E-20	8.56E-20	9.80E-20	1.01E-19
Cf-249	6.45E-12	6.50E-12	7.42E-12	7.69E-12
Cf-251	2.21E-13	2.22E-13	2.55E-13	2.63E-13
Cf-252	7.16E-15	7.21E-15	8.24E-15	8.53E-15
Total Transuranic Alpha Emitters with ($t_{1/2}$) > 5 years	2.74E+04	2.07E+04	6.49E+04	7.58E+04
	SRR-WSE-2010-00076	SRR-WSE-2010-00162	X-CLC-Z-00032	X-CLC-Z-00032
	SRNL-L3100-2009-00305	SRNL-L3100-2010-00016	SRNL-L1300-2010-00060	SRNL-L3100-2010-00179
	WCS	WCS	WCS	WCS
	X-ESR-H-00235	X-ESR-H-00235	X-ESR-H-00284	X-ESR-H-00284

Path Forward for Resolution of SS PA RAI



Desired Schedule of NRC Activities

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Savannah River Site
Senior CI Officer
U.S. Department of Energy
Savannah River Operations Office
David C. Moody
Manager
Director of Special Projects
Jeffrey M. Allison
Sandra Johnson
Deputy Manager for Cleanup
Vacant
Deputy Manager for Business
Office of Laboratory Oversight
Karen Hooker
Office of Safeguards, Security and Emergency Services
Ron Bartholomew
Robert Edwards, Deputy
Security Programs and Emergency Services Division
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Office of Civil Rights
Diane Stallings
Office of External Affairs
Becky Craft
Office of Chief Counsel
Lucy Knowles
Office of Support Services
Nick Delaplane

F-Tank Farm Closure Schedule: Operational Closure of Tanks 18 & 19