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LOS ALAMOS NATIONAL LABORATORY
CARLSBAD OPERATIONS

INV-FPA-24, Revision 0

FULL REPOSITORY PERFORMANCE ASSESSMENT INVENTORY REPORT - 2024

Effective Date: 1/28/2025

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1.0 PURPOSE

This *Full Repository Performance Assessment Inventory Report - 2024* (FRPAIR-2024; hereafter referred to as "this report") was prepared by the Los Alamos National Laboratory - Carlsbad Operations (LANL-CO). The inventory information provided in this report will be used by the Sandia National Laboratories – Carlsbad Programs Group (SNL-CPG) to conduct a full repository performance assessment (PA) scaled to the *WIPP Land Withdrawal Act* (LWA; U.S. Congress 1992 and 1996) statutory capacity in support of the Waste Isolation Pilot Plant (WIPP) fifth Compliance Recertification Application (CRA; CRA-2026). This report documents the transuranic (TRU) waste inventory data needs that were requested by SNL-CPG in a letter dated Septemer 23, 2024, from Steve Wagner to Anderson Ward of CBFO (SNL 2024). This letter (hereafter referred to as the "SNL WIPP Inventory Needs Letter") is provided as Attachment 1 to this report.

2.0 SCOPE

The information provided in this report is based on the annual inventory collected from the TRU waste sites and documented in the *Annual Transuranic Waste Inventory Report (ATWIR) - 2024* (ATWIR-2024; DOE 2024). The ATWIR-2024 contains an inventory of defense-related TRU waste information as of December 31, 2023, and segregates the waste streams into the following categories:

- *Emplaced* (already shipped from the TRU waste site to the WIPP or to Waste Control Specialists [WCS], a temporary storage location near Andrews, Texas),
- *WIPP-bound* (likely to be shipped to WIPP), and
- *Potential* (potential future WIPP waste).

For this report, only *Emplaced* and *WIPP-bound* waste streams were considered.

3.0 REFERENCES, ACRONYMS, AND DEFINITIONS

3.1 References

DOE 1996. *Title 40 CFR Part 191 Compliance Certification Application for the Waste Isolation Pilot Plant*. 21 vols. DOE/CAO-1996-2184. October, 1996. U.S. Department of Energy, Carlsbad Area Office, Carlsbad, NM.

DOE 2004. *Title 40 CFR Part 191 Compliance Recertification Application 2004*. 10 vols. DOE/WIPP-2004-3231. March, 2004. U.S. Department of Energy, Carlsbad Field Office, Carlsbad, NM.

DOE 2009. *Title 40 CFR Part 191 Compliance Recertification Application 2009*. DOE/WIPP-2009-2225. 2009. U.S. Department of Energy, Carlsbad Field Office, Carlsbad, NM.

DOE 2014. *Title 40 CFR Part 191 Compliance Recertification Application 2014*. DOE/WIPP-14-3503. 2014. U.S. Department of Energy, Carlsbad Field Office, Carlsbad, NM.

DOE 2019. *Title 40 CFR Part 191 Compliance Recertification Application 2019*. DOE/WIPP-19-3609. 2019. U.S. Department of Energy, Carlsbad Field Office, Carlsbad, NM.

DOE 2023. *Quality Assurance Program Document*, Revision 14. U.S. Department of Energy, Carlsbad Field Office, DOE/CBFO-94-1012.

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DOE and State of New Mexico 1988. *Modification to the Agreement for Consultation and Cooperation Between the Department of Energy and the State of New Mexico on the Waste Isolation Pilot Plant*, July 1, 1981 (dated April 18, 1988), Carlsbad Area Office, Carlsbad, NM.

EPA 1996. *Criteria for the Certification and Recertification of the Waste Isolation Pilot Plant's Compliance With the 40 CFR Part 191 Disposal Regulations,* Final Rule, Title 40 CFR, Part 194, Federal Register, February 9, 1996. U.S. Environmental Protection Agency (EPA), Washington, D.C.

LANL 2024a. *Comprehensive Inventory Database*, software version v.2.04 S.2.04, data version D.23.00. LANL-CO. July 30, 2024.

LANL 2024b. *Chemical and Cement Components 2023 Inventory Estimates*. LANL-CO. INV-SAR-79, Revision 0, December 12, 2024.

LANL 2024c. *Estimation of Cellulose, Plastic, and Rubber Emplacement and Operational Materials in the Waste Isolation Pilot Plant for 2023 Inventory*. LANL-CO. INV-SAR-78, Revision 0, November 7, 2024.

ORNL 2009. *SCALE: A Modular Code System for Performing Standardized Computer Analyses for Licensing Evaluation*. Oak Ridge National Laboratory. ORNL/TM-2005/39, Version 6, Vols.I–III January 2009. Oak Ridge, TN. Available from Radiation Safety Information Computational Center at Oak Ridge National Laboratory as CCC-750.

SNL 2024. *Sandia's WIPP Inventory Needs for Compliance Recertification Application 2026 Performance Assessment*, letter dated September 23, 2024 from Steve Wagner (SNL-CPG) to Anderson Ward (DOE-CBFO).

U.S. Congress 1992 and 1996. *Waste Isolation Pilot Plant Land Withdrawal Act*, Public Law 102-579 (1992), as amended by Public Law 104-201, (1996).

3.2 Acronyms

ATWIR	Annual Transuranic Waste Inventory Report
CBFO	Carlsbad Field Office
CFR	Code of Federal Regulations
CH	contact-handled
CID	Comprehensive Inventory Database
CRA	Compliance Recertification Application
DOE	[United States] Department of Energy
EPA	[United States] Environmental Protection Agency
LANL-CO	Los Alamos National Laboratory – Carlsbad Operations
LWA	Land Withdrawal Act
ORIGEN-S	Oak Ridge Isotope Generation and Depletion Code (a module of SCALE version 6)
PA	performance assessment
PAIR	Performance Assessment Inventory Report
QA	Quality Assurance
QAPD	[CBFO] Quality Assurance Program Document
RH	remote-handled
SCALE	Standardized Computer Analysis for Licensing Evaluation
SNL-CPG	Sandia National Laboratories – Carlsbad Programs Group
TRU	transuranic
WIPP	Waste Isolation Pilot Plant
WCS	Waste Control Specialists
WDS	[WIPP] Waste Data System

3.3 Definitions

emplaced	Waste that is held in aboveground storage or disposed of in the WIPP facility, in temporary storage at WCS, or in transit to WCS/WIPP as of the cutoff date.
potential	A designation in the ATWIR for a waste stream with meaningful uncertainties regarding its eligibility, due to technical or leagal considerations, for emplacement in the

	WIPP facility, as of the cutoff date. This designation is not intended to identify whether the waste stream will ultimately be disposed of at the WIPP. Regardless of its designation in the ATWIR, all TRU waste must meet all WIPP requirements before it can be disposed of in the WIPP facility. Potential waste streams are not used for PA; and therefore, not included in this report.
projected	The part of the inventory that has not been generated (does not physically exist), but is estimated to be generated at some time in the future by the TRU waste generator sites. TRU waste in projected waste streams includes waste from programs that have not come on-line as of the data cutoff date, as well as waste from ongoing projects and D&D waste that has not yet been packaged.
scaled (scaling)	A methodology by which actual inventory values are artificially increased in order to simulate a “full” repository at the LWA statutory capacity of 175,564 m^3 (6,200,000 ft^3).
stored	The part of the TRU waste inventory that currently exists (already generated, but not yet shipped to the WIPP facility) as of the data cutoff date.
WIPP-bound	A designation within the ATWIR for a waste stream that appears, as of the data cutoff date, to have no significant technical or legal constraints limiting the waste from being eligible for disposal in the WIPP facility after all waste characterization and certification criteria have been satisfied. WIPP-bound waste streams are used for PA; and therefore, included in this report.

4.0 METHODOLOGY

4.1 Annual Inventory Collection and Publication

Inventory data and projected estimates are collected annually from the TRU waste sites and the WIPP Waste Data System (WDS) in order to maintain an updated inventory estimate of the DOE TRU waste complex. The data are compiled in the Comprehensive Inventory Database (CID; LANL 2024a), which is software developed and qualified under the LANL-CO Quality Assurance (QA) program in accordance with the CBFO *Quality Assurance Program Document* (QAPD; DOE 2023). Additionally, the CID facilitates the decay and buildup correction of radionuclide activities by using Oak Ridge Isotope Generation and Depletion (ORIGEN-S) module of *Standardized Computer Analysis for Licensing Evaluation* (SCALE) Version 6 (ORNL 2009), acquired

software also qualified under the LANL-CO QA program in accordance with the QAPD. The CID is then used to generate the data reported in each ATWIR.

The data provided in this report are based upon the inventory collected as of December 31, 2023, which includes future generation estimates through calendar year (CY) 2083, and served as a basis for the ATWIR-2024 (DOE 2024). Additional decay calculations were performed upon this inventory to support the specific needs of this report, and the resulting data version was labeled D.23.00 (LANL 2024a).

Additionally, supplemental analyses were performed in order to completely satisfy the SNL WIPP Inventory Needs Letter requests (see section 4.3 below).

4.2 Scaling to a Full Repository

PA modeling in support of WIPP explicitly assumes that the WIPP is filled to its statutory capacity at time of closure, as required in Title 40 Code of Federal Regulations (CFR) Part 194.24 (EPA 1996). The statutory capacity for WIPP is 175,564 m^3 (6,200,000 ft^3), as set by the *WIPP Land Withdrawal Act* (U.S. Congress 1992 and 1996), with a limit of 7,079 m^3 (250,000 ft^3) for remote-handled (RH)-TRU waste as imposed by the *Consultation and Cooperation Agreement* (DOE and State of New Mexico 1988); therefore, the difference in the full statutory volume capacity and the RH-TRU imposed disposal limit sets the contact-handled (CH)-TRU disposal limit at 168,485 m^3 (5,950,000 ft^3). The volume of WIPP-bound anticipated (stored plus projected) and emplaced TRU waste reported by the DOE TRU waste sites for the ATWIR-2024 is less than the statutory volume capacity for WIPP.

Since each of the requests included in the SNL WIPP Inventory Needs Letter (see Attachment 1) specify that the inventory be “scaled to a full repository,” a scaling methodology was implemented through the CID whereby a portion of the inventory was scaled such that the totals reflect a “full” WIPP repository in terms of volume. The approved scaling methodology is to scale only the *projected* (not yet generated) portion of the inventory, since this represents future waste. By contrast, the *stored* (already generated) and *emplaced* (already shipped to WIPP or WCS) waste are fixed, known portions of the inventory that are left intact. This methodology is consistent with scaling previously performed for the initial WIPP Compliance Certification Application (DOE 1996) and CRA’s 2004 (DOE 2004), 2009 (DOE 2009), 2014 (DOE 2014), and 2019 (DOE 2019).

The CID is configured to produce scaled values by only scaling that portion of the waste which is projected. To do so, it has calculated scaling factors (for CH-TRU and RH-TRU waste separately) by which the respective projected volume totals are multiplied such that, when added with the stored and emplaced portions, are equal to the disposal limits (168,485 m^3 for CH-TRU, and 7,079 m^3 for RH-TRU) for the WIPP. These same scaling factors were

then also used to scale the projected portion of radionuclide activity and non-radiological material mass estimates provided in this report.

The scaling factors calculated by the CID and used for this report are as follows (rounded to three significant figures):

CH-TRU	1.36
RH-TRU	6.57

4.3 Supplemental Analyses

Two additional analyses were performed to supplement the inventory information that the CID could not readily provide. The two analyses are: *Chemical and Cement Components 2023 Inventory Estimates* (LANL 2024b), and *Estimation of Cellulose, Plastic, and Rubber Emplacement and Operational Materials in the Waste Isolation Pilot Plant* (LANL 2024c).

The *Chemical and Cement Components 2023 Inventory Estimates* (LANL 2024b) analysis was performed to determine the total amount of oxyanions, complexing agents (organic ligands), and cement that would be present in a full WIPP repository. These inventory estimates are only available for that data collected from the TRU waste sites. Data on these components are not available from the WDS, which would represent the already-emplaced portion. Therefore, an analysis was warranted to estimate the total mass for these constituents, including those that have already been emplaced at the WIPP. The results from this analysis report are presented in Table 5-6, Table 5-8, and Table 5-9 below.

The *Estimation of Cellulose, Plastic, and Rubber Emplacement and Operational Materials in the Waste Isolation Pilot Plant* (LANL 2024c) analysis was performed to estimate the amount of emplacement materials (used to facilitate the emplacement of waste, but not including the container packages themselves) and operational materials (used during operational activities and will remain in the repository at closure) in a full WIPP repository. Since the CID only compiles the materials data related to the waste and the packaging containers, this supplemental analysis was warranted. The results from this analysis report are presented in Table 5-7 below.

5.0 RESULTS

5.1 Radionuclides & Volumes

SNL WIPP Inventory Needs Letter Request #1

1. *Waste stream volumes (in m^3) and inventory of radionuclides on a waste stream basis for both CH- and RH-TRU waste, supplied in Curies and decayed to the year 2083, for the following radionuclides (scaled to a full repository): ^{241}Am, ^{243}Am, ^{244}Cm, ^{137}Cs, ^{237}Np, ^{238}Pu, ^{239}Pu, ^{240}Pu, ^{241}Pu, ^{242}Pu, ^{244}Pu, ^{90}Sr, ^{229}Th, ^{230}Th, ^{232}Th, ^{233}U, ^{234}U, ^{235}U, ^{236}U, and ^{238}U.*

Table 5-1. CH Volume (m^3) and Activity (Ci) By Waste Stream and Radionuclide Decayed thru 2083

Site	Waste Stream ID	Scaled Vol (m^3)	Am-241	Am-243	Cm-244	Cs-137	Np-237	Pu-238	Pu-239	Pu-240	Pu-241	Pu-242	Pu-244	Sr-90	Th-229	Th-230	Th-232	U-233	U-234	U-235	U-236	U-238
AE	AE-T001	61.29	3.61E+01	3.61E+00	1.31E-02	2.46E-01	2.15E-02	1.94E+00	1.50E+01	4.92E+00	6.07E+00	3.75E-02	1.07E-05	1.67E-01	7.24E-05	6.56E-04	2.36E-04	8.24E-03	1.43E-01	8.07E-05	3.25E-05	4.25E-03
AE	WP-AECHDM	78.33	5.08E+01	1.87E+00	6.33E-03	3.07E-01	1.24E-01	3.51E+01	8.53E+01	6.41E+01	2.29E+00	2.62E-02	1.71E-15	2.83E-01	8.76E-03	6.21E-05	3.01E-13	4.20E-02	8.94E-02	1.50E-03	1.52E-04	4.41E-02
AE	WP-AECHHM	11.55	1.30E+01	5.11E-03	--	2.40E-04	2.05E-03	2.44E+00	4.12E+01	1.63E+01	1.19E-09	2.02E-03	--	2.22E-04	3.19E-04	4.23E-06	7.68E-14	6.53E-07	6.09E-03	1.09E-04	3.89E-05	2.69E-03
AE	WP-MU-W002	1.47	6.20E+00	1.13E-03	--	2.89E-07	4.02E-03	--	2.26E-02	--	--	--	--	2.67E-07	1.09E-03	1.44E-12	--	1.37E-06	3.90E-09	1.79E-09	--	1.73E-05
AW	AW-N027.531	8.82	8.27E+01	2.82E-08	--	1.98E-04	5.53E-03	--	2.87E+00	--	--	--	--	1.93E-04	2.96E-09	1.04E-11	--	1.21E-06	3.84E-08	3.29E-05	--	2.31E-04
AW	AW-T033.1325	52.93	9.28E+01	2.26E-02	3.08E-01	8.50E-01	1.61E-01	6.80E+00	1.84E+01	1.59E+00	--	3.85E-04	--	7.55E-01	1.07E-07	2.02E-06	2.17E-14	4.12E-05	4.39E-03	1.07E-04	8.86E-06	4.31E-03
IN	IN-BN-218	16.44	3.86E-01	--	--	1.51E-06	1.55E-05	6.08E-01	4.29E-01	9.41E-02	2.01E-02	1.05E-05	--	1.52E-06	7.11E-12	8.92E-08	2.48E-16	3.03E-09	2.22E-04	1.67E-05	1.68E-07	1.86E-04
IN	IN-BN-522	0.42	1.03E-02	--	--	--	7.44E-07	6.60E-04	5.42E-02	1.14E-02	3.05E-03	1.10E-06	--	--	5.10E-13	5.51E-11	3.76E-17	1.84E-10	1.64E-07	3.58E-09	2.27E-08	1.15E-14
IN	IN-BN-599	0.63	1.70E-01	--	--	1.90E-05	3.99E-06	7.36E-03	4.64E-01	1.03E-01	2.45E-02	1.35E-05	--	1.87E-05	1.28E-12	7.05E-10	3.79E-16	6.16E-10	1.98E-06	3.25E-08	2.16E-07	1.48E-13
IN	IN-BN-602	0.42	1.20E+00	--	--	1.11E-06	2.95E-05	1.85E-03	1.17E-01	2.59E-02	6.09E-03	3.41E-06	--	1.09E-06	1.00E-11	1.84E-10	9.83E-17	4.71E-09	5.07E-07	8.30E-09	5.53E-08	3.81E-14
IN	IN-BN-RF003	3.84	3.06E+01	--	--	--	9.81E-04	4.22E-03	2.51E-01	5.56E-02	1.90E-02	7.33E-06	--	--	4.17E-10	1.29E-08	2.54E-07	1.80E-07	2.28E-05	7.08E-06	1.04E-07	7.17E-14
IN	IN-BN-RF290	0.21	7.89E-02	--	--	--	2.91E-06	7.54E-03	3.05E-01	6.95E-02	1.02E-02	5.73E-06	--	--	1.47E-12	6.07E-10	2.22E-16	5.89E-10	1.84E-06	1.99E-08	1.36E-07	5.87E-14
IN	IN-BN-RF311	2.34	3.24E+00	--	--	1.54E-07	1.12E-04	1.28E+00	1.48E+01	3.47E+00	5.29E-01	2.75E-04	--	1.50E-07	6.53E-11	1.54E-07	1.55E-14	2.38E-08	3.90E-04	1.14E-06	8.05E-06	3.33E-12
IN	IN-BN-RF420	2.13	5.59E-01	--	--	--	2.09E-05	7.08E-02	2.55E+00	5.17E-01	1.11E-01	4.09E-05	--	--	1.30E-11	8.25E-09	2.25E-15	4.64E-09	2.12E-05	1.94E-07	1.18E-06	4.88E-13
IN	IN-BN-RF432	7.20	6.99E+01	--	--	--	2.38E-03	5.36E-01	2.96E+01	6.63E+00	1.51E+00	5.68E-04	--	--	1.08E-09	4.01E-08	1.99E-14	4.53E-07	1.26E-04	1.87E-06	1.26E-05	5.64E-12
IN	IN-BN-RF801	4.02	5.61E-01	1.03E-11	--	--	2.10E-05	6.42E-02	2.56E+00	5.79E-01	2.52E-01	5.00E-05	--	--	1.04E-11	5.80E-09	1.74E-15	4.24E-09	1.68E-05	7.04E-07	1.10E-06	4.97E-13
IN	IN-BN-SRP-S3000.2A	32.64	5.09E+02	--	--	3.25E-05	1.93E-02	9.26E+00	3.64E+02	8.32E+01	2.18E+01	1.18E-02	--	3.26E-05	9.04E-09	7.29E-07	2.35E-13	3.79E-06	2.24E-03	2.69E-05	1.53E-04	1.14E-10
IN	IN-BN004	46.44	6.24E+01	1.57E-09	--	1.94E-07	3.88E-03	2.93E+00	1.15E+02	2.55E+01	6.67E+00	2.70E-03	--	1.93E-07	2.29E-09	5.45E-07	7.43E-14	8.87E-07	1.25E-03	1.77E-04	4.78E-05	2.64E-11
IN	IN-BN222	7.20	1.35E+01	--	--	--	4.19E-04	1.41E+00	6.30E+01	1.37E+01	4.66E+00	1.05E-03	--	--	1.89E-10	1.16E-07	4.37E-14	7.87E-08	3.49E-04	5.41E-06	2.68E-05	1.07E-11
IN	IN-BN510.4	2375.00	3.96E+03	2.39E-01	--	7.60E-01	2.16E-01	6.43E+03	6.86E+03	1.66E+03	4.71E+02	2.71E-01	--	7.63E-01	5.11E-02	5.19E-04	7.68E-03	9.70E+00	1.58E+00	4.79E-02	2.96E-03	1.59E+00
IN	IN-BN538	288.21	1.09E+01	--	--	--	2.82E-04	7.24E-01	3.91E+01	8.67E+00	5.19E+00	1.14E-03	--	--	1.06E-10	7.47E-08	2.69E-14	4.77E-08	2.04E-04	1.25E-05	1.67E-05	1.15E-11
IN	IN-BN539	51.73	4.70E-01	--	--	--	9.48E-06	6.32E+00	1.68E+00	3.79E-01	2.21E-01	4.98E-05	--	--	2.40E-12	4.91E-07	1.17E-15	1.29E-09	1.51E-03	1.08E-07	7.31E-07	5.02E-13
IN	IN-BN600	1480.06	3.72E+01	7.49E-05	--	1.92E-02	1.47E-03	2.13E+00	8.25E+01	1.81E+01	7.79E+00	1.98E-03	--	1.91E-02	6.42E-05	9.69E-07	4.18E-06	1.22E-02	1.97E-03	1.93E-04	3.23E-05	6.96E-03
IN	IN-BN650	2200.80	2.99E+03	1.41E-03	2.25E-02	6.31E-02	1.17E-01	6.70E+01	2.89E+03	6.46E+02	1.66E+02	7.07E-02	--	6.20E-02	4.69E-04	1.33E-04	1.63E-04	8.90E-02	2.48E-01	1.30E-02	1.15E-03	5.97E-01
IN	IN-BN835	5.94	1.70E-01	--	--	1.95E-07	3.06E-05	7.06E+01	1.86E-01	1.18E-01	3.41E-02	1.32E-04	--	1.96E-07	1.96E-11	4.55E-06	3.11E-16	7.56E-09	1.53E-02	1.10E-08	2.10E-07	6.49E-05
IN	IN-BN836	6.96	3.31E-02	--	--	--	3.23E-06	8.12E-01	2.05E-03	1.39E-03	7.76E-05	1.61E-06	--	--	2.10E-12	5.95E-08	4.04E-18	7.91E-10	1.89E-04	1.27E-10	2.60E-09	1.57E-14
IN	IN-BNINW216	5.94	2.79E+01	--	--	8.46E-08	9.57E-04	4.31E-02	1.58E+00	3.52E-01	1.34E-01	7.08E-05	--	8.45E-08	4.28E-10	9.12E-08	1.03E-15	1.82E-07	1.62E-04	3.18E-05	6.59E-07	7.66E-04
IN	IN-BNINW218	16.62	1.34E+00	--	--	--	3.75E-05	3.74E-01	1.21E+00	2.61E-01	7.59E-02	3.49E-05	--	--	1.42E-11	3.05E-05	1.27E-06	6.42E-09	5.27E-02	3.83E-03	4.89E-07	2.73E-01
IN	IN-BNSRPS3.1A	325.77	2.18E+03	--	--	4.98E-05	8.66E-02	5.92E+00	1.86E+02	4.43E+01	2.45E+01	1.22E-02	--	5.00E-05	1.39E-05	7.81E-06	1.17E-13	2.65E-03	1.47E-02	1.17E-03	7.89E-05	3.41E-02
IN	IN-BNSRPS3.3A	401.43	3.01E+03	--	--	2.79E-06	1.13E-01	7.23E+00	2.92E+02	6.83E+01	2.90E+01	1.53E-02	--	2.79E-06	4.87E-06	2.65E-05	1.99E-13	8.94E-04	4.65E-02	1.44E-03	1.28E-04	3.90E-02
IN	IN-BNSRPS3.3B	242.73	1.59E+02	--	--	5.60E-07	5.96E-03	9.06E-01	3.45E+01	7.56E+00	2.92E+00	1.43E-03	--	5.60E-07	2.83E-09	4.48E-06	2.20E-14	1.18E-06	7.84E-03	2.44E-04	1.42E-05	1.44E-02
IN	IN-IC-603	4.41	3.33E-01	--	--	2.88E-06	1.09E-05	1.33E-02	6.83E-01	1.69E-01	4.14E-02	1.62E-05	--	2.88E-06	4.91E-12	1.04E-09	5.23E-16	2.06E-09	3.19E-06	4.38E-08	3.26E-07	1.63E-13
IN	IN-ID-SDA-Debris	337.47	1.66E+02	--	--	5.82E-04	6.54E-03	3.76E+00	1.92E+02	4.15E+01	1.10E+01	5.52E-03	--	5.85E-04	1.01E-05	6.91E-05	1.10E-13	1.92E-03	1.26E-01	4.55E-03	7.39E-05	1.18E-01
IN	IN-ID-SDA-Sludge	994.35	2.29E+03	--	--	1.57E-02	9.10E-02	1.90E+01	6.54E+02	1.45E+02	6.47E+01	3.19E-02	--	1.58E-02	4.15E-08	1.65E-04	3.83E-13	1.78E-05	3.00E-01	1.50E-02	2.59E-04	9.73E-01
IN	IN-ID-SDA-Soil	312.27	1.82E+02	--	--	5.47E-03	7.19E-03	2.55E+00	1.15E+02	2.48E+01	7.99E+00	3.91E-03	--	5.49E-03	1.77E-05	6.48E-05	6.54E-14	3.36E-03	1.18E-01	4.78E-03	4.41E-05	1.92E-01
IN	IN-IW-608	91.21	6.56E+00	2.41E-05	--	--	1.97E-04	3.74E+01	1.56E+01	3.50E+00	2.22E+00	4.59E-04	--	--	8.15E-11	2.70E-06	1.02E-14	3.55E-08	8.61E-03	9.67E-07	6.54E-06	4.49E-12
IN	IN-MD-811	0.42	8.73E-02	--	--	--	4.42E-06	1.63E+01	7.17E-02	3.52E-02	1.99E-02	3.40E-05	--	--	3.35E-12	1.90E-06	1.53E-16	1.11E-09	4.86E-03	5.45E-09	8.06E-08	2.99E-05
IN	IN-RF-806	0.21	3.41E-01	--	--	--	1.04E-05	2.24E-02	2.17E+00	5.26E-01	8.49E-02	3.67E-05	--	--	4.79E-12	2.01E-09	1.84E-15	1.96E-09	5.81E-06	1.47E-07	1.08E-06	3.93E-13
IN	WA-BN510.4	9.12	1.67E+02	5.24E-05	--	2.68E-03	5.81E-03	1.00E+02	5.76E+00	1.31E+00	3.13E-01	2.87E-04	--	4.33E-03	2.77E-04	1.20E-05	3.93E-15	4.94E-02	3.12E-02	7.53E-04	2.49E-06	4.80E-02
IN	WA-IN-BN-ID-SDA-DEBRIS	5.25	4.23E+00	--	--	2.03E-06	1.64E-04	9.09E-02	4.55E+00	1.03E+00	2.48E-01	1.36E-04	--	2.02E-06	7.99E-11	2.48E-06	2.98E-15	3.29E-08	4.29E-03	1.47E-04	1.92E-06	5.49E-03
IN	WA-IN-BN-ID-SDA-SLUDGE	34.86	1.18E+02	--	--	4.30E-03	4.78E-03	1.13E+00	3.81E+01	8.60E+00	3.59E+00	1.94E-03	--	4.31E-03	2.31E-09	3.93E-06	2.42E-14	9.60E-07	7.01E-03	2.60E-04	1.58E-05	1.92E-02
IN	WA-IN-BN-ID-SDA-SOIL	3.99	4.68E+00	--	--	1.85E-05	1.92E-04	2.06E-02	1.00E+00	2.22E-01	5.98E-02	3.61E-05	--	1.85E-05	9.56E-11	7.89E-07	6.46E-16	3.91E-08	1.36E-03	3.66E-05	4.15E-07	1.92E-03
IN	WP-BN004	189.55	4.65E+02	--	1.15E-01	4.90E-04	1.90E-01	3.28E+01	1.38E+03	3.11E+02	8.52E+01	2.91E-02	--	7.43E-04	1.53E-03	1.09E-05	1.18E-12	2.43E-01	2.05E-02	2.69E-03	6.65E-04	3.13E-03
IN	WP-BN161	27.30	5.40E+01	--	--	--	1.93E-03	5.41E+00	2.33E+02	5.30E+01	9.82E+00	4.31E-03	--	--	1.15E-09	6.45E-07	2.31E-13	4.17E-07	1.64E-03	2.04E-05	1.21E-04	5.14E-11
IN	WP-BN211	243.18	5.21E+02	5.09E-06	--	2.41E-07	3.83E-02	4.86E+01	2.06E+03	4.74E+02	8.45E+01	3.99E-02	--	3.63E-07	2.05E-04	7.69E-06	2.06E-12	3.04E-02	1.74E-02	7.84E-04	1.08E-03	4.60E-06
IN	WP-BN222	81.93	1.52E+02	--	--	3.21E-08	2.25E-01	1.61E+01	6.51E+02	1.47E+02	5.56E+01	1.26E-02	--	4.68E-08	1.75E-07	1.29E-06	4.42E-13	6.24E-05	3.92E-03	6.55E-05	2.79E-04	1.25E-10
IN	WP-BN243	71.40	4.16E+01	--	7.12E-02	2.45E-08	3.67E-03	3.11E+00	1.18E+02	2.64E+01	5.03E+00	2.65E-03	--	3.69E-08	3.35E-09	1.00E-06	1.15E-13	1.05E-06	1.84E-03	2.50E-04	6.04E-05	3.17E-11
IN	WP-BN252	88.20	2.25E+02	--	--	7.71E-08	6.67E-02	2.20E+01	1.13E+03	2.42E+02	5.96E+01	2.65E-02	--	1.09E-07	7.14E-08	2.91E-06	1.06E-12	2.14E-05	7.06E-03	3.20E-04	5.55E-04	3.17E-10
IN	WP-BN296	237.09	6.89E+02	--	6.75E-02	1.61E-06	5.67E-02	4.71E+01	1.78E+03	3.93E+02	7.13E+01	4.00E-02	--	2.57E-06	3.81E-05	6.16E-06	1.71E-12	5.65E-03	1.50E-02	4.84E-04	8.99E-04	6.75E-04
IN	WP-BN304	143.01	5.50E+01	--	--	7.31E-05	3.78E-03	8.50E+03	3.04E+01	2.28E+01	6.66E+00	1.94E-02	--	1.32E-04	3.22E-09	9.92E-04	9.92E-14	1.03E-06	2.54E+00	4.55E-05	5.21E-05	2.39E-02
IN	WP-BN510	9631.42	3.95E+03	9.52E-04	2.00E-01	2.27E-04	2.40E-01	2.77E+03	1.36E+04	2.94E+03	6.80E+02	2.79E-01	--	3.63E-04	5.54E-03	3.50E-04	1.15E-11	8.66E-01	8.71E-01	1.74E-02	6.37E-03	3.98E-02
IN	WP-BN510.1	3420.50	3.32E+03	8.64E-02	5.08E-01	1.72E-02	1.59E-01	3.57E+03	6.19E+03	1.45E+03	3.83E+02	2.13E-01	--	2.81E-02	3.03E-04	3.56E-04	5.21E-12	4.93E-02	9.81E-01	7.34E-03	3.01E-03	6.38E-02
IN	WP-BN510.2	80.84	1.84E+02	2.44E-03	--	9.17E-03	1.84E-02	2.89E+02	1.14E+02	4.28E+01	1.43E+01	1.05E-02	--	1.56E-02	1.46E-08	3.23E-05	1.54E-13	4.97E-06	8.49E-02	5.57E-03	8.91E-05	1.44E-02
IN	WP-BN510.3	201.78	2.27E+02	1.89E-02	--	1.17E-02	2.07E-02	1.01E+03	2.70E+02	6.80E+01	1.58E+01	1.10E-02	--	1.91E-02	1.87E-04	9.26E-05	2.37E-13	3.08E-02	2.65E-01	2.44E-03	1.39E-04	2.20E-03
IN	WP-BN510.4	1313.74	1.44E+03	1.01E-01	1.43E-02	2.04E-01	1.03E-01	3.03E+03	3.45E+03	8.08E+02	2.12E+02	1.32E-01	--	2.83E-01	4.32E-03	2.68E-04	8.16E-03	8.07E-01	7.86E-01	2.70E-02	1.46E-03	1.11E+00
IN	WP-BN600	2.31	1.23E-02	--	--	--	9.31E-07	4.21E-03	4.70E-02	1.07E-02	2.50E-03	1.26E-06	--	--	7.31E-13	4.17E-10	4.09E-17	2.46E-10	1.15E-06	3.34E-09	2.30E-08	1.40E-14
IN	WP-BN835	528.67	4.23E+01	--	--	2.01E-05	7.84E-03	1.11E+03	3.67E+00	2.35E+00	1.63E+00	2.42E-03	--	3.16E-05	6.54E-09	9.96E-05	8.22E-15	2.21E-06	2.88E-01	3.83E-07	4.82E-06	2.54E-04
IN	WP-BN836	863.08	2.50E+00	--	--	1.02E-04	2.36E-03	1.08E+03	2.81E+00	1.89E+00	3.74E-01	2.18E-03	--	1.51E-04	2.05E-09	9.31E-05	6.40E-15	6.90E-07	2.73E-01	3.72E-05	3.81E-06	1.34E-05
IN	WP-BNINW216	3498.67	4.26E+04	--	--	2.14E-05	1.48E+00	2.08E+02	3.19E+03	8.34E+02	4.71E+02	4.77E-01	--	3.16E-05	6.24E-04	1.75E-04	2.58E-12	1.10E-01	3.16E-01	4.43E-02	1.61E-03	1.26E+00

Table 5-1. CH Volume (m^3) and Activity (Ci) By Waste Stream and Radionuclide Decayed thru 2083
(Continued)

Site	Waste Stream ID	Scaled Vol (m^3)	Am-241	Am-243	Cm-244	Cs-137	Np-237	Pu-238	Pu-239	Pu-240	Pu-241	Pu-242	Pu-244	Sr-90	Th-229	Th-230	Th-232	U-233	U-234	U-235	U-236	U-238
IN	WP-BNINW218	281.66	5.33E+01	--	--	2.74E-06	2.68E-01	1.87E+00	6.05E+01	1.26E+01	7.69E+00	1.92E-03	--	4.09E-06	1.84E-07	1.92E-03	3.33E-14	6.99E-05	1.20E-01	1.02E-02	2.25E-05	1.16E+00
IN	WP-ID-AECHDM	16.38	1.34E+01	2.70E-04	--	4.22E-03	1.51E-02	2.77E+00	1.79E+01	5.61E+00	1.45E+00	3.53E-04	--	3.79E-03	1.40E-08	1.15E-06	2.02E-14	4.57E-06	2.12E-03	1.54E-05	1.17E-05	2.71E-03
IN	WP-ID-AECHHM	6.30	7.33E+00	3.12E-10	--	7.46E-03	2.17E-03	2.02E-01	5.41E+00	8.69E-01	2.93E-01	3.67E-05	--	6.68E-03	2.03E-09	6.20E-07	3.30E-15	6.51E-07	9.61E-04	2.38E-05	1.86E-06	4.71E-04
IN	WP-ID-GEVNC-02	1.26	3.41E-02	--	--	8.04E-03	8.52E-07	2.54E-04	3.14E-03	1.46E-03	4.99E-04	8.67E-07	--	1.99E-03	1.57E-10	4.10E-09	3.68E-16	2.47E-08	6.14E-06	2.18E-07	1.04E-07	1.11E-07
IN	WP-ID-LBNL-S5400	0.21	9.61E-02	--	--	--	1.29E-03	--	--	--	--	--	--	--	1.27E-09	--	--	4.03E-07	--	--	--	--
IN	WP-ID-LL-M001-S5400	40.32	8.48E+01	2.04E-05	3.63E-01	2.67E-05	3.39E-03	6.28E+01	1.74E+02	4.37E+01	2.03E+01	6.64E-03	--	2.37E-05	1.43E-04	1.64E-05	1.71E-13	2.24E-02	3.24E-02	4.47E-04	9.48E-05	1.83E-04
IN	WP-ID-LL-T004-S3141	1.05	1.90E+01	--	--	3.50E-07	6.03E-04	1.69E-01	6.95E+00	1.68E+00	8.03E-01	2.50E-04	--	1.22E-07	2.97E-10	1.74E-08	6.57E-15	1.17E-07	4.72E-05	5.00E-07	3.64E-06	2.84E-12
IN	WP-ID-LL-W019-S3900	3.57	7.75E+00	--	--	4.71E-08	2.62E-04	4.02E-01	7.09E+00	1.98E+00	1.40E+00	3.58E-04	--	3.05E-08	7.13E-05	1.60E-07	7.73E-15	1.11E-02	2.89E-04	5.50E-06	4.29E-06	4.05E-12
IN	WP-ID-NRD.1	18.27	5.39E+02	--	--	1.06E-05	1.85E-02	--	--	6.35E-01	--	--	--	1.04E-05	9.63E-09	--	2.41E-15	3.74E-06	--	--	1.36E-06	--
IN	WP-ID-NT-RF-DECON	0.42	1.97E-01	--	--	4.74E-07	1.97E-05	4.53E-02	3.67E-01	7.39E-02	2.39E-02	2.30E-05	--	4.66E-07	1.73E-11	4.80E-09	2.97E-16	5.58E-09	1.29E-05	2.68E-08	1.63E-07	2.64E-13
IN	WP-ID-NTLBL-S3900	0.21	2.20E-01	--	--	1.25E-06	2.72E-05	5.81E-02	5.88E-01	1.36E-01	4.71E-02	4.12E-05	--	1.23E-06	2.47E-11	6.15E-09	5.45E-16	7.89E-09	1.65E-05	4.29E-08	2.98E-07	4.73E-13
IN	WP-ID-NTLBL-S5400	2.09	1.84E+00	--	--	1.13E-07	3.73E-04	1.89E-01	5.79E-02	6.02E-02	3.67E-01	2.14E-04	--	1.11E-07	3.60E-10	2.00E-08	2.42E-16	1.13E-07	5.37E-05	4.22E-09	1.32E-07	2.46E-12
IN	WP-ID-NTLLLBL-S5400	1.88	1.00E-01	2.94E-05	--	--	2.40E-06	4.75E-03	2.17E-01	4.59E-02	2.04E-02	8.66E-06	--	--	8.18E-13	5.03E-10	1.84E-16	3.81E-10	1.35E-06	1.58E-08	1.01E-07	9.95E-14
IN	WP-ID-NTLLNL-S3900	12.60	2.00E+01	--	6.44E-03	1.46E-04	9.49E-04	7.51E-01	5.47E+00	1.33E+00	3.75E-01	1.89E-04	--	1.43E-04	1.24E-04	3.87E-07	5.36E-15	1.91E-02	6.65E-04	2.09E-05	2.93E-06	5.42E-05
IN	WP-ID-NTLLNL-S5400	136.42	4.25E+01	2.65E-04	8.23E-01	1.63E-06	2.09E-03	5.82E+00	4.02E+01	1.13E+01	1.94E+01	5.04E-03	--	1.60E-06	3.10E-04	1.06E-06	4.52E-14	4.77E-02	2.31E-03	3.32E-05	2.48E-05	5.79E-11
IN	WP-ID-NTLRC-S5400	0.21	3.26E-01	--	--	--	7.45E-05	3.19E-02	1.49E+00	3.24E-01	5.57E-02	2.76E-05	--	--	7.24E-11	1.27E-07	1.30E-15	2.27E-08	1.90E-04	6.34E-06	7.13E-07	1.07E-05
IN	WP-ID-NTS-EGG-HET	0.21	1.53E-01	--	--	--	4.99E-06	3.89E-02	1.42E+00	2.78E-01	3.21E-02	4.37E-05	--	--	2.64E-12	4.12E-09	1.12E-15	1.01E-09	1.10E-05	1.04E-07	6.10E-07	5.02E-13
IN	WP-ID-NTS-ITRI-S5310	0.21	1.33E-04	--	--	--	3.44E-08	5.15E-02	9.58E-03	2.56E-04	8.13E-05	4.26E-07	--	--	3.39E-14	5.46E-09	1.03E-18	1.06E-11	1.46E-05	6.99E-10	5.63E-10	4.90E-15
IN	WP-ID-NTS-TTR-HET	0.21	4.71E-03	--	--	9.14E-08	3.56E-07	5.84E-04	7.51E-02	5.82E-03	1.17E-03	1.61E-07	--	8.99E-08	2.93E-13	6.18E-11	2.34E-17	9.62E-11	1.66E-07	5.48E-09	1.28E-08	1.84E-15
IN	WP-ID-NTVERB-S5400	3.76	7.88E+00	1.68E-04	9.67E-02	--	2.32E-04	3.71E-01	2.67E+00	1.20E+00	3.29E+00	1.75E-04	--	--	1.14E-10	3.93E-08	4.80E-15	4.48E-08	1.05E-04	1.95E-07	2.63E-06	2.01E-12
IN	WP-ID-RF-BNL-ASH	0.21	1.59E-01	--	--	--	5.83E-06	1.34E-02	7.31E-01	1.67E-01	2.65E-02	1.34E-05	--	--	3.62E-12	1.61E-09	7.45E-16	1.29E-09	4.09E-06	5.62E-08	3.87E-07	1.63E-13
IN	WP-ID-RF-S3114	2277.84	9.29E+01	5.59E-06	--	3.97E-06	3.85E-03	7.56E+00	2.70E+02	5.73E+01	1.76E+01	6.49E-03	--	2.07E-05	2.18E-09	1.65E-05	1.94E-13	8.31E-07	2.72E-02	6.90E-04	1.16E-04	3.90E-02
IN	WP-ID-RF-S3150-A	159.39	4.62E+01	--	--	3.77E-06	2.92E-03	4.51E+00	1.71E+02	3.71E+01	1.22E+01	3.16E-03	--	5.74E-06	2.18E-09	2.93E-06	1.41E-13	7.45E-07	4.98E-03	1.19E-04	7.93E-05	3.03E-04
IN	WP-ID-RF-S5100-A	386.61	1.63E+02	--	--	2.59E-06	5.63E-03	1.17E+01	6.31E+02	1.33E+02	2.26E+01	1.15E-02	--	3.47E-06	1.89E-05	2.72E-06	5.64E-13	2.83E-03	5.44E-03	1.35E-04	3.00E-04	4.50E-06
IN	WP-ID-RF-S5126	159.81	1.89E+02	--	--	2.19E-06	7.28E-03	1.76E+01	8.72E+02	2.02E+02	4.09E+01	1.85E-02	--	3.19E-06	1.45E-03	1.36E-05	8.56E-13	2.18E-01	2.18E-02	7.76E-05	4.56E-04	1.60E-03
IN	WP-ID-RF-S5300-A	1299.06	8.94E+01	1.71E-08	3.50E-02	4.87E-06	6.17E-03	4.76E+00	2.49E+02	5.56E+01	1.27E+01	5.41E-03	--	5.79E-06	1.85E-03	1.54E-05	2.06E-13	2.98E-01	2.41E-02	6.18E-04	1.17E-04	8.79E-04
IN	WP-ID-SA-T001	5.88	5.76E+00	3.01E-02	3.18E-01	5.13E-08	7.72E-04	4.64E+00	4.51E+00	3.68E-01	9.17E-02	4.23E-05	--	4.60E-08	6.73E-10	1.74E-02	1.38E-15	2.20E-07	1.75E-03	1.09E-05	7.80E-07	7.99E-04
IN	WP-ID-SDA-DEBRIS	528.35	4.01E+02	--	--	1.67E-04	1.55E-02	1.96E+01	9.28E+02	2.06E+02	4.17E+01	2.85E-02	--	1.66E-04	3.10E-05	1.40E-04	7.00E-13	5.21E-03	2.26E-01	5.76E-03	4.17E-04	3.13E-01
IN	WP-ID-SDA-SLUDGE	5198.73	8.09E+03	--	1.11E-02	1.54E-02	3.20E-01	7.29E+01	2.87E+03	6.40E+02	2.02E+02	1.13E-01	--	1.23E+00	6.03E-04	1.33E-03	2.17E-12	1.01E-01	2.14E+00	5.64E-02	1.29E-03	7.70E+00
IN	WP-ID-SDA-SOIL	782.25	6.72E+02	--	--	2.66E-03	2.63E-02	1.21E+01	5.32E+02	1.17E+02	3.00E+01	1.71E-02	--	2.64E-03	1.42E-05	1.59E-04	3.98E-13	2.38E-03	2.55E-01	6.63E-03	2.37E-04	7.59E-01
IN	WP-ID-SNL-HCF-S5400	1.68	4.59E-01	--	2.42E-04	5.61E-03	2.82E-03	1.25E-01	5.68E-01	1.56E-02	2.40E-02	1.33E-03	--	4.01E-03	2.71E-07	8.74E-06	6.18E-13	4.33E-05	1.32E-02	4.28E-04	1.74E-04	1.54E-04
IN	WP-ID-SNL-SOURCES-S5400	0.63	1.23E-01	4.80E-08	--	5.11E-08	4.27E-06	8.77E-04	2.12E-03	2.72E-03	4.01E-04	2.07E-06	--	--	2.25E-12	8.70E-11	1.03E-17	8.70E-10	2.40E-07	1.50E-10	5.81E-09	2.31E-14
IN	WP-ID-SRP-S3000	1099.72	2.43E+02	--	--	1.26E-06	9.98E-03	2.14E+00	7.72E+01	1.73E+01	4.93E+00	3.34E-03	--	1.24E-06	5.66E-09	1.11E-04	6.03E-14	2.15E-06	1.75E-01	4.61E-03	3.54E-05	1.33E-01
IN	WP-IN-BN-ID-SDA-DEBRIS	231.84	3.67E+02	--	--	2.33E-04	1.16E-02	7.85E+00	4.23E+02	9.39E+01	2.07E+01	1.14E-02	--	2.33E-04	1.34E-04	2.03E-04	2.56E-13	2.50E-02	3.62E-01	9.75E-03	1.70E-04	7.33E-02
IN	WP-IN-BN-ID-SDA-SLUDGE	1719.27	7.67E+03	--	--	8.20E-02	2.20E-01	3.61E+01	1.34E+03	2.95E+02	1.08E+02	5.94E-02	--	8.22E-02	1.92E-04	8.72E-04	8.04E-13	3.58E-02	1.56E+00	6.06E-02	5.34E-04	3.22E+00
IN	WP-IN-BN-ID-SDA-SOIL	154.35	1.02E+03	--	--	1.92E-03	2.37E-02	2.49E+00	1.16E+02	2.52E+01	7.05E+00	4.06E-03	--	1.93E-03	1.06E-05	6.55E-05	6.87E-14	1.99E-03	1.17E-01	3.84E-03	4.56E-05	1.65E-01
IN	WP-INW161.001	19.32	3.14E+01	--	--	--	7.99E-04	2.89E+00	1.57E+02	3.53E+01	7.93E+00	3.52E-03	--	--	3.13E-10	6.08E-07	1.70E-13	1.36E-07	1.23E-03	1.00E-04	8.49E-05	5.56E-06
IN	WP-INW169.001	19.32	5.40E+00	--	--	--	1.40E-04	3.60E-01	1.96E+01	4.36E+00	1.11E+00	5.91E-04	--	--	5.59E-11	2.69E-07	2.10E-14	2.40E-08	4.13E-04	7.38E-05	1.05E-05	4.37E-06
IN	WP-INW198.001	49.56	7.63E+00	--	--	--	1.94E-04	6.51E-01	3.77E+01	8.38E+00	1.93E+00	8.87E-04	--	--	1.85E-06	1.91E-07	4.04E-14	2.60E-04	3.50E-04	3.86E-05	2.02E-05	5.90E-05
IN	WP-INW211.001	304.08	9.35E+02	--	--	--	2.38E-02	7.23E+01	3.63E+03	8.04E+02	2.36E+02	1.40E-01	--	--	9.20E-05	1.23E-05	3.88E-12	1.30E-02	2.69E-02	1.23E-03	1.94E-03	1.47E-03
IN	WP-INW216.001	1252.17	5.07E+04	--	--	--	1.42E+00	6.15E+01	3.26E+03	7.26E+02	2.07E+02	1.18E-01	--	--	2.38E-04	4.71E-04	3.50E-12	3.37E-02	6.41E-01	1.03E-01	1.75E-03	3.89E+00

Table 5-1. CH Volume (m^3) and Activity (Ci) By Waste Stream and Radionuclide Decayed thru 2083
(Continued)

Site	Waste Stream ID	Scaled Vol (m^3)	Am-241	Am-243	Cm-244	Cs-137	Np-237	Pu-238	Pu-239	Pu-240	Pu-241	Pu-242	Pu-244	Sr-90	Th-229	Th-230	Th-232	U-233	U-234	U-235	U-236	U-238
IN	WP-INW218.001	1115.95	7.69E+02	--	--	--	2.12E-02	9.17E+00	4.96E+02	1.10E+02	3.11E+01	1.70E-02	--	--	7.91E-05	6.90E-04	5.32E-13	1.11E-02	9.29E-01	1.02E-01	2.66E-04	8.75E+00
IN	WP-INW222.001	65.73	6.59E+01	--	--	--	1.68E-03	5.41E+00	2.83E+02	6.33E+01	1.58E+01	7.40E-03	--	--	6.63E-10	1.35E-06	3.05E-13	2.87E-07	2.59E-03	1.27E-04	1.52E-04	7.02E-03
IN	WP-INW243.001	75.60	8.24E+01	--	--	--	2.16E-03	5.63E+00	2.36E+02	5.25E+01	1.46E+01	6.81E-03	--	--	1.76E-05	2.11E-06	2.53E-13	2.47E-03	3.64E-03	4.66E-04	1.26E-04	3.18E-04
IN	WP-INW247.001R1	118.02	1.07E+02	--	--	--	2.71E-03	1.34E+01	4.14E+02	9.39E+01	2.67E+01	7.92E-03	--	--	5.35E-05	1.78E-06	4.53E-13	7.54E-03	4.31E-03	3.91E-05	2.26E-04	9.95E-11
IN	WP-INW252.001	61.53	7.77E+01	--	--	--	1.91E-03	6.55E+00	3.01E+02	6.79E+01	2.56E+01	6.81E-03	--	--	7.23E-10	1.44E-06	3.27E-13	3.19E-07	2.87E-03	2.49E-04	1.64E-04	8.56E-11
IN	WP-INW276.001	10.29	7.19E+00	--	--	--	1.86E-04	1.26E+00	3.17E+01	7.19E+00	2.06E+00	6.54E-04	--	--	7.70E-11	1.87E-07	3.82E-14	3.24E-08	4.32E-04	2.92E-06	1.82E-05	8.63E-12
IN	WP-INW276.002	16.17	1.13E+01	--	--	--	2.94E-04	1.89E+00	4.77E+01	1.08E+01	3.08E+00	9.82E-04	--	--	5.44E-06	2.83E-07	5.72E-14	7.30E-04	6.50E-04	4.75E-06	2.72E-05	1.29E-11
IN	WP-INW276.003	188.37	4.31E+02	--	--	--	1.07E-02	7.12E+01	1.72E+03	3.90E+02	1.37E+02	3.66E-02	--	--	3.70E-04	9.51E-06	1.88E-12	5.21E-02	2.30E-02	1.77E-04	9.40E-04	1.12E-06
IN	WP-INW276.004	47.25	1.00E+02	--	--	--	2.50E-03	1.49E+01	3.66E+02	8.30E+01	2.87E+01	7.64E-03	--	--	3.22E-04	2.07E-06	4.00E-13	4.53E-02	4.91E-03	5.76E-05	2.00E-04	9.61E-11
IN	WP-INW296.001	98.70	1.73E+02	--	--	--	4.51E-03	1.58E+01	5.12E+02	1.15E+02	3.33E+01	1.10E-02	--	--	7.20E-05	2.58E-06	5.56E-13	1.01E-02	5.72E-03	1.93E-04	2.78E-04	3.96E-04
KA	KA-T003	0.05	1.12E-01	--	--	--	8.63E-04	5.77E-01	1.09E-01	--	--	--	--	--	3.89E-04	1.16E-07	3.40E-09	4.62E-02	2.34E-04	1.13E-07	--	--
LA	LA-CIN01.001	392.01	2.03E+04	5.19E-01	--	6.11E-05	5.74E-01	2.40E+03	3.17E+03	9.04E+02	1.25E+03	1.18E+00	2.23E-07	4.37E-05	4.56E-04	4.54E-04	2.69E-12	8.66E-02	1.06E+00	4.80E-03	1.71E-03	1.11E-01
LA	LA-CIN02.001	117.69	2.71E+02	2.06E-02	--	3.59E-05	2.76E-02	1.66E+01	3.53E+02	5.63E+01	2.06E+01	1.18E-02	--	2.66E-05	1.65E-08	2.68E-05	2.57E-05	6.50E-06	5.02E-02	1.72E-03	1.00E-04	1.29E-04
LA	LA-CIN03.001	1.47	1.26E-01	4.20E-05	--	6.29E-05	3.06E-05	8.01E-01	4.08E-01	6.95E-02	5.84E-02	5.59E-05	--	5.73E-05	5.93E-07	3.34E-07	1.90E-16	7.82E-09	6.77E-04	1.24E-05	1.26E-07	7.11E-04
LA	LA-CIN04.001	1485.62	9.46E+03	4.37E-06	--	4.80E-02	2.03E-01	1.94E+01	6.12E+01	3.70E-01	2.72E-01	2.15E-05	--	3.07E-02	5.27E-08	4.74E-06	2.59E-13	2.83E-05	1.02E-02	2.14E-02	8.36E-05	1.08E-02
LA	LA-LA225D	6.29	4.03E-01	3.51E-04	--	6.49E-06	4.43E-05	1.87E-01	8.73E-01	1.68E-01	5.57E-02	1.18E-05	--	5.85E-06	1.79E-06	6.27E-08	8.42E-16	1.19E-08	1.21E-04	7.12E-07	4.19E-07	5.10E-09
LA	LA-LANHD01	29.82	2.32E+00	--	--	--	4.76E-05	4.81E-01	2.33E+01	1.93E+00	1.40E+00	1.14E-02	--	--	1.31E-11	9.41E-08	6.75E-15	6.73E-09	2.05E-04	1.88E-06	3.96E-06	1.22E-10
LA	LA-MHD01-Pits	6664.12	3.32E+04	5.42E-01	--	9.35E-03	1.28E+00	1.60E+05	1.07E+05	2.65E+04	2.57E+04	4.63E+00	1.80E-04	9.84E-03	5.83E-07	2.60E-02	1.56E-10	2.50E-04	6.36E+01	1.51E-02	7.66E-02	1.44E+00
LA	LA-MHD01.001	11826.04	3.36E+04	5.08E-01	--	4.10E-04	7.46E-01	4.33E+05	1.03E+05	2.54E+04	2.27E+04	7.64E+00	2.74E-06	3.69E-04	1.87E-03	7.14E-02	7.12E-11	3.54E-01	1.73E+02	1.37E-02	4.66E-02	1.27E-01
LA	LA-MHD03.001	1487.59	7.44E+02	4.76E-01	2.38E+02	7.77E-01	1.13E+01	8.32E+02	3.27E+03	7.58E+02	6.39E+02	4.92E-02	--	3.44E-01	3.11E-04	3.43E-04	6.19E-04	2.96E-03	7.05E-01	1.59E-02	2.52E-03	1.01E-03
LA	LA-MHD04.001	20.30	4.74E-01	3.29E-05	--	3.24E-07	2.45E-05	1.00E+01	2.94E+00	5.94E-01	1.07E-01	9.98E-05	--	2.91E-07	1.58E-11	1.84E-06	2.07E-15	5.73E-09	4.08E-03	2.09E-07	1.22E-06	1.07E-12
LA	LA-MHD05-ITRI.001	4.61	1.72E+01	7.73E-02	3.39E-01	1.33E-07	4.88E-04	2.24E-02	7.74E-01	1.58E-01	7.27E-02	8.72E-06	--	1.21E-07	1.86E-10	1.62E-09	4.48E-16	8.40E-08	5.17E-06	4.80E-08	2.91E-07	8.52E-14
LA	LA-MHD08.001	1.93	2.13E-02	2.45E-02	--	2.14E-05	5.72E-05	2.10E-02	1.60E-04	2.04E-03	5.99E-03	4.98E-04	--	1.93E-05	5.18E-11	3.84E-09	7.14E-18	1.71E-08	8.54E-06	9.21E-12	4.19E-09	5.33E-12
LA	LA-MHD09.001	15.25	6.19E-01	2.11E-05	--	6.59E-07	6.58E-05	1.75E+00	4.08E-01	1.08E-01	5.27E-02	1.64E-04	--	5.94E-07	5.13E-11	2.19E-07	9.43E-16	1.76E-08	5.51E-04	1.27E-06	3.87E-07	1.14E-08
LA	LA-MIN02-V.001	9.00	2.14E+01	7.77E-03	--	2.37E-07	8.41E-04	3.00E+01	3.49E+01	8.48E+00	3.90E+00	5.82E-04	--	2.16E-07	3.85E-10	6.89E-06	2.24E-14	1.64E-07	1.55E-02	4.25E-05	1.51E-05	1.05E-05
LA	LA-MIN03-NC.001	65.65	2.89E+01	1.01E-03	--	6.65E-04	8.50E-04	5.02E+00	1.46E+01	1.81E+00	9.91E-01	4.24E-04	--	5.29E-04	1.28E-06	1.81E-06	7.97E-07	1.46E-07	3.78E-03	9.96E-05	3.23E-06	6.59E-05
LA	LA-MIN04-S.001	1.57	2.34E+01	2.35E-02	--	2.84E-06	6.39E-04	9.74E-01	5.05E+01	1.25E+01	6.20E+00	8.97E-04	--	2.59E-06	2.29E-10	6.27E-08	3.31E-14	1.07E-07	2.11E-04	3.41E-06	2.23E-05	8.35E-12
LA	LA-MIN05-V.001	2.72	1.22E+00	3.43E-11	--	2.41E-06	6.08E-03	1.48E-01	5.37E+00	1.22E+00	9.26E-01	7.67E-05	--	2.25E-06	2.50E-05	2.82E-07	3.44E-15	4.60E-03	5.09E-04	1.22E-05	2.25E-06	7.37E-13
LA	LA-MIN06-NS.001	0.68	5.09E+00	1.37E-04	--	3.85E-07	1.63E-04	1.56E-02	1.59E+00	1.34E-01	8.57E-02	1.78E-05	--	3.51E-07	6.51E-11	1.01E-09	3.54E-16	2.92E-08	3.38E-06	9.38E-08	2.39E-07	1.66E-13
LA	LA-MSG04.001	28.66	--	--	--	--	--	--	1.33E+00	--	--	--	--	--	--	--	--	--	--	1.38E-07	--	--
LA	LA-OS-00-01.001	18.00	6.26E+03	--	--	4.86E+00	1.27E-01	4.00E+03	5.30E+03	1.31E+03	1.34E+02	1.35E-01	--	1.95E-04	4.14E-08	3.58E-04	3.45E-12	1.90E-05	1.05E+00	3.13E-04	2.33E-03	9.62E-09
LA	LA-OS-00-04	0.01	1.90E-01	--	--	--	4.55E-06	--	2.89E-05	1.83E-05	1.53E-06	--	--	--	2.80E-12	--	6.57E-20	9.24E-10	--	3.07E-12	3.80E-11	--
LA	LA-TA-00-01	81.72	3.37E+00	--	--	--	1.43E-02	4.53E+00	7.48E+00	2.80E-01	2.45E-02	1.64E-05	--	--	3.12E-08	1.20E-06	2.36E-15	6.65E-06	2.15E-03	7.89E-07	8.93E-07	2.72E-13
LA	LA-TA-03-14	9.40	--	--	--	--	--	4.37E+00	1.74E-02	--	--	--	--	--	--	1.22E-06	--	--	2.13E-03	1.87E-09	--	--
LA	LA-TA-03-28	1.05	--	--	--	--	--	3.73E+00	--	--	--	--	--	--	--	1.06E-06	--	--	1.84E-03	--	--	--
LA	LA-TA-03-29	4.19	6.82E+00	1.75E-05	--	--	1.36E-04	7.06E+00	2.43E+01	5.71E+00	5.26E+00	1.53E-02	1.66E-08	--	3.53E-11	1.18E-06	1.56E-14	1.87E-08	2.82E-03	2.64E-06	1.04E-05	7.32E-08
LA	LA-TA-03-30	0.21	--	--	--	--	--	2.90E-02	--	--	--	--	--	--	--	8.08E-09	--	--	1.41E-05	--	--	--
LA	LA-TA-21-05	0.42	2.22E-01	--	--	--	7.69E-06	1.38E-02	1.05E+00	2.48E-01	2.04E-02	1.69E-05	--	--	5.37E-12	6.35E-09	2.17E-15	1.75E-09	9.23E-06	1.96E-05	8.06E-07	2.86E-13
LA	LA-TA-21-06	329.28	9.75E+01	--	--	--	3.29E-03	7.85E+03	2.59E+02	7.79E+01	1.02E+01	1.44E-02	--	--	2.20E-09	2.40E-03	6.56E-13	7.31E-07	4.04E+00	1.20E-03	2.48E-04	2.39E-10
LA	LA-TA-21-07	635.99	5.38E+01	--	--	--	1.82E-03	6.52E+03	3.21E+02	5.71E+01	5.46E+00	4.71E-03	--	--	1.22E-09	1.77E-03	4.81E-13	4.06E-07	3.13E+00	4.26E-05	1.82E-04	7.81E-11
LA	LA-TA-21-08	4.20	9.59E-01	--	--	--	3.27E-05	5.04E+01	2.99E+00	8.35E-01	9.50E-02	1.25E-04	--	--	2.23E-11	1.37E-05	7.17E-15	7.35E-09	2.43E-02	4.29E-07	2.69E-06	2.10E-12
LA	LA-TA-21-09	14.28	7.21E-02	--	--	--	2.50E-06	8.22E+02	3.58E-01	8.31E-02	6.59E-03	4.86E-06	--	--	1.75E-12	2.29E-04	7.26E-16	5.69E-10	4.01E-01	5.18E-08	2.70E-07	8.22E-14
LA	LA-TA-21-12	346.25	1.53E+02	--	--	--	5.13E-03	2.46E+04	2.88E+02	9.67E+01	1.63E+01	2.62E-02	--	--	3.85E-01	8.53E-03	7.99E-13	4.15E+01	1.37E+01	2.11E-03	3.05E-04	4.31E-10
LA	LA-TA-21-13	15.12	4.09E+01	--	--	--	1.55E-03	--	6.66E+00	--	--	--	--	--	1.18E-09	--	--	3.71E-07	--	7.03E-07	--	--
LA	LA-TA-21-15	3.36	8.00E-01	--	--	--	2.74E-05	4.99E-02	5.39E+00	9.20E-01	7.66E-02	5.38E-05	--	--	1.88E-11	2.20E-08	7.90E-15	6.18E-09	3.25E-05	7.22E-07	2.96E-06	9.02E-13
LA	LA-TA-21-16	54.81	1.45E+02	--	--	--	5.03E-03	1.18E+01	6.60E+02	1.56E+02	1.34E+01	1.30E-02	--	--	3.51E-09	5.49E-06	1.37E-12	1.14E-06	7.95E-03	3.49E-03	5.08E-04	2.20E-10
LA	LA-TA-21-17	0.63	7.01E-03	--	--	--	2.43E-07	4.34E-04	3.48E-02	8.08E-03	6.41E-04	4.73E-07	--	--	1.70E-13	1.96E-10	7.06E-17	5.53E-11	2.87E-07	5.04E-09	2.62E-08	8.00E-15
LA	LA-TA-50-01	0.42	2.17E-01	1.73E-06	--	--	9.39E-06	6.17E-02	1.34E-01	--	6.03E-03	--	--	--	5.72E-12	6.58E-07	4.75E-09	2.10E-09	1.02E-03	9.93E-07	--	1.17E-07
LA	LA-TA-50-18	0.42	2.65E-01	--	--	--	1.02E-05	--	5.69E-03	--	--	--	--	--	8.09E-12	--	--	2.50E-09	--	6.12E-10	--	--
LA	LA-TA-50-19	63.00	1.93E+01	--	--	--	7.14E-04	8.41E-01	1.39E+00	--	--	--	--	--	5.23E-10	2.13E-07	--	1.68E-07	3.88E-04	1.44E-07	--	--
LA	LA-TA-50-69	0.63	5.47E-03	--	--	2.41E-06	1.11E-06	1.95E-05	3.13E-03	2.15E-04	1.32E-04	2.16E-08	--	--	7.15E-13	2.30E-12	5.67E-19	2.76E-10	6.11E-09	2.51E-10	3.82E-10	2.01E-16
LA	LA-TA-55-04	142.63	2.84E+02	9.06E-06	--	--	5.49E-03	1.12E+03	9.01E+02	2.32E+02	2.64E+02	9.04E-01	9.76E-07	--	1.38E-09	1.83E-04	6.19E-13	7.44E-07	4.44E-01	1.21E-04	4.16E-04	1.72E-07
LA	LA-TA-55-19	56.57	2.99E+02	--	--	--	1.15E-02	9.79E+01	3.13E+02	1.55E+02	3.75E+01	8.97E-02	--	--	9.77E-09	2.77E-04	6.51E-12	2.90E-06	3.09E-01	7.66E-03	1.51E-03	1.78E-03
LA	LA-TA-55-21	2.31	3.93E-01	--	--	--	1.28E-05	1.70E+01	7.08E-01	2.52E-01	4.78E-02	6.73E-05	--	--	8.04E-12	8.37E-06	2.00E-15	2.76E-09	1.21E-02	9.89E-08	7.79E-07	2.47E-06
LA	LA-TA-55-30	199.80	3.91E+02	1.25E-04	--	--	7.74E-03	1.90E+02	2.41E+02	1.48E+02	2.68E+02	2.51E-01	2.85E-08	--	2.00E-09	4.84E-05	6.01E-13	1.06E-06	1.00E-01	8.45E-04	3.29E-04	1.20E-02
LA	LA-TA-55-38	0.84	3.67E-02	--	--	--	1.16E-06	1.29E+01	1.71E-02	8.54E-03	5.03E-03	7.09E-06	--	--	6.86E-13	5.97E-06	6.40E-17	2.42E-10	8.88E-03	2.57E-09	2.57E-08	1.11E-13
LA	LA-TA-55-400	0.84	6.10E-01	--	--	--	1.20E-05	3.29E-01	1.31E-01	9.28E-02	5.31E-01	1.00E-02	1.11E-08	--	3.11E-12	5.39E-08	2.53E-16	1.65E-09	1.29E-04	1.27E-08	1.68E-07	9.51E-11
LA	LA-TRU-Empty-110	1.88	1.91E-02	4.10E-06	--	2.40E-09	9.90E-07	2.11E-03	4.67E-03	3.86E-05	2.58E-04	1.43E-08	--	2.06E-09	1.06E-12	4.90E-10	2.84E-19	2.89E-10	9.27E-07	5.55E-09	1.15E-10	1.28E-07
LA	LA-TRU-Empty-55	1.88	1.39E-01	7.77E-06	--	2.06E-08	4.19E-06	6.56E-03	2.36E-02	1.76E-03	5.59E-03	1.89E-07	--	1.87E-08	1.70E-12	3.21E-09	5.11E-18	7.47E-10	6.23E-06	8.04E-08	3.28E-09	1.84E-15
LA	LA-TRU-Empty-85	90.24	2.05E+02	2.16E-02	--	3.16E-04	8.68E-03	1.34E+01	4.69E+01	1.02E+01	1.06E+01	3.13E-04	--	2.87E-04	2.57E-06	3.78E-06	3.13E-14	1.77E-06	8.02E-03	1.77E-05	1.96E-05	4.17E-04
LA	LA-TRU-Empty-SWB	11.28	1.93E-01	2.36E-06	--	1.17E-08	7.15E-06	1.12E+01	3.22E-01	7.40E-02	2.97E-02	4.26E-09	--	1.04E-08	4.26E-12	3.41E-06	3.06E-16	1.55E-09	6.40E-03	2.34E-07	1.65E-07	1.54E-07

Table 5-1. CH Volume (m^3) and Activity (Ci) By Waste Stream and Radionuclide Decayed thru 2083
(Continued)

Site	Waste Stream ID	Scaled Vol (m^3)	Am-241	Am-243	Cm-244	Cs-137	Np-237	Pu-238	Pu-239	Pu-240	Pu-241	Pu-242	Pu-244	Sr-90	Th-229	Th-230	Th-232	U-233	U-234	U-235	U-236	U-238
LA	WC-LA-CIN01.001	15.33	1.08E+03	6.77E-02	--	1.06E-05	3.96E-02	1.05E+01	1.75E+02	5.00E+01	2.44E+01	1.92E-01	--	9.56E-06	2.08E-08	6.75E-06	1.75E-13	8.14E-06	1.19E-02	2.39E-04	1.03E-04	9.64E-03
LA	WC-LA-CIN02.001	0.21	1.66E-01	--	--	--	9.80E-06	7.08E-02	9.78E-02	1.44E-02	4.15E-03	5.39E-06	--	--	6.59E-12	3.01E-08	5.05E-17	2.37E-09	5.57E-05	9.34E-07	2.96E-08	5.77E-14
LA	WC-LA-MHD01.001	7.56	1.27E+02	2.04E-02	--	2.63E-05	4.60E-03	4.10E+00	9.74E+01	3.00E+01	8.72E+00	4.82E-02	--	2.37E-05	2.41E-09	2.47E-06	1.05E-13	9.41E-07	4.37E-03	8.87E-05	6.15E-05	4.05E-04
LA	WC-LA-MHD03.001	0.63	3.28E+00	3.21E-06	--	1.57E-06	1.15E-04	1.52E+01	1.05E+00	5.78E-01	6.09E-02	9.18E-05	--	1.41E-06	5.81E-11	3.93E-06	2.02E-15	2.30E-08	7.99E-03	7.12E-08	1.19E-06	9.83E-13
LA	WC-LA-MHD08.001	0.21	1.26E+00	1.78E-04	--	--	4.43E-05	5.61E-02	7.11E-01	3.40E-01	2.62E-01	1.14E-04	--	--	2.30E-11	5.02E-09	1.19E-15	9.01E-09	1.45E-05	4.83E-08	6.97E-07	1.22E-12
LA	WC-LA-MHD09.001	0.84	8.11E-02	5.74E-11	--	8.37E-08	3.62E-06	1.38E-03	8.80E-02	2.06E-02	6.36E-03	1.21E-06	--	7.53E-08	2.16E-12	1.23E-10	7.21E-17	8.06E-10	3.56E-07	5.99E-09	4.23E-08	1.29E-14
LA	WC-LA-MIN02-V.001	26.45	9.95E+02	9.18E-02	--	1.02E-05	3.51E-02	9.16E+00	4.21E+02	1.08E+02	3.67E+01	2.19E-02	--	9.17E-06	8.45E-05	5.08E-06	3.76E-13	1.40E-02	9.08E-03	1.95E-04	2.20E-04	2.56E-03
LA	WC-LA-MIN03-NC.001	3.99	1.10E+00	3.29E-05	--	3.73E-05	3.86E-05	4.80E-02	1.15E+00	1.62E-01	3.60E-02	2.86E-05	--	3.36E-05	1.97E-11	1.52E-07	5.65E-16	7.78E-09	2.46E-04	5.86E-06	3.31E-07	3.06E-13
LA	WC-LA-MIN04-S.001	0.21	1.66E+00	--	--	--	5.32E-05	1.29E-01	3.16E+00	8.99E-01	1.19E-01	1.21E-04	--	--	2.56E-11	1.20E-08	3.23E-15	1.03E-08	3.41E-05	2.18E-07	1.87E-06	1.31E-12
LA	WC-LA-MIN05-V.001	0.42	3.35E-02	--	--	4.32E-07	3.79E-04	8.57E-02	9.03E-02	2.35E-02	6.18E-03	1.41E-05	--	3.88E-07	3.54E-10	7.94E-09	8.46E-17	1.15E-07	2.26E-05	6.23E-09	4.89E-08	1.54E-13
LA	WP-LA-CIN01.001	708.88	2.77E+04	1.63E+00	--	1.28E-03	9.58E-01	5.16E+02	7.08E+03	1.89E+03	1.14E+03	2.69E+00	--	1.17E-03	4.05E-07	1.43E-04	4.98E-12	1.78E-04	3.11E-01	4.21E-03	3.36E-03	2.45E-01
LA	WP-LA-CIN02.001	113.03	4.42E+02	8.42E-02	--	1.58E-02	2.51E-02	4.05E+01	3.56E+02	9.52E+01	2.85E+01	2.31E-02	--	1.42E-02	2.41E-05	1.81E-05	3.33E-13	3.99E-03	3.33E-02	5.90E-04	1.95E-04	2.69E-04
LA	WP-LA-CIN03.001	1.26	4.33E-02	2.73E-05	--	1.88E-06	2.02E-05	3.27E-03	2.06E-01	4.84E-02	1.59E-02	2.81E-06	--	1.69E-06	1.78E-11	2.25E-07	1.69E-16	5.92E-09	3.55E-04	8.79E-06	9.92E-08	4.97E-04
LA	WP-LA-MHD01.001	3650.66	2.97E+04	1.22E+00	7.56E+00	2.09E-03	1.19E+00	7.28E+04	5.88E+04	1.53E+04	7.84E+03	1.68E+01	--	1.91E-03	1.12E-02	2.30E-02	4.52E-06	2.12E+00	3.35E+01	1.56E-02	2.73E-02	7.69E-02
LA	WP-LA-MHD02-PTX.001	0.63	4.86E-02	--	--	2.69E-08	1.61E-06	7.14E-03	1.31E-01	2.76E-02	5.21E-03	3.21E-06	--	2.41E-08	8.24E-13	7.07E-10	1.05E-16	3.22E-10	1.95E-06	9.27E-09	5.90E-08	3.58E-14
LA	WP-LA-MHD02.001	13.65	1.78E+00	3.98E-05	--	4.12E-07	1.29E-04	9.70E+02	1.38E+00	6.96E-01	1.65E-01	7.17E-04	--	3.66E-07	1.74E-08	3.48E-04	3.03E-15	2.59E-06	6.21E-01	7.37E-07	1.59E-06	8.57E-12
LA	WP-LA-MHD03.001	787.61	5.53E+02	1.26E-01	5.23E-01	2.90E-02	1.48E-01	2.41E+03	1.84E+03	4.40E+02	1.89E+02	2.85E-01	--	2.65E-02	2.54E-03	4.95E-04	1.16E-12	4.82E-01	1.14E+00	2.16E-03	7.83E-04	1.19E-02
LA	WP-LA-MHD04.001	610.57	1.80E+02	5.24E-03	--	6.51E-04	8.75E-03	1.14E+03	3.63E+02	1.27E+02	4.06E+01	2.70E-02	--	5.89E-04	2.45E-05	2.67E-04	4.04E-13	4.24E-03	5.67E-01	1.98E-04	2.48E-04	3.82E-04
LA	WP-LA-MHD05-ITRI.001	11.43	3.84E+00	8.25E-02	6.19E-01	1.07E-06	2.60E-04	2.11E+01	1.03E+01	1.40E+00	4.96E-01	1.94E-04	--	9.68E-07	1.84E-10	5.15E-06	4.85E-15	6.50E-08	1.06E-02	9.11E-07	2.85E-06	2.08E-12
LA	WP-LA-MHD08.001	9.81	3.02E+00	2.80E-02	6.07E-01	6.73E-05	4.98E-04	2.36E-01	2.73E+00	1.14E+00	2.59E-01	1.12E-03	--	6.06E-05	4.11E-10	2.18E-08	3.96E-15	1.39E-07	6.21E-05	1.86E-07	2.33E-06	1.20E-11
LA	WP-LA-MHD09.001	114.12	4.76E+02	2.26E-02	--	1.15E-02	2.24E-02	9.69E+01	2.95E+01	1.06E+01	4.80E+00	5.05E-03	--	1.04E-02	1.37E-08	2.44E-05	3.71E-14	5.08E-06	4.99E-02	1.67E-05	2.18E-05	1.11E-04
LA	WP-LA-MHD10.001	65.80	3.24E+00	8.26E-07	--	2.35E-07	7.71E-05	1.49E+00	1.26E+01	3.38E+00	7.45E-01	6.95E-04	--	2.12E-07	2.59E-11	1.38E-07	1.22E-14	1.22E-08	3.92E-04	8.67E-07	7.04E-06	7.55E-12
LA	WP-LA-MIN02-V.001	87.07	2.73E+03	1.80E-01	--	1.54E-05	8.84E-02	3.56E+01	1.05E+03	2.81E+02	1.42E+02	1.61E-01	--	1.40E-05	3.80E-08	1.76E-05	8.18E-13	1.64E-05	3.42E-02	7.09E-04	5.26E-04	3.68E-02
LA	WP-LA-MIN03-NC.001	792.54	3.81E+02	4.86E-03	--	1.80E-02	1.19E-02	1.18E+01	2.46E+02	3.35E+01	3.32E+01	1.94E-02	--	1.47E-02	5.70E-09	2.63E-05	8.85E-14	2.30E-06	4.88E-02	1.16E-03	5.97E-05	1.06E-03
LA	WP-LA-MIN04-S.001	17.95	8.05E+02	1.43E-02	5.05E-02	1.70E-05	2.42E-02	2.51E+01	7.52E+02	2.00E+02	8.70E+01	1.22E-01	--	1.55E-05	9.65E-09	2.60E-06	5.65E-13	4.29E-06	7.16E-03	8.32E-05	3.69E-04	1.18E-09
LA	WP-LA-MIN05-V.001	2.93	8.25E-01	1.36E-11	--	9.20E-07	6.36E-03	4.96E-01	2.94E+00	7.03E-01	2.51E-01	4.91E-05	--	8.28E-07	5.78E-09	1.17E-07	2.46E-15	1.91E-06	2.42E-04	2.00E-07	1.44E-06	5.26E-13
LA	WP-LA-MIN06-NS.001	56.70	1.02E+03	1.08E-01	--	1.99E-05	3.63E-02	5.08E+00	2.21E+02	5.44E+01	2.22E+01	7.22E-03	--	1.81E-05	1.63E-08	5.91E-06	1.53E-13	6.93E-06	1.09E-02	2.55E-04	1.00E-04	2.55E-03
LA	WP-LA-MSG04.001	35.94	1.90E+00	2.92E-05	--	4.02E-07	5.73E-05	1.18E-01	9.12E+00	1.53E+00	7.00E-01	8.96E-05	--	3.62E-07	2.65E-11	1.93E-06	5.34E-15	1.08E-08	3.05E-03	7.55E-05	3.13E-06	5.88E-04
LA	WP-LA-OS-00-01	0.10	2.49E+00	--	--	4.44E-05	8.01E-05	9.50E-01	4.77E+00	4.82E+00	1.42E-01	9.65E-05	--	3.68E-05	4.38E-11	9.32E-02	2.32E-14	1.63E-08	3.04E-04	3.81E-07	1.16E-05	1.21E-12
LA	WP-LA-OS-00-01.001	21.87	1.69E+04	--	--	2.24E+00	3.50E-01	6.74E+03	1.18E+03	3.52E+02	6.22E+01	9.56E-02	--	4.41E-01	1.57E-07	1.01E-03	9.60E-13	6.05E-05	2.49E+00	1.22E-04	6.37E-04	2.94E-06
LA	WP-LA-OS-00-03	14.70	2.16E+01	--	--	7.34E-08	5.66E-04	1.42E-04	1.43E-03	1.05E-03	3.86E-04	3.94E-07	--	5.76E-08	2.48E-10	2.53E-11	4.44E-18	1.00E-07	5.50E-08	1.31E-10	2.37E-09	1.69E-12
LA	WP-LA-OS-00-04	0.00	2.56E-01	--	--	4.37E-05	6.09E-06	3.71E-02	1.67E+00	4.42E-01	2.63E-02	6.10E-05	--	3.32E-05	3.53E-12	1.05E-08	1.63E-15	1.20E-09	2.07E-05	1.96E-07	9.32E-07	1.81E-09
LA	WP-LA-TA-55-19.01	81.08	7.58E+01	4.34E-03	--	1.58E-07	5.83E-03	1.11E+01	2.49E+02	6.10E+01	1.55E+01	1.67E-01	--	--	5.75E-09	1.18E-04	3.01E-13	1.72E-06	1.22E-01	2.46E-04	1.49E-04	3.87E-04
LA	WP-LA-TA-55-19.02	213.29	4.25E+02	7.69E-02	--	9.57E-05	3.21E-02	1.12E+02	8.15E+02	2.26E+02	8.09E+01	1.24E+00	--	7.89E-05	3.19E-05	2.28E-03	2.06E-05	4.55E-03	8.39E-01	1.02E-03	5.38E-04	1.53E-03
LA	WP-LA-TA-55-30	91.98	1.27E+02	6.47E-03	--	1.45E-03	1.10E-02	2.50E+01	2.47E+02	6.91E+01	2.20E+01	5.98E-02	--	1.29E-03	6.65E-05	1.03E-05	3.28E-05	9.49E-03	1.75E-02	2.35E-04	1.64E-04	5.58E-04
LA	WP-LA-TA-55-43.01	189.88	6.17E-01	1.43E-05	--	--	5.38E-05	2.94E+02	4.65E-01	7.58E-01	1.39E-01	5.33E-04	--	--	5.74E-11	6.82E-05	4.58E-06	1.66E-08	1.32E-01	3.85E-08	1.89E-06	6.95E-12
LB	LB-T001	0.49	1.15E-02	2.11E-03	1.48E-04	4.25E-08	2.03E-05	4.65E-03	7.28E-04	2.70E-05	2.73E-05	1.91E-14	9.47E-14	--	1.39E-11	2.99E-10	1.32E-06	5.28E-09	1.01E-06	4.29E-11	4.60E-11	9.18E-10
LB	LB-T002	0.49	2.13E-05	2.81E-08	--	--	1.37E-07	--	1.29E-04	--	5.15E-06	--	--	--	9.42E-14	--	--	3.57E-11	--	7.65E-12	--	--
LL	LL-M001	739.93	1.77E+03	5.37E-02	3.23E+01	4.82E-01	1.55E-01	1.30E+03	1.94E+03	9.64E+02	3.03E+02	1.90E-01	3.14E-07	4.40E-01	2.78E-04	4.28E-04	4.83E-05	5.27E-02	3.63E-01	2.31E-03	1.72E-03	2.64E-02
LL	LL-T004	4.49	7.86E+00	--	3.30E-03	--	1.98E-04	9.08E-01	2.39E+01	4.85E+00	1.42E+00	5.45E-04	--	--	6.58E-11	6.08E-08	1.32E-14	3.15E-08	2.01E-04	1.44E-06	8.78E-06	5.16E-12
LL	LL-W018-S5100	184.75	5.31E+00	--	4.03E-04	--	1.28E-04	2.14E-01	6.94E+00	1.73E+00	1.36E+00	3.21E-04	--	--	4.51E-11	2.42E-08	7.33E-15	2.07E-08	6.29E-05	5.20E-07	3.91E-06	3.78E-12
LL	LL-W018-SS	4.20	7.01E+01	1.03E-05	4.95E-05	2.76E-03	1.84E-03	7.20E+00	5.99E-01	1.91E-03	2.64E-02	--	5.62E-21	7.69E-03	7.05E-10	8.12E-07	8.08E-18	3.12E-07	2.11E-03	4.73E-07	4.31E-09	--
LL	LL-W019	48.64	8.77E+01	9.81E-05	5.73E-03	7.01E-05	9.39E-03	2.70E+00	1.71E+02	4.72E+01	3.41E+01	1.70E-02	--	6.36E-05	5.13E-02	9.27E-06	1.78E-04	9.75E+00	1.71E-02	8.18E-04	8.41E-05	1.51E-02
LL	WP-BLCHDN.001	1.68	9.69E-02	2.22E-03	1.07E-02	--	8.97E-04	4.78E-02	9.28E-06	5.73E-04	3.47E-04	--	--	--	1.07E-09	5.93E-09	1.51E-18	3.08E-07	1.48E-05	4.11E-13	9.67E-10	--
LL	WP-LL-M001-S5400	141.54	3.20E+02	1.35E-02	1.66E+00	3.55E-06	8.11E-02	1.95E+02	5.97E+02	1.67E+02	5.23E+01	3.17E-02	--	3.10E-06	9.01E-08	3.78E-05	7.64E-13	2.65E-05	7.92E-02	5.42E-04	3.92E-04	3.54E-03
LL	WP-LL-M001-S5400-002	160.17	5.73E+02	4.74E-02	6.41E+00	1.79E-03	4.31E-02	3.64E+02	9.37E+02	2.41E+02	8.53E+01	3.27E-02	2.02E-05	1.63E-03	3.58E-04	7.32E-05	4.47E-05	6.44E-02	1.68E-01	1.91E-03	4.36E-04	2.02E-03

Table 5-1. CH Volume (m^3) and Activity (Ci) By Waste Stream and Radionuclide Decayed thru 2083
(Continued)

Site	Waste Stream ID	Scaled Vol (m^3)	Am-241	Am-243	Cm-244	Cs-137	Np-237	Pu-238	Pu-239	Pu-240	Pu-241	Pu-242	Pu-244	Sr-90	Th-229	Th-230	Th-232	U-233	U-234	U-235	U-236	U-238
LL	WP-LL-T004-S3141-002	1.42	1.12E+02	8.90E-06	--	1.40E-07	2.75E-03	7.62E+01	9.44E+01	2.11E+01	7.69E+00	4.72E-03	--	1.27E-07	8.98E-10	5.50E-06	6.16E-14	4.33E-07	1.75E-02	5.86E-06	3.96E-05	4.61E-11
LL	WP-LL-W019-S3900-002	14.70	1.34E+01	9.55E-06	1.62E-02	1.50E-06	1.07E-03	5.25E+01	3.32E+01	8.13E+00	2.63E+00	1.04E-03	--	1.36E-06	6.70E-10	7.47E-06	2.93E-06	2.54E-07	1.84E-02	1.09E-04	1.52E-05	9.43E-05
ND	ND-T001	0.42	2.65E+01	--	--	--	6.54E-04	--	--	--	--	--	--	--	2.23E-10	--	--	1.04E-07	--	--	--	--
ND	ND-T002	1.68	3.36E+00	--	--	--	8.54E-05	--	--	--	--	--	--	--	3.07E-11	--	--	1.40E-08	--	--	--	--
NT	NT-JAS-01	170.67	1.39E+01	--	--	--	4.10E-04	1.27E+01	1.54E+02	3.49E+01	6.34E+00	1.94E-03	--	--	2.21E-10	1.63E-06	1.64E-13	8.21E-08	4.01E-03	1.22E-05	8.31E-05	2.40E-11
NT	WP-NT-RF-BERYLLIUM	29.61	4.67E+00	9.11E-07	--	--	1.54E-04	5.21E-01	2.42E+01	5.47E+00	1.09E+00	4.31E-04	--	--	4.06E-05	7.09E-07	2.44E-14	5.94E-03	1.06E-03	1.97E-05	1.27E-05	2.31E-04
NT	WP-NT-RF-GRAPHITE	3.78	4.88E+00	--	--	--	1.47E-04	6.56E-01	3.87E+01	7.15E+00	1.64E+00	5.25E-04	--	--	7.69E-11	1.20E-07	3.19E-14	2.92E-08	2.57E-04	2.98E-06	1.66E-05	2.84E-05
NT	WP-NT-RF-METAL	6.09	1.07E+00	2.70E-06	--	--	3.64E-05	1.17E-01	6.72E+00	1.66E+00	3.87E-01	1.35E-04	--	--	2.18E-11	3.20E-05	7.40E-15	7.83E-09	4.46E-02	2.79E-05	3.84E-06	2.23E-02
NT	WP-NTLBL-S5400	1.68	1.03E+00	5.76E-03	4.89E-02	8.94E-06	7.02E-04	8.02E-02	6.71E-01	1.53E-01	8.57E-02	2.12E-05	--	7.94E-06	7.96E-10	9.64E-09	6.81E-16	2.34E-07	2.44E-05	5.16E-08	3.54E-07	2.56E-13
NT	WP-NTLRC-S5400	3.15	5.24E+00	3.49E-05	--	1.94E-07	3.76E-04	3.15E-01	7.18E+00	2.62E+00	8.48E-01	2.93E-04	--	1.72E-07	3.33E-10	3.22E-06	1.17E-14	1.05E-07	4.53E-03	1.48E-04	6.07E-06	1.05E-04
NT	WP-NTS54332R0	296.31	1.39E+02	1.29E-02	1.66E-01	4.21E-05	1.77E-02	1.38E+01	3.68E+02	9.58E+01	2.82E+01	1.04E-02	--	3.81E-05	1.49E-03	2.16E-05	4.28E-13	2.17E-01	3.20E-02	3.59E-04	2.22E-04	1.01E-02
NT	WP-NTS54COMR0	49.56	3.39E+01	2.08E-02	1.40E+00	1.46E-05	5.72E-03	1.18E+01	5.11E+01	1.22E+01	3.21E+00	1.84E-03	--	1.30E-05	1.78E-03	2.87E-06	5.42E-14	2.61E-01	5.62E-03	1.70E-05	2.82E-05	8.79E-04
NT	WP-NTS54MIX1R0	0.42	3.69E-03	9.50E-05	--	1.27E-05	8.84E-07	2.21E-04	2.89E-02	6.91E-03	5.74E-04	6.82E-07	--	--	1.03E-12	2.91E-11	3.33E-17	2.94E-10	7.07E-08	2.31E-09	1.66E-08	8.58E-15
OR	OR-CHEM-CH-HET	25.22	4.79E+00	1.01E-02	5.66E-01	6.88E-01	2.26E-04	7.96E+00	4.52E+00	2.18E+00	1.31E+00	3.60E-03	1.70E-10	6.02E-01	9.25E-03	4.88E-06	4.00E-07	1.76E+00	9.64E-03	1.71E-04	3.88E-06	6.79E-03
OR	OR-CRF-CH-HET	3.15	1.28E-01	8.53E-03	1.77E-01	1.14E-04	1.25E-05	2.87E-01	6.06E-05	3.24E-02	4.50E-02	3.46E-05	--	1.04E-04	1.13E-05	1.85E-08	7.99E-17	2.15E-03	6.22E-05	3.15E-12	5.51E-08	3.22E-13
OR	OR-GENR-CH-HET	13.50	3.54E+00	2.84E-01	6.17E-01	4.00E-04	1.13E-02	1.75E+00	1.58E+00	1.39E-01	5.93E-01	6.50E-01	1.81E-10	3.66E-04	2.34E-06	1.23E-07	5.37E-06	2.93E-06	3.98E-04	4.83E-07	2.40E-07	8.38E-04
OR	OR-GRSC-CH-HET	1.05	4.06E-03	4.38E-04	1.27E-04	1.07E-02	8.18E-08	1.38E-03	8.96E-03	7.11E-04	3.38E-04	6.01E-07	--	9.88E-03	1.04E-07	8.66E-08	1.87E-18	1.98E-05	1.57E-04	6.74E-06	1.27E-09	1.56E-04
OR	OR-IFEL-CH-HET	9.45	1.22E+00	1.25E-01	1.41E-01	1.01E-01	3.81E-04	1.79E-01	1.01E-01	9.80E-02	1.31E-01	9.19E-03	--	2.70E-02	2.08E-05	6.86E-07	2.54E-16	3.95E-03	1.26E-03	2.60E-05	1.73E-07	5.59E-04
OR	OR-ISTP-CH-HET	38.91	2.10E+02	3.46E-01	7.65E+01	2.70E-02	6.68E-02	1.31E+02	1.04E+01	1.66E+01	2.88E+01	4.89E-01	9.98E-04	1.30E-02	5.68E-03	2.52E-05	1.85E-05	1.06E+00	5.87E-02	3.24E-04	1.06E-04	4.10E-04
OR	OR-LWT-CH-HET	4.83	3.94E-01	7.90E-04	2.33E-03	1.02E-01	5.48E-05	7.14E-02	1.00E+00	6.01E-03	5.43E-03	1.73E-05	--	9.39E-02	1.07E-04	4.55E-05	6.84E-05	3.74E-03	3.12E-03	5.06E-05	3.20E-05	1.12E-04
OR	OR-MRF-CH-HET	8.82	8.17E-01	1.41E-03	1.08E-02	3.88E-01	6.92E-05	7.39E-02	1.62E+00	3.34E-01	3.47E-02	1.18E-04	--	2.30E+00	4.78E-06	2.24E-08	1.00E-15	8.52E-04	4.60E-05	1.06E-06	6.35E-07	1.93E-05
OR	OR-MSRE-CH-HET	3.99	2.87E-01	1.59E-04	1.79E-01	6.28E+00	7.06E-05	5.82E-03	3.02E-01	8.79E-02	1.18E-02	3.71E-06	1.85E-14	5.20E+00	2.86E-02	1.26E-04	1.78E-13	2.79E+00	1.05E-01	2.30E-05	2.71E-05	5.43E-06
OR	OR-NBL-CH-HET	3.99	1.52E+00	2.99E-04	1.47E-03	1.67E-04	1.01E-04	1.72E-01	2.58E+00	1.05E+00	4.79E-01	2.62E-04	--	1.53E-04	5.61E-11	1.21E-06	2.94E-05	2.26E-08	2.21E-03	7.08E-05	1.87E-06	2.42E-04
OR	OR-NFS-CH-HET-A	41.71	7.38E+00	1.27E-05	3.43E-02	1.40E-05	2.14E-04	8.50E-01	1.43E+01	4.70E+00	1.24E+00	3.99E-04	--	1.28E-05	1.46E-04	4.53E-03	5.70E-05	2.47E-02	1.04E-03	4.39E-05	8.37E-06	1.31E-03
OR	OR-NFS-CH-HOM-A	1.52	1.38E+01	8.23E-04	6.06E-03	1.37E-05	3.86E-04	2.32E+00	2.04E+01	7.56E+00	3.70E+00	1.57E-03	--	1.25E-05	1.41E-10	1.49E-07	2.00E-14	6.53E-08	5.02E-04	1.21E-06	1.35E-05	4.93E-05
OR	OR-NFS-CH-SOIL	2.73	1.09E-01	1.04E-05	--	3.69E-06	2.69E-06	9.99E-03	1.56E-01	5.45E-02	9.08E-03	1.10E-05	--	3.37E-06	8.48E-13	6.43E-10	1.44E-16	4.17E-10	2.16E-06	9.20E-09	9.72E-08	1.02E-13
OR	OR-OXIDE-CH-HET	0.65	2.10E+03	8.64E-05	--	3.54E-05	5.69E-02	3.64E+02	2.05E+02	5.52E+02	6.15E+02	2.52E+00	--	3.23E-05	1.10E-02	7.27E-05	3.75E-12	2.09E+00	1.46E-01	1.71E-05	1.57E-03	9.95E-04
OR	OR-PGDP-CH-HET	7.14	3.21E-01	2.54E-05	--	4.24E-05	1.24E-01	8.75E-02	1.12E+00	2.37E-01	1.44E-01	2.49E-05	--	3.87E-05	3.42E-05	2.37E-06	6.27E-16	6.52E-03	4.31E-03	7.44E-04	4.23E-07	1.92E-02
OR	OR-PUBE-CH-HOM	0.05	5.64E-01	2.71E-05	--	1.75E-04	2.53E-05	1.21E+00	2.19E-03	1.44E-03	6.75E-04	8.73E-07	--	4.78E-04	1.29E-11	3.00E-07	4.06E-18	5.25E-09	6.51E-04	1.34E-10	2.65E-09	8.40E-15
OR	OR-RADP-CH-HET	15.34	8.20E+00	1.33E+00	5.60E-01	2.94E+00	5.56E-04	9.16E-01	7.84E+00	3.63E+00	2.70E+00	7.27E-04	5.80E-04	3.50E-01	2.88E-04	7.89E-07	1.79E-05	4.62E-02	1.20E-03	3.95E-05	6.50E-06	3.51E-05
OR	OR-REDC-CH-HET	938.55	6.06E+02	6.97E+00	5.20E+02	4.64E+00	1.22E+01	1.19E+04	9.26E+01	9.82E+01	5.57E+01	1.72E+00	6.78E-02	4.28E+01	1.23E-02	2.58E-02	6.92E-05	2.23E+00	5.56E+00	1.14E-03	6.78E-04	3.48E-03
OR	OR-RF-CH-HET	16.25	1.76E+01	3.22E-03	5.52E-01	1.57E-01	1.08E-03	2.27E+01	3.72E+01	1.83E+01	9.74E+00	7.01E-03	--	1.14E-02	9.08E-02	4.14E-05	4.63E-05	1.52E+01	7.72E-02	3.35E-04	3.72E-05	3.36E-04
OR	OR-SOURCE-CH-HET	8.87	6.62E+01	3.09E-03	1.33E-02	2.39E-03	8.82E-03	1.32E+01	8.59E+00	2.01E+00	7.00E-01	3.04E-04	6.71E-15	7.71E-05	7.99E-05	3.31E-06	1.42E-14	1.52E-02	7.31E-03	2.14E-04	6.57E-06	3.17E-03
OR	OR-SWSA-CH-HET	0.63	1.77E-01	1.89E-04	2.94E-02	3.22E-05	8.40E-05	3.44E-05	1.69E-03	1.28E-03	1.05E-04	5.49E-08	--	2.94E-05	9.00E-05	7.56E-08	2.47E-18	1.71E-02	1.37E-04	9.98E-11	1.87E-09	5.11E-16
OR	OR-SWSA-CH-SOIL	2.73	1.63E-01	1.63E-04	2.56E+00	4.37E-06	1.10E-05	7.34E-02	7.26E-02	8.73E-02	1.29E-02	3.22E-05	--	3.99E-06	1.22E-06	1.21E-08	1.01E-06	2.44E-09	2.93E-05	2.95E-07	1.19E-07	1.99E-13
OR	OR-TDYN-CH-HET	0.42	3.32E-04	--	--	5.50E-08	7.96E-09	4.23E-02	5.99E-03	--	--	--	--	4.94E-08	2.56E-15	1.23E-08	--	1.23E-12	2.41E-05	4.13E-10	--	--
OR	OR-W1A-CH-SOIL	9.03	4.63E+00	6.69E-04	1.83E-03	5.64E+00	2.35E-03	2.55E-01	1.07E+00	3.82E-03	2.68E-01	5.91E-04	--	4.82E-02	4.55E+00	2.76E-03	6.32E-02	5.95E+00	2.06E-01	3.51E-03	5.35E-03	6.17E-02
OR	WP-OR-CHEM-CH-HET	23.10	4.50E+00	7.39E-03	8.42E-01	7.53E-02	8.38E-04	9.50E+00	3.06E+00	1.38E+00	1.17E+00	1.62E-03	--	6.79E-02	1.93E-03	2.24E-06	3.74E-15	3.45E-01	4.95E-03	3.79E-05	2.49E-06	2.03E-05
OR	WP-OR-GENR-CH-HET	23.52	5.19E+00	2.51E-01	6.35E-01	4.05E-04	1.02E-02	1.63E+00	1.67E+00	3.00E+00	2.14E+00	7.83E-02	--	3.69E-04	7.24E-09	9.74E-07	8.18E-15	2.70E-06	1.90E-03	3.33E-05	5.43E-06	7.84E-05
OR	WP-OR-ISTP-CH-HET	126.31	3.06E+02	9.39E-01	9.85E+01	3.09E-03	6.38E-02	2.82E+02	3.28E+01	2.92E+01	2.08E+01	6.20E-01	3.18E-08	2.82E-03	9.10E-04	7.03E-05	5.85E-08	1.73E-01	1.55E-01	5.19E-04	5.06E-05	1.05E-03
OR	WP-OR-LWT-CH-HET	0.63	1.02E-02	3.64E-07	--	3.45E-07	3.16E-07	--	6.82E-10	--	--	--	--	3.13E-07	1.35E-13	--	--	5.80E-11	--	2.18E-17	--	--
OR	WP-OR-NBL-CH-HET	11.13	4.49E-01	5.34E-04	3.40E-03	9.07E-05	2.93E-05	4.54E-02	5.91E-01	2.04E-01	7.62E-02	4.77E-05	--	8.18E-05	4.93E-05	1.10E-07	6.90E-16	8.26E-03	1.81E-04	6.10E-06	4.11E-07	1.24E-05
OR	WP-OR-NFS-CH-HET	23.52	2.54E+00	4.11E-11	--	1.93E-07	7.77E-05	1.95E-01	4.40E+00	1.33E+00	3.16E-01	2.06E-04	--	1.72E-07	1.91E-06	4.79E-08	5.48E-15	2.90E-04	9.49E-05	1.84E-06	2.96E-06	9.27E-04
OR	WP-OR-NFS-CH-HET-A	142.17	7.72E+01	5.24E-04	3.67E-01	3.10E-02	2.55E-03	1.34E+01	1.88E+02	6.07E+01	2.41E+01	1.14E-02	--	4.76E-04	1.39E-03	1.56E-06	8.37E-06	2.61E-01	4.17E-03	1.09E-04	1.08E-04	4.41E-03
OR	WP-OR-NFS-CH-HOM-A	7.40	5.08E+01	4.01E-03	--	4.01E-05	1.50E-03	5.88E+00	8.36E+01	2.76E+01	9.71E+00	5.37E-03	--	3.63E-05	1.27E-04	5.17E-07	5.13E-05	6.62E-03	1.51E-03	1.04E-05	5.33E-05	1.81E-04
OR	WP-OR-NFS-CH-SOIL	333.90	1.55E+02	4.69E-05	--	3.41E-04	4.35E-03	1.10E+01	3.32E+02	1.10E+02	3.62E+01	1.18E-02	--	3.11E-04	2.38E-04	9.10E-07	9.26E-05	1.53E-02	2.74E-03	4.76E-05	1.99E-04	1.49E-03

Table 5-1. CH Volume (m^3) and Activity (Ci) By Waste Stream and Radionuclide Decayed thru 2083
(Continued)

Site	Waste Stream ID	Scaled Vol (m^3)	Am-241	Am-243	Cm-244	Cs-137	Np-237	Pu-238	Pu-239	Pu-240	Pu-241	Pu-242	Pu-244	Sr-90	Th-229	Th-230	Th-232	U-233	U-234	U-235	U-236	U-238
OR	WP-OR-RADP-CH-HET	72.45	2.09E+01	3.09E-01	4.64E+00	2.88E-02	2.42E-02	1.36E+01	1.57E+01	3.03E+00	1.55E+00	1.71E-03	--	5.82E-02	1.20E-03	3.32E-06	1.36E-06	1.42E-01	7.23E-03	6.65E-05	5.50E-06	3.72E-04
OR	WP-OR-REDC-CH-HET	613.20	1.28E+02	2.94E+00	5.93E+02	1.85E+00	8.55E-02	4.86E+01	3.69E+01	9.87E+01	2.22E+01	1.09E-01	4.42E-09	2.90E+01	1.28E-03	1.11E-05	2.90E-06	2.18E-01	2.49E-02	1.81E-04	1.67E-04	2.53E-03
OR	WP-OR-RF-CH-HET	91.56	7.84E+01	2.23E-02	4.74E-01	2.88E-03	2.76E-03	9.15E+00	8.65E+01	4.00E+01	3.11E+01	9.01E-03	--	2.62E-03	1.05E-01	4.43E-04	3.81E-04	1.90E+01	7.79E-01	6.04E-04	7.36E-05	7.93E-04
RF	WP-RF001.01	951.82	1.66E+03	1.17E-03	--	--	9.32E-02	8.27E+01	3.36E+03	7.76E+02	3.55E+02	1.18E-01	--	--	5.15E-04	1.53E-04	3.47E-12	7.53E-02	2.24E-01	9.82E-03	1.80E-03	2.21E-03
RF	WP-RF002.01	1426.82	1.65E+03	1.05E-03	--	5.90E-05	4.95E-02	1.22E+02	4.40E+03	1.03E+03	5.49E+02	1.23E-01	--	--	1.49E-04	1.07E-04	4.60E-12	2.19E-02	1.66E-01	7.34E-03	2.39E-03	2.83E-01
RF	WP-RF003.01	133.17	3.03E+03	--	--	--	7.75E-02	2.94E+02	1.27E+04	3.04E+03	1.07E+03	2.93E-01	--	--	6.98E-05	4.75E-05	1.40E-11	1.01E-02	1.06E-01	1.48E-03	7.15E-03	1.31E-03
RF	WP-RF004.01	278.36	2.73E+02	8.77E-07	--	--	7.78E-03	1.82E+01	6.85E+02	1.58E+02	8.79E+01	1.91E-02	--	--	3.75E-09	1.69E-05	7.05E-13	1.48E-06	2.60E-02	7.13E-04	3.66E-04	7.54E-04
RF	WP-RF005.01	28.01	4.92E+03	--	--	--	1.44E-01	1.13E+02	4.77E+03	1.22E+03	2.05E+02	1.01E-01	--	--	6.80E-08	1.63E-05	6.32E-12	2.70E-05	3.80E-02	4.77E-04	3.05E-03	1.32E-09
RF	WP-RF005.02	18.40	5.86E+03	--	--	--	1.67E-01	6.74E+01	2.89E+03	7.57E+02	1.19E+02	6.46E-02	--	--	7.55E-08	9.60E-06	3.74E-12	3.08E-05	2.25E-02	2.53E-04	1.85E-03	1.72E-07
RF	WP-RF006.01	57.39	2.43E+03	--	--	--	5.84E-02	2.75E+02	9.20E+03	2.21E+03	1.31E+03	2.97E-01	--	--	2.28E-08	3.76E-05	1.01E-11	9.81E-06	8.99E-02	9.07E-04	5.19E-03	1.39E-06
RF	WP-RF008.01	26.11	1.16E+03	--	--	--	4.18E-02	1.12E+02	3.39E+03	9.24E+02	3.31E+02	1.36E-01	--	--	2.64E-08	1.40E-05	4.23E-12	9.27E-06	3.48E-02	2.91E-04	2.17E-03	7.69E-08
RF	WP-RF009.01	320.03	6.25E+04	--	--	--	2.01E+00	1.11E+03	5.49E+04	1.35E+04	2.94E+03	1.37E+00	--	--	1.06E-06	1.40E-04	6.05E-11	4.04E-04	3.47E-01	4.53E-03	3.14E-02	2.73E-06
RF	WP-RF010.01	562.87	1.80E+03	4.08E-05	--	--	4.92E-02	1.41E+02	6.25E+03	1.45E+03	5.48E+02	1.59E-01	--	--	2.22E-08	1.06E-04	6.48E-12	8.99E-06	1.67E-01	4.47E-03	3.36E-03	3.58E-03
RF	WP-RF011.01	54.81	3.10E+02	--	--	--	7.76E-03	3.48E+01	1.48E+03	3.55E+02	1.05E+02	3.06E-02	--	--	3.05E-09	4.82E-06	1.63E-12	1.32E-06	1.15E-02	1.38E-04	8.33E-04	4.21E-06
RF	WP-RF015.01	1.68	5.86E+00	--	--	--	2.20E-04	5.18E-01	1.87E+01	4.35E+00	2.36E+00	5.82E-04	--	--	1.51E-10	6.82E-08	2.09E-14	5.09E-08	1.66E-04	1.49E-06	1.05E-05	7.31E-12
RF	WP-RF029.01	4313.96	2.96E+03	1.44E-03	--	4.72E-06	9.29E-02	2.05E+02	6.84E+03	1.64E+03	1.03E+03	2.21E-01	8.60E-16	2.87E-08	5.10E-08	8.29E-05	7.31E-12	1.90E-05	1.44E-01	3.16E-03	3.79E-03	1.26E-03
RF	WP-RF031.01	20.47	1.48E+01	--	--	--	3.95E-04	1.27E+00	4.80E+01	1.11E+01	5.84E+00	1.32E-03	--	--	1.77E-10	8.07E-07	5.07E-14	7.17E-08	1.29E-03	3.29E-05	2.60E-05	4.10E-05
RF	WP-RF032.01	51.51	2.59E+03	--	--	--	8.67E-02	1.75E+02	8.60E+03	2.01E+03	5.31E+02	1.51E-01	--	--	5.03E-08	2.29E-05	9.20E-12	1.83E-05	5.58E-02	7.27E-04	4.71E-03	5.06E-07
RF	WP-RF033.01	16.64	1.85E+02	--	--	--	4.95E-03	1.92E+01	7.98E+02	1.85E+02	7.83E+01	1.84E-02	--	--	2.26E-09	2.61E-06	8.47E-13	9.06E-07	6.26E-03	7.28E-05	4.34E-04	6.00E-05
RF	WP-RF036.01	44.52	8.18E+01	8.08E-05	--	--	2.22E-03	7.38E+00	2.64E+02	6.13E+01	3.65E+01	8.18E-03	--	--	1.04E-09	2.70E-06	2.81E-13	4.12E-07	4.74E-03	1.31E-04	1.44E-04	2.98E-03
RF	WP-RF101.01	156.95	5.08E+02	1.05E-03	--	--	1.38E-02	4.52E+01	1.68E+03	3.92E+02	1.99E+02	4.61E-02	--	--	6.28E-09	3.53E-05	1.75E-12	2.53E-06	5.53E-02	1.48E-03	9.09E-04	8.53E-04
RF	WP-RF101.29	30.65	4.51E+01	--	--	--	1.20E-03	4.34E+00	1.56E+02	3.61E+01	1.81E+01	4.24E-03	--	--	5.29E-10	4.47E-06	1.61E-13	2.16E-07	6.83E-03	1.91E-04	8.37E-05	2.04E-04
RF	WP-RF101.30	93.64	4.11E+02	3.12E-04	--	--	1.24E-02	2.17E+01	8.77E+02	2.05E+02	8.69E+01	2.54E-02	--	--	6.35E-09	1.46E-05	9.40E-13	2.43E-06	2.31E-02	5.98E-04	4.82E-04	1.85E-04
RF	WP-RF101.31	60.64	8.42E+01	1.36E-05	--	--	2.26E-03	5.99E+00	2.33E+02	5.51E+01	2.43E+01	8.25E-03	--	--	9.88E-10	4.76E-06	2.46E-13	4.06E-07	7.45E-03	2.00E-04	1.28E-04	8.29E-05
RF	WP-RF101.35	73.69	2.87E+02	--	--	--	8.69E-03	1.67E+01	6.37E+02	1.48E+02	7.63E+01	2.08E-02	--	--	4.50E-09	6.26E-05	6.61E-13	1.72E-06	8.96E-02	2.76E-03	3.43E-04	2.19E-04
RF	WP-RF102.01	221.46	2.17E+02	1.98E-04	--	1.82E-03	6.38E-03	1.66E+01	5.72E+02	1.35E+02	8.29E+01	1.77E-02	--	--	3.26E-09	4.94E-06	6.05E-13	1.25E-06	9.15E-03	1.80E-04	3.14E-04	3.99E-04
RF	WP-RF102.31	120.18	1.62E+02	1.92E-05	--	--	4.97E-03	7.61E+00	2.74E+02	6.45E+01	3.50E+01	8.46E-03	--	--	2.61E-09	6.70E-06	2.96E-13	9.89E-07	1.03E-02	2.96E-04	1.51E-04	2.14E-03
RF	WP-RF104.01	45.46	1.46E+02	2.27E-04	--	--	4.47E-03	8.96E+00	4.08E+02	9.56E+01	3.59E+01	9.38E-03	--	--	2.33E-09	1.68E-06	4.27E-13	8.88E-07	3.57E-03	5.98E-05	2.22E-04	1.40E-04
RF	WP-RF107.01	64.05	2.35E+03	--	--	--	7.79E-02	5.19E+00	1.90E+02	4.39E+01	2.58E+01	5.79E-03	--	--	4.29E-08	1.31E-05	2.01E-13	1.60E-05	1.88E-02	1.12E-03	1.03E-04	5.98E-02
RF	WP-RF107.03	61.53	1.64E+01	--	--	--	5.27E-04	6.35E-01	2.31E+01	5.34E+00	3.15E+00	7.07E-04	--	--	2.91E-10	5.63E-05	2.45E-14	1.08E-07	7.77E-02	9.13E-03	1.25E-05	6.86E-01
RF	WP-RF107.04	104.79	6.50E+01	--	--	--	2.09E-03	2.28E+00	8.31E+01	1.92E+01	1.18E+01	2.53E-03	--	--	1.14E-09	1.79E-06	8.56E-14	4.26E-07	2.80E-03	2.17E-04	4.44E-05	1.54E-02
RF	WP-RF107.05	4.41	7.36E+00	--	--	--	1.98E-04	5.58E-01	2.04E+01	4.70E+00	2.77E+00	6.22E-04	--	--	8.94E-11	7.22E-06	2.16E-14	3.61E-08	1.00E-02	3.19E-04	1.10E-05	2.81E-06
RF	WP-RF107.06	14.49	8.47E-01	--	--	--	1.98E-05	8.30E-02	3.05E+00	7.03E-01	4.13E-01	9.27E-05	--	--	7.12E-12	1.69E-06	3.22E-15	3.20E-09	2.34E-03	2.64E-04	1.65E-06	2.01E-02
RF	WP-RF107.07	57.75	3.67E+02	1.69E-03	--	--	1.11E-02	2.03E+01	7.23E+02	1.68E+02	1.05E+02	2.23E-02	--	--	5.80E-09	1.00E-04	7.49E-13	2.21E-06	1.43E-01	4.47E-03	3.89E-04	2.20E-03
RF	WP-RF110.01	9.08	7.29E+01	1.71E-03	--	--	1.97E-03	3.48E+00	1.25E+02	2.90E+01	1.48E+01	6.56E-03	--	--	8.50E-10	1.04E-06	1.30E-13	3.53E-07	1.93E-03	3.95E-05	6.73E-05	1.94E-04
RF	WP-RF110.05	19.95	1.05E+02	--	--	--	2.62E-03	1.14E+01	4.61E+02	1.06E+02	3.38E+01	1.03E-02	--	--	1.02E-09	5.00E-06	4.85E-13	4.43E-07	8.48E-03	1.95E-04	2.48E-04	1.67E-05
RF	WP-RF113.01	0.42	1.05E-01	--	--	--	3.36E-06	1.00E-02	3.70E-01	8.54E-02	4.79E-02	1.13E-05	--	--	1.97E-12	1.28E-09	4.01E-16	7.08E-10	3.16E-06	2.92E-08	2.03E-07	1.40E-13
RF	WP-RF115.01	40.30	5.71E+02	--	--	--	1.53E-02	5.79E+01	2.52E+03	5.85E+02	1.40E+02	4.93E-02	--	--	6.60E-09	7.77E-06	2.68E-12	2.73E-06	1.87E-02	2.28E-04	1.37E-03	6.25E-04
RF	WP-RF116.01	0.93	2.28E+01	--	--	--	7.06E-04	1.41E+00	9.78E+01	2.25E+01	3.33E+00	1.52E-03	--	--	3.72E-10	1.80E-07	1.06E-13	1.41E-07	4.43E-04	7.71E-06	5.36E-05	1.88E-11
RF	WP-RF117.01	1.89	7.89E+00	--	--	--	2.21E-04	6.76E-01	2.44E+01	5.65E+00	3.24E+00	7.30E-04	--	--	1.07E-10	1.14E-06	2.59E-14	4.18E-08	1.67E-03	4.89E-05	1.33E-05	4.15E-07
RF	WP-RF118.01	336.84	1.75E+04	1.24E-03	--	--	4.76E-01	2.35E+03	6.65E+04	1.78E+04	6.04E+03	2.18E+00	--	--	2.17E-07	4.91E-04	8.17E-11	8.73E-05	1.00E+00	1.41E-02	4.19E-02	2.00E-04
RF	WP-RF119.01	23.55	5.36E+01	--	--	--	1.53E-03	4.06E+00	1.47E+02	3.44E+01	1.92E+01	4.46E-03	--	--	7.55E-10	8.45E-07	1.57E-13	2.93E-07	1.73E-03	2.86E-05	8.07E-05	2.13E-04
RF	WP-RF121.01	10.78	3.03E+02	--	--	--	7.53E-03	3.53E+01	1.97E+03	4.68E+02	8.34E+01	3.05E-02	--	--	2.84E-09	4.84E-06	2.15E-12	1.25E-06	1.16E-02	1.74E-04	1.10E-03	1.81E-07
RF	WP-RF122.01	9.63	2.96E+02	--	--	--	6.36E-02	3.48E+01	1.37E+03	3.28E+02	7.69E+01	3.48E-02	--	--	6.99E-08	4.31E-06	1.50E-12	2.06E-05	1.08E-02	1.07E-04	7.69E-04	4.27E-10
RF	WP-RF122.03	4.41	3.17E+01	--	--	--	1.22E-03	3.85E-01	1.42E+01	3.27E+00	1.92E+00	4.30E-04	--	--	7.88E-10	6.60E-06	1.50E-14	2.76E-07	9.15E-03	6.07E-04	7.67E-06	3.39E-02
RF	WP-RF122.04	54.60	2.99E+02	--	--	--	1.14E-02	4.39E+00	1.61E+02	3.71E+01	2.18E+01	4.90E-03	--	--	7.28E-09	2.46E-05	1.70E-13	2.56E-06	3.45E-02	3.51E-03	8.72E-05	2.34E-01
RF	WP-RF122.05	16.38	3.46E+00	--	--	--	9.82E-05	1.50E-01	5.45E+00	1.26E+00	7.45E-01	1.67E-04	--	--	4.62E-11	1.46E-05	5.78E-15	1.84E-08	2.01E-02	1.05E-03	2.96E-06	3.90E-02
RF	WP-RF122.06	2.03	6.51E+01	--	--	--	1.97E-03	5.54E+00	2.52E+02	5.92E+01	1.39E+01	6.37E-03	--	--	1.01E-09	9.20E-07	2.71E-13	3.87E-07	2.04E-03	3.26E-05	1.39E-04	2.81E-04
RF	WP-RF123.01	1.97	7.43E+01	--	--	--	1.93E-03	5.61E+00	3.02E+02	6.99E+01	1.73E+01	4.97E-03	--	--	7.87E-10	9.46E-07	3.20E-13	3.35E-07	2.08E-03	3.68E-05	1.64E-04	9.91E-08
RF	WP-RF123.02	0.84	2.62E-02	--	--	--	6.08E-07	2.30E-03	8.29E-02	1.92E-02	1.14E-02	2.55E-06	--	--	2.11E-13	1.70E-07	8.80E-17	9.67E-11	2.35E-04	2.70E-05	4.51E-08	2.10E-03
RF	WP-RF123.03	12.18	2.97E+02	--	--	--	1.01E-02	5.68E+00	2.05E+02	4.75E+01	2.81E+01	6.31E-03	--	--	5.78E-09	8.24E-07	2.18E-13	2.12E-06	1.92E-03	3.50E-05	1.12E-04	1.47E-03
RF	WP-RF123.04	44.94	2.45E+02	--	--	--	6.42E-03	2.26E+01	8.05E+02	1.87E+02	1.16E+02	2.49E-02	--	--	2.84E-09	3.29E-06	8.34E-13	1.15E-06	7.67E-03	9.00E-05	4.33E-04	2.61E-04
RF	WP-RF124.01	95.12	7.35E+01	4.47E-06	--	--	3.08E-03	6.36E+00	2.47E+02	5.64E+01	3.15E+01	6.59E-03	--	--	2.19E-09	5.78E-06	2.52E-13	7.38E-07	8.93E-03	1.43E-04	1.31E-04	1.42E-04
RF	WP-RF124.02	13.44	1.95E+01	--	--	--	5.77E-04	1.79E+00	6.65E+01	1.52E+01	8.32E+00	1.84E-03	--	--	3.05E-10	4.45E-07	6.94E-14	1.15E-07	8.60E-04	1.51E-05	3.56E-05	8.78E-08
RF	WP-RF125.01	6.29	2.28E+02	--	--	--	1.03E-02	8.55E+00	3.86E+02	8.87E+01	2.85E+01	7.66E-03	--	--	7.47E-09	7.40E-06	4.07E-13	2.50E-06	1.14E-02	3.16E-04	2.08E-04	6.28E-04
RF	WP-RF126.01	0.24	6.44E+00	--	--	--	1.57E-04	8.26E-01	3.87E+01	8.61E+00	2.15E+00	5.44E-04	--	--	5.82E-11	1.35E-07	4.05E-14	2.59E-08	3.00E-04	4.34E-06	2.05E-05	1.14E-08
RF	WP-RF126.04	0.49	1.42E+01	--	--	--	3.56E-04	1.37E+00	7.06E+01	1.62E+01	3.65E+00	1.27E-03	--	--	1.37E-10	2.70E-07	7.61E-14	5.99E-08	5.59E-04	8.96E-06	3.85E-05	3.15E-08
RF	WP-RF128.01	46.51	1.39E+03	--	--	--	3.57E-02	2.09E+02	8.49E+03	2.05E+03	4.98E+02	1.51E-01	--	--	1.50E-08	2.68E-05	9.61E-12	6.25E-06	6.58E-02	6.73E-04	4.86E-03	3.08E-08
RF	WP-RF129.01	462.89	3.62E+02	1.02E-04	--	1.84E-05	1.06E-02	2.50E+01	8.66E+02	2.06E+02	1.19E+02	2.72E-02	3.62E-19	--	5.43E-09	3.13E-05	9.45E-13	2.08E-06	4.66E-02	1.43E-03	4.84E-04	6.21E-04
RF	WP-RF129.05	445.99	4.23E+02	3.40E-04	--	--	2.02E-02	2.26E+01	7.50E+02	1.80E+02	1.10E+02	2.47E-02	--	--	1.55E-08	6.96E-06	8.24E-13	5.08E-06	1.27E-02	2.44E-04	4.22E-04	6.31E-05

Table 5-1. CH Volume (m^3) and Activity (Ci) By Waste Stream and Radionuclide Decayed thru 2083
(Continued)

Site	Waste Stream ID	Scaled Vol (m^3)	Am-241	Am-243	Cm-244	Cs-137	Np-237	Pu-238	Pu-239	Pu-240	Pu-241	Pu-242	Pu-244	Sr-90	Th-229	Th-230	Th-232	U-233	U-234	U-235	U-236	U-238
RF	WP-RF130.01	28.77	3.24E+02	--	7.89E-09	1.22E-04	1.59E-02	1.39E+01	4.94E+02	1.15E+02	7.14E+01	1.53E-02	5.26E-15	5.26E-03	1.21E-08	3.44E-05	4.56E-09	4.00E-06	4.45E-02	1.62E-03	2.66E-04	2.29E-03
RF	WP-RF134.02	11.28	3.27E-01	--	--	--	7.87E-06	2.52E-02	9.23E-01	2.13E-01	1.20E-01	2.82E-05	--	--	2.87E-12	3.22E-09	1.00E-15	1.29E-09	7.92E-06	7.29E-08	5.07E-07	3.50E-13
RF	WP-RF135.01	2.31	4.93E+00	--	--	--	1.76E-04	8.95E-02	3.31E+00	7.61E-01	4.47E-01	1.00E-04	--	--	1.06E-10	2.45E-07	3.49E-15	3.80E-08	3.50E-04	3.74E-05	1.79E-06	2.89E-03
RF	WP-RF135.02	10.50	2.18E+00	--	--	--	6.37E-05	1.68E-01	6.16E+00	1.42E+00	8.36E-01	1.88E-04	--	--	3.26E-11	3.01E-06	6.51E-15	1.24E-08	4.17E-03	1.33E-04	3.34E-06	1.17E-06
RF	WP-RF137.01	0.42	3.33E-01	--	--	--	1.16E-05	1.81E-02	6.80E-01	1.56E-01	8.69E-02	2.05E-05	--	--	7.13E-12	2.31E-09	7.35E-16	2.52E-09	5.69E-06	5.37E-08	3.72E-07	2.54E-13
RF	WP-RF139.01	11.76	3.28E+02	--	--	--	1.19E-02	9.03E-01	3.34E+01	7.69E+00	4.50E+00	1.01E-03	--	--	7.20E-09	1.89E-06	3.52E-14	2.58E-06	2.72E-03	2.02E-04	1.81E-05	1.30E-02
RF	WP-RF140.01	171.31	8.43E+01	1.35E-05	--	--	2.32E-03	7.43E+00	2.47E+02	5.96E+01	3.63E+01	8.12E-03	--	--	1.11E-09	1.01E-06	2.73E-13	4.36E-07	2.42E-03	2.32E-05	1.40E-04	3.51E-08
RF	WP-RF141.01	10.69	2.79E+02	--	--	--	6.66E-03	3.91E+01	1.82E+03	4.23E+02	1.09E+02	2.81E-02	--	--	2.40E-09	2.01E-04	1.99E-12	1.08E-06	2.78E-01	8.71E-03	1.01E-03	7.58E-05
RF	WP-RF141.02	41.28	1.90E+03	--	--	--	2.91E-01	1.53E+02	7.41E+03	1.76E+03	3.98E+02	1.52E-01	--	--	3.16E-07	2.34E-04	8.27E-12	9.28E-05	3.40E-01	9.99E-03	4.18E-03	8.32E-05
RL	RL105-01	43.86	1.90E+00	--	--	3.56E-02	4.35E-05	1.67E-01	1.46E+00	7.00E-01	6.96E-01	3.18E-05	--	6.11E-02	1.41E-11	2.47E-08	2.81E-15	6.72E-09	5.77E-05	3.67E-07	1.54E-06	5.56E-06
RL	RL105-03	69.09	4.71E+01	--	--	2.09E+01	1.68E-03	2.61E+00	2.31E+01	1.26E+01	1.62E+01	6.05E-03	--	9.36E+01	9.99E-10	2.84E-05	3.78E-13	3.64E-07	4.16E-02	1.54E-03	1.16E-04	3.29E-02
RL	RL200-01	1222.38	5.21E+01	--	--	2.88E-02	1.30E-03	2.79E+00	1.96E+01	1.09E+01	1.02E+01	4.55E-04	--	3.56E-03	4.77E-10	3.25E-07	4.76E-14	2.14E-07	8.34E-04	1.85E-06	2.50E-05	5.35E-04
RL	RL200-02	10344.45	5.46E+03	--	--	1.91E+00	1.40E-01	4.43E+01	6.68E+02	2.58E+02	1.17E+02	2.02E-02	2.19E-08	2.61E+01	5.76E-07	2.17E-04	8.96E-05	1.05E-04	2.36E-02	1.14E-02	1.14E-03	1.80E-01
RL	RL201-03	14.49	2.53E+01	--	--	5.11E-01	6.26E-04	5.26E-04	1.88E+00	4.60E-01	1.46E-03	6.76E-07	--	1.19E+01	2.13E-10	5.22E-10	1.75E-15	9.99E-08	1.56E-06	1.33E-07	9.85E-07	7.00E-03
RL	RL202S-01	62.73	2.40E+00	--	--	1.09E-06	1.54E-04	3.17E-01	3.25E+00	1.21E+00	2.43E-01	1.40E-04	--	8.82E-07	1.17E-10	3.25E-08	4.73E-15	3.96E-08	8.84E-05	2.34E-07	2.62E-06	1.58E-12
RL	RL209E-01	106.40	2.76E+03	--	--	1.02E-06	8.66E-02	3.06E+02	3.82E+03	1.39E+03	5.02E+02	2.05E-01	--	8.33E-07	4.25E-08	8.15E-05	5.28E-12	1.68E-05	1.61E-01	3.10E-03	2.97E-03	7.24E-03
RL	RL216Z-02	227.64	1.64E+03	--	--	--	3.78E-02	2.13E+02	4.48E+03	1.05E+03	5.14E+02	6.32E-02	--	--	1.22E-08	2.11E-05	3.99E-12	5.82E-06	5.84E-02	3.18E-04	2.25E-03	7.06E-10
RL	RL221U-03	0.42	1.31E-04	--	--	5.91E-05	3.05E-09	9.11E-06	6.78E-04	1.54E-04	2.99E-05	1.32E-08	--	4.82E-05	9.82E-16	9.03E-13	5.85E-19	4.71E-13	2.49E-09	4.81E-11	3.29E-10	1.47E-16
RL	RL222S-01	177.83	7.02E+01	5.86E-05	--	4.38E-02	7.11E-03	1.83E+00	1.55E+01	7.52E+00	6.93E+00	4.61E-04	--	3.56E-02	2.86E-04	2.03E-07	2.94E-14	4.46E-02	5.35E-04	1.90E-06	1.63E-05	1.95E-02
RL	RL231Z-01	561.83	4.01E+02	5.74E-05	--	4.83E-03	1.57E-02	3.70E+01	5.09E+02	1.62E+02	1.12E+02	1.39E-02	--	3.87E-03	9.53E-09	4.52E-05	9.82E-05	3.47E-06	7.21E-02	1.21E-03	3.51E-04	4.97E-02
RL	RL231Z-03	0.63	1.07E-01	--	--	--	3.77E-06	4.70E-05	3.08E-01	1.06E-01	4.02E-03	9.52E-06	--	--	2.61E-12	1.16E-11	8.42E-16	8.59E-10	2.14E-08	3.16E-08	3.28E-07	1.54E-13
RL	RL233S-01	44.13	1.53E+01	--	--	5.53E-04	3.37E-03	1.31E+00	1.59E+01	7.09E+00	3.71E+00	1.46E-03	--	4.50E-04	3.19E-09	1.55E-07	2.77E-14	1.01E-06	3.97E-04	2.17E-06	1.54E-05	1.53E-05
RL	RL233S-03	5.25	3.66E-01	--	--	1.14E-06	3.21E-04	5.21E-02	3.64E-01	1.46E-01	2.48E-02	9.33E-05	--	8.53E-07	3.29E-10	5.52E-09	5.87E-16	1.02E-07	1.48E-05	2.66E-08	3.21E-07	1.07E-12
RL	RL300-01	50.71	3.70E+02	3.33E-02	2.71E-01	3.83E+01	1.16E-02	3.40E+01	1.82E+02	1.55E+02	1.36E+02	1.09E-01	--	3.99E-03	4.77E-04	3.89E-05	6.39E-03	7.56E-02	5.74E-02	1.90E-03	3.31E-04	3.71E-02
RL	RL300-03	5.46	1.42E+01	--	--	4.11E-04	3.98E-04	1.62E+00	1.50E+01	7.62E+00	3.77E+00	1.27E-03	--	4.58E-04	1.75E-10	2.79E-07	2.90E-14	7.26E-08	6.23E-04	7.35E-06	1.63E-05	1.09E-04
RL	RL308-01	343.60	2.14E+04	1.84E-03	--	3.61E-02	5.07E-01	3.39E+03	9.45E+03	6.09E+03	4.12E+03	5.80E+00	--	2.93E-02	4.72E-04	4.30E-04	5.30E-04	7.49E-02	1.07E+00	1.47E-02	1.30E-02	2.03E-01
RL	RL308-03	0.42	2.45E-01	--	--	--	7.77E-06	2.72E-02	3.33E-01	1.26E-01	2.03E-02	1.53E-05	--	--	4.47E-12	5.47E-09	8.53E-16	1.61E-09	1.10E-05	3.15E-08	3.60E-07	2.28E-13
RL	RL325-01	1197.36	9.02E+02	1.69E-01	3.38E+00	2.82E+00	8.08E-02	5.35E+02	7.47E+02	3.23E+02	3.67E+02	4.77E-02	6.63E-11	7.30E+00	1.42E-03	7.35E-04	1.07E-02	2.09E-01	1.27E+00	3.33E-02	6.40E-04	7.04E-01
RL	RL325-03	44.52	1.05E+02	2.78E-01	7.67E+00	8.71E-02	1.41E-02	1.46E+01	7.67E+01	3.21E+01	3.54E+01	7.06E-03	7.02E-12	3.39E-01	4.44E-06	1.73E-05	1.60E-04	6.04E-05	2.79E-02	8.30E-04	6.90E-05	1.35E-02
RL	RL618-01	1.47	3.23E+00	4.32E-04	--	2.23E-02	4.51E-04	7.13E-01	6.53E+00	2.51E+00	8.28E-01	2.90E-04	--	2.36E-02	3.47E-10	5.96E-08	8.25E-15	1.21E-07	1.78E-04	9.67E-05	4.99E-06	7.64E-04
RL	RLARG-01	13.86	6.15E+01	--	--	1.60E-07	1.95E-03	1.31E+02	4.55E+01	2.31E+01	7.09E+00	8.11E-04	--	1.28E-07	1.14E-09	4.89E-05	1.45E-05	4.06E-07	7.81E-02	1.08E-03	6.73E-05	1.51E-03
RL	RLBAT-01	28.30	1.77E+01	--	--	--	1.47E-03	5.20E+01	1.49E+01	6.64E+00	6.17E+00	3.22E-04	--	--	1.22E-09	1.85E-05	4.04E-06	4.02E-07	3.40E-02	6.83E-04	1.44E-05	3.52E-03
RL	RLBW-01	134.36	3.27E+02	--	--	4.22E-02	7.88E-03	2.96E+01	2.50E+02	1.24E+02	1.05E+02	1.12E-02	--	3.44E-02	2.79E-09	9.45E-06	4.73E-13	1.27E-06	1.79E-02	2.78E-04	2.66E-04	1.15E-02
RL	RLBW-03	9.66	4.39E+01	--	--	6.46E-07	1.16E-03	4.38E+00	4.27E+01	2.15E+01	1.11E+01	2.90E-03	--	5.28E-07	4.69E-10	9.84E-07	8.41E-14	2.01E-07	2.02E-03	3.20E-05	4.66E-05	4.79E-04
RL	RLCFF-01	3.78	5.37E+00	--	--	--	1.23E-04	9.97E+00	4.11E+00	2.15E+00	1.76E+00	2.41E-04	--	--	3.97E-11	1.03E-06	8.41E-15	1.90E-08	2.79E-03	5.30E-07	4.67E-06	3.50E-06
RL	RLCFF-03	4.83	6.50E+00	--	--	--	1.53E-04	6.31E-01	7.15E+00	3.49E+00	1.48E+00	4.45E-04	--	--	5.05E-11	9.96E-08	1.37E-14	2.39E-08	2.28E-04	2.80E-06	7.58E-06	4.90E-05
RL	RLCH2-01	0.21	7.36E-03	--	--	1.03E-02	1.82E-07	4.17E-04	5.49E-03	1.40E-03	3.97E-04	--	--	8.42E-03	6.28E-14	4.27E-11	5.47E-18	2.92E-11	1.16E-07	3.95E-10	3.03E-09	--
RL	RLESG-01	17.01	2.50E+01	--	--	4.06E-01	5.88E-04	2.67E+00	2.62E+01	1.27E+01	1.04E+01	3.22E-03	--	3.53E-01	7.96E-07	1.83E-05	4.85E-14	1.26E-04	2.80E-02	5.20E-04	2.73E-05	3.59E-04
RL	RLESG-03	1.26	4.05E-02	--	--	7.35E-04	8.63E-07	5.02E-03	1.82E-01	4.88E-02	2.19E-02	5.39E-05	--	5.99E-04	2.53E-13	1.41E-08	1.85E-16	1.26E-10	2.20E-05	7.70E-07	1.04E-07	8.01E-09
RL	RLEXX-01	55.02	3.19E+02	--	--	--	8.35E-03	6.97E+01	7.68E+01	6.52E+01	6.28E+01	8.00E-02	--	--	3.28E-09	1.19E-05	2.48E-13	1.43E-06	2.66E-02	1.04E-04	1.40E-04	3.94E-03
RL	RLFFTF-01	1.05	1.35E-02	--	--	2.20E-03	3.15E-07	2.05E-03	1.10E-02	9.45E-03	3.00E-03	--	--	1.34E-03	1.01E-13	2.03E-10	3.59E-17	4.86E-11	5.62E-07	7.83E-10	2.02E-08	--
RL	RLGEV-01	100.39	1.27E+02	--	--	5.82E-06	3.38E-03	1.52E+01	1.41E+02	6.13E+01	3.23E+01	9.74E-03	--	4.74E-06	1.38E-09	4.57E-05	2.33E-13	5.91E-07	7.09E-02	1.43E-03	1.31E-04	4.85E-02
RL	RLGEV-03	2.10	1.17E+01	--	--	1.40E-08	2.62E-04	1.04E+00	7.00E+00	3.94E+00	4.48E+00	1.60E-04	--	1.17E-08	8.27E-11	5.17E-07	1.54E-14	3.99E-08	9.01E-04	2.09E-05	8.54E-06	3.06E-04
RL	RLHAN-01	506.80	5.07E+02	6.94E-03	6.78E-02	6.25E-01	2.25E-02	5.04E+01	3.83E+02	1.77E+02	1.62E+02	1.31E-02	--	5.01E-01	1.43E-03	2.21E-05	7.62E-05	2.15E-01	3.92E-02	9.22E-04	3.83E-04	1.36E-02
RL	RLIAEA-03	0.42	7.51E-01	--	--	3.33E-06	1.85E-05	2.39E-01	2.21E-01	2.82E-01	5.47E-02	4.19E-04	--	2.72E-06	6.35E-12	2.45E-08	1.10E-15	2.96E-09	6.67E-05	1.59E-08	6.11E-07	4.75E-12
RL	RLMLL-01	1.05	2.32E-01	--	--	--	8.31E-06	1.54E-02	4.57E-01	1.38E-01	1.58E-02	9.27E-06	--	--	6.10E-12	4.89E-07	1.23E-15	1.94E-09	4.87E-04	2.20E-05	4.52E-07	6.76E-04
RL	RLP11-01	7.52	2.55E-01	--	--	4.09E-07	6.13E-06	2.15E-02	2.48E-01	1.01E-01	9.40E-02	3.92E-06	--	--	2.20E-12	2.21E-09	3.94E-16	9.97E-10	6.00E-06	1.79E-08	2.18E-07	4.44E-14
RL	RLPFP-01	6160.13	7.15E+03	8.22E-02	--	8.86E-02	2.85E+00	7.80E+02	8.72E+03	3.32E+03	2.83E+03	5.52E-01	--	7.46E-02	3.32E-03	1.71E-04	1.68E-04	5.74E-01	3.69E-01	6.59E-03	6.52E-03	8.93E-02
RL	RLPFP-01A	8.40	2.16E+03	--	--	--	5.15E-02	2.57E+02	8.11E+02	6.26E+02	3.12E+02	5.63E-01	--	--	1.70E-08	2.54E-05	2.38E-12	8.07E-06	7.02E-02	5.34E-04	1.34E-03	4.99E-04
RL	RLPFP-03	16.17	1.34E+02	--	--	1.04E-05	3.65E-03	1.64E+01	2.13E+02	6.80E+01	2.98E+01	1.36E-02	--	8.46E-06	1.54E-09	1.16E-05	2.59E-13	6.50E-07	1.95E-02	9.79E-05	1.45E-04	7.22E-04
RL	RLPFP-04	75.18	6.14E+02	--	--	5.99E-04	1.58E-02	5.91E+01	1.05E+03	3.39E+02	1.90E+02	4.09E-02	--	4.89E-04	6.19E-09	8.39E-06	1.29E-12	2.70E-06	2.00E-02	2.13E-04	7.25E-04	1.95E-03
RL	RLPURX-01	488.12	4.99E+03	4.48E-04	--	2.10E+00	1.12E-01	7.70E+02	6.99E+03	2.65E+03	2.70E+03	6.27E-01	--	1.71E+00	1.05E-02	7.88E-05	1.01E-11	1.66E+00	2.14E-01	6.24E-04	5.67E-03	2.10E-03
RL	RLRFET-01	255.57	9.47E+01	--	--	--	3.20E-03	1.98E+00	1.27E+02	3.01E+01	3.51E+00	2.49E-03	--	--	2.02E-09	2.87E-03	2.17E-13	6.96E-07	3.16E+00	1.44E-01	8.87E-05	4.41E+00
RL	RLSAN-01	4.20	5.32E+01	--	--	--	1.71E-03	3.94E+00	3.29E+01	1.85E+01	5.73E+00	7.46E-04	--	--	1.03E-09	6.22E-06	1.36E-13	3.62E-07	7.50E-03	2.56E-04	5.50E-05	6.24E-04
RL	RLSWO-01	179.12	3.06E+02	3.04E-06	--	1.41E-01	5.63E-03	3.60E+01	2.04E+02	1.09E+02	2.06E+02	1.59E-01	--	1.48E-04	8.28E-06	2.45E-06	2.88E-13	1.57E-03	8.03E-03	2.04E-05	1.94E-04	2.83E-05
RL	RLWAR-01	148.51	7.01E+01	--	--	3.73E-08	1.26E-02	7.62E+00	4.58E+01	2.37E+01	2.11E+01	4.82E-03	--	3.06E-08	1.14E-08	1.26E-05	9.02E-14	3.69E-06	2.00E-02	6.42E-04	5.07E-05	2.90E-03
RL	RLWAR-03	33.67	1.31E+02	--	--	1.43E-07	3.18E-03	1.43E+01	5.89E+01	3.87E+01	2.67E+01	3.16E-02	--	--	1.12E-09	2.10E-06	1.60E-13	5.13E-07	4.91E-03	4.23E-05	8.62E-05	3.64E-05
RL	WP-RLBWD.001	91.98	2.61E+02	--	--	5.82E-04	7.69E-03	3.12E+01	3.12E+02	1.51E+02	5.46E+01	3.21E-02	--	5.74E-04	3.55E-09	1.39E-05	5.75E-13	1.44E-06	2.48E-02	9.07E-05	3.23E-04	5.87E-03
RL	WP-RLCBWD.001	158.97	3.71E+02	2.04E-05	--	2.16E-03	1.10E-02	4.26E+01	4.31E+02	2.04E+02	8.04E+01	3.63E-02	--	1.76E-03	2.25E-04	1.10E-05	8.43E-13	3.42E-02	2.14E-02	2.75E-04	4.55E-04	5.25E-03
RL	WP-RLCCP300D1	17.01	4.10E+01	7.06E-05	4.58E-02	4.79E-05	1.59E-03	6.67E+00	3.64E+01	1.84E+01	7.29E+00	5.84E-03	--	4.72E-05	3.83E-05	1.03E-05	6.99E-14	6.06E-03	1.63E-02	3.45E-04	3.93E-05	1.20E-03
RL	WP-RLCCP308D1	37.60	1.63E+01	1.34E-05	--	5.73E-06	5.30E-04	9.75E-01	1.94E+01	4.15E+00	2.34E+00	2.63E-04	--	5.65E-06	2.69E-10	8.57E-06	1.58E-14	1.05E-07	1.31E-02	4.28E-04	8.88E-06	2.94E-12
RL	WP-RLCFFD.001	251.16	5.68E+02	--	--	4.26E-06	1.39E-02	5.56E+01	6.06E+02	3.05E+02	1.21E+02	4.73E-02	--	3.46E-06	4.91E-09	8.93E-06	1.31E-06	2.24E-06	2.02E-02	1.81E-04	6.80E-04	3.04E-03
RL	WP-RLETECD.001	16.17	1.75E+01	--	--	1.24E-02	5.64E-04	1.35E+00	1.47E+01	6.64E+00	2.93E+00	1.23E-03	--	1.01E-02	2.96E-10	1.58E-05	5.86E-06	1.13E-07	2.32E-02	5.95E-04	1.48E-05	5.90E-04

Table 5-1. CH Volume (m^3) and Activity (Ci) By Waste Stream and Radionuclide Decayed thru 2083
(Continued)

Site	Waste Stream ID	Scaled Vol (m^3)	Am-241	Am-243	Cm-244	Cs-137	Np-237	Pu-238	Pu-239	Pu-240	Pu-241	Pu-242	Pu-244	Sr-90	Th-229	Th-230	Th-232	U-233	U-234	U-235	U-236	U-238
RL	WP-RLEXXOD.001	6.93	5.75E+01	--	--	--	1.56E-03	1.23E+01	1.39E+01	1.18E+01	9.83E+00	1.44E-02	--	--	6.61E-10	2.30E-06	4.87E-14	2.78E-07	4.94E-03	1.88E-05	2.63E-05	7.31E-04
RL	WP-RLHMOX.001	45.48	9.72E+03	4.27E-04	--	1.09E-04	6.52E-01	9.29E+02	7.74E+03	3.90E+03	1.59E+03	1.96E+00	--	8.75E-05	5.77E-07	6.61E-04	1.79E-11	1.81E-04	1.04E+00	4.90E-02	9.16E-03	5.96E-01
RL	WP-RLM209ED.001	11.34	8.18E+01	--	--	3.23E-08	2.68E-03	8.76E+00	1.13E+02	4.17E+01	1.29E+01	6.10E-03	--	2.61E-08	1.43E-09	2.71E-06	1.72E-13	5.45E-07	5.06E-03	1.01E-04	9.30E-05	1.83E-04
RL	WP-RLM231ZD.001	18.27	2.21E+01	2.65E-05	--	2.68E-04	1.49E-02	1.88E+00	6.21E+01	1.51E+01	3.40E+00	1.53E-03	--	2.54E-04	1.44E-08	2.52E-06	5.75E-14	4.59E-06	4.05E-03	4.22E-05	3.24E-05	9.78E-04
RL	WP-RLM233SD.001	45.43	2.95E+01	--	--	5.24E-04	1.35E-02	3.35E+00	4.38E+01	1.31E+01	3.81E+00	1.01E-02	--	4.26E-04	1.40E-08	5.32E-07	5.40E-14	4.29E-06	1.21E-03	1.13E-05	2.92E-05	1.20E-04
RL	WP-RLM300D.001	14.07	3.58E+01	6.72E-04	--	1.30E-05	1.69E-03	4.78E+00	4.16E+01	1.94E+01	7.97E+00	3.87E-03	--	1.05E-05	1.18E-09	7.39E-06	4.59E-05	4.07E-07	1.13E-02	4.62E-04	4.33E-05	1.14E-02
RL	WP-RLM308D.001	43.82	2.09E+03	1.41E-03	--	7.83E-03	7.02E-02	3.24E+02	1.01E+03	6.28E+02	3.61E+02	5.82E-01	--	6.35E-03	1.01E-04	7.47E-05	1.97E-04	1.54E-02	1.50E-01	2.06E-03	1.40E-03	2.61E-02
RL	WP-RLM325D.001	205.58	8.42E+02	6.56E-02	6.62E-01	1.82E-02	3.73E-02	9.98E+01	3.78E+02	1.73E+02	8.25E+01	5.97E-01	--	1.50E-02	7.69E-05	7.86E-05	2.35E-04	1.22E-02	1.31E-01	2.81E-03	3.69E-04	1.78E-02
RL	WP-RLMGEVALD.001	11.34	8.88E+00	--	--	4.42E-07	2.54E-04	1.07E+00	1.00E+01	4.23E+00	1.94E+00	7.04E-04	--	3.58E-07	1.17E-10	1.50E-06	1.75E-14	4.73E-08	2.32E-03	1.12E-04	9.43E-06	1.39E-03
RL	WP-RLMHASH.001	14.59	7.70E+02	--	--	6.62E-07	2.04E-02	4.30E+01	2.44E+03	6.00E+02	9.42E+01	8.17E-02	--	2.78E-07	1.22E-05	5.50E-06	2.82E-12	1.73E-03	1.35E-02	1.93E-04	1.43E-03	1.01E-09
RL	WP-RLMPDT.001	1658.62	5.54E+03	3.86E-03	--	5.01E-03	3.13E-01	7.31E+02	9.05E+03	3.01E+03	1.28E+03	5.71E-01	--	4.06E-03	3.75E-03	1.16E-04	8.97E-05	5.70E-01	2.63E-01	2.36E-03	6.70E-03	1.83E-02
RL	WP-RLMPFPDD	451.49	8.65E+02	1.59E-04	--	2.89E-03	2.92E-02	9.82E+01	1.43E+03	5.03E+02	1.55E+02	3.52E+00	--	1.57E-04	2.26E-04	2.37E-05	1.91E-12	3.58E-02	4.80E-02	2.01E-04	1.08E-03	7.28E-03
RL	WP-RLMPURX.001	102.89	8.95E+02	1.15E-04	--	5.82E-01	2.19E-02	1.33E+02	1.30E+03	4.81E+02	4.07E+02	1.10E-01	--	4.73E-01	2.44E-03	1.49E-05	1.99E-12	3.70E-01	3.88E-02	1.14E-04	1.07E-03	2.65E-04
RL	WP-RLMSSC.001	15.18	9.05E+02	--	--	--	2.23E-02	1.17E+02	2.78E+03	6.15E+02	2.87E+02	7.24E-02	--	--	8.44E-09	1.51E-05	2.89E-12	3.72E-06	3.71E-02	2.26E-04	1.46E-03	3.93E-04
RL	WP-RLMWARD.001	102.06	1.16E+02	1.89E-11	--	1.11E-06	3.40E-03	2.15E+01	4.76E+01	3.02E+01	2.19E+01	2.37E-02	--	9.01E-07	1.60E-09	1.55E-05	1.92E-06	6.41E-07	2.53E-02	7.40E-04	6.74E-05	3.92E-03
RL	WP-RLNPDT.002	383.88	7.49E+02	3.46E-03	--	2.66E-04	2.00E-02	1.13E+02	2.01E+03	4.76E+02	2.16E+02	8.38E-02	--	1.63E-04	8.65E-09	1.67E-05	6.21E-08	3.58E-06	3.87E-02	3.12E-04	1.10E-03	4.35E-04
RL	WP-RLNPURX.001	36.75	3.60E+02	4.11E-05	--	3.49E-04	8.18E-03	5.53E+01	4.11E+02	1.59E+02	1.77E+02	5.02E-02	--	1.99E-04	2.75E-09	6.85E-06	7.28E-13	1.28E-06	1.71E-02	3.20E-05	3.73E-04	6.15E-10
RL	WP-RLRFETS.001	14.98	6.39E+02	--	--	3.44E-06	1.63E-02	4.47E+01	3.80E+03	6.28E+02	1.40E+02	6.53E-02	--	3.12E-07	5.26E-05	9.36E-06	2.95E-12	7.51E-03	1.90E-02	4.75E-04	1.49E-03	8.11E-10
RL	WP-RLSWOCD.001	32.13	2.07E+01	5.53E-06	--	2.68E-04	7.14E-04	2.80E+00	3.81E+01	1.24E+01	5.12E+00	1.89E-03	--	2.17E-04	4.06E-10	5.12E-07	5.12E-14	1.50E-07	1.11E-03	1.38E-05	2.77E-05	7.92E-06
RL	WP-RLVIPAC.001	154.16	3.62E+02	1.69E-05	--	3.36E-04	1.23E-02	8.50E+01	9.75E+02	2.97E+02	3.83E+01	8.82E-02	--	2.72E-04	1.05E-04	3.79E-04	1.29E-12	1.55E-02	5.47E-01	1.37E-02	6.79E-04	2.62E-01
SA	SA-W134	1.47	3.35E-02	--	--	7.42E-02	7.19E-07	7.07E-03	5.81E-02	3.26E-02	1.19E-02	8.45E-06	--	3.00E-03	1.88E-11	9.44E-08	2.42E-05	3.22E-09	1.52E-04	5.05E-06	6.58E-08	1.84E-06
SA	SA-W136	115.06	1.52E+00	--	--	--	2.80E-05	3.79E-01	1.71E+01	3.99E+00	1.39E+00	3.60E-04	--	--	6.40E-12	2.52E-08	1.10E-14	3.60E-09	8.35E-05	1.03E-06	7.26E-06	1.25E-10
SA	SA-W137	0.84	3.34E-01	--	--	1.41E-03	7.84E-06	1.03E-01	4.90E-01	2.15E-01	6.39E-02	2.02E-04	--	--	2.55E-12	1.63E-08	8.19E-16	1.22E-09	3.74E-05	4.58E-07	4.61E-07	9.11E-06
SA	SA-W138M	0.21	1.23E+00	--	--	3.79E-08	3.04E-05	4.87E-08	6.12E-02	--	--	--	--	--	1.03E-11	4.83E-15	--	4.85E-09	1.33E-11	4.34E-09	--	--
SP	SP-CHHD	6.27	2.61E-02	--	--	6.76E-01	6.01E-07	1.66E-03	2.58E-01	--	1.31E-03	6.86E-04	--	2.42E-02	1.80E-13	1.31E-06	--	8.99E-11	2.09E-03	1.31E-04	--	2.26E-03
SR	SR-AGNS-HOM	1.26	8.73E-01	--	--	--	6.89E-04	4.58E-01	1.34E+00	3.15E-01	4.70E-01	5.52E-05	--	--	6.52E-10	1.01E-07	1.16E-15	2.10E-07	2.10E-04	4.42E-06	6.64E-07	9.27E-05
SR	SR-BCLDP-HET	3.76	1.15E-01	--	--	--	2.54E-06	1.71E+01	9.99E-02	4.60E-02	3.64E-02	1.43E-05	--	--	7.60E-13	1.58E-06	1.66E-16	3.78E-10	4.50E-03	6.89E-09	9.58E-08	1.55E-13
SR	SR-BCLDP.004.004	0.21	9.06E-03	2.73E-05	--	2.17E-04	4.13E-06	2.80E-02	8.22E-04	1.35E-03	--	1.61E-08	--	1.92E-04	7.32E-12	1.05E-08	6.32E-18	1.75E-09	1.82E-05	1.69E-07	3.20E-09	3.26E-06
SR	SR-CH-PP	31099.11	1.76E+05	6.02E+00	2.30E+02	3.88E-02	5.69E+00	3.77E+05	3.73E+05	1.23E+05	1.68E+05	3.49E+01	--	3.83E-02	1.01E+00	8.49E-02	4.34E-09	2.31E+02	2.15E+02	4.41E-01	1.85E+00	6.47E+01
SR	SR-DWPF-HET	0.21	8.71E-02	--	--	5.84E-04	3.03E-06	1.13E-02	3.09E-03	4.85E-02	2.54E-03	--	--	5.19E-04	2.00E-05	1.32E-09	2.11E-16	2.96E-03	3.39E-06	4.10E-07	1.11E-07	1.16E-05
SR	SR-HBL-235F-HET	2.51	8.33E-04	--	--	--	1.72E-04	7.83E-01	9.40E-04	5.12E-04	9.60E-04	6.13E-07	--	--	1.61E-10	7.26E-08	1.84E-18	5.25E-08	2.07E-04	6.49E-11	1.06E-09	6.66E-15
SR	SR-KAC-HET-2	233.06	1.88E+02	--	--	--	4.13E-03	3.69E+01	4.56E+02	1.18E+02	1.08E+02	3.90E-02	--	--	1.03E-09	1.63E-06	2.24E-13	5.72E-07	6.54E-03	8.89E-04	1.78E-04	3.05E-05
SR	SR-KAC-HET-A	0.21	1.70E-01	--	--	--	4.87E-06	2.93E-02	4.20E-01	1.08E-01	3.96E-02	3.60E-05	--	--	2.12E-12	2.71E-09	3.89E-16	8.87E-10	7.73E-06	8.28E-07	2.25E-07	2.81E-08
SR	SR-KAC-HET-B	146.56	1.20E+02	--	--	--	3.13E-03	2.16E+01	2.93E+02	7.56E+01	3.88E+01	2.51E-02	--	--	1.13E-09	1.56E-06	2.20E-13	5.20E-07	4.98E-03	5.76E-04	1.42E-04	1.96E-05
SR	SR-KAC-PuOx	783.28	5.76E+05	--	--	--	1.17E+01	8.15E+04	9.72E+05	3.26E+05	1.34E+05	1.13E+02	--	--	2.83E-06	5.67E-03	9.20E-10	1.57E-03	1.84E+01	5.94E-02	6.01E-01	1.09E-06
SR	SR-KAC-PuOx-2	1597.87	4.90E+05	--	--	--	8.11E+00	6.08E+04	2.13E+06	4.67E+05	1.73E+05	6.54E+01	--	--	1.33E-06	2.70E-03	8.90E-10	8.94E-04	1.08E+01	1.07E-01	7.06E-01	5.17E-07
SR	SR-LA-PAD1	4.62	4.67E+00	1.73E-06	--	2.44E-06	3.16E-04	1.10E+03	2.16E+00	3.40E+00	1.24E+00	4.34E-03	--	2.63E-06	4.09E-06	3.19E-04	2.98E-07	6.66E-04	6.27E-01	5.30E-06	7.06E-06	4.72E-11
SR	SR-MD-HET	14.63	5.72E-01	1.19E-06	4.23E-06	1.96E-05	1.13E-04	5.03E+01	1.22E+00	1.87E-01	1.84E-01	1.19E-04	--	1.76E-05	1.54E-04	4.85E-05	3.64E-06	2.54E-02	2.79E-02	6.87E-06	3.82E-07	1.22E-04
SR	SR-MD-PAD1	14.47	9.27E+00	2.86E-05	1.27E-03	8.46E-03	1.04E-03	2.45E+03	5.01E+00	6.78E+00	2.56E+00	8.33E-03	--	7.62E-03	8.25E-10	6.97E-04	2.46E-05	2.83E-07	1.39E+00	1.61E-05	1.39E-05	5.80E-05
SR	SR-MD-SOIL	2.10	1.54E-02	--	--	9.46E-07	2.50E-06	6.27E-01	2.60E-02	3.74E-03	1.71E-03	5.02E-06	--	8.51E-07	2.12E-12	1.77E-07	1.35E-17	7.06E-10	3.50E-04	1.79E-09	7.78E-09	5.45E-14
SR	SR-NIST-HET	0.21	6.39E+00	--	--	--	1.50E-04	4.78E+00	2.57E+00	6.06E-01	9.06E-01	1.09E-04	--	--	4.81E-11	7.40E-07	2.78E-13	2.32E-08	1.72E-03	6.44E-06	7.99E-05	2.50E-07
SR	SR-SDD-HET-A	1.88	7.66E-03	1.03E-06	7.61E-06	9.48E-06	1.47E-05	6.93E-01	6.54E-02	9.12E-03	6.31E-03	8.12E-06	--	2.09E-03	6.21E-09	6.68E-08	4.20E-16	1.03E-06	1.87E-04	1.98E-08	1.33E-07	3.28E-07
SR	SR-SDD-HOM-A	3.99	1.64E-01	6.11E-04	--	--	8.10E-02	5.69E+00	8.67E-01	1.64E-01	8.92E-02	3.77E-01	--	--	2.23E-03	5.28E-04	8.43E-12	3.69E-01	8.34E-01	6.60E-04	2.48E-03	4.01E-02
SR	SR-SDD-HOM-B	2.73	8.14E-01	1.59E-04	5.96E-04	2.61E-04	1.62E-03	7.61E+01	7.24E+00	1.01E+00	6.49E-01	3.51E-03	--	1.02E-04	1.51E-09	7.59E-06	4.87E-14	4.92E-07	2.09E-02	7.50E-06	1.51E-05	2.07E-04
SR	SR-SWMF-HET-A	66.88	5.41E+00	3.68E-04	9.53E-03	8.74E-04	4.76E-03	2.96E+02	1.01E+01	2.85E+00	1.54E+00	7.42E-03	--	7.85E-04	2.48E-06	6.72E-05	1.17E-07	4.05E-04	1.40E-01	1.02E-05	5.92E-06	3.50E-04
SR	SR-SWMF-HET-B	0.21	6.62E-02	8.82E-02	6.06E-01	2.43E-07	1.58E-06	8.31E-02	3.57E-04	5.29E-02	2.93E-03	2.82E-05	1.74E-14	2.19E-07	5.03E-13	7.65E-09	1.54E-16	2.43E-10	2.18E-05	1.85E-11	9.59E-08	3.05E-13
SR	SR-W026-221F-HEPA	0.21	6.70E-02	1.67E-14	--	9.28E-09	1.80E-06	9.01E-03	1.96E-01	5.23E-02	2.25E-02	6.64E-06	--	8.34E-09	3.03E-07	5.19E-09	1.88E-16	4.93E-05	9.14E-06	1.60E-07	1.09E-07	1.07E-08
SR	SR-W026-221F-HET	0.63	3.29E-01	5.03E-07	2.47E-04	1.19E-05	9.77E-06	1.50E-01	9.93E-01	2.72E-01	1.62E-01	1.70E-04	--	1.07E-05	4.54E-12	8.26E-08	3.13E-08	1.85E-09	1.48E-04	1.52E-06	5.58E-07	9.71E-06
SR	SR-W026-221F-HET-A	3.36	3.95E-01	--	5.93E-04	4.71E-02	1.08E-05	2.23E-02	6.76E-01	1.69E-01	1.87E-01	2.96E-05	--	1.19E-02	5.43E-08	1.41E-07	3.98E-15	8.84E-06	2.21E-04	6.87E-06	1.33E-06	2.60E-06
SR	SR-W026-221F-HOM	1.26	6.60E-01	1.45E-07	--	6.20E-03	3.27E-05	2.64E-01	2.30E+00	5.14E-01	1.98E-01	7.32E-05	--	2.92E-06	2.17E-11	4.94E-08	1.90E-15	7.75E-09	1.08E-04	1.88E-07	1.09E-06	3.88E-07
SR	SR-W026-772F-HET	40.25	1.06E+01	8.50E-05	9.36E-03	7.77E-03	9.91E-03	2.08E+02	1.58E+01	3.91E+00	3.01E+00	1.81E-03	--	6.96E-03	1.88E-05	5.66E-05	2.07E-05	3.07E-03	1.14E-01	6.36E-05	8.02E-06	5.24E-05

Table 5-1. CH Volume (m^3) and Activity (Ci) By Waste Stream and Radionuclide Decayed thru 2083
(Continued)

Site	Waste Stream ID	Scaled Vol (m^3)	Am-241	Am-243	Cm-244	Cs-137	Np-237	Pu-238	Pu-239	Pu-240	Pu-241	Pu-242	Pu-244	Sr-90	Th-229	Th-230	Th-232	U-233	U-234	U-235	U-236	U-238
SR	SR-W027-221F-HET-A	1.89	4.38E-01	3.83E-07	4.09E-06	1.95E-07	1.28E-05	6.09E-02	1.24E+00	3.12E-01	1.36E-01	2.98E-05	--	1.76E-07	1.10E-07	3.78E-08	1.12E-15	1.80E-05	6.60E-05	2.86E-07	6.48E-07	6.25E-07
SR	SR-W027-221H-HEPA	103.43	1.97E+00	1.28E-05	--	3.29E-02	4.34E-03	5.90E+02	3.85E+00	1.08E+00	8.46E-01	1.95E-03	--	2.96E-02	4.04E-09	1.70E-04	3.87E-15	1.32E-06	3.34E-01	1.21E-05	2.24E-06	2.11E-11
SR	SR-W027-221H-HET	19.65	5.80E+00	3.62E-05	4.29E-03	6.23E-05	3.04E-02	9.30E+02	5.09E+00	1.43E+00	4.56E+00	3.25E-03	--	5.60E-05	4.36E-05	2.62E-04	4.59E-05	7.21E-03	5.23E-01	4.69E-05	2.92E-06	4.86E-05
SR	SR-W027-221H-HET-C	54.87	1.42E+01	3.91E-04	--	3.64E-04	1.30E-01	5.82E+01	4.74E+01	1.13E+01	3.50E+00	6.48E-03	--	3.28E-04	5.98E-06	2.12E-05	3.96E-14	1.01E-03	4.03E-02	4.00E-04	2.33E-05	2.42E-05
SR	SR-W027-221H-HOM	0.84	3.08E-01	9.63E-08	--	9.43E-04	1.23E-04	3.75E-01	6.69E-01	1.81E-01	7.82E-02	6.51E-05	--	8.47E-04	2.88E-08	8.45E-07	1.89E-14	4.71E-06	1.36E-03	2.42E-05	5.67E-06	1.27E-06
SR	SR-W027-235F-HEPA	3.97	4.57E-02	7.82E-13	--	6.09E-08	7.07E-04	2.37E+00	2.69E-02	1.16E-02	7.20E-03	2.06E-05	--	5.49E-08	6.43E-10	9.65E-07	4.04E-17	2.12E-07	1.80E-03	1.04E-05	2.37E-08	2.21E-13
SR	SR-W027-235F-HET	11.94	4.42E+00	1.79E-05	3.06E-04	6.38E-06	5.23E-02	8.78E+02	1.98E+00	8.47E-01	2.60E+00	1.63E-03	--	5.74E-06	1.64E-05	3.16E-04	1.84E-05	2.72E-03	6.02E-01	3.89E-05	1.74E-06	1.77E-05
SR	SR-W027-235F-HOM	0.21	5.11E-02	--	--	--	1.03E-06	3.02E+01	3.66E-02	1.99E-02	3.56E-02	2.38E-05	--	--	2.80E-13	2.90E-06	7.36E-17	1.44E-10	8.12E-03	2.56E-09	4.20E-08	2.63E-13
SR	SR-W027-321-322M-HET	1.26	6.31E+00	--	--	--	7.39E-04	1.81E-02	5.25E-02	1.23E-02	6.44E+00	2.16E-06	--	--	6.12E-10	1.68E-09	4.44E-17	2.05E-07	4.77E-06	3.62E-09	2.57E-08	2.35E-14
SR	SR-W027-773A-HET	76.65	1.53E+01	8.20E-02	5.58E-01	1.30E-02	1.89E-02	4.63E+02	3.31E+01	7.58E+00	5.20E+00	1.64E-03	3.84E-12	1.17E-02	2.16E-05	1.31E-04	4.12E-05	3.57E-03	2.61E-01	8.80E-05	1.55E-05	8.14E-04
SR	SR-W027-773A-HET-A	0.21	1.21E-02	--	--	2.28E-08	5.61E-07	1.91E-03	9.05E-03	2.24E-03	5.91E-03	2.63E-07	--	1.54E-08	3.03E-13	1.95E-10	6.52E-18	1.20E-10	5.40E-07	8.35E-09	4.19E-09	2.62E-07
SR	SR-W027-773A-HOM	0.63	--	--	--	4.84E-03	--	4.67E+01	4.06E-02	--	--	--	--	4.35E-03	--	1.48E-05	--	--	2.86E-02	2.80E-09	--	--
SR	SR-W027-FB-Pre86-C	49.66	5.16E+01	6.50E-05	1.17E-02	5.00E-05	3.53E-03	1.10E+01	1.27E+02	3.63E+01	1.86E+01	6.71E-03	--	4.50E-05	3.71E-06	2.92E-06	3.57E-06	6.05E-04	5.85E-03	1.75E-05	7.55E-05	3.87E-05
SR	SR-W027-HBL-Box	39.28	2.87E-01	1.97E-08	1.87E-04	1.85E-04	1.70E-03	6.24E+01	5.51E-01	1.63E-01	1.12E-01	3.20E-04	--	1.67E-04	1.55E-09	1.70E-05	5.70E-16	5.11E-07	3.42E-02	2.14E-07	3.35E-07	3.42E-12
SR	WA-SR-KAC-PUOX	0.54	2.65E+02	--	--	--	8.56E-03	1.05E+02	7.70E+02	2.17E+02	1.13E+02	5.09E-02	--	--	3.54E-09	1.97E-05	5.73E-13	1.56E-06	4.63E-02	5.59E-04	3.87E-04	1.76E-05
SR	WP-SR-221H-EUOX	1.46	--	--	--	1.68E-06	6.54E-02	--	1.16E+00	--	--	--	--	1.51E-06	5.96E-08	1.68E-04	--	1.96E-05	2.65E-01	8.35E-03	--	--
SR	WP-SR-221H-PUOX	33.34	9.27E+02	--	--	3.27E-04	2.79E-02	1.34E+02	4.39E+03	1.06E+03	2.35E+02	3.05E-01	--	2.95E-04	1.28E-08	1.41E-05	3.69E-12	5.25E-06	3.80E-02	3.70E-04	2.17E-03	6.34E-06
SR	WP-SR-AGNS-HET	35.07	4.52E+00	4.60E-05	1.30E-04	4.88E-05	2.32E-03	7.42E+00	3.08E+00	1.91E+00	1.24E+00	9.15E-04	--	4.36E-05	2.66E-06	2.27E-06	2.86E-06	4.11E-04	4.29E-03	2.45E-05	4.20E-06	4.95E-04
SR	WP-SR-AGNS-HOM	2.52	2.97E+00	--	--	6.72E-05	9.95E-04	9.45E-01	2.39E+00	8.85E-01	5.76E-01	2.05E-04	--	6.02E-05	9.66E-10	3.87E-07	1.52E-07	3.05E-07	6.96E-04	3.22E-05	1.92E-06	1.22E-03
SR	WP-SR-BCLDP-HET	7.32	8.75E-02	--	--	9.03E-07	5.09E-06	3.52E+00	1.85E-01	5.12E-02	1.47E-02	1.13E-05	--	8.11E-07	3.59E-12	8.48E-07	1.89E-16	1.26E-09	1.73E-03	2.89E-06	1.08E-07	1.24E-13
SR	WP-SR-BCLDP.003.001	0.42	9.10E-02	--	--	3.40E-03	2.01E-06	3.64E-02	8.20E-03	1.33E-02	3.48E-02	4.00E-05	--	3.05E-03	6.04E-13	1.09E-08	4.92E-17	2.99E-10	2.11E-05	5.74E-10	2.80E-08	4.41E-13
SR	WP-SR-HBL-235F-HET	44.47	5.40E+00	--	--	3.77E-06	5.70E-02	2.05E+01	3.34E+00	1.73E+00	7.47E-01	5.97E-04	--	3.39E-06	5.49E-08	5.57E-06	6.38E-15	1.76E-05	1.10E-02	1.47E-05	3.64E-06	6.58E-12
SR	WP-SR-KAC-HET	1.68	2.67E-01	--	--	6.00E-07	1.03E-05	4.23E-02	1.05E+00	2.30E-01	6.41E-02	1.85E-05	--	5.39E-07	5.78E-12	4.83E-08	8.25E-16	2.19E-09	8.01E-05	2.22E-06	4.77E-07	2.01E-13
SR	WP-SR-KAC-PUOX	8.60	1.81E+03	--	--	9.43E-05	5.98E-02	7.97E+02	1.02E+04	2.55E+03	6.17E+02	4.06E-01	--	8.61E-05	2.49E-08	5.14E-05	6.74E-12	1.10E-05	1.73E-01	6.01E-04	4.55E-03	3.09E-03
SR	WP-SR-LA-PAD1	69.93	8.70E+01	3.21E-05	--	4.47E-05	5.67E-03	2.02E+04	1.66E+02	6.15E+01	2.20E+01	8.15E-02	--	4.72E-05	7.92E-05	6.05E-03	5.21E-06	1.27E-02	1.17E+01	1.04E-04	1.30E-04	8.97E-10
SR	WP-SR-MD-HET	269.77	8.61E+00	1.58E-05	5.59E-05	2.79E-04	1.60E-03	7.06E+02	1.94E+01	3.56E+00	2.65E+00	1.68E-03	--	2.51E-04	2.33E-03	6.97E-04	5.36E-05	3.54E-01	3.95E-01	1.02E-04	7.41E-06	1.82E-03
SR	WP-SR-MD-HOM-A	2.31	7.77E-01	--	--	1.10E-08	5.00E-04	9.34E+01	3.05E-01	1.26E-02	1.62E-01	5.22E-05	--	9.79E-09	7.79E-06	3.06E-05	5.22E-17	1.18E-03	5.65E-02	1.63E-06	2.82E-08	4.47E-04
SR	WP-SR-MD-HOM-C	0.63	1.30E-02	--	--	6.23E-07	9.37E-06	1.22E+00	2.78E-02	--	--	6.65E-07	--	5.58E-07	9.33E-12	3.80E-07	--	2.93E-09	7.20E-04	5.76E-07	--	7.53E-15
SR	WP-SR-MD-PAD1	510.10	2.55E+02	7.26E-04	3.27E-02	1.87E-01	2.72E-02	6.73E+04	1.40E+02	1.76E+02	6.68E+01	2.32E-01	--	1.68E-01	2.19E-08	1.96E-02	6.34E-04	7.41E-06	3.85E+01	4.08E-04	3.67E-04	1.41E-03
SR	WP-SR-MD-SOIL	21.03	1.12E-01	--	--	8.04E-06	1.74E-05	5.70E+00	1.86E-01	2.76E-02	1.23E-02	3.76E-05	--	7.22E-06	1.51E-11	1.61E-06	1.02E-16	4.97E-09	3.17E-03	1.30E-08	5.82E-08	4.14E-13
SR	WP-SR-SDD-HET-A	7.53	4.45E-02	--	--	1.14E-03	1.08E-04	1.84E+00	3.08E-01	1.16E-01	2.14E-02	2.15E-04	--	1.02E-03	1.04E-10	2.18E-07	4.30E-16	3.33E-08	5.58E-04	2.16E-08	2.45E-07	2.37E-12
SR	WP-SR-SDD-HOM-A	1.47	1.17E-01	1.08E-05	--	7.61E-04	1.45E-05	5.57E-02	7.77E-01	1.78E-01	1.11E-01	2.34E-05	--	6.82E-04	1.27E-11	1.36E-07	6.79E-16	4.15E-09	2.12E-04	2.06E-05	3.82E-07	8.82E-04
SR	WP-SR-SDD-HOM-B	22.00	3.86E+00	3.79E-04	--	7.99E-03	6.66E-03	1.49E+02	1.80E+01	5.73E+00	2.64E+00	1.32E-02	--	7.19E-03	6.19E-09	3.28E-05	2.06E-14	2.02E-06	6.88E-02	7.02E-05	1.19E-05	2.44E-03
SR	WP-SR-SWMF-HET-A	273.98	2.82E+01	1.58E-03	3.97E-02	4.06E-03	1.96E-02	1.28E+03	6.02E+01	1.62E+01	8.15E+00	3.14E-02	--	3.65E-03	1.14E-05	2.91E-04	5.03E-07	1.85E-03	6.05E-01	4.86E-05	3.37E-05	1.49E-03
SR	WP-SR-SWMF-HET-B	0.84	4.46E-06	1.68E-08	--	1.17E-03	1.33E-04	1.61E+00	3.46E-01	3.21E-06	4.90E-06	4.87E-09	--	1.05E-03	1.28E-10	1.55E-07	1.19E-20	4.10E-08	4.33E-04	2.42E-08	6.78E-12	5.36E-17
SR	WP-SR-W026-221F-HEPA	410.47	1.55E+02	3.71E-11	--	2.54E-05	4.13E-03	2.02E+01	4.59E+02	1.21E+02	5.07E+01	1.53E-02	--	2.28E-05	6.90E-04	1.09E-05	4.35E-13	1.12E-01	1.93E-02	3.34E-04	2.51E-04	2.26E-05
SR	WP-SR-W026-221F-HET	842.14	4.93E+02	6.40E-04	2.94E-01	1.40E-02	1.65E-02	2.05E+02	1.40E+03	3.89E+02	2.14E+02	2.37E-01	--	1.26E-02	8.72E-09	1.24E-04	4.37E-05	3.36E-06	2.15E-01	2.11E-03	8.21E-04	1.31E-02

Table 5-1. CH Volume (m^3) and Activity (Ci) By Waste Stream and Radionuclide Decayed thru 2083
(Continued)

Site	Waste Stream ID	Scaled Vol (m^3)	Am-241	Am-243	Cm-244	Cs-137	Np-237	Pu-238	Pu-239	Pu-240	Pu-241	Pu-242	Pu-244	Sr-90	Th-229	Th-230	Th-232	U-233	U-234	U-235	U-236	U-238
SR	WP-SR-W026-221F-HET-A	9.70	1.20E-01	--	--	1.66E-02	3.33E-06	3.63E-02	5.14E-01	1.33E-01	3.27E-02	2.83E-05	--	1.50E-02	1.39E-12	3.25E-09	4.65E-16	5.93E-10	9.41E-06	3.50E-08	2.73E-07	8.98E-05
SR	WP-SR-W026-221F-HOM	10.92	8.02E+00	1.74E-06	--	3.20E-05	3.85E-04	2.97E+00	2.75E+01	6.25E+00	2.34E+00	8.29E-04	--	2.88E-05	2.53E-10	5.48E-07	2.31E-14	9.04E-08	1.20E-03	2.23E-06	1.32E-05	5.03E-06
SR	WP-SR-W026-772F-HET	894.30	2.84E+02	2.34E-03	3.17E-01	2.19E-01	2.51E-01	5.71E+03	4.13E+02	1.06E+02	1.20E+02	4.73E-02	--	1.99E-01	4.30E-04	1.24E-03	5.53E-04	7.94E-02	2.79E+00	1.68E-03	1.92E-04	1.38E-03
SR	WP-SR-W027-221F-HET-A	110.04	3.32E+01	--	--	1.50E-05	9.74E-04	4.88E+00	9.46E+01	2.39E+01	9.96E+00	2.38E-03	--	1.35E-05	1.70E-05	4.89E-06	8.58E-14	2.77E-03	8.18E-03	1.89E-05	4.96E-05	9.65E-05
SR	WP-SR-W027-221F-HETA	1157.49	1.11E+03	1.06E-04	4.40E-04	1.50E-04	3.41E-02	1.80E+02	2.53E+03	7.82E+02	5.20E+02	1.27E-01	--	1.27E-04	9.89E-04	1.84E-04	1.25E-04	1.57E-01	3.00E-01	3.21E-04	1.67E-03	2.26E-03
SR	WP-SR-W027-221H-HEPA	418.81	9.91E+00	4.02E-05	--	5.38E-01	1.41E-02	3.56E+03	1.52E+01	4.71E+00	6.00E+00	9.19E-03	--	4.89E-01	1.06E-08	8.46E-04	1.37E-14	3.85E-06	1.84E+00	5.26E-05	8.81E-06	8.98E-11
SR	WP-SR-W027-221H-HET	1695.58	6.18E+02	2.63E-02	3.75E-01	5.86E-03	2.97E+00	9.62E+04	5.26E+02	1.56E+02	4.61E+02	3.42E-01	--	5.25E-03	4.57E-03	2.78E-02	5.23E-03	7.45E-01	5.47E+01	4.68E-03	3.23E-04	5.08E-03
SR	WP-SR-W027-221H-HET-C	79.33	1.85E+01	4.86E-04	--	8.75E-03	1.47E-01	8.61E+01	6.10E+01	1.46E+01	6.43E+00	9.80E-03	--	7.95E-03	6.05E-06	2.57E-05	4.24E-14	1.11E-03	5.35E-02	4.86E-04	2.73E-05	5.07E-05
SR	WP-SR-W027-221H-HET-D	7.56	3.07E-01	--	--	3.98E-07	5.63E-03	1.44E+00	6.02E-01	1.70E-01	5.31E-02	7.19E-05	--	3.56E-07	5.73E-09	2.36E-05	6.65E-16	1.79E-06	3.54E-02	4.73E-03	3.69E-07	1.09E-04
SR	WP-SR-W027-221H-HOM	2.10	1.91E+00	--	--	1.09E-06	2.56E-04	6.09E-01	8.61E+00	2.07E+00	6.87E-01	3.62E-04	--	9.77E-07	2.25E-10	3.40E-07	7.88E-15	7.33E-08	5.89E-04	1.05E-05	4.43E-06	4.05E-12
SR	WP-SR-W027-235F-HEPA	86.69	1.27E+00	1.67E-11	--	1.60E-06	1.56E-02	1.30E+02	7.17E-01	3.56E-01	2.05E-01	8.38E-04	--	1.43E-06	1.51E-08	4.43E-05	1.32E-15	4.83E-06	8.37E-02	2.17E-04	7.51E-07	9.24E-12
SR	WP-SR-W027-235F-HET	458.70	2.18E+02	8.81E-04	1.92E-02	3.66E-04	2.46E+00	4.61E+04	9.78E+01	4.24E+01	1.91E+02	8.64E-02	--	3.34E-04	8.09E-04	1.28E-02	9.09E-04	1.51E-01	2.75E+01	1.83E-03	7.68E-05	9.26E-04
SR	WP-SR-W027-235F-HOM	4.20	1.94E-01	1.41E-06	--	3.93E-06	8.45E-03	2.57E+00	3.84E-02	1.01E-02	1.94E-01	1.93E-05	--	3.52E-06	8.38E-09	7.80E-07	3.85E-17	2.65E-06	1.50E-03	2.73E-09	2.17E-08	2.16E-13
SR	WP-SR-W027-321-322M-HET	3.15	9.09E-02	1.88E-10	--	6.39E-08	7.56E-04	2.44E-02	6.74E-02	5.11E-02	2.18E-02	1.02E-04	--	5.74E-08	7.28E-10	4.85E-09	1.89E-16	2.33E-07	1.04E-05	4.72E-09	1.08E-07	1.12E-12
SR	WP-SR-W027-321M-HOM	0.21	--	--	--	2.07E-07	3.75E-06	2.54E-02	1.26E-03	--	--	1.36E-08	--	1.86E-07	3.62E-12	7.57E-09	--	1.16E-09	1.47E-05	8.84E-11	--	1.50E-16
SR	WP-SR-W027-773A-HET	652.76	1.38E+02	6.10E-01	9.40E+00	4.01E-01	2.39E-01	3.92E+03	2.92E+02	7.04E+01	6.18E+01	4.79E-01	3.85E-14	3.65E-01	1.55E-04	8.91E-04	3.01E-04	2.90E-02	1.99E+00	9.53E-04	1.27E-04	1.43E-02
SR	WP-SR-W027-773A-HOM	1.05	3.45E-04	1.72E-05	--	1.80E-03	8.46E-06	2.47E+01	9.93E-03	1.33E-05	1.03E-05	1.31E-05	--	1.61E-03	7.93E-12	7.18E-06	4.78E-20	2.58E-09	1.41E-02	6.85E-10	2.76E-11	1.42E-13
SR	WP-SR-W027-FB-PRE86-C	1610.63	2.06E+03	2.49E-03	4.75E-01	1.87E-03	1.35E-01	4.36E+02	4.96E+03	1.43E+03	7.43E+02	2.59E-01	--	1.68E-03	1.49E-04	1.39E-04	1.33E-04	2.42E-02	2.68E-01	6.73E-04	2.97E-03	1.46E-03
SR	WP-SR-W027-HBL-BOX	1352.55	2.67E+01	1.32E-06	4.73E-03	5.83E-03	2.27E-01	1.09E+04	3.03E+01	1.45E+01	9.21E+00	5.41E-01	--	5.24E-03	2.13E-07	3.10E-03	3.16E-06	6.92E-05	6.13E+00	4.92E-05	3.02E-05	4.85E-05
SR	WP-SR2001.001.00	61.74	1.49E+00	--	--	8.65E-07	3.48E-05	5.88E-01	9.64E+00	1.90E+00	6.90E-01	1.93E-04	--	--	1.24E-11	7.99E-08	9.40E-15	5.60E-09	1.92E-04	7.79E-07	4.64E-06	2.46E-12
SR	WP-SR2002.002.00	70.56	4.94E+00	--	--	2.96E-06	1.21E-04	2.56E-01	1.13E+01	2.60E+00	1.64E+00	3.57E-04	--	2.22E-07	6.29E-04	3.37E-08	1.25E-14	8.85E-02	8.18E-05	9.04E-07	6.26E-06	4.49E-12
Grand Total		**1.68E+05**	**1.79E+06**	**3.32E+01**	**1.85E+03**	**1.05E+02**	**7.85E+01**	**1.57E+06**	**4.17E+06**	**1.10E+06**	**5.81E+05**	**2.86E+02**	**6.96E-02**	**2.30E+02**	**6.42E+00**	**4.74E-01**	**1.08E-01**	**3.56E+02**	**7.36E+02**	**1.74E+00**	**3.58E+00**	**1.08E+02**

Table 5-2. RH Volume (m^3) and Activity (Ci) By Waste Stream and Radionuclide Decayed thru 2083

Site	Waste Stream ID	Scaled Vol (m^3)	Am-241	Am-243	Cm-244	Cs-137	Np-237	Pu-238	Pu-239	Pu-240	Pu-241	Pu-242	Pu-244	Sr-90	Th-229	Th-230	Th-232	U-233	U-234	U-235	U-236	U-238
AE	AE-T009	111.25	3.32E+02	1.46E+00	2.61E+01	1.13E+03	1.42E-02	2.39E+02	3.21E+02	1.97E+02	1.23E+02	1.46E-01	--	7.35E+02	1.47E-02	6.99E-05	6.17E-13	1.31E-04	1.43E-01	2.46E-02	3.82E-04	1.59E-01
AE	WP-AERHDM	73.49	5.84E+02	2.36E-01	1.30E+02	2.11E+03	1.35E-02	5.02E+02	1.84E+02	1.50E+02	3.86E+02	3.51E-01	--	1.17E+03	2.52E-04	3.63E-04	4.04E-13	4.71E-02	6.98E-01	1.31E-02	2.69E-04	3.04E-02
AW	AW-T031.1322	260.58	6.61E+02	1.00E-07	2.00E-06	2.44E+03	9.15E-01	1.02E+01	2.36E+02	9.20E+00	1.48E+00	9.00E-02	--	3.55E+03	9.09E-07	3.74E-04	5.06E-11	2.86E-04	5.67E-01	4.52E-03	1.43E-02	3.89E-03
AW	AW-W020.13	130.92	3.12E+02	2.50E+00	8.44E-01	7.35E+03	4.64E-02	7.97E+01	2.68E+02	5.30E+01	4.44E+01	5.86E-01	7.38E-08	4.94E+03	9.53E-07	2.19E-03	6.03E-11	1.84E-04	8.66E-01	2.98E-02	2.01E-02	2.80E-02
BT	BT-T001	7.56	3.14E-02	1.12E-04	--	1.19E+01	1.62E-04	7.48E-01	1.03E-03	--	7.27E-03	1.85E-05	--	1.07E+01	9.74E-05	2.31E-07	1.47E-13	9.86E-03	4.69E-04	3.79E-06	4.57E-05	1.82E-08
BT	WP-BT-T001	3.15	8.98E-02	--	3.30E-03	2.51E+00	2.16E-06	6.87E-01	1.10E-02	1.55E-02	1.19E-02	6.56E-03	--	3.29E+00	4.66E-05	1.58E-06	5.87E-17	7.38E-03	2.47E-03	5.08E-05	3.30E-08	6.45E-06
IN	IN-AE-AGHC-02	104.58	4.90E+02	--	7.95E-01	4.66E+02	1.03E-02	5.69E+01	4.23E+02	2.27E+02	9.28E+01	1.38E-01	--	3.51E+02	6.81E-06	8.92E-04	6.82E-13	1.21E-03	1.52E+00	5.24E-02	4.31E-04	2.62E-02
IN	IN-AW-T031.1322	1.26	1.03E+01	--	--	6.03E+01	2.08E-04	3.64E+00	4.32E+00	2.44E+00	4.85E+00	--	--	8.96E+00	5.26E-11	1.87E-05	7.57E-15	2.83E-08	3.16E-02	6.16E-04	4.71E-06	3.49E-04
IN	IN-ID-ANLE-BIN	0.42	5.42E-02	--	--	1.31E-02	1.23E-06	4.40E-03	2.21E-02	1.30E-02	2.82E-03	4.21E-04	--	1.06E-02	3.03E-06	4.77E-08	4.27E-17	5.15E-04	7.80E-05	2.44E-06	2.58E-08	4.40E-07
IN	IN-ID-ANLW-W269-RH	0.63	3.00E+00	--	--	4.67E-02	7.09E-05	1.92E-01	1.76E+01	3.67E+00	--	4.06E-02	--	1.10E-02	2.53E-09	4.36E-08	1.28E-14	4.25E-07	9.14E-05	1.88E-06	7.53E-06	1.43E-08
IN	IN-ID-Bettis-Pu8Li14B	0.21	3.77E-01	--	--	2.68E-05	8.37E-06	9.78E+01	1.71E-01	1.01E-01	5.77E-02	1.56E-04	--	2.05E-05	2.39E-12	2.34E-05	3.34E-16	1.22E-09	4.91E-02	1.87E-08	2.02E-07	9.75E-10

Table 5-2. RH Volume (m^3) and Activity (Ci) By Waste Stream and Radionuclide Decayed thru 2083
(Continued)

Site	Waste Stream ID	Scaled Vol (m^3)	Am-241	Am-243	Cm-244	Cs-137	Np-237	Pu-238	Pu-239	Pu-240	Pu-241	Pu-242	Pu-244	Sr-90	Th-229	Th-230	Th-232	U-233	U-234	U-235	U-236	U-238
IN	IN-ID-BTO-030	0.84	1.37E-02	--	--	2.55E+00	3.23E-07	2.15E-01	1.98E-01	4.16E-03	--	7.19E-04	--	3.76E+00	1.41E-05	1.30E-06	1.45E-17	2.33E-03	2.08E-03	4.57E-05	8.52E-09	3.16E-05
IN	IN-ID-EBR-S5000	4.41	5.44E-06	--	--	2.78E+01	1.25E-10	4.53E-04	1.46E+01	5.31E-03	6.61E-07	2.60E-13	--	2.32E+00	4.85E-10	1.94E-07	1.85E-17	8.02E-08	4.27E-04	5.81E-02	1.09E-08	1.25E+00
IN	IN-ID-HFEF-S3000-RP	3.78	1.61E+01	--	4.38E-03	1.18E+01	3.27E-04	4.37E+00	1.32E+01	9.45E+00	5.72E+00	6.10E-03	--	1.08E+01	4.25E-09	1.16E-05	2.84E-14	7.87E-07	2.02E-02	5.42E-05	1.80E-05	7.11E-03
IN	IN-ID-HFEF-S5000-RP	20.37	4.98E+01	--	1.20E-02	2.69E+01	1.03E-03	1.55E+01	8.67E+01	4.13E+01	1.45E+01	1.46E-02	--	3.27E+01	1.32E-08	8.94E-05	1.24E-13	2.45E-06	1.54E-01	5.76E-03	7.85E-05	4.48E-03
IN	IN-ID-INL-152M	18.69	4.91E-01	--	--	1.73E+02	1.15E-05	2.01E-01	6.50E+01	5.25E+01	7.84E-02	7.82E-03	--	6.95E+01	7.83E-04	6.42E-04	1.83E-13	1.29E-01	1.01E+00	1.07E-01	1.08E-04	2.21E-01
IN	IN-ID-INTEC-308-RH	0.63	7.28E-04	4.70E-08	5.66E-08	1.09E-01	9.77E-06	6.12E-03	1.57E-04	1.52E-04	2.84E-04	4.10E-07	--	8.45E-02	1.31E-11	1.28E-09	4.67E-17	3.77E-09	2.43E-06	5.51E-09	1.59E-08	4.95E-10
IN	IN-ID-MFC-SOLID	1.05	8.77E-02	--	--	3.50E+00	2.01E-06	1.79E-02	1.71E-01	4.37E-02	--	8.19E-04	--	3.51E+00	8.15E-08	1.09E-05	1.44E-16	1.39E-05	1.77E-02	1.00E-03	8.70E-08	1.35E-04
IN	IN-ID-MISC-RH	0.21	3.75E-02	--	--	2.63E-02	8.60E-07	1.59E-03	2.39E-02	3.40E-03	--	2.21E-03	--	7.22E-02	7.95E-07	8.35E-08	1.12E-17	1.35E-04	1.36E-04	7.50E-06	6.77E-09	5.34E-07
IN	IN-ID-RF-S5000-RH	1.05	9.11E+01	--	--	1.78E-02	2.15E-03	1.94E-02	1.61E+00	3.54E-01	--	7.03E-04	--	9.86E-04	1.86E-06	1.10E-06	1.23E-15	3.07E-04	1.73E-03	5.70E-04	7.25E-07	4.23E-04
IN	IN-ID-Sample Fuel	2.52	9.13E+00	--	--	2.63E+00	2.11E-04	5.71E-01	3.25E+01	1.08E+01	8.54E-01	2.31E-02	--	4.86E+00	1.13E-03	1.43E-05	3.79E-14	1.87E-01	2.26E-02	8.88E-04	2.22E-05	1.35E-02
IN	IN-ID-Source Material	0.21	1.59E+01	--	--	3.53E-05	3.65E-04	2.26E-02	1.20E+00	3.05E-01	2.99E-02	2.97E-05	--	2.75E-05	1.07E-10	5.04E-09	1.00E-15	5.41E-08	1.07E-05	1.26E-07	6.07E-07	1.18E-09
IN	IN-ID-TRA-W345-RH	0.21	4.97E-03	--	1.67E+01	--	4.55E-08	--	--	3.73E+00	6.36E-02	--	--	--	5.10E-15	--	1.21E-14	3.86E-12	--	--	7.28E-06	--
IN	IN-MO-545	0.39	6.54E+01	2.40E-12	--	--	1.45E-03	7.32E+01	9.82E-02	5.40E-03	1.95E-03	3.04E-05	1.15E-15	--	4.01E-10	5.69E-06	1.67E-17	2.09E-07	1.76E-02	6.29E-09	1.04E-08	3.07E-13
IN	IN-NRF-OMC	2.52	1.90E-04	--	1.21E-06	1.44E-01	3.75E-09	1.17E-02	3.78E-05	1.51E-05	9.49E-05	--	--	1.24E-01	9.20E-16	2.02E-08	1.47E-14	5.03E-13	3.56E-05	2.39E-12	4.64E-06	--
IN	IN-NRF-SPC-103	46.62	9.58E+01	--	1.04E-01	2.24E+03	2.05E-03	2.57E+02	8.50E+00	8.50E+00	1.01E+01	2.92E-02	--	1.87E+03	2.06E-02	1.06E-03	2.55E-14	3.68E+00	1.84E+00	4.33E-02	1.61E-05	6.12E-03
IN	IN-RF-SOURCE-RH	0.63	3.15E-02	--	--	4.12E-01	1.36E-06	1.26E-01	1.98E-04	1.35E-04	4.41E-06	1.58E-07	--	4.28E-01	7.30E-13	9.76E-09	4.19E-19	2.88E-10	3.01E-05	1.27E-11	2.61E-10	1.59E-15
IN	WP-ID-ANLE-S5000	118.74	1.21E+02	--	1.32E-01	1.13E+03	2.73E-03	1.97E+01	1.97E+02	9.02E+01	2.97E+01	5.20E-02	--	1.70E+02	9.87E-04	4.34E-04	3.24E-13	1.61E-01	6.77E-01	2.42E-02	1.88E-04	1.17E-02
IN	WP-ID-HFEF-S5400-RH	34.44	1.26E+01	--	2.47E-02	1.50E+02	2.74E-04	4.92E+00	2.15E+01	8.47E+00	5.32E+00	3.49E-03	--	1.16E+02	3.45E-04	4.58E-05	2.00E-12	5.55E-02	7.08E-02	6.86E-03	5.79E-04	9.17E-04
IN	WP-ID-INTEC-RH	0.42	1.19E+00	--	--	5.31E-01	2.81E-05	4.50E-01	1.31E-01	2.11E-01	2.66E-01	1.08E-03	--	2.78E-01	9.29E-12	4.57E-07	8.24E-16	4.40E-09	7.37E-04	7.41E-06	4.57E-07	1.66E-04
IN	WP-ID-MFC-S5400-RH	1.68	1.55E-01	--	--	1.45E+00	3.49E-06	1.34E-02	5.39E-01	1.57E-01	6.41E-02	2.53E-05	--	1.01E+00	4.49E-05	7.20E-07	6.29E-16	6.92E-03	1.06E-03	4.03E-05	3.44E-07	1.48E-05
IN	WP-ID-RTC-S3000	0.84	3.84E-02	--	--	3.31E-01	9.29E-07	8.29E-03	9.81E-03	7.09E-03	5.12E-03	1.08E-05	--	1.27E-01	7.91E-07	2.38E-07	2.77E-17	1.24E-04	3.55E-04	2.23E-05	1.54E-08	4.84E-05
IN	WP-IN-ID-NRF-153	3.36	2.56E-03	--	--	1.31E+00	6.14E-08	8.21E-02	4.59E-04	2.22E-04	5.20E-04	6.58E-07	--	3.01E-01	4.37E-06	1.35E-07	8.91E-19	6.74E-04	2.08E-04	6.56E-06	4.87E-10	4.38E-08
IN	WP-IN-ID-NRF-SPC	17.43	2.93E+00	--	--	2.16E+01	6.80E-05	1.53E+01	4.86E-01	6.32E-01	5.41E-01	1.51E-03	--	5.60E+01	7.54E-04	2.21E-05	2.34E-15	1.21E-01	3.57E-02	1.95E-03	1.33E-06	1.55E-04
KA	KA-T001	82.84	1.04E-01	1.09E-05	2.85E-03	3.67E+01	5.65E-04	1.83E+00	5.00E-03	4.12E-03	4.00E-02	2.54E-05	3.56E-13	3.29E+01	1.25E-09	2.92E-06	1.13E-11	2.57E-07	4.22E-03	7.82E-05	7.56E-04	3.00E-07
KA	KA-T002	4.14	2.69E-01	1.40E-07	1.11E-03	3.25E+01	6.59E-06	2.87E+00	8.12E-02	8.08E-02	2.41E-02	--	--	2.27E+01	7.64E-05	3.13E-03	1.57E-03	1.19E-02	1.27E-02	2.72E-03	2.72E-03	--
KA	KA-W016	4.14	1.75E-03	5.39E-06	4.84E-05	6.23E-01	9.57E-06	3.10E-02	8.47E-05	6.98E-05	6.76E-04	4.32E-07	1.76E-13	5.58E-01	3.54E-10	1.83E-07	4.30E-12	4.27E-08	7.15E-05	1.32E-06	1.28E-05	5.10E-09
LA	LA-TA-03-27	77.43	4.96E+00	--	--	3.19E+02	1.01E-04	9.13E-01	8.00E+01	2.49E+00	3.18E+00	1.52E-03	--	2.03E+02	2.74E-11	1.17E-06	2.83E-14	1.42E-08	1.95E-03	8.25E-03	1.09E-05	4.07E-05
LA	LA-TA-35-02	2.67	--	--	--	--	--	--	1.24E+01	--	--	--	--	--	--	--	--	--	--	1.26E-06	--	--
LA	WP-LA-MHD03.002	14.24	4.05E+01	--	--	9.86E+01	9.79E-04	1.16E+01	4.87E+01	2.82E+01	1.03E+01	1.75E-02	--	6.07E+01	7.40E-04	8.60E-05	1.20E-13	1.11E-01	1.25E-01	4.34E-03	6.37E-05	4.96E-04
OR	OR-CHEM-RH-HET	3.78	1.21E+00	3.47E-08	1.20E+00	5.31E-01	2.51E-05	2.44E+00	4.76E-02	2.65E-01	3.41E-03	3.15E-03	1.67E-08	7.07E-01	3.85E-05	2.19E-06	6.84E-16	7.19E-03	4.16E-03	1.39E-04	4.63E-07	2.59E-03
OR	OR-GRSC-RH-HOM	1.26	2.72E-02	--	4.77E-03	3.93E-01	5.12E-07	4.93E-02	3.15E-01	2.51E-02	1.29E-02	2.10E-05	--	3.64E-01	3.68E-06	3.05E-06	6.60E-17	6.99E-04	5.53E-03	2.39E-04	4.46E-08	5.50E-03
OR	OR-ISTP-RH-HET	2.22	3.33E+01	5.08E-03	2.54E+01	9.52E-06	1.03E-03	--	2.55E+00	5.37E+00	2.75E-02	--	1.68E-14	8.69E-06	4.00E-10	1.20E-05	1.00E-03	1.81E-07	--	1.51E-07	9.21E-06	--
OR	OR-MRF-RH-HET	1.89	5.75E-02	--	9.12E-04	4.78E-01	1.15E-06	2.27E-02	3.70E-01	4.64E-02	1.89E-02	4.07E-06	--	6.97E-01	7.61E-08	2.16E-06	1.31E-16	1.40E-05	3.80E-03	1.80E-04	8.54E-08	3.82E-03
OR	OR-MSRE-RH-HET	6.30	4.97E-03	4.35E-09	3.17E-03	3.52E-02	1.32E-05	5.94E-03	2.53E-03	1.26E-03	2.75E-03	2.05E-05	3.32E-06	8.95E-03	1.34E-03	8.34E-06	3.32E-18	2.51E-01	1.49E-02	1.83E-06	2.23E-09	1.78E-06
OR	OR-RADP-RH-HET	2.22	9.84E-02	--	5.04E-02	5.84E+00	1.75E-06	4.32E-01	1.25E-02	1.90E-02	8.59E-02	1.04E-04	--	1.04E+00	3.50E-05	1.76E-07	3.46E-05	6.55E-03	3.57E-04	6.43E-06	3.37E-08	1.85E-04
OR	OR-REDC-RH-HET	2073.21	3.63E+03	5.49E+02	8.60E+03	6.89E+02	8.50E+00	1.54E+04	3.37E+02	1.60E+03	8.42E+02	1.70E+01	6.80E-06	1.08E+04	5.06E-05	2.00E-03	9.85E-12	1.07E-02	5.17E+00	7.66E-03	4.72E-03	1.84E-01
OR	OR-RF-RH-HET	1494.59	6.53E+03	3.05E+00	8.60E+02	2.46E+04	1.50E-01	3.55E+03	5.20E+02	1.05E+03	5.62E+03	3.39E+00	3.56E-07	1.19E+04	6.09E-01	1.23E-03	3.74E-04	1.16E+02	2.57E+00	1.87E-02	2.36E-02	2.64E-01
OR	OR-RF-RH-HET-A	0.63	1.85E-01	1.97E-04	--	8.46E-05	1.84E-05	1.83E-02	1.23E-01	6.10E-02	6.94E-02	1.82E-05	--	6.30E-06	7.98E-03	5.18E-06	6.21E-11	1.12E+00	9.24E-03	1.03E-07	8.25E-07	5.12E-08

Table 5-2. RH Volume (m^3) and Activity (Ci) By Waste Stream and Radionuclide Decayed thru 2083
(Continued)

Site	Waste Stream ID	Scaled Vol (m^3)	Am-241	Am-243	Cm-244	Cs-137	Np-237	Pu-238	Pu-239	Pu-240	Pu-241	Pu-242	Pu-244	Sr-90	Th-229	Th-230	Th-232	U-233	U-234	U-235	U-236	U-238
OR	OR-W1A-RH-SOIL	10.08	8.24E+00	--	2.96E-02	1.69E+00	1.56E-04	7.70E-02	1.42E+00	7.94E-01	6.21E+00	7.61E-04	--	4.58E-01	3.53E-03	1.22E-05	2.46E-15	6.20E-01	2.04E-02	3.42E-04	1.53E-06	1.00E-02
OR	OR-WC14-RH-HET	1.89	2.14E-01	--	3.40E-03	1.64E-01	4.45E-06	1.72E-02	2.33E-01	1.24E-01	3.53E-02	4.33E-04	--	5.56E-02	3.82E-04	6.55E-07	3.59E-16	6.92E-02	1.13E-03	3.98E-05	2.31E-07	2.09E-03
OR	WP-OR-REDC-RH-HET	45.99	1.71E+02	8.26E+00	4.82E+02	4.19E+00	4.05E-03	3.59E+01	5.75E+01	1.14E+02	2.74E+01	1.80E-01	--	7.08E+01	1.02E-08	2.88E-05	4.02E-13	2.04E-06	4.80E-02	5.71E-04	2.32E-04	8.79E-03
RL	RL100D-08	0.55	2.47E-02	1.33E-05	--	8.82E-02	2.69E-06	3.45E-03	8.35E-03	1.07E-02	2.71E-02	4.21E-06	--	5.69E-02	2.27E-12	3.31E-10	3.97E-17	7.51E-10	9.30E-07	2.19E-06	2.26E-08	1.62E-05
RL	RL105-08	119.47	1.86E+01	--	2.11E-03	6.33E+01	4.58E-04	2.32E+00	1.43E+01	7.60E+00	4.93E+00	2.13E-04	--	2.75E+01	1.68E-10	5.77E-07	3.40E-14	7.53E-08	1.12E-03	3.97E-05	1.76E-05	8.24E-04
RL	RL105-09	129.47	7.39E+02	--	--	6.96E+02	7.68E-02	4.77E+01	4.06E+02	2.34E+02	1.14E+02	9.85E-02	--	8.73E+02	7.28E-08	8.62E-04	5.89E-10	2.26E-05	1.22E+00	4.92E-02	1.55E-01	1.07E+00
RL	RL170-08	0.55	1.14E-02	--	--	7.37E-04	2.63E-07	9.72E-04	6.88E-03	3.86E-03	3.38E-03	1.56E-07	--	6.00E-04	8.52E-14	9.95E-11	1.51E-17	4.07E-11	2.71E-07	4.95E-10	8.37E-09	1.77E-15
RL	RL200-10	0.55	3.37E-04	--	--	2.58E-05	7.85E-09	--	1.70E-03	1.69E-03	--	--	--	9.37E-05	2.38E-15	1.21E-10	1.94E-17	1.18E-12	1.94E-07	7.99E-09	7.49E-09	1.90E-07
RL	RL209E-08	0.55	2.66E+00	--	--	--	8.48E-05	2.97E-01	3.48E+00	1.21E+00	3.82E-01	1.52E-04	--	--	4.43E-11	3.35E-08	5.14E-15	1.70E-08	8.72E-05	2.61E-07	2.74E-06	1.79E-12
RL	RL221U-08	12.76	3.36E+01	6.09E-06	4.64E-02	9.92E+01	6.36E-02	3.72E+00	4.85E+01	1.37E+01	2.07E+01	1.40E-03	--	6.83E+01	7.13E-08	1.72E-04	9.46E-06	2.12E-05	2.53E-01	2.67E-04	3.02E-05	4.94E-03
RL	RL222S-08	3.52	5.23E-01	1.88E-02	--	3.81E-02	2.08E-03	2.44E-02	4.66E+00	1.19E-01	3.52E-01	4.17E-04	1.73E-06	5.64E-02	2.20E-03	2.87E-09	5.18E-16	3.26E-01	7.37E-06	8.22E-06	2.72E-07	2.92E-04
RL	RL300-08	161.70	1.05E+03	3.40E+00	4.18E+01	3.66E+04	4.82E-02	1.53E+02	6.77E+01	7.88E+01	2.11E+02	2.66E-01	3.05E-11	1.95E+04	1.14E-03	6.28E-05	5.69E-11	1.77E-01	1.13E-01	7.02E-02	1.59E-02	4.48E-02
RL	RL325-08	1195.22	1.15E+03	4.29E+00	2.48E+01	8.40E+02	6.80E-01	2.46E+03	3.83E+02	2.17E+02	5.72E+02	2.81E-01	--	3.08E+03	8.48E-03	3.67E-04	6.77E-03	1.40E+00	8.68E-01	1.18E-02	7.74E-03	2.49E-02
RL	RL325-09	3.41	2.12E+00	8.81E-03	6.66E-02	2.02E+01	1.77E-04	5.06E-01	3.56E-01	3.30E-01	9.39E-01	9.53E-04	2.94E-13	1.63E+02	2.63E-09	7.55E-07	4.21E-09	1.32E-07	1.25E-03	3.63E-05	1.89E-04	8.37E-04
RL	RL618-08	0.44	1.35E+00	--	--	7.23E+01	3.02E-05	1.33E-01	1.22E+00	4.69E-01	1.37E-01	--	--	7.65E+01	8.71E-12	1.13E-08	1.55E-15	4.43E-09	3.39E-05	1.84E-04	9.34E-07	3.50E-03
RL	RLBART-07	0.55	3.98E-01	--	--	--	1.43E-05	2.42E-07	3.37E-06	1.62E-06	1.36E-07	4.72E-10	--	--	9.86E-12	5.69E-14	1.24E-20	3.26E-09	1.07E-10	3.39E-13	4.92E-12	7.48E-18
RL	RLBAT-08	10.89	4.62E+00	2.51E-02	1.23E-01	1.05E+01	1.18E-04	1.73E+00	4.21E-01	6.89E-01	1.10E+00	1.83E-03	--	6.07E+00	1.26E-10	4.96E-07	2.81E-13	3.13E-08	9.13E-04	1.67E-05	7.11E-05	3.23E-04
RL	RLBET-08	0.55	6.49E-03	--	--	1.80E-05	1.49E-07	1.18E-03	9.81E-03	5.50E-03	1.82E-03	2.20E-07	--	1.47E-05	4.73E-14	1.07E-07	2.09E-17	2.28E-11	1.61E-04	5.91E-06	1.18E-08	6.25E-08
RL	RLBW-08	1.10	1.26E+00	--	--	--	2.97E-05	1.10E-01	7.58E-01	4.26E-01	4.20E-01	1.73E-05	--	--	1.02E-11	1.24E-08	1.81E-15	4.71E-09	3.22E-05	5.68E-08	9.62E-07	2.04E-13
RL	RLCH2-09	0.55	1.39E-03	--	--	2.18E-02	3.32E-08	1.31E-05	7.18E-04	1.53E-04	--	--	--	1.86E-01	1.07E-14	1.21E-12	5.50E-19	5.16E-12	3.44E-09	4.95E-11	3.18E-10	--
RL	RLESG-08	42.13	4.02E+00	--	--	3.57E-01	9.14E-05	3.16E-01	2.52E+00	1.33E+00	1.24E+00	5.01E-05	--	9.20E-02	2.88E-11	3.14E-08	5.05E-15	1.39E-08	8.66E-05	1.79E-07	2.84E-06	5.60E-13
RL	RLESG-09	10.67	1.10E+00	--	--	5.89E-03	2.44E-05	9.73E-02	6.56E-01	3.69E-01	4.27E-01	1.50E-05	--	4.81E-03	7.50E-12	9.64E-09	1.40E-15	3.66E-09	2.66E-05	4.66E-08	7.89E-07	1.67E-13
RL	RLFFTF-08	0.55	3.44E-03	1.02E-10	--	1.01E-01	7.93E-08	4.41E-04	2.35E-03	2.00E-03	1.16E-03	--	--	9.73E-05	2.59E-14	4.66E-11	8.06E-18	1.23E-11	1.25E-07	1.71E-10	4.41E-09	--
RL	RLGEV-08	6.49	1.23E+01	--	--	1.78E+00	3.94E-04	7.74E-01	6.46E+01	1.46E+01	1.38E+00	1.26E-03	--	1.20E+00	2.36E-10	8.87E-07	1.07E-13	8.30E-08	1.11E-03	4.19E-05	4.34E-05	1.10E-03
RL	RLHAN-08	13.31	1.59E+01	6.27E-05	--	4.44E-01	4.33E-04	1.03E+00	9.51E+00	3.66E+00	4.38E+00	1.48E-04	--	3.26E-01	1.26E-05	1.02E-07	1.39E-14	2.00E-03	2.82E-04	6.75E-07	7.84E-06	1.66E-12
RL	RLMLB-08	0.55	8.38E-02	--	8.38E-01	--	2.73E-06	6.17E-03	5.19E-02	1.37E-01	8.61E-03	1.19E-06	--	--	1.68E-12	1.41E-09	7.23E-16	5.83E-10	2.69E-06	5.17E-09	3.33E-07	1.86E-14
RL	RLPFP-08	65.89	6.42E+02	1.92E-11	--	9.95E-05	1.98E-02	7.03E+01	3.11E+02	1.51E+02	1.16E+02	4.47E-02	--	8.11E-05	9.55E-09	7.30E-06	5.74E-13	3.82E-06	1.97E-02	4.00E-05	3.23E-04	1.18E-04
RL	RLPFP-09	7.92	1.23E+01	--	--	--	3.24E-04	9.51E-01	1.44E+01	5.09E+00	2.46E+00	6.78E-04	--	--	1.29E-10	3.25E-07	1.94E-14	5.58E-08	6.08E-04	1.38E-05	1.09E-05	1.35E-07
RL	RLPURX-08	60.06	1.89E+01	--	--	--	6.85E-04	7.11E-01	5.24E+01	1.49E+01	4.62E-01	1.56E-03	--	--	4.90E-10	1.80E-07	1.21E-13	1.59E-07	3.28E-04	5.43E-06	4.67E-05	2.54E-11
RL	RLWTP-08	314.59	1.96E+00	--	--	2.37E+02	2.24E-03	1.06E+00	7.34E-01	1.56E-01	4.59E-02	--	--	2.49E+02	8.85E-05	1.61E-06	1.66E-13	2.06E-02	3.66E-03	1.37E-04	6.88E-05	3.09E-03
SA	SA-W135	3.15	1.63E+01	--	--	3.28E+01	3.50E-04	4.02E+00	1.76E+01	1.13E+01	5.97E+00	5.48E-03	--	2.22E+01	6.20E-09	3.84E-05	3.82E-14	1.07E-06	6.20E-02	1.96E-03	2.28E-05	6.90E-04
SA	SA-W139	4.34	1.13E+02	--	--	3.17E+02	1.84E-03	3.07E+01	1.23E+02	7.85E+01	8.33E+01	3.70E-02	--	2.19E+02	3.39E-08	2.13E-04	1.62E-13	7.44E-06	4.40E-01	1.40E-02	1.23E-04	4.68E-03
SA	WP-SNL-HCF-S5400-RH	5.83	1.80E+00	--	--	8.87E+00	3.97E-05	5.44E-01	2.12E+00	1.23E+00	4.61E-01	2.85E-03	--	4.78E+00	1.78E-06	2.61E-05	4.17E-15	2.98E-04	4.18E-02	1.37E-03	2.48E-06	2.03E-04
SP	SP-RHHD	1.89	2.80E-01	--	--	1.91E+00	6.51E-06	6.84E-03	6.92E-01	--	2.97E-03	2.80E-03	--	5.25E-01	1.97E-12	5.48E-06	1.58E-14	9.79E-10	8.77E-03	8.54E-04	4.70E-06	9.59E-03
SP	SP-RHIN	0.63	4.41E-02	--	--	2.72E+00	1.00E-06	3.76E-03	5.53E-01	--	4.71E-03	4.27E-03	--	5.47E-02	2.98E-13	2.54E-06	--	1.49E-10	4.06E-03	3.12E-04	--	6.27E-03
SR	SR-BCLDP.003	0.21	3.59E-02	2.27E-05	1.37E-04	1.66E-03	1.06E-06	1.44E-02	3.24E-03	5.27E-03	1.44E-02	1.58E-05	--	1.49E-03	6.95E-13	4.20E-09	7.32E-16	2.33E-10	8.24E-06	7.76E-08	2.18E-07	4.58E-07
SR	SR-RH-221H.01	3.90	1.02E+00	--	--	--	2.44E+00	8.79E+02	1.19E+00	6.12E-01	1.17E+00	7.11E-04	--	--	2.22E-06	8.96E-05	5.91E-14	7.33E-04	2.45E-01	6.07E-05	1.80E-05	5.32E-08
SR	SR-RH-221H.02	3.15	--	--	--	--	9.04E-04	1.28E+00	1.92E-02	1.30E-02	--	2.26E-04	--	--	8.47E-10	2.64E-07	4.68E-17	2.75E-07	5.64E-04	1.32E-09	2.71E-08	2.45E-12
SR	SR-RH-235F.01	1.05	2.53E+02	--	--	--	4.02E-02	2.26E+02	2.99E+00	7.87E-01	2.02E+02	2.88E-04	--	--	3.43E-08	2.10E-05	2.83E-15	1.14E-05	5.96E-02	2.06E-07	1.64E-06	3.13E-12
SR	SR-RH-772F.01	0.42	9.34E-03	--	--	1.37E-01	4.19E-06	1.94E-02	2.67E-02	8.10E-03	1.74E-03	1.33E-06	--	1.21E-01	5.04E-12	4.13E-09	6.88E-16	1.43E-09	8.32E-06	2.03E-08	1.82E-07	1.68E-14
SR	SR-RH-773A.01	34.54	5.39E+00	1.81E+00	1.06E+01	6.63E+00	2.59E-04	5.54E+01	2.58E+00	1.83E+00	7.01E-01	7.27E-04	6.87E-12	4.39E+00	1.97E-10	6.87E-06	7.25E-15	6.49E-08	1.72E-02	2.01E-07	3.91E-06	8.88E-12
SR	SR-RH-FBL.01	0.84	4.15E+00	--	--	1.19E-06	1.06E-04	1.07E+00	1.83E+00	1.80E+00	5.97E-01	8.96E-05	--	1.06E-06	8.97E-05	2.64E-07	8.02E-15	1.31E-02	5.13E-04	3.85E-06	4.16E-06	2.61E-05
SR	SR-RH-FBL.02	1.89	2.08E-03	--	--	--	6.20E-05	2.94E-05	1.89E-03	1.37E-03	4.02E-04	5.16E-01	--	--	7.21E-11	8.29E-05	3.50E-14	2.11E-08	1.16E-01	1.47E+00	9.09E-06	7.38E-02
SR	SR-RH-MNDPAD1.01	2.94	1.47E+00	--	--	--	2.69E-05	1.34E+03	1.65E+00	8.99E-01	1.46E+00	1.08E-03	--	--	6.44E-12	1.38E-04	3.52E-15	3.52E-09	3.75E-01	1.19E-07	1.95E-06	1.22E-11
SR	SR-RH-SDD.01	0.33	6.30E+00	--	--	--	1.55E-04	5.22E+01	1.42E+00	8.51E-01	1.25E+00	1.43E-03	--	--	5.56E-11	5.89E-06	3.61E-15	2.53E-08	1.53E-02	1.06E-07	1.92E-06	1.69E-11
SR	SR-RH-SWD.01	0.21	4.13E-02	1.84E-02	1.26E-01	1.07E-03	1.35E-04	4.40E-02	8.61E-02	3.12E-02	3.23E-02	9.43E-06	3.13E-15	6.81E-04	1.26E-10	4.06E-09	1.05E-16	4.09E-08	1.16E-05	5.94E-09	6.19E-08	1.02E-13
SR	WP-SR-BCLDP.001.001	1.05	6.68E-01	--	1.18E-02	1.39E+00	1.61E-05	1.94E-01	5.57E-02	8.99E-02	1.45E-01	3.30E-04	--	8.42E-01	5.21E-06	2.14E-07	3.70E-16	7.92E-04	3.36E-04	4.21E-06	2.00E-07	5.68E-05
SR	WP-SR-BCLDP.001.002	0.84	3.98E-01	--	1.44E-02	1.03E-01	9.53E-06	7.31E-02	1.60E-02	2.65E-02	9.80E-02	2.11E-04	--	6.20E-01	4.11E-06	1.45E-07	1.08E-16	6.25E-04	2.20E-04	3.01E-06	5.86E-08	4.10E-05
SR	WP-SR-BCLDP.002	0.21	3.67E+00	--	6.50E-02	7.65E+00	8.87E-05	1.07E+00	3.06E-01	4.94E-01	8.01E-01	1.82E-03	--	4.62E+00	2.87E-05	1.18E-06	2.03E-15	4.36E-03	1.85E-03	2.31E-05	1.10E-06	3.12E-04
SR	WP-SR-BCLDP.003	1.47	9.88E-02	--	1.75E-03	2.06E-01	2.39E-06	2.87E-02	8.24E-03	1.33E-02	2.15E-02	4.89E-05	--	1.24E-01	7.71E-07	3.18E-08	5.49E-17	1.17E-04	4.98E-05	6.23E-07	2.97E-08	8.40E-06
SR	WP-SR-BCLDP.004.002	1.05	8.89E-02	--	3.25E-03	2.29E-02	2.13E-06	1.63E-02	3.58E-03	5.92E-03	2.22E-02	4.71E-05	--	1.38E-01	9.19E-07	3.23E-08	2.42E-17	1.40E-04	4.90E-05	6.71E-07	1.31E-08	9.14E-06
SR	WP-SR-BCLDP.004.003	0.42	1.32E-01	--	2.59E-03	9.75E-02	3.15E-06	4.37E-02	1.36E-02	2.11E-02	3.37E-02	7.28E-05	--	2.10E-01	1.22E-06	5.27E-08	8.70E-17	1.86E-04	8.21E-05	1.06E-06	4.70E-08	1.41E-05

Table 5-2. RH Volume (m^3) and Activity (Ci) By Waste Stream and Radionuclide Decayed thru 2083
(Continued)

Site	Waste Stream ID	Scaled Vol (m^3)	Am-241	Am-243	Cm-244	Cs-137	Np-237	Pu-238	Pu-239	Pu-240	Pu-241	Pu-242	Pu-244	Sr-90	Th-229	Th-230	Th-232	U-233	U-234	U-235	U-236	U-238
SR	WP-SR-RH-FBL.01	1.68	4.68E+01	--	--	5.13E-05	1.10E-03	1.33E+01	2.16E+01	2.16E+01	9.44E+00	3.43E-03	--	4.59E-05	1.09E-03	3.18E-06	8.22E-14	1.72E-01	6.46E-03	5.56E-05	4.62E-05	3.66E-04
SR	WP-SR-RL-BCLDP.001	18.42	6.26E+01	--	1.14E+00	1.37E+02	1.49E-03	1.84E+01	5.27E+00	8.51E+00	1.45E+01	4.91E-01	--	8.28E+01	4.68E-04	1.97E-05	3.41E-14	7.22E-02	3.14E-02	3.90E-04	1.87E-05	5.37E-03
SR	WP-SR-RL-BCLDP.002	0.21	6.37E+01	--	3.52E-01	1.15E+02	1.78E-03	4.24E-02	1.89E-02	4.95E-02	2.97E-02	8.89E-05	--	7.03E+01	7.81E-10	3.35E-08	1.97E-16	3.23E-07	5.11E-05	8.21E-07	1.06E-07	3.79E-05
VN	WP-GEVNC.01	19.74	6.46E+01	--	--	1.17E+01	1.64E-03	4.16E-01	5.28E+00	2.43E+00	7.86E-01	1.44E-03	--	3.20E+00	2.92E-07	7.06E-06	9.78E-15	4.52E-05	1.04E-02	3.74E-04	5.35E-06	1.89E-04
Grand Total		**7.08E+03**	**1.77E+04**	**5.74E+02**	**1.02E+04**	**8.25E+04**	**1.31E+01**	**2.58E+04**	**4.53E+03**	**4.55E+03**	**8.60E+03**	**2.39E+01**	**1.23E-05**	**6.06E+04**	**6.77E-01**	**1.49E-02**	**9.77E-03**	**1.24E+02**	**1.97E+01**	**2.04E+00**	**2.49E-01**	**3.50E+00**

SNL WIPP Inventory Needs Letter Request #2

2. *Total CH- and RH-TRU inventories of all radionuclides (scaled to a full repository), supplied in Curies and decayed through the years; 2083, 2183, 2433, 3083, 7083, and 12083.*

Table 5-3. CH Radionuclide Activities (Ci) Decayed thru Specified Years

Radionuclide	2083	2183	2433	3083	7083	12083
Ac-225	6.42E+00	9.48E+00	1.70E+01	3.59E+01	1.31E+02	2.12E+02
Ac-227	8.32E+01	2.84E+01	2.59E+01	2.56E+01	2.47E+01	2.51E+01
Ac-228	1.08E-01	1.08E-01	1.08E-01	1.08E-01	1.08E-01	1.08E-01
Ag-108	5.75E-04	3.33E-04	8.51E-05	2.45E-06	8.08E-16	1.14E-27
Ag-108m	6.61E-03	3.83E-03	9.78E-04	2.82E-05	9.29E-15	1.31E-26
Ag-109m	8.56E-20	--	--	--	--	--
Ag-110	1.43E-29	--	--	--	--	--
Ag-110m	1.05E-27	--	--	--	--	--
Am-241	1.79E+06	1.54E+06	1.03E+06	3.64E+05	6.02E+02	2.34E+00
Am-242	2.41E-02	1.48E-02	4.32E-03	1.77E-04	5.10E-13	1.08E-23
Am-242m	2.42E-02	1.48E-02	4.34E-03	1.78E-04	5.12E-13	1.08E-23
Am-243	3.32E+01	3.29E+01	3.21E+01	3.03E+01	2.11E+01	1.35E+01
Am-245	1.43E-24	--	--	--	--	--
Am-246	3.13E-08	3.11E-08	3.08E-08	3.01E-08	2.56E-08	2.10E-08
At-217	6.42E+00	9.48E+00	1.70E+01	3.59E+01	1.31E+02	2.12E+02
Ba-133	8.42E-05	1.16E-07	8.12E-15	2.04E-33	--	--
Ba-137m	9.93E+01	9.85E+00	3.05E-02	9.16E-09	--	--
Bi-210	1.89E+00	2.15E+00	2.21E+00	3.63E+00	3.46E+01	8.75E+01
Bi-211	8.33E+01	2.84E+01	2.59E+01	2.56E+01	2.47E+01	2.51E+01
Bi-212	1.23E+04	4.57E+03	3.82E+02	7.09E-01	1.08E-01	1.08E-01
Bi-213	6.42E+00	9.48E+00	1.70E+01	3.59E+01	1.31E+02	2.12E+02
Bi-214	2.21E+00	2.15E+00	2.21E+00	3.63E+00	3.46E+01	8.76E+01
Bk-249	9.84E-20	--	--	--	--	--
Bk-250	1.75E-08	1.74E-08	1.73E-08	1.68E-08	1.44E-08	1.18E-08
C-14	1.52E-01	1.50E-01	1.46E-01	1.35E-01	8.31E-02	4.54E-02
Cd-109	8.56E-20	--	--	--	--	--
Cd-113	1.56E-22	1.65E-22	1.65E-22	1.65E-22	1.65E-22	1.65E-22
Cd-113m	4.03E-06	2.95E-08	1.36E-13	1.79E-27	--	--
Ce-144	1.41E-23	--	--	--	--	--
Cf-249	8.50E+00	6.97E+00	4.25E+00	1.18E+00	4.31E-04	2.18E-08
Cf-250	5.38E-01	2.69E-03	2.20E-08	1.68E-08	1.44E-08	1.18E-08
Cf-251	3.39E-01	3.14E-01	2.59E-01	1.57E-01	7.14E-03	1.51E-04
Cf-252	1.73E-05	7.17E-17	--	--	--	--
Cl-36	2.08E-07	2.08E-07	2.08E-07	2.08E-07	2.06E-07	2.03E-07
Cm-242	1.99E-02	1.22E-02	3.57E-03	1.46E-04	4.23E-13	8.95E-24
Cm-243	3.55E+00	3.12E-01	7.14E-04	9.71E-11	--	--
Cm-244	1.85E+03	4.01E+01	2.79E-03	4.31E-14	--	--
Cm-245	4.46E+00	4.49E+00	4.51E+00	4.40E+00	3.21E+00	2.13E+00
Cm-246	1.00E+02	9.86E+01	9.51E+01	8.65E+01	4.81E+01	2.31E+01
Cm-247	9.23E-01	9.23E-01	9.23E-01	9.23E-01	9.23E-01	9.23E-01
Cm-248	1.63E+00	1.63E+00	1.63E+00	1.63E+00	1.61E+00	1.60E+00
Cm-250	1.25E-07	1.25E-07	1.23E-07	1.20E-07	1.03E-07	8.40E-08
Co-60	5.25E-04	1.02E-09	5.31E-24	--	--	--
Cs-134	1.03E-09	2.59E-24	--	--	--	--

Table 5-3. CH Radionuclide Activities (Ci) Decayed thru Specified Years
(Continued)

Radionuclide	2083	2183	2433	3083	7083	12083
Cs-135	1.50E-03	1.50E-03	1.50E-03	1.50E-03	1.50E-03	1.50E-03
Cs-137	1.05E+02	1.04E+01	3.23E-02	9.70E-09	--	--
Eu-152	5.42E-01	2.99E-03	6.73E-09	1.40E-23	--	--
Eu-154	4.47E-02	1.40E-05	2.43E-14	--	--	--
Eu-155	4.57E-04	1.69E-10	1.40E-26	--	--	--
Fe-55	1.02E-06	9.55E-18	--	--	--	--
Fr-221	6.42E+00	9.48E+00	1.70E+01	3.59E+01	1.31E+02	2.12E+02
Fr-223	1.15E+00	3.92E-01	3.58E-01	3.54E-01	3.40E-01	3.47E-01
Gd-152	4.16E-13	4.35E-13	4.35E-13	4.35E-13	4.35E-13	4.35E-13
Gd-153	7.13E-34	--	--	--	--	--
H-3	4.46E+03	1.61E+01	1.27E-05	1.71E-21	--	--
Ho-166m	3.63E-03	3.43E-03	2.97E-03	2.04E-03	2.02E-04	1.13E-05
I-129	1.45E-03	1.45E-03	1.45E-03	1.45E-03	1.45E-03	1.45E-03
K-40	4.84E-02	4.84E-02	4.84E-02	4.84E-02	4.84E-02	4.84E-02
Kr-85	1.61E-03	2.50E-06	2.38E-13	1.33E-31	--	--
Mn-54	5.06E-24	--	--	--	--	--
Na-22	6.34E-07	1.70E-18	--	--	--	--
Nb-93m	1.24E-02	1.24E-02	1.24E-02	1.24E-02	1.24E-02	1.23E-02
Nb-94	1.61E-03	1.61E-03	1.59E-03	1.56E-03	1.36E-03	1.15E-03
Nd-144	1.36E-12	1.36E-12	1.36E-12	1.36E-12	1.36E-12	1.36E-12
Ni-59	1.69E-07	1.69E-07	1.68E-07	1.67E-07	1.61E-07	1.54E-07
Ni-63	5.92E+02	2.96E+02	5.24E+01	5.82E-01	5.43E-13	4.99E-28
Np-237	7.85E+01	1.32E+02	2.35E+02	3.70E+02	4.43E+02	4.42E+02
Np-238	1.09E-04	6.67E-05	1.95E-05	7.99E-07	2.31E-15	4.88E-26
Np-239	3.32E+01	3.29E+01	3.21E+01	3.03E+01	2.11E+01	1.35E+01
Np-240	8.34E-05	8.34E-05	8.34E-05	8.35E-05	8.35E-05	8.36E-05
Np-240m	6.95E-02	6.95E-02	6.95E-02	6.95E-02	6.96E-02	6.97E-02
Pa-231	2.61E+01	2.60E+01	2.59E+01	2.56E+01	2.46E+01	2.51E+01
Pa-233	7.85E+01	1.32E+02	2.35E+02	3.70E+02	4.43E+02	4.42E+02
Pa-234	1.40E-01	1.40E-01	1.40E-01	1.40E-01	1.40E-01	1.40E-01
Pa-234m	1.08E+02	1.08E+02	1.08E+02	1.08E+02	1.08E+02	1.08E+02
Pb-209	6.42E+00	9.48E+00	1.70E+01	3.59E+01	1.31E+02	2.12E+02
Pb-210	1.89E+00	2.15E+00	2.21E+00	3.63E+00	3.46E+01	8.75E+01
Pb-211	8.33E+01	2.84E+01	2.59E+01	2.56E+01	2.47E+01	2.51E+01
Pb-212	1.23E+04	4.57E+03	3.82E+02	7.09E-01	1.08E-01	1.08E-01
Pb-214	2.21E+00	2.15E+00	2.21E+00	3.63E+00	3.46E+01	8.76E+01
Pd-107	1.50E-05	1.50E-05	1.50E-05	1.50E-05	1.50E-05	1.50E-05
Pm-146	1.20E-09	4.31E-15	1.06E-28	--	--	--
Pm-147	6.69E-05	2.24E-16	--	--	--	--
Po-210	1.89E+00	2.15E+00	2.21E+00	3.63E+00	3.46E+01	8.75E+01
Po-211	2.29E-01	7.81E-02	7.13E-02	7.05E-02	6.78E-02	6.91E-02
Po-212	7.91E+03	2.93E+03	2.45E+02	4.54E-01	6.94E-02	6.94E-02
Po-213	6.28E+00	9.28E+00	1.67E+01	3.51E+01	1.28E+02	2.07E+02
Po-214	2.21E+00	2.15E+00	2.21E+00	3.63E+00	3.46E+01	8.75E+01
Po-215	8.33E+01	2.84E+01	2.59E+01	2.56E+01	2.47E+01	2.51E+01
Po-216	1.23E+04	4.57E+03	3.82E+02	7.09E-01	1.08E-01	1.08E-01
Po-218	2.21E+00	2.15E+00	2.21E+00	3.63E+00	3.46E+01	8.76E+01
Pr-144	1.41E-23	--	--	--	--	--
Pr-144m	1.97E-25	--	--	--	--	--
Pu-236	2.90E-15	1.21E-25	--	--	--	--
Pu-238	1.57E+06	7.13E+05	9.89E+04	5.81E+02	1.20E-11	2.38E-23

Table 5-3. CH Radionuclide Activities (Ci) Decayed thru Specified Years
(Continued)

Radionuclide	2083	2183	2433	3083	7083	12083
Pu-239	4.17E+06	4.16E+06	4.13E+06	4.05E+06	3.61E+06	3.13E+06
Pu-240	1.10E+06	1.09E+06	1.06E+06	9.92E+05	6.50E+05	3.83E+05
Pu-241	5.81E+05	4.64E+03	4.54E+00	4.40E+00	3.21E+00	2.14E+00
Pu-242	2.86E+02	2.86E+02	2.86E+02	2.86E+02	2.84E+02	2.82E+02
Pu-243	9.23E-01	9.23E-01	9.23E-01	9.23E-01	9.23E-01	9.23E-01
Pu-244	6.96E-02	6.96E-02	6.96E-02	6.96E-02	6.97E-02	6.97E-02
Pu-246	3.13E-08	3.11E-08	3.08E-08	3.01E-08	2.56E-08	2.10E-08
Ra-223	8.33E+01	2.84E+01	2.59E+01	2.56E+01	2.47E+01	2.51E+01
Ra-224	1.23E+04	4.57E+03	3.82E+02	7.09E-01	1.08E-01	1.08E-01
Ra-225	6.42E+00	9.48E+00	1.70E+01	3.59E+01	1.31E+02	2.12E+02
Ra-226	2.21E+00	2.15E+00	2.21E+00	3.63E+00	3.46E+01	8.76E+01
Ra-228	1.08E-01	1.08E-01	1.08E-01	1.08E-01	1.08E-01	1.08E-01
Rb-87	1.87E-10	1.87E-10	1.87E-10	1.87E-10	1.87E-10	1.87E-10
Rh-106	1.17E-17	--	--	--	--	--
Rn-219	8.33E+01	2.84E+01	2.59E+01	2.56E+01	2.47E+01	2.51E+01
Rn-220	1.23E+04	4.57E+03	3.82E+02	7.09E-01	1.08E-01	1.08E-01
Rn-222	2.21E+00	2.15E+00	2.21E+00	3.63E+00	3.46E+01	8.76E+01
Ru-106	1.17E-17	--	--	--	--	--
Sb-125	8.78E-08	8.24E-19	--	--	--	--
Sb-126	1.21E-06	1.21E-06	1.20E-06	1.20E-06	1.17E-06	1.13E-06
Sb-126m	1.31E-05	1.31E-05	1.31E-05	1.30E-05	1.26E-05	1.22E-05
Se-79	1.22E-04	1.22E-04	1.22E-04	1.21E-04	1.20E-04	1.19E-04
Sm-146	1.81E-13	1.81E-13	1.81E-13	1.81E-13	1.81E-13	1.81E-13
Sm-147	1.73E-08	1.73E-08	1.73E-08	1.73E-08	1.73E-08	1.73E-08
Sm-148	1.63E-15	1.63E-15	1.63E-15	1.63E-15	1.63E-15	1.63E-15
Sm-151	1.14E+01	5.29E+00	7.71E-01	5.16E-03	2.15E-16	4.03E-33
Sn-121	4.55E-05	1.29E-05	5.53E-07	1.53E-10	--	--
Sn-121m	5.87E-05	1.66E-05	7.13E-07	1.98E-10	--	--
Sn-126	1.31E-05	1.31E-05	1.31E-05	1.30E-05	1.26E-05	1.22E-05
Sr-90	2.30E+02	1.96E+01	4.15E-02	4.63E-09	--	--
Tc-99	2.18E+01	2.18E+01	2.18E+01	2.17E+01	2.14E+01	2.11E+01
Te-123	6.98E-22	6.98E-22	6.98E-22	6.98E-22	6.98E-22	6.98E-22
Te-125m	2.14E-08	2.01E-19	--	--	--	--
Th-227	8.22E+01	2.80E+01	2.56E+01	2.53E+01	2.43E+01	2.48E+01
Th-228	1.23E+04	4.57E+03	3.82E+02	7.09E-01	1.08E-01	1.08E-01
Th-229	6.42E+00	9.48E+00	1.70E+01	3.59E+01	1.31E+02	2.12E+02
Th-230	4.74E-01	1.31E+00	4.03E+00	1.17E+01	5.77E+01	1.12E+02
Th-231	1.74E+00	2.15E+00	3.17E+00	5.79E+00	2.09E+01	3.74E+01
Th-232	1.08E-01	1.08E-01	1.08E-01	1.08E-01	1.08E-01	1.08E-01
Th-234	1.08E+02	1.08E+02	1.08E+02	1.08E+02	1.08E+02	1.08E+02
Tl-204	1.37E-12	1.49E-20	1.33E-40	--	--	--
Tl-206	2.49E-06	2.84E-06	2.91E-06	4.80E-06	4.56E-05	1.16E-04
Tl-207	8.31E+01	2.83E+01	2.59E+01	2.56E+01	2.46E+01	2.51E+01
Tl-208	4.44E+03	1.64E+03	1.37E+02	2.55E-01	3.89E-02	3.90E-02
Tl-209	1.35E-01	1.99E-01	3.57E-01	7.53E-01	2.75E+00	4.45E+00
U-232	1.20E+04	4.45E+03	3.72E+02	5.85E-01	3.29E-18	8.85E-40
U-233	3.56E+02	3.56E+02	3.56E+02	3.56E+02	3.57E+02	3.59E+02
U-234	7.36E+02	1.04E+03	1.26E+03	1.29E+03	1.28E+03	1.26E+03
U-235	1.74E+00	2.15E+00	3.17E+00	5.79E+00	2.09E+01	3.74E+01
U-236	3.58E+00	6.83E+00	1.48E+01	3.45E+01	1.30E+02	2.05E+02
U-237	1.39E+01	1.11E-01	1.08E-04	1.05E-04	7.68E-05	5.11E-05

Table 5-3. CH Radionuclide Activities (Ci) Decayed thru Specified Years
(Continued)

Radionuclide	2083	2183	2433	3083	7083	12083
U-238	1.08E+02	1.08E+02	1.08E+02	1.08E+02	1.08E+02	1.08E+02
U-240	6.95E-02	6.95E-02	6.95E-02	6.95E-02	6.96E-02	6.97E-02
Y-90	2.30E+02	1.96E+01	4.15E-02	4.64E-09	--	--
Zn-65	1.57E-29	--	--	--	--	--
Zr-93	1.24E-02	1.24E-02	1.24E-02	1.24E-02	1.24E-02	1.23E-02
Grand Total	**9.32E+06**	**7.54E+06**	**6.33E+06**	**5.41E+06**	**4.27E+06**	**3.52E+06**

Table 5-4. RH Radionuclide Activities (Ci) Decayed thru Specified Years

Radionuclide	2083	2183	2433	3083	7083	12083
Ac-225	6.77E-01	1.76E+00	4.43E+00	1.11E+01	4.43E+01	7.16E+01
Ac-227	1.92E-01	1.41E-02	1.83E-02	4.60E-02	2.09E-01	3.96E-01
Ac-228	2.07E-02	9.77E-03	9.77E-03	9.77E-03	9.77E-03	9.77E-03
Ag-108	2.21E-03	1.28E-03	3.27E-04	9.41E-06	3.11E-15	4.37E-27
Ag-108m	2.54E-02	1.47E-02	3.76E-03	1.08E-04	3.57E-14	5.02E-26
Ag-109m	1.40E-15	--	--	--	--	--
Ag-110	5.01E-29	--	--	--	--	--
Ag-110m	3.68E-27	--	--	--	--	--
Am-241	1.77E+04	1.53E+04	1.03E+04	3.63E+03	2.21E+01	1.03E+01
Am-242	2.09E+00	1.28E+00	3.73E-01	1.53E-02	4.41E-11	9.33E-22
Am-242m	2.09E+00	1.28E+00	3.75E-01	1.54E-02	4.43E-11	9.37E-22
Am-243	5.74E+02	5.69E+02	5.56E+02	5.23E+02	3.59E+02	2.24E+02
Am-245	1.39E-32	--	--	--	--	--
Ar-39	2.59E-02	2.00E-02	1.05E-02	1.97E-03	6.56E-08	1.66E-13
Ar-42	1.75E-02	2.13E-03	1.09E-05	1.23E-11	--	--
At-217	6.77E-01	1.76E+00	4.43E+00	1.11E+01	4.43E+01	7.16E+01
Ba-133	8.62E-02	1.19E-04	8.31E-12	2.09E-30	--	--
Ba-137m	7.79E+04	7.72E+03	2.39E+01	7.18E-06	--	--
Bi-210	7.13E+00	7.33E+00	6.52E+00	4.96E+00	1.64E+00	2.06E+00
Bi-211	1.92E-01	1.41E-02	1.83E-02	4.60E-02	2.09E-01	3.96E-01
Bi-212	3.68E+00	1.37E+00	1.23E-01	9.95E-03	9.77E-03	9.77E-03
Bi-213	6.76E-01	1.76E+00	4.43E+00	1.11E+01	4.43E+01	7.15E+01
Bi-214	7.57E+00	7.25E+00	6.51E+00	4.96E+00	1.64E+00	2.06E+00
Bk-249	9.59E-28	--	--	--	--	--
C-14	1.25E+00	1.24E+00	1.20E+00	1.11E+00	6.85E-01	3.74E-01
Cd-109	1.40E-15	--	--	--	--	--
Cd-113	9.32E-18	9.65E-18	9.66E-18	9.66E-18	9.66E-18	9.66E-18
Cd-113m	1.59E-01	1.17E-03	5.36E-09	7.09E-23	--	--
Ce-144	6.49E-22	--	--	--	--	--
Cf-249	8.40E+01	6.89E+01	4.20E+01	1.16E+01	4.26E-03	2.16E-07
Cf-250	2.65E+01	1.33E-01	2.34E-07	2.56E-22	--	--
Cf-251	2.76E+01	2.55E+01	2.10E+01	1.27E+01	5.81E-01	1.22E-02
Cf-252	7.95E-05	3.30E-16	--	--	--	--
Cl-36	1.17E-01	1.17E-01	1.17E-01	1.17E-01	1.16E-01	1.15E-01
Cm-242	1.72E+00	1.05E+00	3.09E-01	1.26E-02	3.66E-11	7.74E-22
Cm-243	3.18E+01	2.79E+00	6.39E-03	8.69E-10	--	--
Cm-244	1.02E+04	2.22E+02	1.54E-02	2.38E-13	--	--
Cm-245	1.96E+01	2.00E+01	2.07E+01	2.09E+01	1.54E+01	1.03E+01
Cm-246	7.29E+02	7.18E+02	6.92E+02	6.30E+02	3.50E+02	1.68E+02

Table 5-4. RH Radionuclide Activities (Ci) Decayed thru Specified Years
(Continued)

Radionuclide	2083	2183	2433	3083	7083	12083
Cm-247	8.64E-04	9.79E-04	1.23E-03	1.70E-03	2.38E-03	2.41E-03
Cm-248	3.62E+00	3.62E+00	3.61E+00	3.61E+00	3.58E+00	3.54E+00
Co-60	7.80E-01	1.51E-06	7.89E-21	--	--	--
Cs-134	3.47E-06	8.71E-21	--	--	--	--
Cs-135	5.78E-02	5.78E-02	5.78E-02	5.78E-02	5.77E-02	5.76E-02
Cs-137	8.25E+04	8.18E+03	2.53E+01	7.60E-06	--	--
Eu-152	4.61E+01	2.54E-01	5.72E-07	1.19E-21	--	--
Eu-154	6.20E+01	1.94E-02	3.36E-11	--	--	--
Eu-155	7.41E-02	2.74E-08	2.27E-24	--	--	--
Fe-55	1.83E-05	1.72E-16	--	--	--	--
Fr-221	6.77E-01	1.76E+00	4.43E+00	1.11E+01	4.43E+01	7.16E+01
Fr-223	2.65E-03	1.94E-04	2.53E-04	6.35E-04	2.88E-03	5.47E-03
Gd-152	3.46E-11	3.62E-11	3.62E-11	3.62E-11	3.62E-11	3.62E-11
Gd-153	2.17E-30	--	--	--	--	--
H-3	1.18E+02	4.26E-01	3.35E-07	4.51E-23	--	--
I-129	8.82E-01	8.82E-01	8.82E-01	8.82E-01	8.81E-01	8.81E-01
In-115	7.47E-17	7.47E-17	7.47E-17	7.47E-17	7.47E-17	7.47E-17
Ir-194	1.98E-05	1.90E-10	5.39E-23	--	--	--
K-42	1.75E-02	2.13E-03	1.09E-05	1.23E-11	--	--
Kr-85	1.84E+01	2.86E-02	2.73E-09	1.52E-27	--	--
Mn-54	5.53E-21	--	--	--	--	--
Mo-93	4.49E-01	4.40E-01	4.19E-01	3.68E-01	1.67E-01	6.18E-02
Na-22	3.08E-09	8.27E-21	--	--	--	--
Nb-91	3.81E-02	3.44E-02	2.66E-02	1.37E-02	2.33E-04	1.42E-06
Nb-93m	6.31E-01	5.62E-01	5.44E-01	5.02E-01	3.36E-01	2.49E-01
Nb-94	3.59E+00	3.58E+00	3.55E+00	3.47E+00	3.03E+00	2.55E+00
Nd-144	1.57E-12	1.57E-12	1.57E-12	1.57E-12	1.57E-12	1.57E-12
Ni-59	3.94E+00	3.93E+00	3.92E+00	3.90E+00	3.76E+00	3.59E+00
Ni-63	4.09E+02	2.04E+02	3.62E+01	4.02E-01	3.75E-13	3.44E-28
Np-235	3.62E-18	--	--	--	--	--
Np-237	1.31E+01	1.36E+01	1.46E+01	1.59E+01	1.67E+01	1.67E+01
Np-238	9.43E-03	5.77E-03	1.69E-03	6.91E-05	1.99E-13	4.22E-24
Np-239	5.74E+02	5.69E+02	5.56E+02	5.23E+02	3.59E+02	2.24E+02
Np-240	1.47E-08	1.82E-08	2.68E-08	4.92E-08	1.86E-07	3.56E-07
Np-240m	1.23E-05	1.52E-05	2.23E-05	4.10E-05	1.55E-04	2.97E-04
Os-194	1.98E-05	1.90E-10	5.39E-23	--	--	--
Pa-231	3.25E-03	7.56E-03	1.83E-02	4.60E-02	2.09E-01	3.96E-01
Pa-233	1.31E+01	1.36E+01	1.46E+01	1.59E+01	1.67E+01	1.67E+01
Pa-234	4.56E-03	4.56E-03	4.56E-03	4.56E-03	4.56E-03	4.56E-03
Pa-234m	3.50E+00	3.50E+00	3.50E+00	3.50E+00	3.50E+00	3.50E+00
Pb-209	6.76E-01	1.76E+00	4.43E+00	1.11E+01	4.43E+01	7.15E+01
Pb-210	7.12E+00	7.33E+00	6.52E+00	4.96E+00	1.64E+00	2.06E+00
Pb-211	1.92E-01	1.41E-02	1.83E-02	4.60E-02	2.09E-01	3.96E-01
Pb-212	3.68E+00	1.37E+00	1.23E-01	9.95E-03	9.77E-03	9.77E-03
Pb-214	7.57E+00	7.25E+00	6.51E+00	4.96E+00	1.64E+00	2.06E+00
Pd-107	1.04E-02	1.04E-02	1.04E-02	1.04E-02	1.04E-02	1.04E-02
Pm-145	1.33E-01	2.65E-03	1.48E-07	1.30E-18	--	--
Pm-146	6.33E-04	2.28E-09	5.59E-23	--	--	--
Pm-147	4.52E-05	1.51E-16	--	--	--	--
Po-210	7.13E+00	7.33E+00	6.52E+00	4.96E+00	1.64E+00	2.06E+00
Po-211	5.29E-04	3.88E-05	5.04E-05	1.26E-04	5.75E-04	1.09E-03

Table 5-4. RH Radionuclide Activities (Ci) Decayed thru Specified Years
(Continued)

Radionuclide	2083	2183	2433	3083	7083	12083
Po-212	2.36E+00	8.75E-01	7.89E-02	6.37E-03	6.26E-03	6.26E-03
Po-213	6.62E-01	1.72E+00	4.33E+00	1.08E+01	4.33E+01	7.00E+01
Po-214	7.57E+00	7.25E+00	6.51E+00	4.96E+00	1.64E+00	2.06E+00
Po-215	1.92E-01	1.41E-02	1.83E-02	4.60E-02	2.09E-01	3.96E-01
Po-216	3.68E+00	1.37E+00	1.23E-01	9.95E-03	9.77E-03	9.77E-03
Po-218	7.57E+00	7.25E+00	6.51E+00	4.96E+00	1.64E+00	2.06E+00
Pr-144	6.49E-22	--	--	--	--	--
Pr-144m	9.09E-24	--	--	--	--	--
Pu-236	2.96E-07	1.23E-17	--	--	--	--
Pu-238	2.58E+04	1.17E+04	1.62E+03	9.56E+00	9.75E-11	2.06E-21
Pu-239	4.53E+03	4.52E+03	4.49E+03	4.42E+03	3.99E+03	3.49E+03
Pu-240	4.55E+03	4.53E+03	4.41E+03	4.12E+03	2.70E+03	1.59E+03
Pu-241	8.60E+03	8.84E+01	2.08E+01	2.09E+01	1.54E+01	1.03E+01
Pu-242	2.39E+01	2.40E+01	2.43E+01	2.51E+01	2.84E+01	3.05E+01
Pu-243	8.64E-04	9.79E-04	1.23E-03	1.70E-03	2.38E-03	2.41E-03
Pu-244	1.23E-05	1.52E-05	2.24E-05	4.10E-05	1.55E-04	2.97E-04
Ra-223	1.92E-01	1.41E-02	1.83E-02	4.60E-02	2.09E-01	3.96E-01
Ra-224	3.68E+00	1.37E+00	1.23E-01	9.95E-03	9.77E-03	9.77E-03
Ra-225	6.77E-01	1.76E+00	4.43E+00	1.11E+01	4.43E+01	7.16E+01
Ra-226	7.57E+00	7.25E+00	6.51E+00	4.96E+00	1.64E+00	2.06E+00
Ra-228	2.07E-02	9.77E-03	9.77E-03	9.77E-03	9.77E-03	9.77E-03
Rb-87	1.57E-06	1.57E-06	1.57E-06	1.57E-06	1.57E-06	1.57E-06
Rh-102	7.23E-35	--	--	--	--	--
Rh-106	1.08E-15	--	--	--	--	--
Rn-219	1.92E-01	1.41E-02	1.83E-02	4.60E-02	2.09E-01	3.96E-01
Rn-220	3.68E+00	1.37E+00	1.23E-01	9.95E-03	9.77E-03	9.77E-03
Rn-222	7.57E+00	7.25E+00	6.51E+00	4.96E+00	1.64E+00	2.06E+00
Ru-106	1.08E-15	--	--	--	--	--
Sb-125	3.74E-05	3.51E-16	--	--	--	--
Sb-126	1.19E-02	1.19E-02	1.19E-02	1.18E-02	1.15E-02	1.11E-02
Sb-126m	1.34E-01	1.34E-01	1.33E-01	1.33E-01	1.29E-01	1.25E-01
Se-79	1.41E-01	1.41E-01	1.41E-01	1.41E-01	1.39E-01	1.38E-01
Sm-145	8.68E-22	--	--	--	--	--
Sm-146	4.00E-08	4.00E-08	4.00E-08	4.00E-08	4.00E-08	4.00E-08
Sm-147	3.86E-07	3.86E-07	3.86E-07	3.86E-07	3.86E-07	3.86E-07
Sm-148	2.83E-19	2.83E-19	2.83E-19	2.83E-19	2.83E-19	2.83E-19
Sm-151	6.65E+01	3.08E+01	4.49E+00	3.00E-02	1.25E-15	2.35E-32
Sn-119m	1.26E-24	--	--	--	--	--
Sn-121	8.15E-01	2.31E-01	9.90E-03	2.74E-06	--	--
Sn-121m	1.05E+00	2.98E-01	1.28E-02	3.54E-06	--	--
Sn-126	1.34E-01	1.34E-01	1.33E-01	1.33E-01	1.29E-01	1.25E-01
Sr-90	6.06E+04	5.16E+03	1.09E+01	1.22E-06	--	--
Tb-157	8.26E-02	5.20E-02	1.64E-02	8.13E-04	7.63E-12	7.05E-22
Tc-97	3.64E-08	3.64E-08	3.64E-08	3.64E-08	3.64E-08	3.63E-08
Tc-99	5.65E+02	5.65E+02	5.65E+02	5.64E+02	5.56E+02	5.47E+02
Te-123	1.92E-14	1.92E-14	1.92E-14	1.92E-14	1.92E-14	1.92E-14
Te-125m	9.14E-06	8.57E-17	--	--	--	--
Th-227	1.90E-01	1.39E-02	1.81E-02	4.54E-02	2.06E-01	3.91E-01
Th-228	3.68E+00	1.37E+00	1.23E-01	9.95E-03	9.77E-03	9.77E-03
Th-229	6.77E-01	1.76E+00	4.43E+00	1.11E+01	4.43E+01	7.16E+01
Th-230	1.49E-02	3.56E-02	9.76E-02	2.68E-01	1.29E+00	2.51E+00

Table 5-4. RH Radionuclide Activities (Ci) Decayed thru Specified Years
(Continued)

Radionuclide	2083	2183	2433	3083	7083	12083
Th-231	2.04E+00	2.04E+00	2.04E+00	2.05E+00	2.06E+00	2.08E+00
Th-232	9.77E-03	9.77E-03	9.77E-03	9.77E-03	9.77E-03	9.77E-03
Th-234	3.50E+00	3.50E+00	3.50E+00	3.50E+00	3.50E+00	3.50E+00
Tl-206	9.41E-06	9.67E-06	8.60E-06	6.55E-06	2.16E-06	2.71E-06
Tl-207	1.92E-01	1.41E-02	1.83E-02	4.59E-02	2.08E-01	3.95E-01
Tl-208	1.32E+00	4.91E-01	4.42E-02	3.57E-03	3.51E-03	3.51E-03
Tl-209	1.42E-02	3.70E-02	9.30E-02	2.33E-01	9.30E-01	1.50E+00
Tm-171	8.61E-11	1.81E-26	--	--	--	--
U-232	3.56E+00	1.32E+00	1.10E-01	1.73E-04	9.75E-22	--
U-233	1.24E+02	1.24E+02	1.24E+02	1.24E+02	1.22E+02	1.20E+02
U-234	1.97E+01	2.47E+01	2.83E+01	2.88E+01	2.85E+01	2.82E+01
U-235	2.04E+00	2.04E+00	2.04E+00	2.05E+00	2.06E+00	2.08E+00
U-236	2.49E-01	2.62E-01	2.95E-01	3.77E-01	7.75E-01	1.09E+00
U-237	2.06E-01	2.12E-03	4.96E-04	5.00E-04	3.69E-04	2.46E-04
U-238	3.50E+00	3.50E+00	3.50E+00	3.50E+00	3.50E+00	3.50E+00
U-240	1.23E-05	1.52E-05	2.23E-05	4.10E-05	1.55E-04	2.97E-04
V-49	8.07E-21	--	--	--	--	--
Y-90	6.06E+04	5.17E+03	1.09E+01	1.22E-06	--	--
Zn-65	1.73E-27	--	--	--	--	--
Zr-93	1.99E-01	1.99E-01	1.99E-01	1.99E-01	1.98E-01	1.98E-01
Grand Total	**3.57E+05**	**6.57E+04**	**2.37E+04**	**1.49E+04**	**8.98E+03**	**7.12E+03**

5.2 Waste, Packaging, Emplacement, and Operational Materials

SNL WIPP Inventory Needs Letter Request #'s 3 & 4

3. *Total inventory (scaled to a full repository) of all nonradiological waste material parameters reported as masses (in kg) for both CH- and RH-TRU waste. Nonradiological waste material parameters include: cellulosic, plastic and rubber (CPR) materials; iron-based metal/alloys; aluminum-based metal/alloys; other metals; solidified inorganic materials; solidified organic materials; vitrified materials; cements; soils; and other inorganic materials. These components may affect actinide solubility or gas generation rates.*

   Include only Portland cement (and concrete or other cements containing CaO or $Ca(OH)_2$) in the inventory of cement. Specify whether the partial mass density of cement is based on unreacted (dry) cement, reacted (hydrated) cement, or a combination. Do not include Portland cement under other waste material parameters.

4. *Total inventory (scaled to a full repository) of steel, lead, CPR and any other materials used to facilitate packaging of waste in the WIPP, reported as masses (in kg) for both CH- and RH-TRU waste. These materials may affect gas generation rates.*

Table 5-5. Waste and Packaging Materials

Waste Materials	CH Mass (kg)	RH Mass (kg)
Iron-based Metal/Alloys	2.12E+07	9.43E+05
Aluminum-based Metal/Alloys	4.31E+05	6.56E+04
Other Metal/Alloys	1.60E+06	1.43E+05
Other Inorganic Materials	6.92E+06	4.58E+05
Cellulose	4.48E+06	1.77E+05
Rubber	1.13E+06	4.71E+04
Plastic	5.61E+06	3.05E+05
Cement*	1.20E+06	1.60E+04
Solidified Inorganic Material	1.24E+07	3.68E+04
Solidified Organic Material	3.75E+06	9.55E+03
Soil	4.75E+06	1.07E+04
Vitrified	--	--
Packaging Materials		
Cellulose	6.01E+06	--
Plastic	4.61E+06	1.09E+06
Rubber	1.13E+05	4.96E+03
Steel	5.27E+07	1.39E+07
Lead	--	9.05E+06
Grand Total	**1.27E+08**	**2.63E+07**

** The Cement totals here reflect only those reported by the TRU waste sites. The emplaced portion is accounted for in the Solidified Inorganic Material, Solidified Organic Material, and Other Inorganic Materials categories. For an estimate of total cements, see Table 5-6 below.*

Table 5-6. Cements

Type	CH Mass (kg)	RH Mass (kg)
Reacted Only	2.04E+06	1.73E+04
Combination Reacted / Unreacted	6.55E+06	1.47E+02
Grand Total	**8.59E+06**	**1.74E+04**

NOTE: These estimates taken from LANL 2024b. For more information, see section 4.3. These values account for the emplaced amounts and the estimated amounts reported by the sites.

SNL WIPP Inventory Needs Letter Request #5

5. *Total inventory (scaled to a full repository) of any non-containerized CPR materials and other biodegradable materials that will be disposed of in WIPP, reported as masses (in kg). This includes any CPR materials used in general WIPP operations or to directly facilitate emplacement of waste and MgO in the WIPP. These materials may affect gas generation rates.*

Table 5-7. Emplacement and Operational Materials

Material	Emplacement Material Mass (kg)	Operational Material Mass (kg)	Total Mass (kg)
Cellulose	3.02E+05	4.50E+01	3.02E+05
Plastic	2.46E+06	5.75E+03	2.46E+06
Rubber	--	4.85E+03	4.85E+03
Grand Total	**2.76E+06**	**1.06E+04**	**2.77E+06**

NOTE: These estimates taken from LANL 2024c. For more information, see section 4.3.

5.3 Other Chemical Constituents

SNL WIPP Inventory Needs Letter Request #6

6. *Total inventory (scaled to a full repository) of organic ligands (acetic acid, sodium acetate, citric acid, sodium citrate, oxalic acid, sodium oxalate and sodium EDTA) and oxyanions (sulfates, nitrates and phosphates), reported as masses (in kg). These components may affect actinide solubility or gas generation rates.*

Table 5-8. Oxyanions

Oxyanion	Total Mass (kg)
Nitrate	1.64E+06
Phosphate	2.57E+05
Sulfate	4.75E+05
Grand Total	**2.37E+06**

NOTE: These estimates taken from LANL 2024b. For more information, see section 4.3.

Table 5-9. Organic Ligands

Organic Ligand	Total Mass (kg)
Acetate	1.66E+04
Acetic Acid	1.58E+04
Citrate	2.77E+03
Citric Acid	8.92E+03
EDTA	4.45E+02
Oxalate	8.06E+02
Oxalic Acid	1.69E+04
Grand Total	**6.23E+04**

NOTE: These estimates taken from LANL 2024b. For more information, see section 4.3.

6.0 ATTACHMENTS

Attachment 1: SNL WIPP Inventory Needs Letter (9/23/2024)

ATTACHMENT 1. SNL WIPP INVENTORY NEEDS LETTER (9/23/2024)

Sandia National Laboratories

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Dr. Anderson L. Ward
Compliance Recertification Manager
Environmental Regulatory Compliance

Email: wagner@sandia.gov

Date September 23, 2024

U.S. Department of Energy
Carlsbad Field Office
P.O. Box 3090
Carlsbad, NM 88221

Dear: Anderson

Subject: ***Sandia's WIPP Inventory Needs for Compliance Recertification Application 2026 Performance Assessment***

This letter details Sandia's WIPP inventory data needs for Performance Assessment. The data needs are largely the same as Wagner (2022). The inventory needs to report waste volumes using the LWA volumes methodology, waste that is emplaced, stored at WCS and is identified as WIPP-bound in the latest ATWIR. Please consider inventory data reported to the end of the calendar year 2083. In order to conduct performance assessments of the WIPP that account for revisions to the inventory and account for both currently emplaced waste and to-be-emplaced waste (WIPP-bound), we will need an update to the following:

1. Waste stream volumes (in m^3) and inventory of radionuclides on a waste stream basis for both CH- and RH-TRU waste, supplied in Curies and decayed to the year 2083, for the following radionuclides (scaled to a full repository):

   ^{241}Am, ^{243}Am, ^{244}Cm, ^{137}Cs, ^{237}Np, ^{238}Pu, ^{239}Pu, ^{240}Pu, ^{241}Pu, ^{242}Pu, ^{244}Pu, ^{90}Sr, ^{229}Th, ^{230}Th, ^{232}Th, ^{233}U, ^{234}U, ^{235}U, ^{236}U, and ^{238}U.

2. Total CH- and RH-TRU inventories of all radionuclides (scaled to a full repository), supplied in Curies and decayed through the years: 2083, 2183, 2433, 3083, 7083, and 12083.

NNSA

Exceptional Service in the National Interest

WIPP:4.2.1:PA:QA-L:CRA 2026 PRESUBMITTAL

3. Total inventory (scaled to a full repository) of all nonradiological waste material parameters reported as masses (in kg) for both CH- and RH-TRU waste. Nonradiological waste material parameters include: cellulosic, plastic and rubber (CPR) materials; iron-based metal/alloys; aluminum-based metal/ alloys; other metals; solidified inorganic materials; solidified organic materials; vitrified materials; cements; soils; and other inorganic materials. These components may affect actinide solubility or gas generation rates.

   Include only Portland cement (and concrete or other cements containing CaO or $Ca(OH)_2$) in the inventory of cement. Specify whether the partial mass density of cement is based on unreacted (dry) cement, reacted (hydrated) cement, or a combination. Do not include Portland cement under other waste material parameters.

4. Total inventory (scaled to a full repository) of steel, lead, CPR and any other materials used to facilitate packaging of waste in the WIPP, reported as masses (in kg) for both CH- and RH-TRU waste. These materials may affect gas generation rates

5. Total inventory (scaled to a full repository) of any non-containerized CPR materials and other biodegradable materials that will be disposed of in WIPP, reported as masses (in kg). This includes any CPR materials used in general WIPP operations or to directly facilitate emplacement of waste and MgO in the WIPP. These materials may affect gas generation rates.

6. Total inventory (scaled to a full repository) of organic ligands (acetic acid, sodium acetate, citric acid, sodium citrate, oxalic acid, sodium oxalate and sodium EDTA) and oxyanions (sulfates, nitrates and phosphates), reported as masses (in kg). These components may affect actinide solubility or gas generation rates.

In order for the update to be incorporated into performance assessment calculations, the data must be collected and analyzed in accordance with a Quality Assurance program approved by the Carlsbad Field Office.

Sincerely,

STEPHEN WAGNER (Affiliate)

Digitally signed by STEPHEN WAGNER (Affiliate)
Date: 2024.09.23 09:42:20 -06'00'

Steve Wagner

References:

Wagner, S. 2022. "Sandia's WIPP Inventory Data Needs for Compliance Recertification Application 2024 Performance Assessment" Correspondence. November 8, 2022. Carlsbad, NM: Sandia National Laboratories.