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**CHARACTERISTICS OF SPENT FUEL,
HIGH-LEVEL WASTE, AND OTHER
RADIOACTIVE WASTES WHICH MAY
REQUIRE LONG-TERM ISOLATION**

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APPENDIX 3A

ORIGEN2 DECAY TABLES FOR IMMOBILIZED

HIGH-LEVEL WASTE

APPENDIX 3A. ORIGEN2 DECAY TABLES FOR IMMOBILIZED HIGH-LEVEL WASTE

This appendix presents the results of decay calculations using the ORIGEN2 code to determine the radiological properties of canisters of immobilized high-level waste as a function of decay time for decay times up to one million years. These calculations were made for the four HLW sites (West Valley Demonstration Project, Savannah River Plant, Hanford Site, and Idaho National Engineering Laboratory) using the composition data discussed in the HLW section of this report.

The reference canister compositions for the four sites are shown in Tables 3A.1-3A.4. The reference composition in each case represents the maximum activity canister anticipated from the site. For the three defense sites, canisters of maximum activity are not expected before about 1998-2010. The INEL canister load was based on the assumption that the high-density ceramic form is used. Canister dimensions are the same for all sites, approximately 2 ft diameter x 10 ft.

The initial time point for the West Valley canister decay calculations was selected as 1990 because the reference glass composition data were based on that year.

The three defense sites continue to reprocess fuel and produce fresh HLW. The composition of the waste of maximum activity was estimated for each site, and the starting point for the decay calculations was taken as the year in which immobilization of this waste occurs. Thus, decay time for these wastes means the time elapsed since filling the canister.

The ORIGEN2 output tables are grouped according to site and are presented in the following order: WVDP, SRP(DWPF), HANF, and INEL. The output quantities represent one canister in each case. The order of presentation for each site except INEL is as follows:

- Table 1. Actinides and daughters, grams, by nuclides
- Table 2. Actinides and daughters, grams, by elements
- Table 3. Actinides and daughters, curies, by nuclides
- Table 4. Actinides and daughters, curies, by elements

- Table 5. Actinides and daughters, watts, by nuclides
Table 6. Actinides and daughters, watts, by elements
Table 7. Actinides and daughters, alpha curies, by nuclides
Table 8. Actinides and daughters, alpha curies, by elements
Table 9. Actinides and daughters, (alpha, n) neutron sources, by nuclides
Table 10. Actinides and daughters, spontaneous fission neutron sources,
by nuclides
Table 11. Actinides and daughters, photon spectrum, by energy groups
Table 12. Fission products, grams, by nuclides
Table 13. Fission products, grams, by elements
Table 14. Fission products, curies, by nuclides
Table 15. Fission products, curies, by elements
Table 16. Fission products, watts, by nuclides
Table 17. Fission products, watts, by elements
Table 18. Fission products, photon spectrum, by energy
groups
Table 19. Activation products, grams, by nuclides
Table 20. Activation products, grams, by elements
Table 21. Activation products, curies, by nuclides
Table 22. Activation products, curies, by elements
Table 23. Activation products, watts, by nuclides
Table 24. Activation products, watts, by elements
Table 25. Activation products, photon spectrum, by energy groups

In the case of INEL the order is the same as above except that fission and activation products are shown together in Tables 12 through 18, because no data were available to permit a separate breakdown.

For West Valley Demonstration Project, data for both maximum activity and average activity canisters are shown.

The data presented here are also available in magnetic diskette form, as described in Appendix 3C. In the hard copy presented here, decay times of 1, 10, 100, 1000, 10,000, 100,000, and 1,000,000 years are shown. The diskette data include a number of intermediate decay times, as follows: 1, 2, 5, 10, 15, 20, 30, 50, 100, 200, 300, 350, 500, 1,000, 1,050, 2,000, 5,000, 10,000, 20,000, 50,000, 100,000, 500,000, and 1,000,000 years.

Table 3A.1. Radioisotope composition of West Valley Demonstration Project Vitrified High-Level Waste^a

Radioisotope	Curies/canister	Grams/canister
Fe-55	0.2100E+01	0.8397E-03
Ni-59	0.3600E+00	0.4752E+01
Ni-63	0.2700E+02	0.4377E+00
Co-60	0.3600E+01	0.3183E-02
Se-79	0.1600E-01	0.2297E+00
Sr-90	0.3000E+05	0.2199E+03
Y-90	0.3000E+05	0.5514E-01
Zr-93	0.1100E+01	0.4377E+03
Nb-93M	0.8600E+00	0.3042E-02
Tc-99	0.7400E+01	0.4363E+03
Ru-106	0.3600E-01	0.1076E-04
Rh-106	0.3600E-01	0.1011E-10
Pd-107	0.5300E-02	0.1030E+02
Sb-125	0.9300E+01	0.9003E-02
Te-125m	0.2100E+01	0.1165E-03
Sn-126	0.1800E+00	0.6342E+01
Sb-126M	0.1800E+00	0.2291E-08
Sb-126	0.2500E+00	0.2990E-05
Cs-134	0.1600E+02	0.1236E-01
Cs-135	0.7000E+00	0.6076E+03
Cs-137	0.3200E+05	0.3678E+03
Ba-137m	0.3000E+05	0.5576E-04
Ce-144	0.4300E-02	0.1348E-05
Pr-144	0.4300E-02	0.5690E-10
Pm-147	0.6300E+03	0.6795E+00
Sm-151	0.9000E+03	0.3421E+02
Eu-152	0.1600E+01	0.9249E-02
Eu-154	0.4500E+03	0.1667E+01
Eu-155	0.6500E+02	0.1398E+00
Th-232	0.8000E-02	0.7293E+05
U-233	0.4200E-01	0.4337E+01
U-234	0.1900E-01	0.3040E+01
U-235	0.4400E-03	0.2035E+03
U-236	0.1200E-02	0.1854E+02
U-238	0.3500E-02	0.1041E+05
Np-237	0.6900E-01	0.9786E+02
Np-239	0.1500E+02	0.6466E-04
Pu-238	0.3000E+02	0.1752E+01
Pu-239	0.7600E+01	0.1222E+03
Pu-240	0.1900E+02	0.8337E+02
Pu-241	0.3300E+03	0.3204E+01
Pu-242	0.7500E-02	0.1964E+01
Am-241	0.5000E+03	0.1456E+03
Am-242	0.1300E+00	0.1608E-06
Am-242m	0.1300E+00	0.1337E-01
Am-243	0.1500E+02	0.7523E+02
Cm-242	0.1300E+00	0.3931E-04
Cm-243	0.1000E+01	0.1936E-01
Cm-244	0.1200E+03	0.1482E+01
Cm-245	0.6300E-01	0.3669E+00
Cm-246	0.2700E-01	0.8786E-01
Total	0.1252E+05	0.8623E+05

^aCalculated from data in Eisenstatt 1986. Data shown are for the maximum activity canister and are for the year 1990.

Table 3A.2. Savannah River Plant. Radioisotope content per HLW canister^a

	Isotope	Curies/canister	Grams/canister
1	Cr-51	0.9312E-16	0.1008E-20
2	Co-60	0.1699E+03	0.1502E+00
3	Ni-59	0.2397E-01	0.3163E+00
4	Ni-63	0.2975E+01	0.4824E-01
5	Ti-208	0.1128E-02	0.3829E-11
6	U-232	0.1339E-01	0.6256E-03
7	U-233	0.1584E-05	0.1636E-03
8	U-234	0.3428E-01	0.5485E+01
9	U-235	0.1573E-03	0.7278E+02
10	U-236	0.1128E-02	0.1742E+02
11	U-238	0.1050E-01	0.3122E+05
12	Np-236	0.1744E-07	0.1323E-05
13	Np-237	0.8904E-02	0.1263E+02
14	Pu-236	0.1221E+00	0.2297E-03
15	Pu-237	0.8941E-11	0.7401E-15
16	Pu-238	0.1484E+04	0.8667E+02
17	Pu-239	0.1291E+02	0.2076E+03
18	Pu-240	0.8681E+01	0.3809E+02
19	Pu-241	0.1670E+04	0.1620E+02
20	Pu-242	0.1224E-01	0.3206E+01
21	Am-241	0.1102E+02	0.3210E+01
22	Am-242	0.1436E-01	0.1776E-07
23	Am-242m	0.1447E-01	0.1488E-02
24	Am-243	0.5788E-02	0.2902E-01
25	Cm-242	0.3495E-01	0.1057E-04
26	Cm-243	0.5565E-02	0.1078E-03
27	Cm-244	0.1076E+03	0.1329E+01
28	Cm-245	0.6715E-05	0.3910E-04
29	Cm-246	0.5342E-06	0.1739E-05
30	Cm-247	0.6604E-12	0.7116E-08
31	Cm-248	0.6864E-12	0.1614E-09
32	Se-79	0.1699E+00	0.2439E+01
33	Rb-87	0.8719E-06	0.9961E+01
34	Sr-89	0.4267E-04	0.1470E-08
35	Sr-90	0.4675E+05	0.3426E+03
36	Y-90	0.4786E+05	0.8795E-01
37	Y-91	0.7568E-03	0.3085E-07
38	Zr-93	0.1117E+01	0.4443E+03
39	Zr-95	0.1005E-01	0.4680E-06
40	Nb-94	0.9646E-04	0.5147E-03
41	Nb-95	0.2115E-01	0.5407E-06
42	Nb-95m	0.1247E-03	0.3272E-09
43	Tc-99	0.3079E+01	0.1816E+03
44	Ru-103	0.1684E-07	0.5217E-12
45	Ru-106	0.2252E+04	0.6729E+00

Table 3A.2 (continued)

	Isotope	Curies/canister	Grams/canister
46	Rh-103m	0.1636E-07	0.5028E-15
47	Rb-106	0.2259E+04	0.6346E-06
48	Pd-107	0.1473E-01	0.2863E+02
49	Ag-110m	0.1258E+00	0.2647E-04
50	Cd-113	0.5009E-13	0.1472E+00
51	Cd-115m	0.1213E-08	0.4763E-13
52	Sn-121m	0.7902E-01	0.1336E-02
53	Sn-123	0.2549E+00	0.3101E-04
54	Sn-126	0.4415E+00	0.1556E+02
55	Sb-124	0.7123E-07	0.4071E-11
56	Sb-125	0.8496E+03	0.8226E+00
57	Sb-126	0.6159E-01	0.7365E-06
58	Sb-126m	0.4415E+00	0.5619E-08
59	Te-125m	0.2760E+03	0.1532E-01
60	Te-127	0.1202E+00	0.4555E-07
61	Te-127m	0.1228E+00	0.1302E-04
62	Te-129	0.3053E-11	0.1457E-18
63	Te-129m	0.4749E-11	0.1576E-15
64	Cs-134	0.3372E+03	0.2606E+00
65	Cs-135	0.9943E-01	0.8633E+02
66	Cs-136	0.7828E-39	0.1068E-43
67	Cs-137	0.4341E+05	0.4989E+03
68	Ba-136m	0.8607E-38	0.3195E-49
69	Ba-137m	0.4155E+05	0.7724E-04
70	Ba-140	0.1024E-35	0.1404E-40
71	La-140	0.4304E-36	0.7734E-42
72	Ce-141	0.3591E-10	0.1260E-14
73	Ce-142	0.9609E-05	0.4005E+03
74	Ce-144	0.9869E+04	0.3093E+01
75	Pr-143	0.1198E-33	0.1780E-38
76	Pr-144	0.9869E+04	0.1306E-03
77	Pr-144m	0.1187E+03	0.6545E-06
78	Nd-144	0.4860E-09	0.4110E+03
79	Nd-147	0.1261E-43	0.1570E-48
80	Pm-147	0.2419E+05	0.2609E+02
81	Pm-148	0.6975E-10	0.4243E-15
82	Pm-148m	0.1009E-08	0.4722E-13
83	Sm-147	0.2000E-05	0.8796E+02
84	Sm-148	0.5788E-11	0.1916E+02
85	Sm-149	0.1781E-11	0.7420E+01
86	Sm-151	0.2478E+03	0.9418E+01
87	Eu-152	0.3688E+01	0.2132E-01
88	Eu-154	0.6196E+03	0.2295E+01
89	Eu-155	0.4749E+03	0.1021E+01
90	Eu-156	0.5231E-31	0.9489E-36
91	Tb-160	0.1120E-05	0.9923E-10
	Total	0.2344E+06	0.3427E+05

^aQuantities shown are for sludge + supernate glass and are based on the DWPF Basic Data Report, DPSP 80-1033, Rev. 91, April 1985, assuming sludge aged an average of 5 years and supernate aged an average of 15 years, with a canister load of 3710 lb of glass (1683 kg).

Table 3A.3. Hanford Operations. Radioisotope content per HLW canister (NCAW glass)^a

	Isotope	Curies/canister	Grams/canister
1	C-14	0.9590E-01	0.2151E-01
2	Fe-55	0.1260E+02	0.5039E-02
3	Ni-59	0.1030E-01	0.1360E+00
4	Ni-63	0.2380E+01	0.3858E-01
5	Co-60	0.3580E+02	0.3166E-01
6	Zr-93	0.3430E-01	0.1365E+02
7	Nb-93m	0.7460E-02	0.2639E-04
8	In-113m	0.2870E-01	0.1716E-08
9	Sn-113	0.2870E-01	0.2858E-05
10	Sn-119m	0.2460E+02	0.5492E-02
11	Sn-121m	0.1310E+00	0.2215E-02
12	Sb-125	0.1100E+03	0.1065E+00
13	Te-125m	0.2690E+02	0.1493E-02
14	U-234	0.1750E-04	0.2800E-02
15	U-235	0.3250E-03	0.1504E+03
16	U-236	0.8190E-03	0.1265E+02
17	U-238	0.5880E-02	0.1749E+05
18	Np-237	0.3120E+00	0.4425E+03
19	Pu-238	0.4110E+00	0.2400E-01
20	Pu-239	0.3600E+01	0.5789E+02
21	Pu-240	0.1180E+01	0.5177E+01
22	Pu-241	0.3740E+02	0.3630E+00
23	Pu-242	0.6500E-04	0.1702E-01
24	Am-241	0.1030E+04	0.3000E+03
25	Am-242m	0.5960E+00	0.6131E-01
26	Am-243	0.4400E+00	0.2227E+01
27	Cm-242	0.1230E+02	0.3719E-02
28	Cm-244	0.9700E+00	0.1198E-01
29	C-14	0.9400E-04	0.2109E-04
30	Se-79	0.5260E+00	0.7550E+01
31	Sr-89	0.1150E-01	0.3961E-06
32	Sr-90	0.7310E+05	0.5357E+03
33	Y-90	0.7310E+05	0.1343E+00
34	Y-91	0.1280E+00	0.5218E-05
35	Zr-93	0.2440E+01	0.9709E+03
36	Zr-95	0.4910E+00	0.2285E-04
37	Nb-93m	0.1220E+01	0.4315E-02
38	Nb-95	0.1080E+01	0.2762E-04
39	Tc-99	0.1760E+02	0.1038E+04
40	Ru-103	0.1040E-03	0.3221E-08
41	Ru-106	0.5960E+04	0.1781E+01
42	Rh-103m	0.1040E-03	0.3196E-11
43	Rh-106	0.5960E+04	0.1674E-05
44	Pd-107	0.6960E-01	0.1353E+03
45	Ag-110	0.1120E-03	0.2686E-13

Table 3A.3 (continued)

	Isotope	Curies/canister	Grams/canister
46	Ag-110m	0.8430E-02	0.1774E-05
47	Cd-113m	0.2240E+02	0.1033E+00
48	Cd-115m	0.1570E-05	0.6164E-10
49	Sn-119m	0.1980E+01	0.4421E-03
50	Sn-121m	0.1460E+00	0.2469E-02
51	Sn-123	0.6100E+00	0.7422E-04
52	Sn-126	0.8290E+00	0.2921E+02
53	Sb-124	0.6330E-05	0.3618E-09
54	Sb-125	0.2350E+04	0.2275E+01
55	Sb-126	0.1160E+00	0.1387E-05
56	Sb-126m	0.8290E+00	0.1055E-07
57	Te-123m	0.8890E-31	0.1002E-34
58	Te-125m	0.5750E+03	0.3192E-01
59	Te-127	0.5760E+00	0.2183E-06
60	Te-127m	0.5850E+00	0.6200E-04
61	Te-129	0.6170E-07	0.2945E-14
62	Te-127m	0.9810E-07	0.3256E-11
63	I-129	0.2140E-02	0.1212E+02
64	Cs-134	0.1360E+04	0.1051E+01
65	Cs-135	0.4650E+00	0.4038E+03
66	Cs-137	0.8730E+05	0.1003E+04
67	Ba-137m	0.8250E+05	0.1534E-03
68	Ce-141	0.1880E-05	0.6598E-10
69	Ce-144	0.1370E+05	0.4294E+01
70	Pr-143	0.6440E-21	0.9565E-26
71	Pr-144	0.1370E+05	0.1813E-03
72	Pr-144m	0.1960E+03	0.1080E-05
73	Pm-147	0.5270E+05	0.5685E+02
74	Pm-148	0.1100E-06	0.6692E-12
75	Pm-148m	0.2280E-05	0.1067E-09
76	Sm-151	0.1550E+04	0.5891E+02
77	Eu-152	0.3560E+01	0.2058E-01
78	Eu-154	0.4190E+03	0.1552E+01
79	Eu-155	0.6610E+03	0.1421E+01
80	Gd-153	0.4400E-02	0.1247E-05
81	Tb-160	0.2010E-04	0.1780E-08
	Total	0.4165E+06	0.2273E+05

^aSource: Coony 1987. Based on 1650 kg of HLW glass per canister. This is the upper bound case for HANF NCAW glass.

Table 3A.4. Idaho National Engineering Laboratory.
Radioisotope content per HLW Canister.^a

	Isotope	Curies/canister	Grams/canister
1	Se-79	0.8173E-01	0.1173E+01
2	Rb-87	0.4597E-05	0.5252E+02
3	Sr-90	0.1660E+05	0.1217E+03
4	Y-90	0.1660E+05	0.3051E-01
5	Zr-93	0.3959E+00	0.1575E+03
6	Nb-93M	0.9577E-01	0.3387E-03
7	Tc-99	0.2682E+01	0.1582E+03
8	Ru-106	0.1239E+04	0.3701E+00
9	Rh-106	0.1239E+04	0.3479E-06
10	Pd-107	0.2554E-02	0.4965E+01
11	Sn-126	0.4086E-01	0.1440E+01
12	Sb-126M	0.4086E-01	0.5201E-09
13	Sb-126	0.4086E-01	0.4887E-06
14	Cs-134	0.4214E+04	0.3256E+01
15	Cs-135	0.9577E-01	0.8316E+02
16	Cs-137	0.1660E+05	0.1908E+03
17	Ba-137M	0.1532E+05	0.2848E-04
18	Ce-144	0.1047E+05	0.3282E+01
19	Pr-144	0.1047E+05	0.1386E-03
20	Pm-147	0.1532E+05	0.1653E+02
21	Sm-151	0.2171E+03	0.8250E+01
22	Eu-154	0.2299E+03	0.8513E+00
23	U-233	0.1532E-08	0.1583E-06
24	U-234	0.5491E-06	0.8785E-04
25	U-235	0.2299E-05	0.1063E+01
26	U-236	0.1277E-04	0.1973E+00
27	U-237	0.6130E-08	0.7507E-13
28	U-238	0.1277E-10	0.3797E-04
29	Np-237	0.6130E-04	0.8693E-01
30	Pu-238	0.8939E+02	0.5221E+01
31	Pu-239	0.8939E+00	0.1437E+02
32	Pu-240	0.8300E+00	0.3642E+01
33	Pu-241	0.2043E+03	0.1983E+01
34	Pu-242	0.2299E-02	0.6018E+00
35	Am-241	0.1162E+01	0.3385E+00
36	Am-243	0.1060E-01	0.5315E-01
37	Cm-242	0.8300E+00	0.2510E-03
38	Cm-244	0.6640E+00	0.8201E-02
	Total	0.1088E+06	0.8315E+03

^aQuantities are at time of filling canister and are based on 3-yr old calcine immobilized in glass-ceramic with a load of 1277 kg of calcine per canister (1825 kg of glass-ceramic per canister). Based on IDO-10105 (1982) and Berreth 1986c.

TABLE 1-WVDP(MAX). CONCENTRATIONS OF ACTINIDES AND DAUGHTERS
IN DECAY OF WEST VALLEY PLW: NUCLIDES

BASED ON ONE CANISTER, MAXIMUM RADIOACTIVITY, 1895 MG GLASS

NUCLIDE	GRAMS							
	1990	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
TH232	7.293E+04	7.293E+04	7.293E+04	7.293E+04	7.293E+04	7.293E+04	7.293E+04	7.293E+04
U235	2.035E+02	2.035E+02	2.035E+02	2.038E+02	2.070E+02	2.402E+02	3.838E+02	3.960E+02
U236	1.854E+01	1.855E+01	1.863E+01	1.942E+01	2.693E+01	7.305E+01	1.017E+02	9.900E+01
U238	1.041E+04	1.041E+04	1.041E+04	1.041E+04	1.041E+04	1.041E+04	1.041E+04	1.041E+04
NP237	9.786E+01	9.809E+01	1.001E+02	1.194E+02	2.147E+02	2.436E+02	2.368E+02	1.769E+02
PU239	1.222E+02	1.222E+02	1.222E+02	1.226E+02	1.253E+02	1.299E+02	1.284E+01	7.082E-11
AM241	1.456E+02	1.455E+02	1.445E+02	1.268E+02	2.997E+01	8.154E-03	5.278E-06	7.356E-38
SUMTOT	8.410E+04	8.410E+04	8.410E+04	8.410E+04	8.410E+04	8.410E+04	8.410E+04	8.410E+04
TOTAL	8.410E+04	8.410E+04	8.410E+04	8.410E+04	8.410E+04	8.410E+04	8.410E+04	8.410E+04

NUCLIDES CONTRIBUTING < 0.1000 % ARE OMITTED

TABLE 2-WVDP(MAX). CONCENTRATIONS OF ACTINIDES AND DAUGHTERS
IN DECAY DF WEST VALLEY HLW: ELEMENTS

BASED ON ONE CANISTER, MAXIMUM RADIOACTIVITY, 1895 KG GLASS

ELEMENT	GRAMS							
	1990	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
HE	0.0	5.351E-03	5.191E-02	4.372E-01	2.343E+00	4.865E+00	8.779E+00	1.668E+01
PB	0.0	1.781E-08	7.595E-06	2.964E-04	3.216E-03	3.576E-02	7.034E-01	8.196E+00
BI	0.0	7.331E-10	7.980E-08	8.002E-06	7.802E-04	6.257E-02	2.325E+00	5.146E+01
TH	7.293E+04	7.293E+04	7.293E+04	7.293E+04	7.293E+04	7.293E+04	7.293E+04	7.293E+04
U	1.064E+04	1.064E+04	1.064E+04	1.064E+04	1.065E+04	1.073E+04	1.091E+04	1.092E+04
NP	9.786E+01	9.809E+01	1.001E+02	1.194E+02	2.147E+02	2.436E+02	2.368E+02	1.769E+02
PU	2.125E+02	2.124E+02	2.115E+02	2.093E+02	2.036E+02	1.613E+02	1.456E+01	3.424E-01
AM	2.208E+02	2.208E+02	2.197E+02	2.014E+02	5.845E+01	2.942E+01	6.282E-03	7.478E-38
CM	1.956E+00	1.900E+00	1.480E+00	4.845E-01	4.140E-01	1.826E-01	1.054E-04	1.393E-36
SUMTOT	8.410E+04	8.410E+04	8.410E+04	8.410E+04	8.410E+04	8.410E+04	8.410E+04	8.410E+04
TCTAL	8.410E+04	8.410E+04	8.410E+04	8.410E+04	8.410E+04	8.410E+04	8.410E+04	8.410E+04

ELEMENTS CONTRIBUTING < 0.0001 % ARE OMITTED

TABLE 3-WVDP(MAX). RADIOACTIVITY OF ACTINIDES AND DAUGHTERS
IN DECAY OF WEST VALLEY HLW: NUCLIDES

BASED ON ONE CANISTER, MAXIMUM RADIOACTIVITY, 1895 KG GLASS

CURIES								
NUCLIDE	1990	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
TL207	0.0	1.462E-10	1.336E-08	6.491E-07	5.269E-06	9.145E-05	6.677E-04	8.540E-04
TL208	0.0	4.622E-05	1.476E-03	2.875E-03	2.875E-03	2.875E-03	2.875E-03	2.875E-03
TL209	0.0	8.568E-08	8.564E-07	8.529E-06	8.204E-05	5.936E-04	1.794E-03	2.888E-03
P8209	0.0	3.967E-06	3.965E-05	3.949E-04	3.798E-03	2.748E-02	8.306E-02	1.337E-01
P8210	0.0	3.754E-13	3.585E-10	2.244E-07	4.651E-05	1.965E-03	1.553E-02	5.755E-03
P8211	0.0	1.466E-10	1.339E-08	6.509E-07	5.294E-06	9.171E-05	6.696E-04	8.564E-04
P8212	0.0	1.287E-04	4.108E-03	8.001E-03	8.002E-03	8.002E-03	8.002E-03	8.001E-03
P8214	0.0	3.710E-11	3.753E-09	4.104E-07	4.652E-05	1.966E-03	1.554E-02	5.756E-03
BI210	0.0	3.754E-13	3.586E-10	2.244E-07	4.651E-05	1.965E-03	1.553E-02	5.755E-03
BI211	0.0	1.466E-10	1.339E-08	6.509E-07	5.294E-06	9.171E-05	6.696E-04	8.564E-04
BI212	0.0	1.287E-04	4.108E-03	8.001E-03	8.002E-03	8.002E-03	8.002E-03	8.001E-03
BI213	0.0	3.967E-06	3.965E-05	3.949E-04	3.798E-03	2.748E-02	8.306E-02	1.337E-01
BI214	0.0	3.710E-11	3.753E-09	4.104E-07	4.652E-05	1.966E-03	1.554E-02	5.756E-03
PC210	0.0	1.217E-13	3.586E-10	2.244E-07	4.651E-05	1.965E-03	1.553E-02	5.755E-03
PC212	0.0	8.243E-05	2.632E-03	5.126E-03	5.127E-03	5.127E-03	5.127E-03	5.127E-03
PC213	0.0	3.881E-06	3.879E-05	3.863E-04	3.716E-03	2.685E-02	8.127E-02	1.308E-01
PG214	0.0	3.709E-11	3.753E-09	4.103E-07	4.651E-05	1.965E-03	1.553E-02	5.755E-03
PC215	0.0	1.466E-10	1.339E-08	6.509E-07	5.294E-06	9.171E-05	6.696E-04	8.564E-04
PC216	0.0	1.287E-04	4.108E-03	8.001E-03	8.002E-03	8.002E-03	8.002E-03	8.001E-03
PC218	0.0	3.710E-11	3.754E-09	4.105E-07	4.653E-05	1.966E-03	1.554E-02	5.757E-03
AT217	0.0	3.967E-06	3.965E-05	3.949E-04	3.798E-03	2.748E-02	8.306E-02	1.337E-01
RN219	0.0	1.466E-10	1.335E-08	6.509E-07	5.294E-06	9.171E-05	6.696E-04	8.564E-04
RN220	0.0	1.287E-04	4.108E-03	8.001E-03	8.002E-03	8.002E-03	8.002E-03	8.001E-03
RN222	0.0	3.710E-11	3.754E-09	4.105E-07	4.653E-05	1.966E-03	1.554E-02	5.757E-03
FR221	0.0	3.967E-06	3.965E-05	3.949E-04	3.798E-03	2.748E-02	8.306E-02	1.337E-01
RA223	0.0	1.466E-10	1.339E-08	6.509E-07	5.294E-06	9.171E-05	6.696E-04	8.564E-04
RA224	0.0	1.287E-04	4.108E-03	8.001E-03	8.002E-03	8.002E-03	8.002E-03	8.001E-03
RA225	0.0	3.967E-06	3.965E-05	3.949E-04	3.798E-03	2.748E-02	8.306E-02	1.337E-01
RA226	0.0	3.710E-11	3.754E-09	4.105E-07	4.653E-05	1.966E-03	1.554E-02	5.757E-03
RA228	0.0	7.864E-04	5.158E-03	8.001E-03	8.002E-03	8.002E-03	8.002E-03	8.001E-03
AC225	0.0	3.967E-06	3.965E-05	3.949E-04	3.798E-03	2.748E-02	8.306E-02	1.337E-01
AC227	0.0	1.466E-10	1.339E-08	6.508E-07	5.294E-06	9.171E-05	6.696E-04	8.564E-04
AC228	0.0	7.864E-04	5.158E-03	8.001E-03	8.002E-03	8.002E-03	8.002E-03	8.001E-03
TH227	0.0	1.446E-10	1.321E-08	6.419E-07	5.166E-06	9.044E-05	6.604E-04	8.446E-04
TH228	0.0	1.287E-04	4.106E-03	8.001E-03	8.002E-03	8.002E-03	8.002E-03	8.001E-03
TH229	0.0	3.967E-06	3.965E-05	3.949E-04	3.798E-03	2.748E-02	8.306E-02	1.337E-01
TH230	0.0	1.714E-07	1.748E-06	2.009E-05	2.547E-04	2.525E-03	1.540E-02	5.754E-03
TH231	0.0	4.401E-04	4.401E-04	4.408E-04	4.476E-04	5.195E-04	8.299E-04	8.564E-04
TH232	8.002E-03	8.002E-03	8.002E-03	8.002E-03	8.002E-03	8.002E-03	8.002E-03	8.001E-03
TH234	0.0	3.501E-03	3.501E-03	3.501E-03	3.501E-03	3.501E-03	3.501E-03	3.501E-03
PA231	0.0	9.309E-09	9.321E-08	9.310E-07	9.291E-06	9.168E-05	6.695E-04	8.564E-04

TABLE 3-WVDP(MAX). RADIOACTIVITY OF ACTINIDES AND DAUGHTERS
IN DECAY OF WEST VALLEY HLW: NUCLIDES

BASED ON ONE CANISTER, MAXIMUM RADIOACTIVITY, 1895 KG GLASS

NUCLIDE	CURIES							
	1990	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
PA233	0.0	6.917E-02	7.062E-02	8.423E-02	1.514E-01	1.718E-01	1.670E-01	1.248E-01
PA234M	0.0	3.501E-03	3.501E-03	3.501E-03	3.501E-03	3.501E-03	3.501E-03	3.501E-03
U233	4.200E-02	4.200E-02	4.200E-02	4.202E-02	4.234E-02	4.725E-02	8.698E-02	1.329E-01
U234	1.900E-02	1.909E-02	1.982E-02	2.489E-02	2.976E-02	2.911E-02	2.334E-02	5.048E-03
U235	4.401E-04	4.401E-04	4.401E-04	4.408E-04	4.476E-04	5.195E-04	8.299E-04	8.564E-04
U236	1.200E-03	1.201E-03	1.206E-03	1.257E-03	1.743E-03	4.728E-03	6.581E-03	6.408E-03
U238	3.501E-03	3.501E-03	3.501E-03	3.501E-03	3.501E-03	3.501E-03	3.501E-03	3.501E-03
NP237	6.901E-02	6.917E-02	7.062E-02	8.423E-02	1.514E-01	1.718E-01	1.670E-01	1.248E-01
NP239	1.500E+01	1.500E+01	1.499E+01	1.486E+01	1.366E+01	5.865E+00	1.252E-03	2.439E-40
PU238	3.000E+01	2.977E+01	2.773E+01	1.366E+01	1.370E-02	4.013E-21	0.0	0.0
PU239	7.599E+00	7.599E+00	7.601E+00	7.621E+00	7.791E+00	8.079E+00	7.983E-01	4.404E-12
PU240	1.900E+01	1.902E+01	1.909E+01	1.913E+01	1.739E+01	6.698E+00	4.817E-04	0.0
PU241	3.302E+02	3.147E+02	2.041E+02	2.742E+00	5.818E-02	2.793E-02	1.812E-05	2.397E-37
PU242	7.502E-03	7.502E-03	7.503E-03	7.509E-03	7.542E-03	7.628E-03	6.558E-03	1.308E-03
AM241	4.999E+02	4.996E+02	4.961E+02	4.354E+02	1.029E+02	2.800E-02	1.812E-05	2.526E-37
AM242M	1.300E-01	1.294E-01	1.242E-01	8.239E-02	1.360E-03	2.043E-21	0.0	0.0
AM242	1.300E-01	1.288E-01	1.236E-01	8.198E-02	1.353E-03	2.033E-21	0.0	0.0
AM243	1.500E+01	1.500E+01	1.499E+01	1.486E+01	1.366E+01	5.865E+00	1.252E-03	2.439E-40
CM242	1.300E-01	1.115E-01	1.022E-01	6.780E-02	1.119E-03	1.686E-21	0.0	0.0
CM243	9.998E-01	9.758E-01	7.839E-01	8.784E-02	2.739E-11	0.0	0.0	0.0
CM244	1.200E+02	1.154E+02	8.180E+01	2.611E+00	2.873E-15	0.0	0.0	0.0
CM245	6.302E-02	6.302E-02	6.297E-02	6.251E-02	5.808E-02	2.788E-02	1.809E-05	2.393E-37
CM246	2.700E-02	2.700E-02	2.696E-02	2.661E-02	2.332E-02	6.238E-03	1.170E-08	0.0
SUMTOT	1.038E+03	1.018E+03	8.679E+02	5.117E+02	1.561E+02	2.736E+01	2.177E+00	1.622E+00
TCTAL	1.038E+03	1.018E+03	8.679E+02	5.117E+02	1.561E+02	2.736E+01	2.177E+00	1.622E+00

NUCLIDES CONTRIBUTING < 0.0010 % ARE OMITTED

TABLE 4-MVDP(MAX). RADIOACTIVITY OF ACTINIDES AND DAUGHTERS
IN DECAY OF WEST VALLEY HLW: ELEMENTS

BASED ON ONE CANISTER, MAXIMUM RADICACTIVITY, 1895 KG GLASS

ELEMENT	CURIES							
	1990	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
TL	0.0	4.631E-05	1.477E-03	2.884E-03	2.966E-03	3.560E-03	5.337E-03	6.617E-03
PB	0.0	1.326E-04	4.148E-03	8.398E-03	1.190E-02	3.951E-02	1.228E-01	1.541E-01
BI	0.0	1.326E-04	4.148E-03	8.398E-03	1.190E-02	3.951E-02	1.228E-01	1.541E-01
PC	0.0	2.150E-04	6.779E-03	1.352E-02	1.699E-02	4.601E-02	1.417E-01	1.621E-01
AT	0.0	3.967E-06	3.965E-05	3.949E-04	3.798E-03	2.748E-02	8.306E-02	1.337E-01
RN	0.0	1.287E-04	4.108E-03	8.002E-03	8.057E-03	1.006E-02	2.421E-02	1.461E-02
FR	0.0	3.967E-06	3.965E-05	3.949E-04	3.799E-03	2.748E-02	8.307E-02	1.337E-01
RA	0.0	9.190E-04	9.306E-03	1.640E-02	1.986E-02	4.554E-02	1.153E-01	1.563E-01
AC	0.0	7.904E-04	5.198E-03	8.397E-03	1.181E-02	3.558E-02	9.173E-02	1.425E-01
TH	8.002E-03	1.208E-02	1.609E-02	2.036E-02	2.401E-02	5.012E-02	1.195E-01	1.606E-01
PA	0.0	7.268E-02	7.413E-02	8.774E-02	1.549E-01	1.754E-01	1.712E-01	1.291E-01
U	6.614E-02	7.395E-02	7.198E-02	7.217E-02	7.780E-02	8.515E-02	1.212E-01	1.487E-01
NP	1.507E+01	1.507E+01	1.506E+01	1.495E+01	1.381E+01	6.037E+00	1.682E-01	1.248E-01
PU	3.868E+02	3.711E+02	2.585E+02	4.316E+01	2.526E+01	1.481E+01	8.053E-01	1.308E-03
AM	5.152E+02	5.149E+02	5.114E+02	4.505E+02	1.166E+02	5.893E+00	1.270E-03	2.528E-37
CM	1.212E+02	1.166E+02	8.278E+01	2.855E+00	8.252E-02	3.412E-02	1.810E-05	2.393E-37
SUMTOT	1.038E+03	1.018E+03	8.679E+02	5.117E+02	1.561E+02	2.736E+01	2.177E+00	1.622E+00
TCTAL	1.038E+03	1.018E+03	8.679E+02	5.117E+02	1.561E+02	2.736E+01	2.177E+00	1.622E+00

ELEMENTS CONTRIBUTING < 0.0001 % ARE OMITTED

TABLE 5-WVDP(MAX). THERMAL POWER OF ACTINIDES AND DAUGHTERS
IN DECAY OF WEST VALLEY HLW: NUCLIDES

BASED ON ONE CANISTER, MAXIMUM RADIOACTIVITY, 1895 KG GLASS

NUCLIDE	WATTS							
	1990	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
TL207	0.0	4.294E-13	3.922E-11	1.906E-09	2.722E-08	2.686E-07	1.961E-06	2.508E-06
TL208	0.0	1.088E-06	3.473E-05	6.765E-05	6.766E-05	6.766E-05	6.766E-05	6.765E-05
TL209	0.0	1.424E-09	1.423E-08	1.417E-07	1.363E-06	9.863E-06	2.981E-05	4.798E-05
PB209	0.0	4.561E-09	4.560E-08	4.541E-07	4.368E-06	3.160E-05	9.552E-05	1.537E-04
PB210	0.0	8.696E-17	8.306E-14	5.198E-11	1.077E-08	4.553E-07	3.598E-06	1.333E-06
PB211	0.0	4.393E-13	4.014E-11	1.950E-09	2.785E-08	2.748E-07	2.006E-06	2.566E-06
PB212	0.0	2.449E-07	7.822E-06	1.523E-05	1.523E-05	1.523E-05	1.523E-05	1.523E-05
PB214	0.0	1.183E-13	1.197E-11	1.309E-09	1.484E-07	6.269E-06	4.954E-05	1.836E-05
BI210	0.0	8.656E-16	8.268E-13	5.174E-10	1.072E-07	4.532E-06	3.581E-05	1.327E-05
BI211	0.0	5.848E-12	5.343E-10	2.596E-08	3.707E-07	3.658E-06	2.671E-05	3.416E-05
BI212	0.0	2.188E-06	6.986E-05	1.361E-04	1.361E-04	1.361E-04	1.361E-04	1.361E-04
BI213	0.0	1.668E-08	1.667E-07	1.660E-06	1.597E-05	1.155E-04	3.492E-04	5.620E-04
BI214	0.0	4.754E-13	4.810E-11	5.260E-09	5.962E-07	2.519E-05	1.991E-04	7.376E-05
PC210	0.0	3.900E-15	1.149E-11	7.193E-09	1.491E-06	6.300E-05	4.979E-04	1.845E-04
PC212	0.0	4.368E-06	1.395E-04	2.717E-04	2.717E-04	2.717E-04	2.717E-04	2.717E-04
PQ213	0.0	1.964E-07	1.963E-06	1.955E-05	1.881E-04	1.361E-03	4.113E-03	6.619E-03
PC214	0.0	1.722E-12	1.742E-10	1.905E-08	2.159E-06	9.125E-05	7.212E-04	2.672E-04
PC215	0.0	6.545E-12	5.979E-10	2.906E-08	4.149E-07	4.094E-06	2.989E-05	3.323E-05
PC216	0.0	5.266E-06	1.682E-04	3.275E-04	3.276E-04	3.276E-04	3.276E-04	3.276E-04
PC218	0.0	1.345E-12	1.360E-10	1.488E-08	1.686E-06	7.124E-05	5.630E-04	2.086E-04
AT217	0.0	1.693E-07	1.692E-06	1.685E-05	1.621E-04	1.173E-03	3.545E-03	5.705E-03
RN219	0.0	6.084E-12	5.558E-10	2.701E-08	3.857E-07	3.805E-06	2.778E-05	3.554E-05
RN220	0.0	4.884E-06	1.560E-04	3.038E-04	3.038E-04	3.038E-04	3.038E-04	3.038E-04
RN222	0.0	1.229E-12	1.244E-10	1.360E-08	1.542E-06	6.515E-05	5.149E-04	1.908E-04
FR221	0.0	1.531E-07	1.530E-06	1.524E-05	1.466E-04	1.061E-03	3.206E-03	5.160E-03
RA223	0.0	5.221E-12	4.769E-10	2.318E-08	3.309E-07	3.265E-06	2.384E-05	3.083E-05
RA224	0.0	4.415E-06	1.410E-04	2.746E-04	2.746E-04	2.746E-04	2.746E-04	2.746E-04
RA225	0.0	2.782E-09	2.780E-08	2.769E-07	2.664E-06	1.927E-05	5.825E-05	9.375E-05
RA226	0.0	1.071E-12	1.084E-10	1.185E-08	1.343E-06	5.677E-05	4.486E-04	1.662E-04
RA228	0.0	6.060E-08	3.975E-07	6.166E-07	6.166E-07	6.166E-07	6.166E-07	6.166E-07
AC225	0.0	1.386E-07	1.385E-06	1.379E-05	1.327E-04	9.600E-04	2.902E-03	4.670E-03
AC227	0.0	7.100E-14	6.483E-12	3.151E-10	4.501E-09	4.441E-08	3.242E-07	4.147E-07
AC228	0.0	6.797E-06	4.458E-05	6.915E-05	6.915E-05	6.915E-05	6.915E-05	6.915E-05
TH227	0.0	5.277E-12	4.821E-10	2.343E-08	3.345E-07	3.301E-06	2.410E-05	3.083E-05
TH228	0.0	4.207E-06	1.343E-04	2.617E-04	2.617E-04	2.617E-04	2.617E-04	2.617E-04
TH229	0.0	1.213E-07	1.213E-06	1.208E-05	1.162E-04	8.408E-04	2.541E-03	4.090E-03
TH230	0.0	4.852E-09	4.946E-08	5.685E-07	7.208E-06	7.146E-05	4.358E-04	1.628E-04
TH231	0.0	2.469E-07	2.470E-07	2.473E-07	2.512E-07	2.915E-07	4.656E-07	4.805E-07
TH232	1.937E-04	1.937E-04	1.937E-04	1.937E-04	1.937E-04	1.937E-04	1.937E-04	1.937E-04
TH234	0.0	1.420E-06	1.420E-06	1.420E-06	1.420E-06	1.420E-06	1.420E-06	1.420E-06
PA231	0.0	2.805E-10	2.808E-09	2.805E-08	2.799E-07	2.762E-06	2.017E-05	2.580E-05

TABLE 5-WVOP(MAX). THERMAL POWER OF ACTINIDES AND DAUGHTERS
IN DECAY OF WEST VALLEY HLW: NUCLIDES

BASED ON ONE CANISTER, MAXIMUM RADIOACTIVITY, 1895 KG GLASS

NUCLIDE	WATTS							
	1990	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
PA233	0.0	1.570E-04	1.603E-04	1.912E-04	2.436E-04	3.895E-04	3.790E-04	2.832E-04
PA234M	0.0	1.730E-05	1.730E-05	1.730E-05	1.730E-05	1.730E-05	1.730E-05	1.730E-05
U233	1.221E-03	1.221E-03	1.221E-03	1.221E-03	1.231E-03	1.375E-03	2.528E-03	3.864E-03
U234	5.473E-04	5.498E-04	5.709E-04	7.168E-04	8.572E-04	8.383E-04	6.722E-04	1.454E-04
U235	1.152E-05	1.152E-05	1.153E-05	1.154E-05	1.172E-05	1.360E-05	2.173E-05	2.243E-05
U236	3.251E-05	3.252E-05	3.266E-05	3.404E-05	4.721E-05	1.281E-04	1.783E-04	1.736E-04
U238	8.881E-05	8.881E-05	8.881E-05	8.881E-05	8.881E-05	8.881E-05	8.881E-05	8.881E-05
NP237	2.109E-03	2.114E-03	2.159E-03	2.574E-03	4.627E-03	5.251E-03	5.103E-03	3.813E-03
NP239	3.627E-02	3.626E-02	3.623E-02	3.593E-02	3.302E-02	1.418E-02	3.026E-06	5.897E-43
PU238	9.944E-01	9.866E-01	9.191E-01	4.529E-01	4.539E-04	1.330E-22	0.0	0.0
PU239	2.342E-01	2.342E-01	2.343E-01	2.349E-01	2.401E-01	2.490E-01	2.460E-02	1.357E-13
PU240	5.918E-01	5.921E-01	5.944E-01	5.956E-01	5.416E-01	2.086E-01	1.500E-05	0.0
PU241	1.024E-02	9.756E-03	6.327E-03	8.502E-05	1.804E-06	8.658E-07	5.618E-10	7.432E-42
PU242	2.215E-04	2.215E-04	2.216E-04	2.217E-04	2.227E-04	2.253E-04	1.937E-04	3.862E-05
AM241	1.661E+01	1.660E+01	1.648E+01	1.446E+01	3.418E+00	9.300E-04	6.019E-07	8.390E-39
AM243	4.823E-01	4.822E-01	4.818E-01	4.778E-01	4.390E-01	1.885E-01	4.024E-05	7.842E-42
CM242	4.791E-03	4.108E-03	3.767E-03	2.498E-03	4.124E-05	6.214E-23	0.0	0.0
CM243	3.668E-02	3.580E-02	2.876E-02	3.222E-03	1.005E-12	0.0	0.0	0.0
CM244	4.196E+00	4.038E+00	2.861E+00	9.132E-02	1.005E-16	0.0	0.0	0.0
CM245	2.091E-03	2.091E-03	2.090E-03	2.074E-03	1.927E-03	9.251E-04	6.003E-07	7.941E-39
CM246	8.839E-04	8.838E-04	8.826E-04	8.711E-04	7.635E-04	2.042E-04	3.832E-10	0.0
SUMTOT	2.320E+01	2.302E+01	2.166E+01	1.637E+01	4.685E+00	6.786E-01	5.623E-02	3.896E-02
TCTAL	2.320E+01	2.302E+01	2.166E+01	1.637E+01	4.685E+00	6.786E-01	5.623E-02	3.896E-02

NUCLIDES CONTRIBUTING < 0.0010 % ARE OMITTED

TABLE 6-WVDP(MAX). THERMAL POWER OF ACTINIDES AND DAUGHTERS
IN DECAY OF WEST VALLEY HLW: ELEMENTS

BASED ON ONE CANISTER, MAXIMUM RADIOACTIVITY, 1895 KG GLASS

ELEMENT	WATTS							
	1990	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
TL	0.0	1.089E-06	3.475E-05	6.780E-05	6.905E-05	7.775E-05	9.943E-05	1.181E-04
PE	0.0	2.495E-07	7.867E-06	1.569E-05	1.979E-05	5.384E-05	1.659E-04	1.912E-04
BI	0.0	2.205E-06	7.003E-05	1.378E-04	1.531E-04	2.850E-04	7.469E-04	8.193E-04
PC	0.0	9.831E-06	3.096E-04	6.188E-04	7.930E-04	2.190E-03	6.524E-03	7.917E-03
AT	0.0	1.693E-07	1.692E-06	1.685E-05	1.621E-04	1.173E-03	3.545E-03	5.705E-03
RN	0.0	4.884E-06	1.560E-04	3.038E-04	3.057E-04	3.727E-04	8.464E-04	5.301E-04
FR	0.0	1.531E-07	1.530E-06	1.524E-05	1.466E-04	1.061E-03	3.206E-03	5.160E-03
RA	0.0	4.479E-06	1.414E-04	2.755E-04	2.796E-04	3.545E-04	8.060E-04	5.657E-04
AC	0.0	6.935E-06	4.596E-05	8.295E-05	2.018E-04	1.025E-03	2.971E-03	4.739E-03
TH	1.937E-04	1.997E-04	3.309E-04	4.697E-04	5.808E-04	1.373E-03	3.458E-03	4.741E-03
PA	0.0	1.744E-04	1.777E-04	2.086E-04	3.613E-04	4.101E-04	4.165E-04	3.263E-04
U	1.901E-03	1.918E-03	1.934E-03	2.073E-03	2.236E-03	2.444E-03	3.489E-03	4.294E-03
NP	3.838E-02	3.838E-02	3.839E-02	3.850E-02	3.764E-02	1.943E-02	5.106E-03	3.813E-03
PU	1.831E+00	1.823E+00	1.754E+00	1.284E+00	7.823E-01	4.578E-01	2.481E-02	3.862E-05
AM	1.709E+01	1.708E+01	1.696E+01	1.494E+01	3.857E+00	1.895E-01	4.084E-05	8.398E-39
CM	4.240E+00	4.081E+00	2.897E+00	9.998E-02	2.732E-03	1.125E-03	6.007E-07	7.941E-39
SUMTOT	2.320E+01	2.302E+01	2.166E+01	1.637E+01	4.685E+00	6.786E-01	5.623E-02	3.896E-02
TCTAL	2.320E+01	2.302E+01	2.166E+01	1.637E+01	4.685E+00	6.786E-01	5.623E-02	3.896E-02

ELEMENTS CONTRIBUTING < 0.0001 % ARE OMITTED

TABLE 7-WVDP(MAX). ALPHA RADIOACTIVITY OF ACTINIDES AND DAUGHTERS
IN DECAY OF WEST VALLEY HLW: NUCLIDES

BASED ON ONE CANISTER, MAXIMUM RADIOACTIVITY, 1895 KG GLASS

CURIES

NUCLIDE	1990	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
B1211	0.0	1.462E-10	1.336E-08	6.491E-07	5.268E-06	9.145E-05	6.677E-04	8.540E-04
B1212	0.0	4.622E-05	1.476E-03	2.875E-03	2.875E-03	2.875E-03	2.875E-03	2.875E-03
B1213	0.0	8.568E-08	8.564E-07	8.529E-06	8.204E-05	5.936E-04	1.794E-03	2.888E-03
PC210	0.0	1.217E-13	3.586E-10	2.244E-07	4.651E-05	1.965E-03	1.553E-02	5.755E-03
PC212	0.0	8.243E-05	2.632E-03	5.126E-03	5.127E-03	5.127E-03	5.127E-03	5.127E-03
PC213	0.0	3.881E-06	3.879E-05	3.863E-04	3.716E-03	2.689E-02	8.127E-02	1.308E-01
PC214	0.0	3.709E-11	3.753E-09	4.103E-07	4.651E-05	1.965E-03	1.553E-02	5.755E-03
PC215	0.0	1.466E-10	1.339E-08	6.509E-07	5.294E-06	9.171E-05	6.696E-04	8.564E-04
PC216	0.0	1.287E-04	4.108E-03	8.001E-03	8.002E-03	8.002E-03	8.002E-03	8.001E-03
PC218	0.0	3.710E-11	3.752E-09	4.104E-07	4.652E-05	1.966E-03	1.554E-02	5.756E-03
AT217	0.0	3.967E-06	3.965E-05	3.949E-04	3.798E-03	2.748E-02	8.306E-02	1.337E-01
RN219	0.0	1.466E-10	1.339E-08	6.509E-07	5.294E-06	9.171E-05	6.696E-04	8.564E-04
RN220	0.0	1.287E-04	4.108E-03	8.001E-03	8.002E-03	8.002E-03	8.002E-03	8.001E-03
RN222	0.0	3.710E-11	3.754E-09	4.105E-07	4.653E-05	1.966E-03	1.554E-02	5.757E-03
FR221	0.0	3.967E-06	3.965E-05	3.949E-04	3.798E-03	2.748E-02	8.306E-02	1.337E-01
RA223	0.0	1.466E-10	1.339E-08	6.509E-07	5.294E-06	9.171E-05	6.696E-04	8.564E-04
RA224	0.0	1.287E-04	4.108E-03	8.001E-03	8.002E-03	8.002E-03	8.002E-03	8.001E-03
RA226	0.0	3.710E-11	3.754E-09	4.105E-07	4.653E-05	1.966E-03	1.554E-02	5.757E-03
AC225	0.0	3.967E-06	3.965E-05	3.949E-04	3.798E-03	2.748E-02	8.306E-02	1.337E-01
AC227	0.0	2.023E-12	1.847E-10	8.981E-09	1.283E-07	1.266E-06	9.240E-06	1.182E-05
TH227	0.0	1.446E-10	1.321E-08	6.419E-07	5.166E-06	9.044E-05	6.604E-04	8.446E-04
TH228	0.0	1.287E-04	4.106E-03	8.001E-03	8.002E-03	8.002E-03	8.002E-03	8.001E-03
TH229	0.0	3.967E-06	3.965E-05	3.949E-04	3.798E-03	2.748E-02	8.306E-02	1.337E-01
TH230	0.0	1.714E-07	1.748E-06	2.009E-05	2.547E-04	2.525E-03	1.540E-02	5.754E-03
TH232	8.002E-03	8.002E-03	8.002E-03	8.002E-03	8.002E-03	8.002E-03	8.002E-03	8.001E-03
PA231	0.0	9.309E-09	9.321E-08	9.310E-07	5.291E-06	9.168E-05	6.695E-04	8.564E-04
U233	4.200E-02	4.200E-02	4.200E-02	4.202E-02	4.234E-02	4.729E-02	8.698E-02	1.329E-01
U234	1.900E-02	1.909E-02	1.982E-02	2.489E-02	2.976E-02	2.911E-02	2.334E-02	5.048E-03
U235	4.401E-04	4.401E-04	4.401E-04	4.408E-04	4.476E-04	5.195E-04	8.299E-04	8.564E-04
U236	1.200E-03	1.201E-03	1.206E-03	1.257E-03	1.743E-03	4.728E-03	6.581E-03	6.408E-03
U238	3.501E-03	3.501E-03	3.501E-03	3.501E-03	3.501E-03	3.501E-03	3.501E-03	3.501E-03
NP237	6.901E-02	6.917E-02	7.062E-02	8.423E-02	1.514E-01	1.718E-01	1.670E-01	1.248E-01
PU238	3.000E+01	2.977E+01	2.773E+01	1.366E+01	1.370E-02	4.013E-21	0.0	0.0
PU239	7.599E+00	7.599E+00	7.601E+00	7.621E+00	7.791E+00	8.079E+00	7.983E-01	4.404E-12
PU240	1.900E+01	1.902E+01	1.909E+01	1.913E+01	1.739E+01	6.698E+00	4.817E-04	0.0
PU241	8.090E-03	7.710E-03	5.000E-03	6.719E-05	1.425E-06	6.842E-07	4.440E-10	5.873E-42
PU242	7.502E-03	7.502E-03	7.503E-03	7.509E-03	7.542E-03	7.628E-03	6.558E-03	1.308E-03
AM241	4.999E+02	4.996E+02	4.961E+02	4.354E+02	1.029E+02	2.800E-02	1.812E-05	2.526E-37
AM243	1.500E+01	1.500E+01	1.499E+01	1.486E+01	1.366E+01	5.865E+00	1.252E-03	2.439E-40
CP242	1.300E-01	1.115E-01	1.022E-01	6.780E-02	1.119E-03	1.686E-21	0.0	0.0
CP243	9.974E-01	9.734E-01	7.821E-01	8.762E-02	2.732E-11	0.0	0.0	0.0

TABLE 7-WVDP(MAX). ALPHA RADIOACTIVITY OF ACTINIDES AND DAUGHTERS
IN DECAY OF WEST VALLEY HLW: NUCLIDES

BASED ON ONE CANISTER, MAXIMUM RADIOACTIVITY, 1895 KG GLASS

CURIES

NUCLIDE	1990	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
CM244	1.200E+02	1.154E+02	8.180E+01	2.611E+00	2.873E-15	0.0	0.0	0.0
CM245	6.302E-02	6.302E-02	6.297E-02	6.251E-02	5.808E-02	2.788E-02	1.809E-05	2.393E-37
CM246	2.699E-02	2.699E-02	2.695E-02	2.660E-02	2.331E-02	6.236E-03	1.170E-08	0.0
SLMTDT	6.928E+02	6.878E+02	6.485E+02	4.938E+02	1.421E+02	2.117E+01	1.655E+00	1.031E+00
TOTAL	6.928E+02	6.878E+02	6.485E+02	4.938E+02	1.421E+02	2.117E+01	1.655E+00	1.031E+00

NUCLIDES CONTRIBUTING < 0.0010 % ARE OMITTED

TABLE 8-WVDP(MAX). ALPHA RADIOACTIVITY OF ACTINIDES AND DAUGHTERS
IN DECAY OF WEST VALLEY HLW: ELEMENTS

BASED ON ONE CANISTER, MAXIMUM RADIOACTIVITY, 1895 KG GLASS

ELEMENT	CURIES							
	1990	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
BI	0.0	4.631E-05	1.477E-03	2.884E-03	2.966E-03	3.560E-03	5.340E-03	6.618E-03
PC	0.0	2.150E-04	6.779E-03	1.352E-02	1.699E-02	4.601E-02	1.417E-01	1.621E-01
AT	0.0	3.967E-06	3.965E-05	3.949E-04	3.798E-03	2.748E-02	8.306E-02	1.337E-01
RN	0.0	1.287E-04	4.108E-03	8.002E-03	8.057E-03	1.006E-02	2.421E-02	1.461E-02
FR	0.0	3.967E-06	3.965E-05	3.949E-04	3.798E-03	2.748E-02	8.306E-02	1.337E-01
RA	0.0	1.287E-04	4.108E-03	8.002E-03	8.057E-03	1.006E-02	2.421E-02	1.461E-02
AC	0.0	3.967E-06	3.965E-05	3.949E-04	3.799E-03	2.748E-02	8.307E-02	1.337E-01
TH	8.002E-03	8.134E-03	1.215E-02	1.642E-02	2.007E-02	4.610E-02	1.151E-01	1.563E-01
PA	0.0	9.309E-09	9.321E-08	9.310E-07	9.291E-06	9.168E-05	6.695E-04	8.564E-04
U	6.614E-02	6.623E-02	6.697E-02	7.210E-02	7.780E-02	8.515E-02	1.212E-01	1.487E-01
NP	6.901E-02	6.917E-02	7.062E-02	8.423E-02	1.514E-01	1.718E-01	1.670E-01	1.248E-01
PU	5.662E+01	5.640E+01	5.444E+01	4.042E+01	2.520E+01	1.478E+01	8.053E-01	1.308E-03
AM	5.149E+02	5.146E+02	5.111E+02	4.503E+02	1.166E+02	5.893E+00	1.270E-03	2.528E-37
CM	1.212E+02	1.166E+02	8.278E+01	2.855E+00	8.252E-02	3.412E-02	1.810E-05	2.393E-37
SLMTOT	6.928E+02	6.878E+02	6.485E+02	4.938E+02	1.421E+02	2.117E+01	1.655E+00	1.031E+00
TOTAL	6.928E+02	6.878E+02	6.485E+02	4.938E+02	1.421E+02	2.117E+01	1.655E+00	1.031E+00

TABLE 9-WVDP(MAX). (ALPHA,N) NEUTRON SOURCES
IN DECAY OF WEST VALLEY HLW

BASED ON ONE CANISTER, MAXIMUM RADIOACTIVITY, 1855 KG GLASS

NUCLIDE	NEUTRONS/SEC							
	1990	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
BI211	0.0	2.470E-07	2.257E-05	1.097E-03	1.566E-02	1.545E-01	1.128E+00	1.443E+00
BI212	0.0	1.132E-01	3.614E+00	7.040E+00	7.040E+00	7.040E+00	7.040E+00	7.040E+00
PC210	0.0	1.027E-10	3.028E-07	1.895E-04	3.928E-02	1.660E+00	1.312E+01	4.860E+00
PC212	0.0	2.400E-01	7.665E+00	1.493E+01	1.493E+01	1.493E+01	1.493E+01	1.493E+01
PC213	0.0	1.061E-02	1.060E-01	1.056E+00	1.016E+01	7.345E+01	2.221E+02	3.575E+02
PC214	0.0	8.765E-08	8.868E-06	9.697E-04	1.099E-01	4.644E+00	3.670E+01	1.360E+01
PC215	0.0	3.204E-07	2.927E-05	1.422E-03	2.031E-02	2.004E-01	1.463E+00	1.872E+00
PC216	0.0	2.306E-01	7.363E+00	1.434E+01	1.434E+01	1.434E+01	1.434E+01	1.434E+01
PC218	0.0	4.736E-08	4.792E-06	5.240E-04	5.939E-02	2.510E+00	1.983E+01	7.349E+00
AT217	0.0	7.854E-03	7.851E-02	7.818E-01	7.521E+00	5.441E+01	1.645E+02	2.647E+02
RN219	0.0	2.717E-07	2.482E-05	1.206E-03	1.722E-02	1.699E-01	1.241E+00	1.587E+00
RN220	0.0	1.885E-01	6.020E+00	1.172E+01	1.172E+01	1.172E+01	1.172E+01	1.172E+01
RN222	0.0	3.528E-08	3.569E-06	3.903E-04	4.424E-02	1.865E+00	1.477E+01	5.474E+00
FR221	0.0	6.087E-03	6.085E-02	6.060E-01	5.829E+00	4.217E+01	1.275E+02	2.052E+02
RA224	0.0	1.379E-01	4.405E+00	8.579E+00	8.579E+00	8.579E+00	8.579E+00	8.579E+00
RA226	0.0	2.082E-08	2.107E-06	2.304E-04	2.611E-02	1.103E+00	8.719E+00	3.230E+00
AC225	0.0	4.507E-03	4.505E-02	4.487E-01	4.316E+00	3.123E+01	9.438E+01	1.519E+02
TH228	0.0	1.168E-01	3.727E+00	7.262E+00	7.263E+00	7.263E+00	7.263E+00	7.263E+00
TH229	0.0	2.808E-03	2.807E-02	2.796E-01	2.689E+00	1.946E+01	5.881E+01	9.465E+01
TH230	0.0	8.840E-05	9.012E-04	1.036E-02	1.313E-01	1.302E+00	7.941E+00	2.967E+00
TH232	2.004E+00	2.004E+00	2.004E+00	2.004E+00	2.004E+00	2.004E+00	2.004E+00	2.004E+00
U233	2.424E+01	2.424E+01	2.424E+01	2.425E+01	2.443E+01	2.729E+01	5.019E+01	7.670E+01
U234	1.055E+01	1.060E+01	1.101E+01	1.382E+01	1.653E+01	1.617E+01	1.296E+01	2.804E+00
U236	5.115E-01	5.117E-01	5.139E-01	5.357E-01	7.429E-01	2.015E+00	2.805E+00	2.731E+00
NP237	4.868E+01	4.879E+01	4.982E+01	5.942E+01	1.068E+02	1.212E+02	1.178E+02	8.800E+01
PU238	2.855E+04	2.832E+04	2.639E+04	1.300E+04	1.303E+01	3.818E-18	0.0	0.0
PU239	5.535E+03	5.535E+03	5.537E+03	5.551E+03	5.675E+03	5.885E+03	5.815E+02	3.208E-09
PU240	1.440E+04	1.441E+04	1.447E+04	1.449E+04	1.318E+04	5.075E+03	3.650E-01	0.0
PU242	4.613E+00	4.613E+00	4.614E+00	4.617E+00	4.638E+00	4.691E+00	4.033E+00	8.042E-01
AM241	4.795E+05	4.792E+05	4.759E+05	4.177E+05	5.869E+04	2.685E+01	1.738E-02	2.423E-34
AM243	1.280E+04	1.280E+04	1.279E+04	1.268E+04	1.165E+04	5.004E+03	1.068E+00	2.081E-37
CM243	1.331E+03	1.299E+03	1.044E+03	1.169E+02	3.647E-08	0.0	0.0	0.0
CM244	1.369E+05	1.317E+05	9.335E+04	2.979E+03	3.279E-12	0.0	0.0	0.0
CM245	6.022E+01	6.022E+01	6.017E+01	5.973E+01	5.550E+01	2.664E+01	1.729E-02	2.287E-34
TOTALS								
TABLE	6.793E+05	6.736E+05	6.298E+05	4.668E+05	1.295E+05	1.650E+04	1.612E+03	1.357E+03
ACTUAL	6.793E+05	6.736E+05	6.298E+05	4.668E+05	1.295E+05	1.650E+04	1.612E+03	1.357E+03

TABLE 10-WVDP (MAX). SPONTANEDUS FISSION NEUTRON SOURCES
IN DECAY OF WEST VALLEY HLW

BASED ON ONE CANISTER, MAXIMUM RADIOACTIVITY, 1895 KG GLASS

NUCLIDE	NEUTRONS/SEC							
	1990	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
U238	1.321E+02	1.321E+02	1.321E+02	1.321E+02	1.321E+02	1.321E+02	1.321E+02	1.321E+02
PU238	4.655E+03	4.619E+03	4.303E+03	2.120E+03	2.125E+00	6.227E-19	0.0	0.0
PU240	7.591E+04	7.595E+04	7.625E+04	7.640E+04	6.947E+04	2.675E+04	1.924E+00	0.0
PU242	3.311E+03	3.311E+03	3.311E+03	3.314E+03	3.328E+03	3.366E+03	2.894E+03	5.772E+02
CM244	1.648E+07	1.586E+07	1.124E+07	3.587E+05	3.947E-10	0.0	0.0	0.0
CM246	7.819E+05	7.818E+05	7.807E+05	7.705E+05	6.753E+05	1.807E+05	3.389E-01	0.0
TOTALS								
TABLE	1.735E+07	1.673E+07	1.211E+07	1.212E+06	7.485E+05	2.110E+05	3.029E+03	7.099E+02
ACTUAL	1.735E+07	1.673E+07	1.211E+07	1.212E+06	7.485E+05	2.110E+05	3.029E+03	7.099E+02

TABLE 11-WVDP(MAX). PHOTON SPECTRUM OF ACTINIDES AND DAUGHTERS
IN DECAY OF WEST VALLEY HLW

BASED ON ONE CANISTER, MAXIMUM RADIOACTIVITY, 1895 KG GLASS

E MEAN	PHOTONS/SEC							
	1990	1.0YR	10.0YR	100.0YR	1000.0YR	10. CKY	100.0KY	1.0MY
18 GROUP PHOTDN RELEASE RATES, PHOTONS/SECOND								
1.000E-02	5.739E+12	5.711E+12	5.476E+12	4.427E+12	1.551E+12	3.194E+11	1.879E+10	1.795E+10
2.500E-02	4.749E+11	4.747E+11	4.714E+11	4.146E+11	1.032E+11	3.580E+09	1.165E+09	1.079E+09
3.750E-02	8.085E+10	8.079E+10	8.009E+10	7.396E+10	4.502E+10	1.645E+10	1.553E+09	2.378E+09
5.750E-02	6.892E+12	6.888E+12	6.840E+12	6.004E+12	1.428E+12	5.603E+09	4.977E+08	5.615E+08
8.500E-02	4.271E+11	4.278E+11	4.263E+11	4.181E+11	3.824E+11	1.667E+11	6.031E+09	6.572E+09
1.250E-01	2.844E+11	2.844E+11	2.820E+11	2.715E+11	2.461E+11	1.059E+11	1.066E+09	1.129E+09
2.250E-01	1.955E+11	1.953E+11	1.930E+11	1.831E+11	1.673E+11	7.235E+10	1.517E+09	1.838E+09
3.750E-01	1.792E+10	1.895E+10	1.899E+10	1.902E+10	1.848E+10	9.891E+09	3.791E+09	3.649E+09
5.750E-01	2.128E+08	2.187E+08	2.883E+08	3.371E+08	2.490E+08	2.367E+08	5.216E+08	3.649E+08
8.500E-01	6.395E+07	9.377E+07	2.286E+08	3.063E+08	2.762E+08	2.803E+08	3.546E+08	3.139E+08
1.250E+00	1.208E+07	1.893E+07	2.492E+07	2.239E+07	1.993E+07	4.682E+07	2.255E+08	1.082E+08
1.750E+00	5.891E+06	8.452E+06	2.568E+07	3.608E+07	3.881E+07	7.510E+07	2.532E+08	1.894E+08
2.250E+00	3.412E+06	3.291E+06	2.382E+06	2.410E+05	2.898E+05	6.225E+06	4.890E+07	1.812E+07
2.750E+00	1.976E+06	3.528E+06	5.319E+07	1.011E+08	1.010E+08	1.011E+08	1.018E+08	1.012E+08
3.500E+00	1.779E+06	1.715E+06	1.241E+06	1.234E+05	7.464E+04	4.135E+04	1.602E+05	5.929E+04
5.000E+00	7.607E+05	7.335E+05	5.306E+05	5.243E+04	3.165E+04	9.035E+03	1.746E+02	4.261E+01
7.000E+00	8.768E+04	8.455E+04	6.115E+04	6.004E+03	3.640E+03	1.041E+03	1.995E+01	4.807E+00
9.500E+00	1.007E+04	9.711E+03	7.022E+03	6.873E+02	4.179E+02	1.197E+02	2.286E+00	5.465E-01
TOTAL	1.411E+13	1.408E+13	1.379E+13	1.181E+13	3.942E+12	7.006E+11	3.592E+10	3.625E+10

TABLE 12-WVDP(MAX). CONCENTRATIONS OF FISSION PRODUCTS
IN DECAY OF WEST VALLEY HLW: NUCLIDES

BASED ON ONE CANISTER, MAXIMUM RADIOACTIVITY, 1895 KG GLASS

NUCLIDE	GRAMS							
	1990	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
SR 90	2.199E+02	2.147E+02	1.733E+02	2.035E+01	1.012E-08	0.0	0.0	0.0
ZR 90	0.0	5.174E+00	4.655E+01	1.996E+02	2.200E+02	2.200E+02	2.200E+02	2.200E+02
ZR 93	4.377E+02	4.377E+02	4.377E+02	4.377E+02	4.375E+02	4.357E+02	4.183E+02	2.782E+02
NB 93	0.0	1.658E-04	1.722E-03	1.918E-02	1.976E-01	1.978E+00	1.939E+01	1.595E+02
TC 99	4.363E+02	4.363E+02	4.363E+02	4.362E+02	4.349E+02	4.223E+02	3.151E+02	1.685E+01
RU 99	0.0	1.420E-03	1.420E-02	1.420E-01	1.417E+00	1.397E+01	1.212E+02	4.195E+02
PC107	1.030E+01	1.030E+01	1.030E+01	1.030E+01	1.030E+01	1.025E+01	1.019E+01	9.258E+00
SN126	6.342E+00	6.342E+00	6.342E+00	6.338E+00	6.298E+00	5.917E+00	3.171E+00	6.196E-03
TE126	0.0	4.664E-05	4.422E-04	4.397E-03	4.381E-02	4.247E-01	3.171E+00	6.336E+00
CS135	6.076E+02	6.076E+02	6.076E+02	6.076E+02	6.074E+02	6.058E+02	5.896E+02	4.495E+02
BA135	0.0	1.831E-04	1.831E-03	1.831E-02	1.831E-01	1.828E+00	1.804E+01	1.581E+02
CS137	3.678E+02	3.594E+02	2.915E+02	3.649E+01	3.396E-08	0.0	0.0	0.0
BA137	0.0	8.401E+00	7.588E+01	3.313E+02	3.678E+02	3.678E+02	3.678E+02	3.678E+02
SM151	3.421E+01	3.395E+01	3.167E+01	1.584E+01	1.546E-02	1.214E-32	0.0	0.0
EU151	0.0	2.625E-01	2.536E+00	1.837E+01	3.419E+01	3.421E+01	3.421E+01	3.421E+01
SUMTOT	2.123E+03	2.123E+03	2.123E+03	2.123E+03	2.123E+03	2.123E+03	2.123E+03	2.123E+03
TCTAL	2.123E+03	2.123E+03	2.123E+03	2.123E+03	2.123E+03	2.123E+03	2.123E+03	2.123E+03

NUCLIDES CONTRIBUTING < 0.1000 % ARE OMITTED

TABLE 13-WVCP(MAX). CONCENTRATIONS OF FISSION PRODUCTS
IN DECAY OF WEST VALLEY PLW: ELEMENTS

BASED ON ONE CANISTER, MAXIMUM RADIOACTIVITY, 1895 KG GLASS

ELEMENT	GRAMS							
	1990	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
SR	2.199E+02	2.147E+02	1.733E+02	2.035E+01	1.012E-08	0.0	0.0	0.0
ZR	4.377E+02	4.429E+02	4.843E+02	6.373E+02	6.575E+02	6.557E+02	6.383E+02	4.982E+02
NB	3.042E-03	3.240E-03	5.025E-03	2.287E-02	2.013E-01	1.982E+00	1.939E+01	1.595E+02
TC	4.363E+02	4.363E+02	4.363E+02	4.362E+02	4.349E+02	4.223E+02	3.151E+02	1.685E+01
RU	1.076E-05	1.425E-03	1.420E-02	1.420E-01	1.417E+00	1.397E+01	1.212E+02	4.195E+02
PD	1.030E+01	1.030E+01	1.030E+01	1.030E+01	1.030E+01	1.029E+01	1.019E+01	9.258E+00
AG	0.0	1.099E-06	1.099E-05	1.099E-04	1.099E-03	1.098E-02	1.093E-01	1.042E+00
SN	6.342E+00	6.342E+00	6.342E+00	6.338E+00	6.298E+00	5.917E+00	3.171E+00	6.196E-03
TE	1.165E-04	2.156E-03	8.825E-03	1.352E-02	5.293E-02	4.338E-01	3.180E+00	6.345E+00
CS	9.754E+02	9.670E+02	8.995E+02	6.441E+02	6.074E+02	6.058E+02	5.896E+02	4.495E+02
BA	5.576E-05	8.405E+00	7.589E+01	3.313E+02	3.680E+02	3.696E+02	3.858E+02	5.259E+02
PM	6.795E-01	5.217E-01	4.839E-02	2.277E-12	0.0	0.0	0.0	0.0
SM	3.421E+01	3.411E+01	3.231E+01	1.652E+01	7.016E-01	6.862E-01	6.862E-01	6.862E-01
EU	1.816E+00	1.931E+00	3.321E+00	1.837E+01	3.419E+01	3.421E+01	3.421E+01	3.421E+01
GD	0.0	1.474E-01	1.029E+00	1.809E+00	1.809E+00	1.809E+00	1.809E+00	1.809E+00
SUMTOT	2.123E+03	2.123E+03	2.123E+03	2.123E+03	2.123E+03	2.123E+03	2.123E+03	2.123E+03
TCTAL	2.123E+03	2.123E+03	2.123E+03	2.123E+03	2.123E+03	2.123E+03	2.123E+03	2.123E+03

ELEMENTS CONTRIBUTING < 0.0100 % ARE OMITTED

TABLE 14-WVDP(MAX). RADIOACTIVITY OF FISSION PRODUCTS
IN DECAY OF WEST VALLEY HLW: NUCLIDES

BASED ON ONE CANISTER, MAXIMUM RADIOACTIVITY, 1895 KG GLASS

NUCLIDE	CURIES							
	1990	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
SR 90	3.001E+04	2.930E+04	2.365E+04	2.777E+03	1.381E-06	0.0	0.0	0.0
Y 90	3.001E+04	2.931E+04	2.366E+04	2.777E+03	1.381E-06	0.0	0.0	0.0
ZR 93	1.100E+00	1.100E+00	1.100E+00	1.100E+00	1.100E+00	1.095E+00	1.051E+00	6.994E-01
N8 93M	8.602E-01	8.693E-01	9.340E-01	1.044E+00	1.045E+00	1.041E+00	9.989E-01	6.644E-01
TC 99	7.400E+00	7.400E+00	7.399E+00	7.397E+00	7.376E+00	7.163E+00	5.344E+00	2.857E-01
PD107	5.300E-03	5.300E-03	5.300E-03	5.300E-03	5.299E-03	5.294E-03	5.244E-03	4.763E-03
SB125	9.300E+00	7.241E+00	7.615E-01	1.261E-10	0.0	0.0	0.0	0.0
TE125M	2.099E+00	1.765E+00	1.858E-01	3.076E-11	0.0	0.0	0.0	0.0
SN126	1.800E-01	1.800E-01	1.800E-01	1.799E-01	1.788E-01	1.679E-01	9.001E-02	1.759E-04
S8126	2.501E-01	2.520E-02	2.520E-02	2.518E-02	2.503E-02	2.351E-02	1.260E-02	2.462E-05
S8126M	1.800E-01	1.800E-01	1.800E-01	1.799E-01	1.788E-01	1.679E-01	9.001E-02	1.759E-04
CS134	1.600E+01	1.143E+01	5.548E-01	4.050E-14	0.0	0.0	0.0	0.0
CS135	6.999E-01	6.999E-01	6.999E-01	6.999E-01	6.997E-01	6.978E-01	6.791E-01	5.178E-01
CS137	3.201E+04	3.128E+04	2.540E+04	3.175E+03	2.955E-06	0.0	0.0	0.0
BA137M	3.000E+04	2.959E+04	2.403E+04	3.004E+03	2.796E-06	0.0	0.0	0.0
PM147	6.302E+02	4.838E+02	4.487E+01	2.111E-09	0.0	0.0	0.0	0.0
SM151	9.004E+02	8.935E+02	8.336E+02	4.168E+02	4.068E-01	3.195E-31	0.0	0.0
EU152	1.600E+00	1.521E+00	9.612E-01	9.790E-03	1.179E-22	0.0	0.0	0.0
EU154	4.502E+02	4.153E+02	2.011E+02	1.423E-01	4.471E-33	0.0	0.0	0.0
EU155	6.505E+01	5.656E+01	1.608E+01	5.534E-05	0.0	0.0	0.0	0.0
SUMTOT	1.241E+05	1.214E+05	9.785E+04	1.216E+04	1.101E+01	1.036E+01	8.272E+00	2.172E+00
TOTAL	1.241E+05	1.214E+05	9.785E+04	1.216E+04	1.101E+01	1.036E+01	8.272E+00	2.172E+00

NUCLIDES CONTRIBUTING < 0.0010 % ARE OMITTED

TABLE 15-WVDP(MAX). RADIOACTIVITY OF FISSION PRODUCTS
IN DECAY OF WEST VALLEY HLW: ELEMENTS

BASED ON ONE CANISTER, MAXIMUM RADIOACTIVITY, 1895 KG GLASS

CURIES

ELEMENT	1990	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
SR	3.001E+04	2.930E+04	2.365E+04	2.777E+03	1.381E-06	0.0	0.0	0.0
Y	3.001E+04	2.931E+04	2.366E+04	2.777E+03	1.381E-06	0.0	0.0	0.0
ZR	1.100E+00	1.100E+00	1.100E+00	1.100E+00	1.100E+00	1.095E+00	1.051E+00	6.994E-01
NB	8.602E-01	8.693E-01	9.340E-01	1.044E+00	1.045E+00	1.041E+00	9.989E-01	6.644E-01
TC	7.400E+00	7.400E+00	7.399E+00	7.397E+00	7.376E+00	7.163E+00	5.344E+00	2.857E-01
PD	5.300E-03	5.300E-03	5.300E-03	5.300E-03	5.299E-03	5.294E-03	5.244E-03	4.763E-03
SN	1.800E-01	1.800E-01	1.800E-01	1.799E-01	1.788E-01	1.675E-01	9.001E-02	1.759E-04
SB	9.730E+00	7.446E+00	9.667E-01	2.051E-01	2.038E-01	1.915E-01	1.026E-01	2.005E-04
CS	3.202E+04	3.129E+04	2.540E+04	3.176E+03	6.997E-01	6.978E-01	6.791E-01	5.178E-01
BA	3.000E+04	2.959E+04	2.403E+04	3.004E+03	2.796E-06	0.0	0.0	0.0
PM	6.302E+02	4.838E+02	4.487E+01	2.111E-09	0.0	0.0	0.0	0.0
SM	9.004E+02	8.935E+02	8.336E+02	4.168E+02	4.068E-01	1.545E-08	1.545E-08	1.545E-08
EU	5.168E+02	4.734E+02	2.181E+02	1.521E-01	1.179E-22	0.0	0.0	0.0
SUMTOT	1.241E+05	1.214E+05	9.785E+04	1.216E+04	1.101E+01	1.036E+01	8.272E+00	2.172E+00
TOTAL	1.241E+05	1.214E+05	9.785E+04	1.216E+04	1.101E+01	1.036E+01	8.272E+00	2.172E+00

ELEMENTS CONTRIBUTING < 0.0100 % ARE OMITTED

TABLE 16-MVDP(MAX). THERMAL POWER OF FISSION PRODUCTS
IN DECAY OF WEST VALLEY HLW: NUCLIDES

BASED ON ONE CANISTER, MAXIMUM RADIOACTIVITY, 1895 KG GLASS

NUCLIDE	WATTS							
	1990	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
SR 90	3.483E+01	3.401E+01	2.745E+01	3.223E+00	1.603E-09	0.0	0.0	0.0
Y 90	1.663E+02	1.624E+02	1.311E+02	1.539E+01	7.656E-C9	0.0	0.0	0.0
ZR 93	1.278E-04	1.278E-04	1.278E-04	1.278E-04	1.278E-04	1.272E-04	1.222E-04	8.126E-05
NB 93M	1.524E-04	1.540E-04	1.655E-04	1.850E-04	1.851E-04	1.844E-04	1.770E-04	1.177E-04
TC 99	3.711E-03	3.711E-03	3.711E-03	3.710E-03	3.699E-03	3.592E-03	2.680E-03	1.433E-04
PD107	3.142E-07	3.142E-07	3.142E-07	3.141E-07	3.141E-07	3.138E-07	3.108E-07	2.824E-07
SB125	2.907E-02	2.264E-02	2.381E-03	3.941E-13	0.0	0.0	0.0	0.0
SN126	2.245E-04	2.245E-04	2.245E-04	2.243E-04	2.229E-04	2.095E-04	1.123E-04	2.193E-07
SB126	4.621E-03	4.656E-04	4.656E-04	4.653E-04	4.624E-04	4.344E-04	2.328E-04	4.549E-07
SB126M	2.292E-03	2.292E-03	2.292E-03	2.290E-03	2.276E-03	2.138E-03	1.146E-03	2.239E-06
CS134	1.628E-01	1.163E-01	5.647E-03	4.122E-16	0.0	0.0	0.0	0.0
CS135	2.336E-04	2.336E-04	2.336E-04	2.336E-04	2.335E-04	2.329E-04	2.266E-04	1.728E-04
CS137	3.540E+01	3.459E+01	2.810E+01	3.512E+00	3.269E-09	0.0	0.0	0.0
BA137M	1.178E+02	1.162E+02	9.436E+01	1.179E+01	1.098E-08	0.0	0.0	0.0
PM147	2.260E-01	1.735E-01	1.610E-02	7.573E-13	0.0	0.0	0.0	0.0
SM151	1.056E-01	1.048E-01	9.774E-02	4.887E-02	4.770E-05	3.746E-35	0.0	0.0
EU152	1.210E-02	1.150E-02	7.270E-03	7.405E-05	8.915E-25	0.0	0.0	0.0
EU154	4.027E+00	3.715E+00	1.798E+00	1.273E-03	4.000E-35	0.0	0.0	0.0
EU155	4.731E-02	4.114E-02	1.169E-02	4.025E-08	0.0	0.0	0.0	0.0
SUMTOT	3.590E+02	3.514E+02	2.830E+02	3.398E+01	7.255E-03	6.919E-03	4.697E-03	5.183E-04
TOTAL	3.590E+02	3.514E+02	2.830E+02	3.398E+01	7.255E-03	6.919E-03	4.697E-03	5.183E-04

NUCLIDES CONTRIBUTING < 0.0010 % ARE OMITTED

TABLE 17-WVDP(MAX). THERMAL POWER OF FISSION PRODUCTS
IN DECAY OF WEST VALLEY HLW: ELEMENTS

BASED ON ONE CANISTER, MAXIMUM RADIOACTIVITY, 1895 KG GLASS

WATTS

ELEMENT	1990	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
SR	3.483E+01	3.401E+01	2.745E+01	3.223E+00	1.603E-09	0.0	0.0	0.0
Y	1.663E+02	1.624E+02	1.311E+02	1.539E+01	7.656E-09	0.0	0.0	0.0
ZR	1.278E-04	1.278E-04	1.278E-04	1.278E-04	1.278E-04	1.272E-04	1.222E-04	8.126E-05
NB	1.524E-04	1.540E-04	1.655E-04	1.850E-04	1.851E-04	1.844E-04	1.770E-04	1.177E-04
TC	3.711E-03	3.711E-03	3.711E-03	3.710E-03	3.699E-03	3.592E-03	2.680E-03	1.433E-04
PD	3.142E-07	3.142E-07	3.142E-07	3.141E-07	3.141E-07	3.138E-07	3.108E-07	2.824E-07
SN	2.245E-04	2.245E-04	2.245E-04	2.243E-04	2.229E-04	2.095E-04	1.123E-04	2.193E-07
SB	3.599E-02	2.539E-02	5.138E-03	2.756E-03	2.738E-03	2.573E-03	1.379E-03	2.694E-06
CS	3.557E+01	3.471E+01	2.810E+01	3.512E+00	2.335E-04	2.325E-04	2.266E-04	1.728E-04
BA	1.178E+02	1.162E+02	9.436E+01	1.179E+01	1.098E-08	0.0	0.0	0.0
PM	2.260E-01	1.735E-01	1.610E-02	7.573E-13	0.0	0.0	0.0	0.0
SM	1.056E-01	1.048E-01	9.774E-02	4.887E-02	4.770E-05	2.115E-10	2.115E-10	2.115E-10
EU	4.086E+00	3.767E+00	1.817E+00	1.347E-03	8.915E-25	0.0	0.0	0.0
SUMTDT	3.590E+02	3.514E+02	2.830E+02	3.398E+01	7.255E-03	6.919E-03	4.697E-03	5.183E-04
TCTAL	3.590E+02	3.514E+02	2.830E+02	3.398E+01	7.255E-03	6.919E-03	4.697E-03	5.183E-04

ELEMENTS CONTRIBUTING < 0.0100 % ARE OMITTED

TABLE 18-WVDP (MAX). PHOTON SPECTRUM OF FISSION PRODUCTS
IN DECAY OF WEST VALLEY HLW

BASED ON ONE CANISTER, MAXIMUM RADIOACTIVITY, 1895 KG GLASS

EMEAN	PHOTONS/SEC							
	1990	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
18 GROUP PHOTON RELEASE RATES, PHOTONS/SECOND								
1.000E-02	8.782E+14	8.574E+14	6.913E+14	8.183E+13	2.386E+10	2.317E+10	1.852E+10	5.861E+09
2.500E-02	1.815E+14	1.772E+14	1.428E+14	1.688E+13	5.425E+09	5.161E+09	3.256E+09	1.800E+08
3.750E-02	1.945E+14	1.903E+14	1.525E+14	1.819E+13	1.639E+09	1.575E+09	1.116E+09	9.169E+07
5.750E-02	1.687E+14	1.647E+14	1.326E+14	1.561E+13	2.528E+09	2.415E+09	1.584E+09	9.117E+07
8.500E-02	1.007E+14	9.824E+13	7.891E+13	9.286E+12	3.885E+09	3.666E+09	2.067E+09	3.183E+07
1.250E-01	7.141E+13	6.933E+13	5.376E+13	5.973E+12	3.450E+08	3.295E+08	2.116E+08	8.543E+06
2.250E-01	8.581E+13	8.372E+13	6.716E+13	7.833E+12	3.609E+08	3.403E+08	1.905E+08	1.939E+06
3.750E-01	3.662E+13	3.572E+13	2.870E+13	3.365E+12	7.249E+09	6.811E+09	3.650E+09	7.132E+06
5.750E-01	1.165E+15	1.148E+15	9.312E+14	1.162E+14	1.610E+10	1.512E+10	8.104E+09	1.584E+07
8.500E-01	1.433E+13	1.342E+13	8.188E+12	5.455E+11	8.056E+08	7.565E+08	4.056E+08	7.926E+05
1.250E+00	1.076E+13	1.002E+13	5.452E+12	1.809E+11	1.956E+08	1.837E+08	9.847E+07	1.924E+05
1.750E+00	4.131E+11	3.892E+11	2.357E+11	1.395E+10	8.344E+03	7.833E+03	4.198E+03	8.203E+00
2.250E+00	1.971E+07	1.763E+07	1.304E+07	1.531E+06	7.616E-04	2.726E-07	2.726E-07	2.726E-07
2.750E+00	2.874E+05	1.445E+05	2.957E+02	1.366E-07	1.366E-07	1.366E-07	1.366E-07	1.366E-07
3.500E+00	3.742E+04	1.882E+04	3.863E+01	1.006E-07	1.006E-07	1.006E-07	1.006E-07	1.006E-07
5.000E+00	0.0	6.953E-09	2.781E-08	2.994E-08	2.994E-08	2.994E-08	2.994E-08	2.994E-08
7.000E+00	0.0	4.511E-10	1.805E-09	1.943E-09	1.943E-09	1.943E-09	1.943E-09	1.943E-09
9.500E+00	0.0	2.853E-11	1.141E-10	1.229E-10	1.229E-10	1.229E-10	1.229E-10	1.229E-10
TCTAL	2.908E+15	2.848E+15	2.293E+15	2.759E+14	6.238E+10	5.954E+10	3.920E+10	6.290E+09

TABLE 19-WVDP (MAX). CONCENTRATIONS OF ACTIVATION PRODUCTS
IN DECAY OF WEST VALLEY PLW: NUCLIDES

BASED ON ONE CANISTER, MAXIMUM RADIOACTIVITY, 1895 KG GLASS

NUCLIDE	GRAMS							
	1990	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
CO 59	0.0	4.117E-05	4.117E-04	4.115E-03	4.099E-02	3.944E-01	2.754E+00	4.751E+00
NI 59	4.752E+00	4.752E+00	4.752E+00	4.748E+00	4.711E+00	4.358E+00	1.998E+00	8.201E-04
NI 63	4.377E-01	4.344E-01	4.059E-01	2.060E-01	2.339E-04	8.328E-34	0.0	0.0
CU 63	0.0	3.285E-03	3.177E-02	2.317E-01	4.375E-01	4.377E-01	4.377E-01	4.377E-01
SE 79	2.297E-01	2.297E-01	2.297E-01	2.295E-01	2.273E-01	2.065E-01	7.902E-02	5.322E-06
BR 79	0.0	2.451E-06	2.451E-05	2.450E-04	2.438E-03	2.325E-02	1.507E-01	2.297E-01
SUMTOT	5.423E+00	5.423E+00	5.423E+00	5.423E+00	5.423E+00	5.423E+00	5.423E+00	5.423E+00
TOTAL	5.423E+00	5.423E+00	5.423E+00	5.423E+00	5.423E+00	5.423E+00	5.423E+00	5.423E+00

NUCLIDES CONTRIBUTING < 0.1000 % ARE OMITTED

TABLE 20-WVDP (MAX). CONCENTRATIONS OF ACTIVATION PRODUCTS
IN DECAY OF WEST VALLEY HLW: ELEMENTS

BASED ON ONE CANISTER, MAXIMUM RADIOACTIVITY, 1895 KG GLASS

ELEMENT	GRAMS							
	1990	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
MN	0.0	1.965E-04	7.813E-04	8.397E-04	8.397E-04	8.397E-04	8.397E-04	8.397E-04
FE	8.397E-04	6.432E-04	5.839E-05	2.217E-15	0.0	0.0	0.0	0.0
CC	3.183E-03	2.832E-03	1.266E-03	4.115E-03	4.099E-02	3.944E-01	2.754E+00	4.751E+00
NI	5.190E+00	5.187E+00	5.160E+00	4.957E+00	4.714E+00	4.361E+00	2.001E+00	4.003E-03
CU	0.0	3.285E-03	3.177E-02	2.317E-01	4.375E-01	4.377E-01	4.377E-01	4.377E-01
SE	2.297E-01	2.297E-01	2.297E-01	2.295E-01	2.273E-01	2.065E-01	7.902E-02	5.322E-06
BR	0.0	2.451E-06	2.451E-05	2.450E-04	2.438E-03	2.325E-02	1.507E-01	2.297E-01
SUMTOT	5.423E+00	5.423E+00	5.423E+00	5.423E+00	5.423E+00	5.423E+00	5.423E+00	5.423E+00
TCTAL	5.423E+00	5.423E+00	5.423E+00	5.423E+00	5.423E+00	5.423E+00	5.423E+00	5.423E+00

ELEMENTS CONTRIBUTING < 0.0010 % ARE OMITTED

TABLE 21-WVDP(MAX). RADIOACTIVITY OF ACTIVATION PRODUCTS
IN DECAY OF WEST VALLEY HLW: NUCLIDES

BASED ON ONE CANISTER, MAXIMUM RADIOACTIVITY, 1895 KG GLASS

NUCLIDE	CURIES							
	1990	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
FE 55	2.100E+00	1.609E+00	1.460E-01	5.545E-12	0.0	0.0	0.0	0.0
CC 60	3.600E+00	3.157E+00	9.663E-01	7.133E-06	0.0	0.0	0.0	0.0
NI 59	3.601E-01	3.601E-01	3.600E-01	3.598E-01	3.570E-01	3.302E-01	1.514E-01	6.214E-05
NI 63	2.701E+01	2.681E+01	2.505E+01	1.271E+01	1.444E-02	5.135E-32	0.0	0.0
SE 79	1.601E-02	1.601E-02	1.601E-02	1.599E-02	1.584E-02	1.439E-02	5.507E-03	3.709E-07
SUMTOT	3.309E+01	3.195E+01	2.654E+01	1.309E+01	3.872E-01	3.446E-01	1.569E-01	6.251E-05
TCTAL	3.309E+01	3.195E+01	2.654E+01	1.309E+01	3.872E-01	3.446E-01	1.569E-01	6.251E-05

NUCLIDES CONTRIBUTING < 0.0010 % ARE OMITTED

TABLE 22-WVDP(MAX). RADIOACTIVITY OF ACTIVATION PRODUCTS
IN DECAY OF WEST VALLEY HLW: ELEMENTS

BASED ON ONE CANISTER, MAXIMUM RADIOACTIVITY, 1895 KG GLASS

ELEMENT	CURIES							
	1990	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
FE	2.100E+00	1.609E+00	1.460E-01	5.545E-12	0.0	0.0	0.0	0.0
CC	3.600E+00	3.157E+00	9.663E-01	7.133E-06	0.0	0.0	0.0	0.0
NI	2.737E+01	2.717E+01	2.541E+01	1.307E+01	3.714E-01	3.302E-01	1.514E-01	6.214E-05
SE	1.601E-02	1.601E-02	1.601E-02	1.599E-02	1.584E-02	1.439E-02	5.507E-03	3.709E-07
SUMTGT	3.309E+01	3.195E+01	2.654E+01	1.309E+01	3.872E-01	3.446E-01	1.569E-01	6.251E-05
TCTAL	3.309E+01	3.195E+01	2.654E+01	1.309E+01	3.872E-01	3.446E-01	1.569E-01	6.251E-05

ELEMENTS CONTRIBUTING < 0.0010 % ARE OMITTED

TABLE 23-WVDP(MAX). THERMAL POWER OF ACTIVATION PRODUCTS
IN DECAY OF WEST VALLEY HLW: NUCLIDES

BASED ON ONE CANISTER, MAXIMUM RADIOACTIVITY, 1895 KG GLASS

NUCLIDE	WATTS							
	1990	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
FE 55	7.096E-05	5.435E-05	4.934E-06	1.873E-16	0.0	0.0	0.0	0.0
CO 60	5.551E-02	4.867E-02	1.490E-02	1.100E-07	0.0	0.0	0.0	0.0
NI 59	1.430E-05	1.430E-05	1.430E-05	1.429E-05	1.418E-05	1.311E-05	6.013E-06	2.468E-09
NI 63	2.722E-03	2.701E-03	2.524E-03	1.281E-03	1.455E-06	5.179E-36	0.0	0.0
SE 79	3.985E-06	3.985E-06	3.985E-06	3.981E-06	3.943E-06	3.582E-06	1.371E-06	9.234E-11
SUMTOT	5.832E-02	5.144E-02	1.745E-02	1.300E-03	1.957E-05	1.670E-05	7.384E-06	2.560E-09
TOTAL	5.832E-02	5.144E-02	1.745E-02	1.300E-03	1.957E-05	1.670E-05	7.384E-06	2.560E-09

NUCLIDES CONTRIBUTING < 0.0010 % ARE OMITTED

TABLE 24-WVDP (MAX). THERMAL POWER OF ACTIVATION PRODUCTS
IN DECAY OF WEST VALLEY HLW: ELEMENTS

BASED ON ONE CANISTER, MAXIMUM RADIOACTIVITY, 1895 KG GLASS

ELEMENT	WATTS							
	1990	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
FE	7.096E-05	5.435E-05	4.934E-06	1.873E-16	0.0	0.0	0.0	0.0
CO	5.551E-02	4.867E-02	1.490E-02	1.100E-07	0.0	0.0	0.0	0.0
NI	2.736E-03	2.716E-03	2.538E-03	1.296E-03	1.563E-05	1.311E-05	6.013E-06	2.468E-09
SE	3.985E-06	3.985E-06	3.985E-06	3.981E-06	3.943E-06	3.582E-06	1.371E-06	9.234E-11
SUMTOT	5.832E-02	5.144E-02	1.745E-02	1.300E-03	1.957E-05	1.670E-05	7.384E-06	2.560E-09
TOTAL	5.832E-02	5.144E-02	1.745E-02	1.300E-03	1.957E-05	1.670E-05	7.384E-06	2.560E-09

ELEMENTS CONTRIBUTING < 0.0010 % ARE OMITTED

TABLE 25-WVOP(MAX). PHOTON SPECTRUM OF ACTIVATION PRODUCTS
IN DECAY OF WEST VALLEY HLW

BASED ON ONE CANISTER, MAXIMUM RADIOACTIVITY, 1895 KG GLASS

E MEAN	PHOTONS/SEC							
	1990	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
18 GROUP PHOTON RELEASE RATES, PHOTONS/SECOND								
1.000E-02	1.260E+10	1.169E+10	7.034E+09	2.617E+09	1.901E+07	1.458E+07	5.582E+06	3.759E+02
2.500E-02	1.559E+09	1.406E+09	6.420E+08	1.609E+08	2.553E+06	2.155E+06	8.250E+05	5.556E+01
3.750E-02	7.659E+08	6.796E+08	2.514E+08	3.332E+07	1.220E+06	1.075E+06	4.115E+05	2.771E+01
5.750E-02	7.937E+08	6.968E+08	2.183E+08	4.257E+06	5.996E+05	9.047E+05	3.463E+05	2.332E+01
8.500E-02	3.092E+08	2.711E+08	8.311E+07	1.893E+05	1.869E+05	1.698E+05	6.498E+04	4.376E+00
1.250E-01	1.187E+08	1.041E+08	3.186E+07	1.686E+04	1.646E+04	1.495E+04	5.724E+03	3.855E-01
2.250E-01	3.902E+07	3.421E+07	1.047E+07	8.184E+01	4.482E+00	4.071E+00	1.558E+00	1.049E-04
3.750E-01	1.095E+07	9.598E+06	2.938E+06	2.169E+01	0.0	0.0	0.0	0.0
5.750E-01	6.286E+05	5.511E+05	1.687E+05	1.245E+00	0.0	0.0	0.0	0.0
8.500E-01	9.948E+06	8.722E+06	2.670E+06	1.971E+01	0.0	0.0	0.0	0.0
1.250E+00	2.664E+11	2.335E+11	7.149E+10	5.277E+05	0.0	0.0	0.0	0.0
1.750E+00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.250E+00	1.412E+06	1.238E+06	3.789E+05	2.797E+00	0.0	0.0	0.0	0.0
2.750E+00	4.368E+03	3.830E+03	1.172E+03	8.655E-03	0.0	0.0	0.0	0.0
3.500E+00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.000E+00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.000E+00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.500E+00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	2.826E+11	2.484E+11	7.976E+10	2.816E+09	2.398E+07	1.890E+07	7.235E+06	4.873E+02

TABLE 1-WVDP(AVG). CONCENTRATIONS OF ACTINIDES AND DAUGHTERS
IN DECAY OF WEST VALLEY HLW: NUCLIDES

BASED ON ONE CANISTER, AVERAGE RADIDACTIVITY, 1895 KG GLASS

NUCLIDE	GRAMS							
	1990	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
TH232	5.743E+04	5.743E+04	5.743E+04	5.743E+04	5.743E+04	5.743E+04	5.743E+04	5.743E+04
U235	1.804E+02	1.804E+02	1.804E+02	1.807E+02	1.835E+02	2.115E+02	3.237E+02	3.331E+02
U236	1.699E+01	1.700E+01	1.706E+01	1.768E+01	2.359E+01	5.985E+01	8.242E+01	8.025E+01
U238	9.218E+03	9.218E+03	9.218E+03	9.218E+03	9.218E+03	9.218E+03	9.218E+03	9.218E+03
NP237	6.098E+01	6.114E+01	6.254E+01	7.575E+01	1.410E+02	1.605E+02	1.563E+02	1.168E+02
PU239	1.093E+02	1.093E+02	1.093E+02	1.094E+02	1.103E+02	1.055E+02	9.880E+00	5.450E-11
AM241	9.904E+01	9.902E+01	9.857E+01	8.691E+01	2.054E+01	5.048E-03	3.267E-06	4.554E-38
SUMTOT	6.724E+04	6.724E+04	6.724E+04	6.724E+04	6.724E+04	6.724E+04	6.724E+04	6.724E+04
TCTAL	6.724E+04	6.724E+04	6.724E+04	6.724E+04	6.724E+04	6.724E+04	6.724E+04	6.724E+04

NUCLIDES CONTRIBUTING < 0.1000 % ARE OMITTED

TABLE 2-WVDP(AVG). CONCENTRATIONS OF ACTINIDES AND DAUGHTERS
IN DECAY OF WEST VALLEY HLW: ELEMENTS

BASED ON ONE CANISTER, AVERAGE RADIOACTIVITY, 1895 KG GLASS

ELEMENT	GRAMS							
	1990	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
HE	0.0	3.686E-03	3.583E-02	3.039E-01	1.631E+00	3.492E+00	6.474E+00	1.199E+01
PB	0.0	1.402E-08	5.980E-06	2.334E-04	2.534E-03	2.854E-02	5.947E-01	6.969E+00
BI	0.0	6.623E-10	7.217E-08	7.240E-06	7.052E-04	5.576E-02	1.842E+00	3.491E+01
TH	5.743E+04	5.743E+04	5.743E+04	5.743E+04	5.743E+04	5.743E+04	5.743E+04	5.743E+04
U	9.422E+03	9.422E+03	9.422E+03	9.424E+03	9.433E+03	9.498E+03	9.634E+03	9.641E+03
NP	6.098E+01	6.114E+01	6.254E+01	7.575E+01	1.410E+02	1.609E+02	1.563E+02	1.168E+02
PU	1.814E+02	1.813E+02	1.804E+02	1.780E+02	1.721E+02	1.309E+02	1.142E+01	3.063E-01
AM	1.462E+02	1.462E+02	1.457E+02	1.336E+02	6.345E+01	1.843E+01	3.936E-03	4.630E-38
CM	1.258E+00	1.221E+00	9.485E-01	3.018E-01	2.571E-01	1.132E-01	6.522E-05	8.625E-37
SUMTOT	6.724E+04	6.724E+04	6.724E+04	6.724E+04	6.724E+04	6.724E+04	6.724E+04	6.724E+04
TOTAL	6.724E+04	6.724E+04	6.724E+04	6.724E+04	6.724E+04	6.724E+04	6.724E+04	6.724E+04

ELEMENTS CONTRIBUTING < 0.0001 % ARE OMITTED

TABLE 3-WVDP (AVG). RADIOACTIVITY OF ACTINIDES AND DAUGHTERS
IN DECAY OF WEST VALLEY HLW: NUCLIDES

BASED ON ONE CANISTER, AVERAGE RADIOACTIVITY, 1895 KG GLASS

NUCLIDE	CURIES							
	1990	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
TL207	0.0	1.296E-10	1.184E-08	5.754E-07	8.216E-06	8.085E-05	5.674E-04	7.184E-04
TL208	0.0	3.640E-05	1.162E-03	2.264E-03	2.264E-03	2.264E-03	2.264E-03	2.264E-03
TL209	0.0	7.752E-08	7.749E-07	7.716E-06	7.411E-05	5.240E-04	1.335E-03	1.909E-03
PB209	0.0	3.589E-06	3.587E-05	3.572E-04	3.431E-03	2.426E-02	6.179E-02	8.840E-02
PB210	0.0	3.359E-13	3.208E-10	2.009E-07	4.168E-05	1.761E-03	1.391E-02	5.123E-03
PB211	0.0	1.300E-10	1.187E-08	5.770E-07	8.240E-06	8.108E-05	5.689E-04	7.204E-04
PB212	0.0	1.013E-04	3.235E-03	6.301E-03	6.301E-03	6.301E-03	6.301E-03	6.301E-03
PB214	0.0	3.319E-11	3.359E-09	3.675E-07	4.168E-05	1.761E-03	1.392E-02	5.124E-03
BI210	0.0	3.359E-13	3.208E-10	2.009E-07	4.168E-05	1.761E-03	1.391E-02	5.123E-03
BI211	0.0	1.088E-10	1.187E-08	5.770E-07	8.240E-06	8.108E-05	5.689E-04	7.204E-04
BI212	0.0	1.013E-04	3.235E-03	6.301E-03	6.301E-03	6.301E-03	6.301E-03	6.301E-03
BI213	0.0	3.589E-06	3.587E-05	3.572E-04	3.431E-03	2.426E-02	6.179E-02	8.840E-02
BI214	0.0	3.319E-11	3.359E-09	3.675E-07	4.168E-05	1.761E-03	1.392E-02	5.124E-03
PC210	0.0	1.088E-10	3.208E-10	2.009E-07	4.168E-05	1.761E-03	1.391E-02	5.123E-03
PC212	0.0	6.491E-05	2.073E-03	4.037E-03	4.037E-03	4.037E-03	4.037E-03	4.037E-03
PC213	0.0	3.511E-06	3.510E-05	3.495E-04	3.357E-03	2.374E-02	6.046E-02	8.649E-02
PO214	0.0	3.319E-11	3.358E-09	3.674E-07	4.168E-05	1.761E-03	1.391E-02	5.123E-03
PO215	0.0	1.300E-10	1.187E-08	5.770E-07	8.240E-06	8.108E-05	5.689E-04	7.204E-04
PO216	0.0	1.013E-04	3.235E-03	6.301E-03	6.301E-03	6.301E-03	6.301E-03	6.301E-03
PC218	0.0	3.320E-11	3.359E-09	3.675E-07	4.169E-05	1.762E-03	1.392E-02	5.125E-03
AT217	0.0	3.589E-06	3.587E-05	3.572E-04	3.431E-03	2.426E-02	6.179E-02	8.840E-02
RN219	0.0	1.300E-10	1.187E-08	5.770E-07	8.240E-06	8.108E-05	5.689E-04	7.204E-04
RN220	0.0	1.013E-04	3.235E-03	6.301E-03	6.301E-03	6.301E-03	6.301E-03	6.301E-03
RN222	0.0	3.320E-11	3.359E-09	3.675E-07	4.169E-05	1.762E-03	1.392E-02	5.125E-03
FR221	0.0	3.589E-06	3.587E-05	3.572E-04	3.431E-03	2.426E-02	6.179E-02	8.840E-02
RA223	0.0	1.300E-10	1.187E-08	5.770E-07	8.240E-06	8.108E-05	5.690E-04	7.204E-04
RA224	0.0	1.013E-04	3.235E-03	6.301E-03	6.301E-03	6.301E-03	6.301E-03	6.301E-03
RA225	0.0	3.589E-06	3.587E-05	3.572E-04	3.431E-03	2.426E-02	6.179E-02	8.840E-02
RA226	0.0	3.320E-11	3.359E-09	3.675E-07	4.169E-05	1.762E-03	1.392E-02	5.125E-03
RA228	0.0	6.193E-04	4.062E-03	6.301E-03	6.301E-03	6.301E-03	6.301E-03	6.301E-03
AC225	0.0	3.589E-06	3.587E-05	3.572E-04	3.431E-03	2.426E-02	6.179E-02	8.840E-02
AC227	0.0	1.300E-10	1.187E-08	5.769E-07	8.240E-06	8.108E-05	5.690E-04	7.204E-04
AC228	0.0	6.193E-04	4.062E-03	6.301E-03	6.301E-03	6.301E-03	6.301E-03	6.301E-03
TH227	0.0	1.282E-10	1.171E-08	5.691E-07	8.126E-06	7.996E-05	5.611E-04	7.105E-04
TH228	0.0	1.013E-04	3.234E-03	6.301E-03	6.301E-03	6.301E-03	6.301E-03	6.301E-03
TH229	0.0	3.589E-06	3.587E-05	3.572E-04	3.431E-03	2.426E-02	6.179E-02	8.840E-02
TH230	0.0	1.534E-07	1.564E-06	1.799E-05	2.282E-04	2.263E-03	1.380E-02	5.122E-03
TH231	0.0	3.901E-04	3.902E-04	3.908E-04	3.968E-04	4.573E-04	7.000E-04	7.204E-04
TH232	6.301E-03	6.301E-03	6.301E-03	6.301E-03	6.301E-03	6.301E-03	6.301E-03	6.301E-03
TH234	0.0	3.100E-03	3.100E-03	3.100E-03	3.100E-03	3.100E-03	3.100E-03	3.100E-03
PA231	0.0	8.253E-09	8.263E-08	8.254E-07	8.237E-06	8.105E-05	5.689E-04	7.204E-04

TABLE 3-MVDP(AVG). RADIOACTIVITY OF ACTINIDES AND DAUGHTERS
IN DECAY OF WEST VALLEY PLW: NUCLIDES

BASED ON ONE CANISTER, AVERAGE RADIOACTIVITY, 1895 KG GLASS

NUCLIDE	CURIES							
	1990	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
PA233	0.0	4.311E-02	4.410E-02	5.342E-02	9.945E-02	1.134E-01	1.102E-01	8.237E-02
PA234M	0.0	3.100E-03	3.100E-03	3.100E-03	3.100E-03	3.100E-03	3.100E-03	3.100E-03
U233	3.800E-02	3.800E-02	3.800E-02	3.800E-02	3.818E-02	4.105E-02	6.405E-02	8.788E-02
U234	1.700E-02	1.708E-02	1.774E-02	2.230E-02	2.667E-02	2.608E-02	2.091E-02	4.489E-03
U235	3.901E-04	3.901E-04	3.902E-04	3.908E-04	3.968E-04	4.573E-04	7.000E-04	7.204E-04
U236	1.100E-03	1.100E-03	1.104E-03	1.144E-03	1.527E-03	3.876E-03	5.334E-03	5.194E-03
U238	3.100E-03	3.100E-03	3.100E-03	3.100E-03	3.100E-03	3.100E-03	3.100E-03	3.100E-03
NP237	4.300E-02	4.311E-02	4.410E-02	5.342E-02	9.945E-02	1.134E-01	1.102E-01	8.237E-02
NP239	9.403E+00	9.400E+00	9.392E+00	9.313E+00	8.558E+00	3.675E+00	7.843E-04	1.529E-40
PU238	2.701E+01	2.680E+01	2.496E+01	1.229E+01	1.166E-02	2.562E-21	0.0	0.0
PU239	6.797E+00	6.797E+00	6.798E+00	6.805E+00	6.859E+00	6.588E+00	6.144E-01	3.389E-12
PU240	1.500E+01	1.501E+01	1.506E+01	1.506E+01	1.369E+01	5.272E+00	3.785E-04	0.0
PU241	3.002E+02	2.861E+02	1.855E+02	2.475E+00	3.601E-02	1.729E-02	1.122E-05	1.484E-37
PU242	6.803E-03	6.803E-03	6.803E-03	6.807E-03	6.825E-03	6.846E-03	5.868E-03	1.170E-03
AM241	3.400E+02	3.400E+02	3.384E+02	2.984E+02	7.051E+01	1.733E-02	1.122E-05	1.563E-37
AM242M	8.300E-02	8.262E-02	7.930E-02	5.261E-02	8.684E-04	1.305E-21	0.0	0.0
AM242	8.305E-02	8.221E-02	7.890E-02	5.234E-02	8.641E-04	1.298E-21	0.0	0.0
AM243	9.401E+00	9.400E+00	9.392E+00	9.313E+00	8.558E+00	3.675E+00	7.843E-04	1.529E-40
CM242	8.302E-02	7.118E-02	6.528E-02	4.329E-02	7.146E-04	1.077E-21	0.0	0.0
CM243	6.202E-01	6.053E-01	4.863E-01	5.449E-02	1.699E-11	0.0	0.0	0.0
CM244	7.797E+01	7.504E+01	5.317E+01	1.697E+00	1.861E-15	0.0	0.0	0.0
CM245	3.901E-02	3.900E-02	3.898E-02	3.869E-02	3.595E-02	1.726E-02	1.120E-05	1.481E-37
CM246	1.700E-02	1.700E-02	1.698E-02	1.675E-02	1.468E-02	3.928E-03	7.372E-09	0.0
SUMTOT	7.869E+02	7.696E+02	6.437E+02	3.559E+02	1.087E+02	1.986E+01	1.645E+00	1.102E+00
TCTAL	7.869E+02	7.696E+02	6.437E+02	3.559E+02	1.087E+02	1.986E+01	1.645E+00	1.102E+00

NUCLIDES CONTRIBUTING < 0.0010 % ARE OMITTED

TABLE 4-WVDP(AVG). RADIOACTIVITY OF ACTINIDES AND DAUGHTERS
IN DECAY OF WEST VALLEY HLW: ELEMENTS

BASED ON ONE CANISTER, AVERAGE RADIOACTIVITY, 1895 KG GLASS

CURIES

ELEMENT	1990	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
TL	0.0	3.648E-05	1.163E-03	2.272E-03	2.346E-03	2.869E-03	4.166E-03	4.892E-03
PB	0.0	1.049E-04	3.271E-03	6.659E-03	9.824E-03	3.417E-02	9.649E-02	1.057E-01
BI	0.0	1.049E-04	3.271E-03	6.659E-03	9.824E-03	3.417E-02	9.649E-02	1.057E-01
PQ	0.0	1.697E-04	5.343E-03	1.069E-02	1.383E-02	3.944E-02	1.131E-01	1.129E-01
AT	0.0	3.589E-06	3.587E-05	3.572E-04	3.431E-03	2.426E-02	6.179E-02	8.840E-02
RN	0.0	1.013E-04	3.235E-03	6.302E-03	6.351E-03	8.144E-03	2.079E-02	1.215E-02
FR	0.0	3.589E-06	3.587E-05	3.572E-04	3.431E-03	2.426E-02	6.180E-02	8.841E-02
RA	0.0	7.242E-04	7.333E-03	1.296E-02	1.608E-02	3.871E-02	8.888E-02	1.068E-01
AC	0.0	6.229E-04	4.098E-03	6.659E-03	9.740E-03	3.064E-02	6.866E-02	9.542E-02
TH	6.301E-03	9.897E-03	1.306E-02	1.647E-02	1.977E-02	4.276E-02	9.255E-02	1.107E-01
PA	0.0	4.622E-02	4.721E-02	5.652E-02	1.026E-01	1.166E-01	1.139E-01	8.619E-02
U	5.959E-02	6.669E-02	6.489E-02	6.500E-02	6.987E-02	7.456E-02	9.409E-02	1.014E-01
NP	9.446E+00	9.444E+00	9.437E+00	9.367E+00	8.658E+00	3.789E+00	1.110E-01	8.237E-02
PU	3.490E+02	3.347E+02	2.324E+02	3.663E+01	2.060E+01	1.188E+01	6.207E-01	1.170E-03
AM	3.496E+02	3.495E+02	3.480E+02	3.078E+02	7.907E+01	3.693E+00	7.956E-04	1.565E-37
CM	7.873E+01	7.577E+01	5.378E+01	1.850E+00	5.135E-02	2.118E-02	1.121E-05	1.481E-37
SUMTOT	7.869E+02	7.696E+02	6.437E+02	3.559E+02	1.087E+02	1.986E+01	1.645E+00	1.102E+00
TCTAL	7.869E+02	7.696E+02	6.437E+02	3.559E+02	1.087E+02	1.986E+01	1.645E+00	1.102E+00

ELEMENTS CONTRIBUTING < 0.0001 % ARE OMITTED

TABLE 5-WVDP(AVG). THERMAL POWER OF ACTINIDES AND DAUGHTERS
IN DECAY OF WEST VALLEY HLW: NUCLIDES

BASED ON ONE CANISTER, AVERAGE RADIOACTIVITY, 1895 KG GLASS

NUCLIDE	WATTS							
	1990	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
TL207	0.0	3.806E-13	3.477E-11	1.690E-09	2.413E-08	2.374E-07	1.666E-06	2.110E-06
TL208	0.0	8.566E-07	2.735E-05	5.328E-05	5.328E-05	5.328E-05	5.328E-05	5.328E-05
TL209	0.0	1.288E-09	1.287E-08	1.282E-07	1.231E-06	8.707E-06	2.218E-05	3.173E-05
PB209	0.0	4.127E-09	4.125E-08	4.108E-07	3.946E-06	2.790E-05	7.106E-05	1.017E-04
PB210	0.0	7.781E-17	7.432E-14	4.654E-11	9.654E-09	4.080E-07	3.223E-06	1.187E-06
PB211	0.0	3.895E-13	3.558E-11	1.729E-09	2.469E-08	2.429E-07	1.705E-06	2.159E-06
PB212	0.0	1.929E-07	6.159E-06	1.200E-05	1.200E-05	1.200E-05	1.200E-05	1.200E-05
PB214	0.0	1.059E-13	1.071E-11	1.172E-09	1.329E-07	5.617E-06	4.438E-05	1.634E-05
BI210	0.0	7.745E-16	7.398E-13	4.632E-10	9.610E-08	4.061E-06	3.209E-05	1.181E-05
BI211	0.0	5.184E-12	4.736E-10	2.302E-08	3.287E-07	3.234E-06	2.269E-05	2.874E-05
BI212	0.0	1.723E-06	5.502E-05	1.072E-04	1.072E-04	1.072E-04	1.072E-04	1.072E-04
BI213	0.0	1.509E-08	1.508E-07	1.502E-06	1.442E-05	1.020E-04	2.598E-04	3.716E-04
BI214	0.0	4.254E-13	4.304E-11	4.709E-09	5.342E-07	2.257E-05	1.784E-04	6.566E-05
PC210	0.0	3.489E-15	1.029E-11	6.440E-09	1.336E-06	5.646E-05	4.461E-04	1.642E-04
PC212	0.0	3.440E-06	1.098E-04	2.139E-04	2.139E-04	2.139E-04	2.139E-04	2.139E-04
PC213	0.0	1.777E-07	1.776E-06	1.769E-05	1.699E-04	1.201E-03	3.059E-03	4.377E-03
PC214	0.0	1.541E-12	1.559E-10	1.706E-08	1.935E-06	8.177E-05	6.461E-04	2.379E-04
PO215	0.0	5.802E-12	5.301E-10	2.576E-08	3.678E-07	3.619E-06	2.540E-05	3.216E-05
PO216	0.0	4.147E-06	1.324E-04	2.579E-04	2.579E-04	2.579E-04	2.579E-04	2.579E-04
PO218	0.0	1.203E-12	1.217E-10	1.332E-08	1.511E-06	6.384E-05	5.044E-04	1.857E-04
AT217	0.0	1.531E-07	1.531E-06	1.524E-05	1.464E-04	1.035E-03	2.637E-03	3.772E-03
RN219	0.0	5.393E-12	4.927E-10	2.394E-08	3.419E-07	3.364E-06	2.361E-05	2.989E-05
RN220	0.0	3.846E-06	1.228E-04	2.392E-04	2.392E-04	2.392E-04	2.392E-04	2.392E-04
RN222	0.0	1.100E-12	1.113E-10	1.218E-08	1.382E-06	5.838E-05	4.613E-04	1.698E-04
FR221	0.0	1.385E-07	1.385E-06	1.379E-05	1.324E-04	9.364E-04	2.385E-03	3.412E-03
RA223	0.0	4.628E-12	4.228E-10	2.055E-08	2.934E-07	2.887E-06	2.026E-05	2.565E-05
RA224	0.0	3.477E-06	1.110E-04	2.163E-04	2.163E-04	2.163E-04	2.163E-04	2.163E-04
RA225	0.0	2.517E-09	2.516E-08	2.505E-07	2.406E-06	1.701E-05	4.333E-05	6.199E-05
RA226	0.0	9.586E-13	9.699E-11	1.061E-08	1.204E-06	5.087E-05	4.019E-04	1.480E-04
RA228	0.0	4.772E-08	3.130E-07	4.855E-07	4.856E-07	4.856E-07	4.856E-07	4.856E-07
AC225	0.0	1.254E-07	1.253E-06	1.248E-05	1.199E-04	8.475E-04	2.158E-03	3.088E-03
AC227	0.0	6.294E-14	5.747E-12	2.794E-10	3.990E-09	3.926E-08	2.755E-07	3.489E-07
AC228	0.0	5.352E-06	3.511E-05	5.446E-05	5.446E-05	5.446E-05	5.446E-05	5.446E-05
TH227	0.0	4.678E-12	4.274E-10	2.077E-08	2.966E-07	2.918E-06	2.048E-05	2.593E-05
TH228	0.0	3.313E-06	1.058E-04	2.061E-04	2.061E-04	2.061E-04	2.061E-04	2.061E-04
TH229	0.0	1.098E-07	1.097E-06	1.093E-05	1.050E-04	7.422E-04	1.890E-03	2.704E-03
TH230	0.0	4.341E-09	4.426E-08	5.091E-07	6.459E-06	6.403E-05	3.905E-04	1.450E-04
TH231	0.0	2.189E-07	2.189E-07	2.193E-07	2.227E-07	2.566E-07	3.928E-07	4.042E-07
TH232	1.525E-04	1.525E-04	1.525E-04	1.525E-04	1.525E-04	1.525E-04	1.525E-04	1.525E-04
TH234	0.0	1.257E-06	1.257E-06	1.257E-06	1.257E-06	1.257E-06	1.257E-06	1.257E-06
PA231	0.0	2.487E-10	2.490E-09	2.487E-08	2.482E-07	2.442E-06	1.714E-05	2.171E-05

TABLE 5-WVDP(AVG). THERMAL POWER OF ACTINIDES AND DAUGHTERS
IN DECAY OF WEST VALLEY HLM: NUCLIDES

BASED ON ONE CANISTER, AVERAGE RADIOACTIVITY, 1895 KG GLASS

WATTS

NUCLIDE	1990	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
PA233	0.0	9.785E-05	1.001E-04	1.212E-04	2.257E-04	2.575E-04	2.502E-04	1.870E-04
PA234M	0.0	1.532E-05	1.532E-05	1.532E-05	1.532E-05	1.532E-05	1.532E-05	1.532E-05
U233	1.105E-03	1.105E-03	1.105E-03	1.105E-03	1.110E-03	1.193E-03	1.862E-03	2.555E-03
U234	4.897E-04	4.919E-04	5.109E-04	6.422E-04	7.682E-04	7.512E-04	6.021E-04	1.293E-04
U235	1.022E-05	1.022E-05	1.022E-05	1.023E-05	1.039E-05	1.198E-05	1.833E-05	1.887E-05
U236	2.979E-05	2.980E-05	2.991E-05	3.100E-05	4.136E-05	1.050E-04	1.445E-04	1.407E-04
U238	7.864E-05	7.864E-05	7.864E-05	7.864E-05	7.864E-05	7.864E-05	7.864E-05	7.864E-05
NP237	1.314E-03	1.318E-03	1.348E-03	1.633E-03	3.040E-03	3.467E-03	3.369E-03	2.517E-03
NP239	2.273E-02	2.272E-02	2.270E-02	2.251E-02	2.069E-02	8.884E-03	1.896E-06	3.695E-43
PU238	8.951E-01	8.881E-01	8.273E-01	4.072E-01	3.863E-04	8.492E-23	0.0	0.0
PU239	2.095E-01	2.095E-01	2.095E-01	2.097E-01	2.114E-01	2.030E-01	1.893E-02	1.044E-13
PU240	4.672E-01	4.674E-01	4.688E-01	4.688E-01	4.263E-01	1.641E-01	1.179E-05	0.0
PU241	9.307E-03	8.870E-03	5.752E-03	7.674E-05	1.116E-06	5.359E-07	3.478E-10	4.601E-42
PU242	2.009E-04	2.009E-04	2.009E-04	2.010E-04	2.015E-04	2.022E-04	1.733E-04	3.456E-05
AM241	1.130E+01	1.129E+01	1.124E+01	9.912E+00	2.342E+00	5.758E-04	3.726E-07	5.194E-39
AM243	3.022E-01	3.022E-01	3.019E-01	2.994E-01	2.751E-01	1.181E-01	2.521E-05	4.914E-42
CM242	3.059E-03	2.623E-03	2.405E-03	1.595E-03	2.633E-05	3.967E-23	0.0	0.0
CM243	2.275E-02	2.221E-02	1.784E-02	1.999E-03	6.234E-13	0.0	0.0	0.0
CM244	2.727E+00	2.625E+00	1.860E+00	5.936E-02	6.511E-17	0.0	0.0	0.0
CM245	1.294E-03	1.294E-03	1.293E-03	1.284E-03	1.193E-03	5.726E-04	3.716E-07	4.916E-39
CM246	5.566E-04	5.565E-04	5.557E-04	5.485E-04	4.807E-04	1.286E-04	2.413E-10	0.0
SUNTOT	1.596E+01	1.585E+01	1.496E+01	1.139E+01	3.286E+00	5.084E-01	4.277E-02	2.643E-02
TOTAL	1.596E+01	1.585E+01	1.496E+01	1.139E+01	3.286E+00	5.084E-01	4.277E-02	2.643E-02

NUCLIDES CONTRIBUTING < 0.0010 % ARE OMITTED

TABLE 6-WYDP(AVG). THERMAL POWER OF ACTINIDES AND DAUGHTERS
IN DECAY OF WEST VALLEY HLW: ELEMENTS

BASED ON ONE CANISTER, AVERAGE RADIOACTIVITY, 1895 KG GLASS

ELEMENT	WATTS							
	1990	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
TL	0.0	8.579E-07	2.737E-05	5.341E-05	5.453E-05	6.222E-05	7.712E-05	8.711E-05
PB	0.0	1.970E-07	6.201E-06	1.241E-05	1.611E-05	4.616E-05	1.324E-04	1.333E-04
BI	0.0	1.738E-06	5.517E-05	1.087E-04	1.225E-04	2.390E-04	6.001E-04	5.850E-04
PC	0.0	7.765E-06	2.440E-04	4.896E-04	6.469E-04	1.879E-03	5.153E-03	5.469E-03
AT	0.0	1.531E-07	1.531E-06	1.524E-05	1.464E-04	1.035E-03	2.637E-03	3.772E-03
RN	0.0	3.846E-06	1.228E-04	2.393E-04	2.410E-04	3.010E-04	7.241E-04	4.389E-04
FR	0.0	1.385E-07	1.385E-06	1.379E-05	1.324E-04	9.364E-04	2.385E-03	3.412E-03
RA	0.0	3.527E-06	1.114E-04	2.170E-04	2.206E-04	2.875E-04	6.823E-04	4.524E-04
AC	0.0	5.478E-06	3.636E-05	6.693E-05	1.743E-04	9.020E-04	2.213E-03	3.143E-03
TH	1.525E-04	1.574E-04	2.609E-04	3.715E-04	4.718E-04	1.169E-03	2.662E-03	3.236E-03
PA	0.0	1.132E-04	1.155E-04	1.366E-04	2.414E-04	2.753E-04	2.827E-04	2.240E-04
U	1.713E-03	1.728E-03	1.743E-03	1.867E-03	2.008E-03	2.14CE-03	2.706E-03	2.922E-03
NP	2.404E-02	2.404E-02	2.405E-02	2.415E-02	2.373E-02	1.235E-02	3.371E-03	2.517E-03
PU	1.581E+00	1.574E+00	1.512E+00	1.086E+00	6.382E-01	3.674E-01	1.912E-02	3.456E-05
AM	1.160E+01	1.160E+01	1.154E+01	1.021E+01	2.617E+00	1.187E-01	2.559E-05	5.199E-39
CM	2.755E+00	2.652E+00	1.882E+00	6.478E-02	1.700E-03	7.012E-04	3.718E-07	4.916E-39
SUMTOT	1.596E+01	1.585E+01	1.496E+01	1.139E+01	3.286E+00	5.084E-01	4.277E-02	2.643E-02
TOTAL	1.596E+01	1.585E+01	1.496E+01	1.139E+01	3.286E+00	5.084E-01	4.277E-02	2.643E-02

ELEMENTS CONTRIBUTING < 0.0001 % ARE OMITTED

TABLE 7-WVDP(AVG). ALPHA RADIOACTIVITY OF ACTINIDES AND DAUGHTERS
IN DECAY OF WEST VALLEY HLW: NUCLIDES

BASED ON ONE CANISTER, AVERAGE RADIOACTIVITY, 1895 KG GLASS

CURIES

NUCLIDE	1990	1.0YR	10.0YR	100.0YR	1000.0YR	10. CKY	100.0KY	1.0MY
BI211	0.0	1.296E-10	1.184E-08	5.754E-07	8.216E-06	8.085E-05	5.674E-04	7.184E-04
BI212	0.0	3.640E-05	1.162E-03	2.264E-03	2.264E-03	2.264E-03	2.264E-03	2.264E-03
BI213	0.0	7.752E-08	7.749E-07	7.716E-06	7.411E-05	5.240E-04	1.335E-03	1.909E-03
PC210	0.0	1.088E-13	3.208E-10	2.009E-07	4.168E-05	1.761E-03	1.391E-02	5.123E-03
PC212	0.0	6.491E-05	2.073E-03	4.037E-03	4.037E-03	4.037E-03	4.037E-03	4.037E-03
PC213	0.0	3.511E-06	3.510E-05	3.495E-04	3.357E-03	2.374E-02	6.046E-02	8.649E-02
PC214	0.0	3.319E-11	3.358E-09	3.674E-07	4.168E-05	1.761E-03	1.391E-02	5.123E-03
PC215	0.0	1.300E-10	1.187E-08	5.770E-07	8.240E-06	8.108E-05	5.689E-04	7.204E-04
PC216	0.0	1.013E-04	3.235E-03	6.301E-03	6.301E-03	6.301E-03	6.301E-03	6.301E-03
PC218	0.0	3.319E-11	3.359E-09	3.675E-07	4.168E-05	1.761E-03	1.392E-02	5.124E-03
AT217	0.0	3.589E-06	3.587E-05	3.572E-04	3.431E-03	2.426E-02	6.179E-02	8.840E-02
RN219	0.0	1.300E-10	1.187E-08	5.770E-07	8.240E-06	8.108E-05	5.689E-04	7.204E-04
RN220	0.0	1.013E-04	3.235E-03	6.301E-03	6.301E-03	6.301E-03	6.301E-03	6.301E-03
RN222	0.0	3.320E-11	3.359E-09	3.675E-07	4.169E-05	1.762E-03	1.392E-02	5.125E-03
FR221	0.0	3.589E-06	3.587E-05	3.572E-04	3.431E-03	2.426E-02	6.179E-02	8.840E-02
RA223	0.0	1.300E-10	1.187E-08	5.770E-07	8.240E-06	8.108E-05	5.690E-04	7.204E-04
RA224	0.0	1.013E-04	3.235E-03	6.301E-03	6.301E-03	6.301E-03	6.301E-03	6.301E-03
RA226	0.0	3.320E-11	3.359E-09	3.675E-07	4.169E-05	1.762E-03	1.392E-02	5.125E-03
AC225	0.0	3.589E-06	3.587E-05	3.572E-04	3.431E-03	2.426E-02	6.179E-02	8.840E-02
AC227	0.0	1.794E-12	1.638E-10	7.962E-09	1.137E-07	1.119E-06	7.852E-06	9.942E-06
TH227	0.0	1.282E-10	1.171E-08	5.691E-07	8.126E-06	7.996E-05	5.611E-04	7.105E-04
TH228	0.0	1.013E-04	3.234E-03	6.301E-03	6.301E-03	6.301E-03	6.301E-03	6.301E-03
TH229	0.0	3.589E-06	3.587E-05	3.572E-04	3.431E-03	2.426E-02	6.179E-02	8.840E-02
TH230	0.0	1.534E-07	1.564E-06	1.799E-05	2.282E-04	2.263E-03	1.380E-02	5.122E-03
TH232	6.301E-03	6.301E-03	6.301E-03	6.301E-03	6.301E-03	6.301E-03	6.301E-03	6.301E-03
PA231	0.0	8.253E-09	8.263E-08	8.254E-07	8.237E-06	8.105E-05	5.689E-04	7.204E-04
U233	3.800E-02	3.800E-02	3.800E-02	3.800E-02	3.818E-02	4.105E-02	6.405E-02	8.788E-02
U234	1.700E-02	1.708E-02	1.774E-02	2.230E-02	2.667E-02	2.608E-02	2.091E-02	4.489E-03
U235	3.901E-04	3.901E-04	3.902E-04	3.908E-04	3.968E-04	4.573E-04	7.000E-04	7.204E-04
U236	1.100E-03	1.100E-03	1.104E-03	1.144E-03	1.527E-03	3.876E-03	5.334E-03	5.194E-03
U238	3.100E-03	3.100E-03	3.100E-03	3.100E-03	3.100E-03	3.100E-03	3.100E-03	3.100E-03
NP237	4.300E-02	4.311E-02	4.410E-02	5.342E-02	9.945E-02	1.134E-01	1.102E-01	8.237E-02
PU238	2.701E+01	2.680E+01	2.496E+01	1.229E+01	1.166E-02	2.562E-21	0.0	0.0
PU239	6.797E+00	6.797E+00	6.798E+00	6.805E+00	6.859E+00	6.588E+00	6.144E-01	3.389E-12
PU240	1.500E+01	1.501E+01	1.506E+01	1.506E+01	1.369E+01	5.272E+00	3.785E-04	0.0
PU241	7.355E-03	7.010E-03	4.546E-03	6.064E-05	8.823E-07	4.235E-07	2.748E-10	3.636E-42
PU242	6.803E-03	6.803E-03	6.803E-03	6.807E-03	6.825E-03	6.846E-03	5.868E-03	1.170E-03
AM241	3.400E+02	3.400E+02	3.384E+02	2.984E+02	7.051E+01	1.733E-02	1.122E-05	1.563E-37
AM243	9.401E+00	9.400E+00	9.392E+00	9.313E+00	8.558E+00	3.675E+00	7.843E-04	1.529E-40
CM242	8.302E-02	7.118E-02	6.528E-02	7.118E-02	7.146E-04	1.077E-21	0.0	0.0
CM243	6.187E-01	6.039E-01	4.851E-01	5.436E-02	1.695E-11	0.0	0.0	0.0

TABLE 7-WVDP(AVG). ALPHA RADIODACTIVITY OF ACTINIDES AND DAUGHTERS
IN DECAY OF WEST VALLEY MLW: NUCLIDES

BASED ON ONE CANISTER, AVERAGE RADIOACTIVITY, 1895 KG GLASS

CURIES

NUCLIDE	1990	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
CM244	7.797E+01	7.504E+01	5.317E+01	1.697E+00	1.861E-15	0.0	0.0	0.0
CM245	3.901E-02	3.900E-02	3.898E-02	3.869E-02	3.595E-02	1.726E-02	1.120E-05	1.481E-37
CM246	1.699E-02	1.699E-02	1.697E-02	1.675E-02	1.468E-02	3.927E-03	7.370E-09	0.0
SUMTOT	4.771E+02	4.739E+02	4.486E+02	3.439E+02	9.991E+01	1.594E+01	1.259E+00	6.998E-01
TOTAL	4.771E+02	4.739E+02	4.486E+02	3.439E+02	9.991E+01	1.594E+01	1.259E+00	6.998E-01

NUCLIDES CONTRIBUTING < 0.0010 % ARE OMITTED

TABLE 8-WVDP(AVG). ALPHA RADIOACTIVITY OF ACTINIDES AND DAUGHTERS
IN DECAY OF WEST VALLEY HLW: ELEMENTS

BASED ON ONE CANISTER, AVERAGE RADIOACTIVITY, 1895 KG GLASS

CURIES

ELEMENT	1990	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
BI	0.0	3.648E-05	1.163E-03	2.272E-03	2.346E-03	2.865E-03	4.169E-03	4.893E-03
PC	0.0	1.697E-04	5.343E-03	1.069E-02	1.383E-02	3.944E-02	1.131E-01	1.129E-01
AT	0.0	3.589E-06	3.587E-05	3.572E-04	3.431E-03	2.426E-02	6.179E-02	8.840E-02
RN	0.0	1.013E-04	3.235E-03	6.302E-03	6.351E-03	8.144E-03	2.079E-02	1.215E-02
FR	0.0	3.589E-06	3.587E-05	3.572E-04	3.431E-03	2.426E-02	6.179E-02	8.840E-02
RA	0.0	1.013E-04	3.235E-03	6.302E-03	6.351E-03	8.144E-03	2.079E-02	1.215E-02
AC	0.0	3.589E-06	3.587E-05	3.572E-04	3.431E-03	2.426E-02	6.180E-02	8.841E-02
TH	6.301E-03	6.406E-03	9.572E-03	1.298E-02	1.627E-02	3.921E-02	8.875E-02	1.068E-01
PA	0.0	8.253E-09	8.263E-08	8.254E-07	8.237E-06	8.105E-05	5.689E-04	7.204E-04
U	5.959E-02	5.967E-02	6.033E-02	6.494E-02	6.987E-02	7.456E-02	9.409E-02	1.014E-01
NP	4.300E-02	4.311E-02	4.410E-02	5.342E-02	9.945E-02	1.134E-01	1.102E-01	8.237E-02
PU	4.882E+01	4.862E+01	4.683E+01	3.415E+01	2.057E+01	1.187E+01	6.207E-01	1.170E-03
AM	3.494E+02	3.494E+02	3.478E+02	3.077E+02	7.907E+01	3.693E+00	7.956E-04	1.565E-37
CM	7.873E+01	7.577E+01	5.378E+01	1.850E+00	5.135E-02	2.118E-02	1.121E-05	1.481E-37
SUMTOT	4.771E+02	4.739E+02	4.486E+02	3.439E+02	9.991E+01	1.594E+01	1.259E+00	6.998E-01
TOTAL	4.771E+02	4.739E+02	4.486E+02	3.439E+02	9.991E+01	1.594E+01	1.259E+00	6.998E-01

TABLE 9-WVDP(AVG). (ALPHA,N) NEUTRON SOURCES
IN DECAY OF WEST VALLEY HLW

BASED ON ONE CANISTER, AVERAGE RADIOACTIVITY, 1895 KG GLASS

NUCLIDE	NEUTRONS/SEC							
	1990	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
BI211	0.0	2.190E-07	2.000E-05	9.722E-04	1.388E-02	1.366E-01	9.585E-01	1.214E+00
BI212	0.0	8.913E-02	2.846E+00	5.543E+00	5.544E+00	5.544E+00	5.544E+00	5.544E+00
PC210	0.0	9.193E-11	2.710E-07	1.697E-04	2.520E-02	1.487E+00	1.175E+01	4.326E+00
PO212	0.0	1.890E-01	6.036E+00	1.176E+01	1.176E+01	1.176E+01	1.176E+01	1.176E+01
PO213	0.0	9.597E-03	9.593E-02	9.553E-01	5.175E+00	6.488E+01	1.652E+02	2.364E+02
PC214	0.0	7.842E-08	7.935E-06	8.682E-04	5.849E-02	4.162E+00	3.288E+01	1.211E+01
PC215	0.0	2.841E-07	2.595E-05	1.261E-03	1.801E-02	1.772E-01	1.243E+00	1.574E+00
PC216	0.0	1.816E-01	5.798E+00	1.129E+01	1.129E+01	1.129E+01	1.129E+01	1.129E+01
PC218	0.0	4.238E-08	4.288E-06	4.692E-04	5.322E-02	2.245E+00	1.777E+01	6.542E+00
AT217	0.0	7.106E-03	7.103E-02	7.073E-01	6.793E+00	4.804E+01	1.223E+02	1.750E+02
RA219	0.0	2.408E-07	2.200E-05	1.069E-03	1.527E-02	1.502E-01	1.054E+00	1.335E+00
RN220	0.0	1.485E-01	4.740E+00	9.233E+00	9.233E+00	9.233E+00	9.233E+00	9.233E+00
RN222	0.0	3.157E-08	3.194E-06	3.495E-04	3.964E-02	1.675E+00	1.324E+01	4.873E+00
FR221	0.0	5.508E-03	5.505E-02	5.482E-01	5.265E+00	3.723E+01	9.482E+01	1.357E+02
RA224	0.0	1.086E-01	3.469E+00	6.756E+00	6.756E+00	6.756E+00	6.756E+00	6.756E+00
RA226	0.0	1.863E-08	1.885E-06	2.062E-04	2.340E-02	9.886E-01	7.811E+00	2.876E+00
AC225	0.0	4.078E-03	4.076E-02	4.059E-01	3.899E+00	2.757E+01	7.021E+01	1.005E+02
TH227	0.0	1.672E-07	1.527E-05	7.422E-04	1.060E-02	1.043E-01	7.318E-01	9.267E-01
TH228	0.0	9.195E-02	2.935E+00	5.719E+00	5.719E+00	5.719E+00	5.719E+00	5.719E+00
TH229	0.0	2.541E-03	2.540E-02	2.529E-01	2.429E+00	1.718E+01	4.375E+01	6.259E+01
TH230	0.0	7.909E-05	8.064E-04	9.276E-03	1.177E-01	1.167E+00	7.114E+00	2.641E+00
TH232	1.578E+00	1.578E+00	1.578E+00	1.578E+00	1.578E+00	1.578E+00	1.578E+00	1.578E+00
U233	2.193E+01	2.193E+01	2.193E+01	2.193E+01	2.203E+01	2.369E+01	3.696E+01	5.071E+01
U234	9.443E+00	9.486E+00	9.852E+00	1.238E+01	1.481E+01	1.449E+01	1.161E+01	2.493E+00
U236	4.687E-01	4.689E-01	4.706E-01	4.878E-01	6.509E-01	1.652E+00	2.274E+00	2.214E+00
U238	9.751E-01	9.751E-01	9.751E-01	9.751E-01	9.751E-01	9.751E-01	9.751E-01	9.751E-01
NP237	3.033E+01	3.041E+01	3.111E+01	3.768E+01	7.015E+01	8.001E+01	7.776E+01	5.810E+01
PU238	2.570E+04	2.549E+04	2.375E+04	1.169E+04	1.109E+01	2.438E-18	0.0	0.0
PU239	4.951E+03	4.951E+03	4.951E+03	4.957E+03	4.996E+03	4.795E+03	4.475E+02	2.469E-09
PU240	1.137E+04	1.137E+04	1.141E+04	1.141E+04	1.037E+04	3.994E+03	2.868E-01	0.0
PU242	4.183E+00	4.183E+00	4.184E+00	4.186E+00	4.197E+00	4.210E+00	3.608E+00	7.196E-01
AM241	3.262E+05	3.261E+05	3.246E+05	2.862E+05	6.763E+04	1.662E+01	1.076E-02	1.500E-34
AM243	8.020E+03	8.019E+03	8.013E+03	7.945E+03	7.301E+03	3.135E+03	6.691E-01	1.304E-37
CM243	8.257E+02	8.059E+02	6.475E+02	7.255E+02	2.262E-08	0.0	0.0	0.0
CM244	8.897E+04	8.563E+04	6.068E+04	1.936E+03	2.124E-12	0.0	0.0	0.0
CM245	3.727E+01	3.727E+01	3.724E+01	3.697E+01	3.435E+01	1.645E+01	1.070E-02	1.416E-34
TOTALS								
TABLE	4.662E+05	4.626E+05	4.343E+05	3.245E+05	9.056E+04	1.235E+04	1.226E+03	9.172E+02
ACTUAL	4.662E+05	4.626E+05	4.343E+05	3.245E+05	9.056E+04	1.235E+04	1.226E+03	9.172E+02

TABLE 10-WYDP(AVG). SPONTANEOUS FISSION NEUTRON SOURCES
IN DECAY OF WEST VALLEY HLW

BASED ON ONE CANISTER, AVERAGE RADIOACTIVITY, 1895 KG GLASS

NUCLIDE	NEUTRONS/SEC							
	1990	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
U238	1.170E+02	1.170E+02	1.170E+02	1.170E+02	1.170E+02	1.170E+02	1.170E+02	1.170E+02
PU238	4.190E+03	4.158E+03	3.873E+03	1.906E+03	1.809E+00	3.976E-19	0.0	0.0
PU240	5.993E+04	5.996E+04	6.014E+04	6.014E+04	5.468E+04	2.106E+04	1.512E+00	0.0
PU242	3.002E+03	3.002E+03	3.002E+03	3.004E+03	3.012E+03	3.021E+03	2.589E+03	5.164E+02
CM244	1.071E+07	1.031E+07	7.306E+06	2.331E+05	2.557E-10	0.0	0.0	0.0
CM246	4.923E+05	4.922E+05	4.916E+05	4.851E+05	4.252E+05	1.137E+05	2.135E-01	0.0
TOTALS								
TABLE	1.127E+07	1.087E+07	7.865E+06	7.840E+05	4.832E+05	1.380E+05	2.709E+03	6.339E+02
ACTUAL	1.127E+07	1.087E+07	7.865E+06	7.840E+05	4.832E+05	1.380E+05	2.709E+03	6.339E+02

TABLE 11-WVDP(AVG). PHOTON SPECTRUM OF ACTINIDES AND DAUGHTERS
IN DECAY OF WEST VALLEY HLW

BASED ON ONE CANISTER, AVERAGE RADIOACTIVITY, 1895 KG GLASS

EMEAN	PHOTONS/SEC							
	1990	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
18 GROUP PHOTDN RELEASE RATES, PHOTONS/SECOND								
1.000E-02	3.901E+12	3.883E+12	3.733E+12	3.026E+12	1.042E+12	2.103E+11	1.341E+10	1.203E+10
2.500E-02	3.227E+11	3.226E+11	3.212E+11	2.837E+11	7.032E+10	2.305E+09	8.215E+08	7.305E+08
3.750E-02	5.289E+10	5.286E+10	5.245E+10	4.838E+10	2.870E+10	1.044E+10	1.164E+09	1.583E+09
5.750E-02	4.687E+12	4.686E+12	4.665E+12	4.114E+12	9.777E+11	3.573E+09	3.858E+08	3.903E+08
8.500E-02	2.679E+11	2.683E+11	2.674E+11	2.622E+11	2.398E+11	1.048E+11	4.252E+09	4.385E+09
1.250E-01	1.784E+11	1.784E+11	1.769E+11	1.704E+11	1.543E+11	6.641E+10	7.498E+08	7.533E+08
2.250E-01	1.225E+11	1.224E+11	1.209E+11	1.148E+11	1.049E+11	4.546E+10	1.167E+09	1.272E+09
3.750E-01	1.125E+10	1.189E+10	1.192E+10	1.196E+10	1.168E+10	6.393E+09	2.653E+09	2.442E+09
5.750E-01	1.404E+08	1.453E+08	2.003E+08	2.409E+08	1.817E+08	1.877E+08	4.420E+08	2.859E+08
8.500E-01	4.285E+07	6.540E+07	1.726E+08	2.371E+08	2.167E+08	2.222E+08	2.872E+08	2.480E+08
1.250E+00	7.857E+06	1.265E+07	1.784E+07	1.713E+07	1.582E+07	3.997E+07	1.985E+08	9.064E+07
1.750E+00	3.831E+06	5.889E+06	1.967E+07	2.840E+07	3.090E+07	6.319E+07	2.140E+08	1.432E+08
2.250E+00	2.219E+06	2.140E+06	1.549E+06	1.575E+05	2.247E+05	5.572E+06	4.381E+07	1.613E+07
2.750E+00	1.285E+06	2.517E+06	4.170E+07	7.956E+07	7.953E+07	7.958E+07	8.023E+07	7.975E+07
3.500E+00	1.157E+06	1.115E+06	8.071E+05	8.045E+04	4.875E+04	3.211E+04	1.435E+05	5.278E+04
5.000E+00	4.945E+05	4.769E+05	3.450E+05	3.416E+04	2.061E+04	5.986E+03	1.557E+02	3.761E+01
7.000E+00	5.700E+04	5.497E+04	3.976E+04	3.909E+03	2.370E+03	6.893E+02	1.781E+01	4.264E+00
9.500E+00	6.547E+03	6.313E+03	4.566E+03	4.474E+02	2.721E+02	7.922E+01	2.042E+00	4.861E-01
TOTAL	9.544E+12	9.526E+12	9.350E+12	8.033E+12	2.629E+12	4.503E+11	2.587E+10	2.445E+10

TABLE 12-WVDP(AVG). CONCENTRATIONS OF FISSION PRODUCTS
IN DECAY OF WEST VALLEY HLW: NUCLIDES

BASED ON ONE CANISTER, AVERAGE RADIOACTIVITY, 1895 KG GLASS

NUCLIDE	GRAMS							
	1990	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
SR 90	1.979E+02	1.932E+02	1.560E+02	1.831E+01	5.106E-09	0.0	0.0	0.0
ZR 90	0.0	4.656E+00	4.193E+01	1.796E+02	1.979E+02	1.975E+02	1.979E+02	1.979E+02
ZR 93	3.780E+02	3.780E+02	3.780E+02	3.780E+02	3.778E+02	3.763E+02	3.613E+02	2.403E+02
NB 93	0.0	1.497E-04	1.540E-03	1.669E-02	1.708E-01	1.708E+00	1.674E+01	1.377E+02
TC 99	3.950E+02	3.950E+02	3.950E+02	3.949E+02	3.937E+02	3.824E+02	2.853E+02	1.525E+01
RU 99	0.0	1.285E-03	1.285E-02	1.285E-01	1.283E+00	1.265E+01	1.097E+02	3.797E+02
PD107	9.137E+00	9.137E+00	9.137E+00	9.137E+00	9.136E+00	9.127E+00	9.040E+00	8.212E+00
SN126	5.638E+00	5.638E+00	5.638E+00	5.634E+00	5.599E+00	5.260E+00	2.819E+00	5.509E-03
TE126	0.0	4.144E-05	3.931E-04	3.909E-03	3.894E-02	3.775E-01	2.819E+00	5.632E+00
CS135	5.469E+02	5.469E+02	5.469E+02	5.469E+02	5.467E+02	5.453E+02	5.307E+02	4.046E+02
BA135	0.0	1.648E-04	1.648E-03	1.648E-02	1.648E-01	1.646E+00	1.624E+01	1.423E+02
CS137	3.333E+02	3.257E+02	2.645E+02	3.307E+01	3.078E-08	0.0	0.0	0.0
BA137	0.0	7.613E+00	6.876E+01	3.002E+02	3.333E+02	3.333E+02	3.333E+02	3.333E+02
SM151	3.079E+01	3.055E+01	2.851E+01	1.425E+01	1.391E-02	1.093E-32	0.0	0.0
EU151	0.0	2.362E-01	2.282E+00	1.654E+01	3.078E+01	3.075E+01	3.079E+01	3.079E+01
SUMTDT	1.899E+03	1.899E+03	1.899E+03	1.899E+03	1.899E+03	1.899E+03	1.899E+03	1.899E+03
TOTAL	1.899E+03	1.899E+03	1.899E+03	1.899E+03	1.899E+03	1.899E+03	1.899E+03	1.899E+03

NUCLIDES CONTRIBUTING < 0.1000 % ARE OMITTED

TABLE 13-WVDP(AVG). CONCENTRATIONS OF FISSION PRODUCTS
IN DECAY OF WEST VALLEY HLW: ELEMENTS

BASED ON ONE CANISTER, AVERAGE RADIOACTIVITY, 1895 KG GLASS

ELEMENT	GRAMS							
	1990	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
SR	1.979E+02	1.932E+02	1.560E+02	1.831E+01	9.106E-09	0.0	0.0	0.0
ZR	3.780E+02	3.827E+02	4.199E+02	5.576E+02	5.758E+02	5.742E+02	5.592E+02	4.382E+02
NB	2.759E-03	2.930E-03	4.472E-03	1.988E-02	1.740E-01	1.711E+00	1.675E+01	1.377E+02
TC	3.950E+02	3.950E+02	3.950E+02	3.949E+02	3.937E+02	3.824E+02	2.853E+02	1.525E+01
RU	9.561E-06	1.290E-03	1.285E-02	1.285E-01	1.283E+00	1.265E+01	1.097E+02	3.797E+02
PD	9.137E+00	9.137E+00	9.137E+00	9.137E+00	9.136E+00	9.127E+00	9.040E+00	8.212E+00
AG	0.0	9.749E-07	9.749E-06	9.749E-05	9.749E-04	9.744E-03	9.698E-02	9.247E-01
SN	5.638E+00	5.638E+00	5.638E+00	5.634E+00	5.599E+00	5.260E+00	2.819E+00	5.509E-03
TE	1.054E-04	1.947E-03	7.965E-03	1.215E-02	4.718E-02	3.858E-01	2.827E+00	5.641E+00
CS	8.802E+02	8.726E+02	8.114E+02	5.799E+02	5.467E+02	5.453E+02	5.307E+02	4.046E+02
BA	5.019E-05	7.616E+00	6.877E+01	3.003E+02	3.335E+02	3.350E+02	3.495E+02	4.756E+02
PM	5.825E-01	4.472E-01	4.148E-02	1.951E-12	0.0	0.0	0.0	0.0
SM	3.079E+01	3.069E+01	2.905E+01	1.484E+01	6.027E-01	5.887E-01	5.887E-01	5.887E-01
EU	1.617E+00	1.721E+00	2.981E+00	1.654E+01	3.078E+01	3.079E+01	3.079E+01	3.079E+01
GD	0.0	1.314E-01	9.160E-01	1.610E+00	1.610E+00	1.610E+00	1.610E+00	1.610E+00
SUMTGT	1.899E+03	1.899E+03	1.899E+03	1.899E+03	1.899E+03	1.899E+03	1.899E+03	1.899E+03
TCTAL	1.899E+03	1.899E+03	1.899E+03	1.899E+03	1.899E+03	1.899E+03	1.899E+03	1.899E+03

ELEMENTS CONTRIBUTING < 0.0100 % ARE OMITTED

TABLE 14-WVDP(AVG). RADIOACTIVITY OF FISSION PRODUCTS
IN DECAY OF WEST VALLEY HLW: NUCLIDES

BASED ON ONE CANISTER, AVERAGE RADIOACTIVITY, 1895 KG GLASS

NUCLIDE	CURIES							
	1990	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
SR 90	2.701E+04	2.637E+04	2.129E+04	2.499E+03	1.243E-06	0.0	0.0	0.0
Y 90	2.701E+04	2.638E+04	2.129E+04	2.499E+03	1.243E-06	0.0	0.0	0.0
ZR 93	9.502E-01	9.502E-01	9.502E-01	9.501E-01	9.497E-01	9.455E-01	9.081E-01	6.040E-01
NB 93M	7.801E-01	7.862E-01	8.291E-01	9.019E-01	9.023E-01	8.986E-01	8.627E-01	5.738E-01
TC 99	6.699E+00	6.699E+00	6.699E+00	6.697E+00	6.677E+00	6.485E+00	4.838E+00	2.587E-01
PO107	4.701E-03	4.701E-03	4.701E-03	4.701E-03	4.701E-03	4.696E-03	4.651E-03	4.226E-03
SB125	8.400E+00	6.540E+00	6.878E-01	1.137E-10	0.0	0.0	0.0	0.0
TE125M	1.899E+00	1.594E+00	1.678E-01	2.774E-11	0.0	0.0	0.0	0.0
SN126	1.600E-01	1.600E-01	1.600E-01	1.599E-01	1.589E-01	1.493E-01	8.001E-02	1.563E-04
SB126	2.200E-01	2.240E-02	2.240E-02	2.239E-02	2.225E-02	2.090E-02	1.120E-02	2.189E-05
SB126M	1.600E-01	1.600E-01	1.600E-01	1.599E-01	1.589E-01	1.493E-01	8.001E-02	1.564E-04
CS134	1.500E+01	1.072E+01	5.203E-01	3.690E-14	0.0	0.0	0.0	0.0
CS135	6.300E-01	6.300E-01	6.300E-01	6.299E-01	6.298E-01	6.281E-01	6.113E-01	4.660E-01
CS137	2.900E+04	2.834E+04	2.302E+04	2.877E+03	2.678E-06	0.0	0.0	0.0
BA137M	2.701E+04	2.681E+04	2.178E+04	2.722E+03	2.534E-06	0.0	0.0	0.0
PM147	5.402E+02	4.148E+02	3.847E+01	1.809E-09	0.0	0.0	0.0	0.0
SM151	8.104E+02	8.041E+02	7.503E+02	3.751E+02	2.662E-01	2.876E-31	0.0	0.0
EU152	1.500E+00	1.426E+00	9.011E-01	9.178E-03	1.103E-22	0.0	0.0	0.0
EU154	3.999E+02	3.690E+02	1.786E+02	1.264E-01	3.974E-33	0.0	0.0	0.0
EU155	5.904E+01	5.134E+01	1.459E+01	5.024E-05	0.0	0.0	0.0	0.0
SUMTOT	1.119E+05	1.096E+05	8.837E+04	1.098E+04	9.870E+00	9.281E+00	7.396E+00	1.907E+00
TOTAL	1.119E+05	1.096E+05	8.837E+04	1.098E+04	9.870E+00	9.281E+00	7.396E+00	1.907E+00

NUCLIDES CONTRIBUTING < 0.0010 % ARE OMITTED

TABLE 15-WVDP(AVG). RADIOACTIVITY OF FISSION PRODUCTS
IN DECAY OF WEST VALLEY HLW: ELEMENTS

BASED ON ONE CANISTER, AVERAGE RADIOACTIVITY, 1895 KG GLASS

ELEMENT	CURIES							
	1990	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
SR	2.701E+04	2.637E+04	2.129E+04	2.499E+03	1.243E-06	0.0	0.0	0.0
Y	2.701E+04	2.638E+04	2.129E+04	2.499E+03	1.243E-06	0.0	0.0	0.0
ZR	9.502E-01	9.502E-01	9.502E-01	9.501E-01	9.497E-01	9.455E-01	9.081E-01	6.040E-01
NB	7.801E-01	7.862E-01	8.291E-01	9.019E-01	9.023E-01	8.986E-01	8.627E-01	5.738E-01
TC	6.699E+00	6.699E+00	6.699E+00	6.697E+00	6.677E+00	6.485E+00	4.838E+00	2.587E-01
PD	4.701E-03	4.701E-03	4.701E-03	4.701E-03	4.701E-03	4.696E-03	4.651E-03	4.226E-03
SN	1.600E-01	1.600E-01	1.600E-01	1.599E-01	1.589E-01	1.493E-01	8.001E-02	1.563E-04
SB	8.780E+00	6.723E+00	8.702E-01	1.823E-01	1.812E-01	1.702E-01	9.122E-02	1.782E-04
CS	2.902E+04	2.835E+04	2.302E+04	2.878E+03	6.298E-01	6.281E-01	6.113E-01	4.660E-01
BA	2.701E+04	2.681E+04	2.178E+04	2.722E+03	2.534E-06	0.0	0.0	0.0
PM	5.402E+02	4.148E+02	3.847E+01	1.809E-09	0.0	0.0	0.0	0.0
SM	8.104E+02	8.041E+02	7.503E+02	3.751E+02	3.662E-01	1.324E-08	1.324E-08	1.324E-08
EU	4.605E+02	4.217E+02	1.941E+02	1.356E-01	1.103E-22	0.0	0.0	0.0
SUMTOT	1.119E+05	1.096E+05	8.837E+04	1.098E+04	9.870E+00	9.281E+00	7.396E+00	1.907E+00
TOTAL	1.119E+05	1.096E+05	8.837E+04	1.098E+04	9.870E+00	9.281E+00	7.396E+00	1.907E+00

ELEMENTS CONTRIBUTING < 0.0100 % ARE OMITTED

TABLE 16-WVDP(AVG). THERMAL POWER OF FISSION PRODUCTS
IN DECAY OF WEST VALLEY HLW: NUCLIDES

BASED ON ONE CANISTER, AVERAGE RADIOACTIVITY, 1895 KG GLASS

WATTS

NUCLIDE	1990	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
SR 90	3.134E+01	3.061E+01	2.470E+01	2.900E+00	1.442E-09	0.0	0.0	0.0
Y 90	1.497E+02	1.462E+02	1.180E+02	1.385E+01	6.889E-09	0.0	0.0	0.0
ZR 93	1.104E-04	1.104E-04	1.104E-04	1.104E-04	1.103E-04	1.099E-04	1.055E-04	7.017E-05
NB 93M	1.382E-04	1.393E-04	1.469E-04	1.598E-04	1.599E-04	1.592E-04	1.528E-04	1.017E-04
TC 99	3.360E-03	3.359E-03	3.359E-03	3.358E-03	3.349E-03	3.252E-03	2.426E-03	1.297E-04
PD107	2.787E-07	2.787E-07	2.787E-07	2.787E-07	2.787E-07	2.784E-07	2.757E-07	2.505E-07
SB125	2.626E-02	2.045E-02	2.150E-03	3.554E-13	0.0	0.0	0.0	0.0
SN126	1.996E-04	1.996E-04	1.996E-04	1.994E-04	1.982E-04	1.862E-04	9.979E-05	1.950E-07
SB126	4.066E-03	4.139E-04	4.139E-04	4.136E-04	4.111E-04	3.862E-04	2.070E-04	4.044E-07
SB126M	2.037E-03	2.037E-03	2.037E-03	2.036E-03	2.023E-03	1.901E-03	1.019E-03	1.991E-06
CS134	1.527E-01	1.091E-01	5.295E-03	3.755E-16	0.0	0.0	0.0	0.0
CS135	2.102E-04	2.102E-04	2.102E-04	2.102E-04	2.102E-04	2.096E-04	2.040E-04	1.555E-04
CS137	3.208E+01	3.135E+01	2.546E+01	3.183E+00	2.962E-09	0.0	0.0	0.0
BA137M	1.060E+02	1.053E+02	8.551E+01	1.069E+01	9.948E-09	0.0	0.0	0.0
PM147	1.938E-01	1.488E-01	1.380E-02	6.489E-13	0.0	0.0	0.0	0.0
SM151	9.501E-02	9.428E-02	8.797E-02	4.398E-02	4.293E-05	3.372E-35	0.0	0.0
EU152	1.135E-02	1.078E-02	6.816E-03	6.942E-05	8.344E-25	0.0	0.0	0.0
EU154	3.577E+00	3.300E+00	1.598E+00	1.131E-03	3.554E-35	0.0	0.0	0.0
EU155	4.294E-02	3.734E-02	1.061E-02	3.654E-08	0.0	0.0	0.0	0.0
SUMTOT	3.233E+02	3.171E+02	2.554E+02	3.068E+01	6.505E-03	6.204E-03	4.215E-03	4.599E-04
TOTAL	3.233E+02	3.171E+02	2.554E+02	3.068E+01	6.505E-03	6.204E-03	4.215E-03	4.599E-04

NUCLIDES CONTRIBUTING < 0.0010 % ARE OMITTED

TABLE 17-WVDP (AVG). THERMAL POWER OF FISSION PRODUCTS
IN DECAY OF WEST VALLEY HLW: ELEMENTS

BASED ON ONE CANISTER, AVERAGE RADIOACTIVITY, 1895 KG GLASS

ELEMENT	WATTS							
	1990	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
SR	3.134E+01	3.061E+01	2.470E+01	2.900E+00	1.442E-09	0.0	0.0	0.0
Y	1.497E+02	1.462E+02	1.180E+02	1.385E+01	6.889E-09	0.0	0.0	0.0
ZR	1.104E-04	1.104E-04	1.104E-04	1.104E-04	1.103E-04	1.099E-04	1.055E-04	7.017E-05
NB	1.382E-04	1.393E-04	1.469E-04	1.598E-04	1.599E-04	1.592E-04	1.528E-04	1.017E-04
TC	3.360E-03	3.359E-03	3.359E-03	3.358E-03	3.349E-03	3.252E-03	2.426E-03	1.297E-04
PD	2.787E-07	2.787E-07	2.787E-07	2.787E-07	2.787E-07	2.784E-07	2.757E-07	2.505E-07
SN	1.996E-04	1.996E-04	1.996E-04	1.994E-04	1.982E-04	1.862E-04	9.979E-05	1.950E-07
SE	3.236E-02	2.290E-02	4.602E-03	2.450E-03	2.434E-03	2.287E-03	1.226E-03	2.395E-06
CS	3.223E+01	3.146E+01	2.547E+01	3.183E+00	2.102E-04	2.096E-04	2.040E-04	1.555E-04
BA	1.060E+02	1.053E+02	8.551E+01	1.069E+01	9.948E-09	0.0	0.0	0.0
PM	1.938E-01	1.488E-01	1.380E-02	6.489E-13	0.0	0.0	0.0	0.0
SM	7.501E-02	9.428E-02	8.797E-02	4.398E-02	4.293E-05	1.813E-10	1.813E-10	1.813E-10
EU	3.632E+00	3.348E+00	1.615E+00	1.200E-03	8.344E-25	0.0	0.0	0.0
SUMTOT	3.233E+02	3.171E+02	2.554E+02	3.068E+01	6.505E-03	6.204E-03	4.215E-03	4.599E-04
TCIAL	3.233E+02	3.171E+02	2.554E+02	3.068E+01	6.505E-03	6.204E-03	4.215E-03	4.599E-04

ELEMENTS CONTRIBUTING < 0.0100 % ARE OMITTED

TABLE 18-WVDP(AVG). PHOTON SPECTRUM OF FISSION PRODUCTS
IN DECAY OF WEST VALLEY HLW

BASED ON ONE CANISTER, AVERAGE RADIOACTIVITY, 1895 KG GLASS

E _{MEAN}	PHOTONS/SEC							
	1990	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
18 GROUP PHOTON RELEASE RATES, PHOTONS/SECOND								
1.000E-02	7.910E+14	7.723E+14	6.227E+14	7.372E+13	2.123E+10	2.062E+10	1.644E+10	5.102E+09
2.500E-02	1.635E+14	1.596E+14	1.286E+14	1.521E+13	4.859E+09	4.622E+09	2.920E+09	1.620E+08
3.750E-02	1.751E+14	1.718E+14	1.377E+14	1.643E+13	1.477E+09	1.423E+09	1.007E+09	8.269E+07
5.750E-02	1.519E+14	1.483E+14	1.194E+14	1.405E+13	2.269E+09	2.171E+09	1.424E+09	8.231E+07
8.500E-02	9.067E+13	8.846E+13	7.106E+13	8.362E+12	3.462E+09	3.267E+09	1.844E+09	2.871E+07
1.250E-01	6.422E+13	6.235E+13	4.837E+13	5.378E+12	3.095E+08	2.956E+08	1.901E+08	7.721E+06
2.250E-01	7.723E+13	7.535E+13	6.045E+13	7.052E+12	3.214E+08	3.031E+08	1.698E+08	1.750E+06
3.750E-01	3.296E+13	3.215E+13	2.583E+13	3.028E+12	6.445E+09	6.055E+09	3.245E+09	6.341E+06
5.750E-01	1.048E+15	1.040E+15	8.438E+14	1.053E+14	1.431E+10	1.344E+10	7.204E+09	1.408E+07
8.500E-01	1.283E+13	1.201E+13	7.329E+12	4.909E+11	7.162E+08	6.729E+08	3.606E+08	7.047E+05
1.250E+00	9.585E+12	8.930E+12	4.862E+12	1.628E+11	1.739E+08	1.633E+08	8.754E+07	1.711E+05
1.750E+00	3.687E+11	3.475E+11	2.108E+11	1.256E+10	7.418E+03	6.964E+03	3.732E+03	7.293E+00
2.250E+00	1.769E+07	1.585E+07	1.174E+07	1.378E+06	6.853E-04	2.337E-07	2.337E-07	2.337E-07
2.750E+00	2.554E+05	1.284E+05	2.627E+02	1.171E-07	1.171E-07	1.171E-07	1.171E-07	1.171E-07
3.500E+00	3.326E+04	1.672E+04	3.432E+01	8.622E-08	8.622E-08	8.622E-08	8.622E-08	8.622E-08
5.000E+00	0.0	5.960E-09	2.384E-08	2.567E-08	2.567E-08	2.567E-08	2.567E-08	2.567E-08
7.000E+00	0.0	3.867E-10	1.547E-09	1.666E-09	1.666E-09	1.666E-09	1.666E-09	1.666E-09
9.500E+00	0.0	2.445E-11	9.782E-11	1.053E-10	1.053E-10	1.053E-10	1.053E-10	1.053E-10
TOTAL	2.618E+15	2.572E+15	2.070E+15	2.492E+14	5.557E+10	5.304E+10	3.489E+10	5.488E+09

TABLE 19-WVDP(AVG). CONCENTRATIONS OF ACTIVATION PRODUCTS
IN DECAY OF WEST VALLEY HLW: NUCLIDES

BASED ON ONE CANISTER, AVERAGE RADIOACTIVITY, 1895 KG GLASS

NUCLIDE	GRAMS							
	1990	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
CO 59	0.0	3.660E-05	3.660E-04	3.658E-03	3.644E-02	3.506E-01	2.448E+00	4.223E+00
NI 59	4.224E+00	4.224E+00	4.224E+00	4.220E+00	4.188E+00	3.873E+00	1.776E+00	7.293E-04
NI 63	4.053E-01	4.023E-01	3.759E-01	1.908E-01	2.166E-04	7.712E-34	0.0	0.0
CU 63	0.0	3.042E-03	2.941E-02	2.145E-01	4.051E-01	4.053E-01	4.053E-01	4.053E-01
SE 79	2.153E-01	2.153E-01	2.153E-01	2.151E-01	2.130E-01	1.935E-01	7.407E-02	4.984E-06
BR 79	0.0	2.297E-06	2.297E-05	2.296E-04	2.285E-03	2.179E-02	1.412E-01	2.153E-01
SUMTOT	4.848E+00	4.848E+00	4.848E+00	4.848E+00	4.848E+00	4.848E+00	4.848E+00	4.848E+00
TOTAL	4.848E+00	4.848E+00	4.848E+00	4.848E+00	4.848E+00	4.848E+00	4.848E+00	4.848E+00

NUCLIDES CONTRIBUTING < 0.1000 % ARE OMITTED

TABLE 20-WVDP(AVG). CONCENTRATIONS OF ACTIVATION PRODUCTS
IN DECAY OF WEST VALLEY HLW: ELEMENTS

BASED ON ONE CANISTER, AVERAGE RADIOACTIVITY, 1895 KG GLASS

ELEMENT	GRAMS							
	1990	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
MN	0.0	1.778E-04	7.069E-04	7.597E-04	7.597E-04	7.597E-04	7.597E-04	7.597E-04
FE	7.597E-04	5.819E-04	5.282E-05	2.007E-15	0.0	0.0	0.0	0.0
CC	2.829E-03	2.517E-03	1.125E-03	3.658E-03	3.644E-02	3.506E-01	2.448E+00	4.223E+00
NI	4.629E+00	4.627E+00	4.602E+00	4.414E+00	4.191E+00	3.876E+00	1.779E+00	3.558E-03
CU	0.0	3.042E-03	2.941E-02	2.145E-01	4.051E-01	4.053E-01	4.053E-01	4.053E-01
SE	2.153E-01	2.153E-01	2.153E-01	2.151E-01	2.130E-01	1.935E-01	7.407E-02	4.984E-06
BR	0.0	2.297E-06	2.297E-05	2.296E-04	2.285E-03	2.179E-02	1.412E-01	2.153E-01
SUMTOT	4.848E+00	4.848E+00	4.848E+00	4.848E+00	4.848E+00	4.848E+00	4.848E+00	4.848E+00
TCTAL	4.848E+00	4.848E+00	4.848E+00	4.848E+00	4.848E+00	4.848E+00	4.848E+00	4.848E+00

ELEMENTS CONTRIBUTING < 0.0010 % ARE OMITTED

TABLE 21-WVDP(AVG). RADIOACTIVITY OF ACTIVATION PRODUCTS
IN DECAY OF WEST VALLEY HLW: NUCLIDES

BASED ON ONE CANISTER, AVERAGE RADIOACTIVITY, 1895 KG GLASS

NUCLIDE	CURIES							
	1990	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
FE 55	1.900E+00	1.455E+00	1.321E-01	5.018E-12	0.0	0.0	0.0	0.0
CC 60	3.200E+00	2.806E+00	8.588E-01	6.305E-06	0.0	0.0	0.0	0.0
NI 59	3.201E-01	3.201E-01	3.200E-01	3.198E-01	3.173E-01	2.935E-01	1.346E-01	5.526E-05
NI 63	2.501E+01	2.482E+01	2.319E+01	1.177E+01	1.337E-02	4.759E-32	0.0	0.0
SE 79	1.500E-02	1.500E-02	1.500E-02	1.499E-02	1.485E-02	1.349E-02	5.162E-03	3.473E-07
SUMTOT	3.044E+01	2.942E+01	2.452E+01	1.211E+01	3.455E-01	3.070E-01	1.397E-01	5.561E-05
TOTAL	3.044E+01	2.942E+01	2.452E+01	1.211E+01	3.455E-01	3.070E-01	1.397E-01	5.561E-05

NUCLIDES CONTRIBUTING < 0.0010 % ARE OMITTED

TABLE 22-WVDP(AVG). RADIOACTIVITY OF ACTIVATION PRODUCTS
IN DECAY OF WEST VALLEY HLW: ELEMENTS

BASED ON ONE CANISTER, AVERAGE RADIOACTIVITY, 1895 KG GLASS

CURIES

ELEMENT	1990	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
FE	1.900E+00	1.455E+00	1.321E-01	5.018E-12	0.0	0.0	0.0	0.0
CO	3.200E+00	2.806E+00	8.588E-01	6.305E-06	0.0	0.0	0.0	0.0
NI	2.533E+01	2.514E+01	2.351E+01	1.209E+01	3.307E-01	2.935E-01	1.346E-01	5.526E-05
SE	1.500E-02	1.500E-02	1.500E-02	1.499E-02	1.485E-02	1.349E-02	5.162E-03	3.473E-07
SUMTOT	3.044E+01	2.942E+01	2.452E+01	1.211E+01	3.455E-01	3.070E-01	1.397E-01	5.561E-05
TOTAL	3.044E+01	2.942E+01	2.452E+01	1.211E+01	3.455E-01	3.070E-01	1.397E-01	5.561E-05

ELEMENTS CONTRIBUTING < 0.0010 % ARE OMITTED

TABLE 23-WVDP(AVG). THERMAL POWER OF ACTIVATION PRODUCTS
IN DECAY OF WEST VALLEY HLW: NUCLIDES

BASED ON ONE CANISTER, AVERAGE RADIOACTIVITY, 1895 KG GLASS

NUCLIDE	WATTS							
	1990	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
FE 55	6.420E-05	4.917E-05	4.464E-06	1.696E-16	0.0	0.0	0.0	0.0
CO 60	4.934E-02	4.326E-02	1.324E-02	9.721E-08	0.0	0.0	0.0	0.0
NI 59	1.271E-05	1.271E-05	1.271E-05	1.270E-05	1.260E-05	1.166E-05	5.344E-06	2.195E-09
NI 63	2.520E-03	2.501E-03	2.337E-03	1.186E-03	1.347E-06	4.795E-36	0.0	0.0
SE 79	3.736E-06	3.736E-06	3.735E-06	3.732E-06	3.696E-06	3.357E-06	1.285E-06	8.647E-11
SUMTOT	5.194E-02	4.582E-02	1.560E-02	1.203E-03	1.764E-05	1.501E-05	6.630E-06	2.281E-09
TOTAL	5.194E-02	4.582E-02	1.560E-02	1.203E-03	1.764E-05	1.501E-05	6.630E-06	2.281E-09

NUCLIDES CONTRIBUTING < 0.0010 % ARE OMITTED

TABLE 24-WVDP(AVG). THERMAL POWER OF ACTIVATION PRODUCTS
IN DECAY OF WEST VALLEY HLW: ELEMENTS

BASED ON ONE CANISTER, AVERAGE RADIOACTIVITY, 1895 KG GLASS

ELEMENT	WATTS							
	1990	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
FE	6.420E-05	4.917E-05	4.464E-06	1.696E-16	0.0	0.0	0.0	0.0
CC	4.934E-02	4.326E-02	1.324E-02	9.721E-08	0.0	0.0	0.0	0.0
NI	2.533E-03	2.514E-03	2.350E-03	1.199E-03	1.395E-05	1.166E-05	5.344E-06	2.195E-09
SE	3.736E-06	3.736E-06	3.735E-06	3.732E-06	3.696E-06	3.357E-06	1.285E-06	8.647E-11
SUMTOT	5.194E-02	4.582E-02	1.560E-02	1.203E-03	1.764E-05	1.501E-05	6.630E-06	2.281E-09
TOTAL	5.194E-02	4.582E-02	1.560E-02	1.203E-03	1.764E-05	1.501E-05	6.630E-06	2.281E-09

ELEMENTS CONTRIBUTING < 0.0010 % ARE OMITTED

TABLE 25-WVDP(AVG). PHOTON SPECTRUM OF ACTIVATION PRODUCTS
IN DECAY OF WEST VALLEY HLW

BASED ON ONE CANISTER, AVERAGE RADIOACTIVITY, 1895 KG GLASS

E MEAN	PHOTONS/SEC							
	1990	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
	18 GROUP PHOTON RELEASE RATES, PHOTONS/SECOND							
1.000E-02	1.140E+10	1.059E+10	6.443E+09	2.423E+09	1.778E+07	1.367E+07	5.232E+06	3.520E+02
2.500E-02	1.398E+09	1.262E+09	5.824E+08	1.490E+08	2.391E+06	2.020E+06	7.733E+05	5.203E+01
3.750E-02	6.834E+08	6.066E+08	2.259E+08	3.086E+07	1.143E+06	1.008E+06	3.857E+05	2.595E+01
5.750E-02	7.057E+08	6.196E+08	1.943E+08	3.953E+06	9.369E+05	8.480E+05	3.246E+05	2.184E+01
8.500E-02	2.748E+08	2.409E+08	7.388E+07	1.774E+05	1.752E+05	1.591E+05	6.091E+04	4.098E+00
1.250E-01	1.055E+08	9.248E+07	2.832E+07	1.579E+04	1.543E+04	1.402E+04	5.365E+03	3.610E-01
2.250E-01	3.468E+07	3.041E+07	9.308E+06	7.258E+01	4.201E+00	3.816E+00	1.461E+00	9.828E-05
3.750E-01	9.730E+06	8.531E+06	2.611E+06	1.917E+01	0.0	0.0	0.0	0.0
5.750E-01	5.587E+05	4.898E+05	1.499E+05	1.101E+00	0.0	0.0	0.0	0.0
8.500E-01	8.842E+06	7.752E+06	2.373E+06	1.742E+01	0.0	0.0	0.0	0.0
1.250E+00	2.367E+11	2.076E+11	6.354E+10	4.665E+05	0.0	0.0	0.0	0.0
1.750E+00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.250E+00	1.255E+06	1.100E+06	3.367E+05	2.472E+00	0.0	0.0	0.0	0.0
2.750E+00	3.882E+03	3.404E+03	1.042E+03	7.650E-03	0.0	0.0	0.0	0.0
3.500E+00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.000E+00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.000E+00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.500E+00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	2.514E+11	2.210E+11	7.110E+10	2.608E+09	2.244E+07	1.772E+07	6.782E+06	4.563E+02

TABLE 1-DWPF. CONCENTRATIONS OF ACTINIDES AND DAUGHTERS
IN DECAY OF SRP HLW: NUCLIDES

BASED ON ONE CANISTER, SLUDGE + SUPERNATE GLASS (3710 LB/CANISTER).

GRAMS

NUCLIDE	IMMOBILZN	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
PB206	0.0	1.884E-17	7.273E-13	1.358E-08	9.105E-05	6.167E-02	6.859E+00	7.565E+01
U234	5.485E+00	6.155E+00	1.196E+01	5.201E+01	9.045E+01	8.824E+01	6.875E+01	6.909E+00
U235	7.278E+01	7.279E+01	7.284E+01	7.337E+01	7.858E+01	1.239E+02	2.655E+02	2.767E+02
U236	1.742E+01	1.742E+01	1.746E+01	1.782E+01	2.131E+01	4.273E+01	5.600E+01	5.453E+01
U238	3.122E+04	3.122E+04	3.122E+04	3.122E+04	3.122E+04	3.122E+04	3.122E+04	3.122E+04
PU238	8.667E+01	8.599E+01	8.009E+01	3.934E+01	3.216E-02	2.609E-23	0.0	0.0
PU239	2.076E+02	2.076E+02	2.075E+02	2.070E+02	2.017E+02	1.557E+02	1.165E+01	7.439E-11
PU240	3.809E+01	3.814E+01	3.847E+01	3.896E+01	3.544E+01	1.365E+01	9.772E-04	9.805E-15
SUMTOT	3.168E+04	3.168E+04	3.168E+04	3.168E+04	3.168E+04	3.168E+04	3.168E+04	3.169E+04
TOTAL	3.168E+04	3.168E+04	3.168E+04	3.168E+04	3.168E+04	3.168E+04	3.168E+04	3.169E+04

NUCLIDES CONTRIBUTING < 0.1000 % ARE OMITTED

TABLE 2-DWPF. CONCENTRATIONS OF ACTINIDES AND DAUGHTERS
IN DECAY OF SRP HLW: ELEMENTS

BASED ON ONE CANISTER, SLUDGE + SUPERNATE GLASS (3710 LB/CANISTER).

ELEMENT	IMMOBILZN	GRAMS						
		1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
HE	0.0	1.254E-02	1.210E-01	8.739E-01	1.902E+00	3.154E+00	6.977E+00	1.730E+01
PB	0.0	8.827E-07	4.575E-05	4.610E-04	8.654E-04	6.300E-02	6.874E+00	7.587E+01
BI	0.0	2.883E-10	1.079E-09	1.065E-09	3.816E-07	4.493E-04	1.387E-01	6.177E+00
RA	0.0	2.658E-08	1.084E-07	2.980E-06	7.768E-04	3.739E-02	2.934E-01	5.880E-02
TH	0.0	2.233E-05	2.689E-04	8.914E-03	2.221E-01	2.367E+00	1.443E+01	4.559E+00
U	3.132E+04	3.132E+04	3.132E+04	3.136E+04	3.141E+04	3.147E+04	3.161E+04	3.156E+04
NP	1.263E+01	1.264E+01	1.273E+01	1.499E+01	2.776E+01	3.162E+01	3.071E+01	2.294E+01
PU	3.518E+02	3.504E+02	3.393E+02	2.886E+02	2.404E+02	1.725E+02	1.433E+01	5.345E-01
AM	3.241E+00	3.996E+00	9.325E+00	1.690E+01	4.043E+00	1.135E-02	2.422E-06	3.168E-12
CM	1.329E+00	1.279E+00	9.065E-01	2.898E-02	3.758E-05	1.771E-05	1.844E-08	6.828E-09
SUMTOT	3.168E+04	3.168E+04	3.168E+04	3.168E+04	3.168E+04	3.168E+04	3.168E+04	3.169E+04
TOTAL	3.168E+04	3.168E+04	3.168E+04	3.168E+04	3.168E+04	3.168E+04	3.168E+04	3.169E+04

ELEMENTS CONTRIBUTING < 0.0001 % ARE OMITTED

TABLE 3-DWPF. RADIOACTIVITY OF ACTINIDES AND DAUGHTERS
IN DECAY OF SRP HLW: NUCLIDES

BASED ON ONE CANISTER, SLUDGE + SUPERNATE GLASS (3710 LB/CANISTER).

CURIES

NUCLIDE	IMMOBILZN	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
TL207	0.0	5.229E-11	4.778E-09	2.327E-07	3.418E-06	4.131E-05	4.467E-04	5.966E-04
TL209	0.0	3.272E-12	3.645E-11	7.398E-10	6.245E-08	6.888E-06	1.531E-04	3.730E-04
P8209	0.0	1.515E-10	1.688E-09	3.425E-08	2.891E-06	3.189E-04	7.087E-03	1.727E-02
P8210	0.0	6.973E-13	8.359E-10	1.436E-06	7.680E-04	3.697E-02	2.901E-01	5.814E-02
P8211	0.0	5.244E-11	4.791E-09	2.334E-07	3.428E-06	4.143E-05	4.480E-04	5.983E-04
P8214	0.0	6.956E-11	9.353E-09	2.902E-06	7.682E-04	3.697E-02	2.902E-01	5.815E-02
BI210	0.0	6.973E-13	8.359E-10	1.436E-06	7.680E-04	3.697E-02	2.901E-01	5.814E-02
BI211	0.0	5.244E-11	4.791E-09	2.334E-07	3.428E-06	4.143E-05	4.480E-04	5.983E-04
BI213	0.0	1.515E-10	1.688E-09	3.425E-08	2.891E-06	3.189E-04	7.087E-03	1.727E-02
BI214	0.0	6.956E-11	9.353E-09	2.902E-06	7.682E-04	3.697E-02	2.902E-01	5.815E-02
PQ210	0.0	2.250E-13	8.359E-10	1.436E-06	7.680E-04	3.697E-02	2.901E-01	5.814E-02
PQ213	0.0	1.482E-10	1.651E-09	3.351E-08	2.829E-06	3.120E-04	6.933E-03	1.689E-02
PQ214	0.0	6.955E-11	9.351E-09	2.902E-06	7.680E-04	3.697E-02	2.901E-01	5.814E-02
PQ215	0.0	5.244E-11	4.791E-09	2.334E-07	3.428E-06	4.143E-05	4.480E-04	5.983E-04
PQ218	0.0	6.958E-11	9.355E-09	2.903E-06	7.684E-04	3.698E-02	2.902E-01	5.816E-02
AT217	0.0	1.515E-10	1.688E-09	3.425E-08	2.891E-06	3.189E-04	7.087E-03	1.727E-02
RN219	0.0	5.244E-11	4.791E-09	2.334E-07	3.428E-06	4.143E-05	4.480E-04	5.983E-04
RN222	0.0	6.958E-11	9.355E-09	2.903E-06	7.684E-04	3.698E-02	2.902E-01	5.816E-02
FR221	0.0	1.515E-10	1.688E-09	3.425E-08	2.891E-06	3.189E-04	7.087E-03	1.727E-02
RA223	0.0	5.244E-11	4.791E-09	2.334E-07	3.428E-06	4.143E-05	4.480E-04	5.983E-04
RA225	0.0	1.515E-10	1.688E-09	3.425E-08	2.891E-06	3.189E-04	7.087E-03	1.727E-02
RA226	0.0	6.958E-11	9.355E-09	2.903E-06	7.684E-04	3.698E-02	2.902E-01	5.816E-02
AC225	0.0	1.515E-10	1.688E-09	3.425E-08	2.891E-06	3.189E-04	7.087E-03	1.727E-02
AC227	0.0	5.244E-11	4.789E-09	2.333E-07	3.428E-06	4.143E-05	4.480E-04	5.983E-04
TH227	0.0	5.172E-11	4.725E-09	2.302E-07	3.381E-06	4.085E-05	4.418E-04	5.900E-04
TH229	0.0	1.515E-10	1.688E-09	3.425E-08	2.891E-06	3.189E-04	7.087E-03	1.727E-02
TH230	0.0	3.275E-07	4.931E-06	1.788E-04	4.473E-03	4.758E-02	2.877E-01	5.812E-02
TH231	0.0	1.574E-04	1.575E-04	1.587E-04	1.699E-04	2.679E-04	5.740E-04	5.983E-04
TH234	0.0	1.050E-02	1.050E-02	1.050E-02	1.050E-02	1.050E-02	1.050E-02	1.050E-02
PA231	0.0	3.329E-09	3.335E-08	3.340E-07	3.427E-06	4.142E-05	4.479E-04	5.983E-04
PA233	0.0	8.911E-03	8.979E-03	1.057E-02	1.958E-02	2.230E-02	2.166E-02	1.618E-02
PA234M	0.0	1.050E-02	1.050E-02	1.050E-02	1.050E-02	1.050E-02	1.050E-02	1.050E-02
PA234	0.0	1.365E-05	1.365E-05	1.365E-05	1.365E-05	1.365E-05	1.365E-05	1.365E-05
U233	1.584E-06	1.623E-06	1.983E-06	5.812E-06	6.913E-05	9.209E-04	7.765E-03	1.717E-02
U234	3.429E-02	3.848E-02	7.475E-02	3.251E-01	5.654E-01	5.516E-01	4.297E-01	4.319E-02
U235	1.574E-04	1.574E-04	1.575E-04	1.587E-04	1.699E-04	2.679E-04	5.740E-04	5.983E-04
U236	1.127E-03	1.128E-03	1.130E-03	1.154E-03	1.379E-03	2.766E-03	3.625E-03	3.530E-03
U237	0.0	3.903E-02	2.531E-02	3.324E-04	1.519E-10	7.291E-11	4.731E-14	6.258E-46
U238	1.050E-02	1.050E-02	1.050E-02	1.050E-02	1.050E-02	1.050E-02	1.050E-02	1.050E-02
NP237	8.907E-03	8.911E-03	8.979E-03	1.057E-02	1.958E-02	2.230E-02	2.166E-02	1.618E-02
NP239	0.0	5.787E-03	5.782E-03	5.733E-03	5.269E-03	2.263E-03	4.829E-07	6.318E-13

TABLE 3-DWPF. RADIOACTIVITY OF ACTINIDES AND DAUGHTERS
IN DECAY OF SRP HLW: NUCLIDES

BASED ON ONE CANISTER, SLUDGE + SUPERNATE GLASS (3710 LB/CANISTER).

CURIES

NUCLIDE	IMMOBILZN	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
PU236	1.221E-01	9.575E-02	1.074E-02	1.572E-09	1.560E-09	1.477E-09	8.588E-10	3.784E-12
PU238	1.484E+03	1.473E+03	1.372E+03	6.737E+02	5.507E-01	4.468E-22	0.0	0.0
PU239	1.291E+01	1.291E+01	1.291E+01	1.287E+01	1.254E+01	9.680E+00	7.245E-01	4.626E-12
PU240	8.683E+00	8.693E+00	8.768E+00	8.880E+00	8.078E+00	3.111E+00	2.228E-04	2.235E-15
PU241	1.670E+03	1.591E+03	1.032E+03	1.355E+01	6.200E-06	2.976E-06	1.931E-09	2.554E-41
PU242	1.225E-02	1.225E-02	1.225E-02	1.224E-02	1.222E-02	1.203E-02	1.024E-02	2.042E-03
AM241	1.102E+01	1.362E+01	3.191E+01	5.793E+01	1.379E+01	1.042E-05	1.931E-09	2.691E-41
AM242M	1.447E-02	1.440E-02	1.382E-02	9.169E-03	1.514E-04	2.275E-22	0.0	0.0
AM242	1.436E-02	1.433E-02	1.375E-02	9.124E-03	1.506E-04	2.264E-22	0.0	0.0
AM243	5.787E-03	5.787E-03	5.782E-03	5.733E-03	5.269E-03	2.263E-03	4.829E-07	6.318E-13
CM242	3.496E-02	1.675E-02	1.138E-02	7.545E-03	1.246E-04	1.877E-22	0.0	0.0
CM244	1.076E+02	1.035E+02	7.336E+01	2.341E+00	2.575E-15	5.234E-21	4.781E-20	2.239E-19
SUMTOT	3.294E+03	3.203E+03	2.531E+03	7.697E+02	3.564E+01	1.382E+01	4.212E+00	8.560E-01
TOTAL	3.294E+03	3.203E+03	2.531E+03	7.697E+02	3.564E+01	1.382E+01	4.212E+00	8.560E-01

NUCLIDES CONTRIBUTING < 0.0010 % ARE OMITTED

TABLE 4-DWPF. RADIOACTIVITY OF ACTINIDES AND DAUGHTERS
IN DECAY OF SRP HLW: ELEMENTS

BASED ON ONE CANISTER, SLUDGE + SUPERNATE GLASS (3710 LB/CANISTER).

CURIES

ELEMENT	IMMOBILZN	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
TL	1.128E-03	1.518E-03	5.664E-03	2.598E-03	3.930E-06	4.820E-05	5.998E-04	9.696E-04
PB	0.0	4.225E-03	1.576E-02	7.234E-03	1.544E-03	7.430E-02	5.878E-01	1.342E-01
BI	0.0	4.225E-03	1.576E-02	7.234E-03	1.544E-03	7.430E-02	5.878E-01	1.342E-01
PC	0.0	6.932E-03	2.586E-02	1.187E-02	2.313E-03	1.113E-01	8.778E-01	1.919E-01
AT	0.0	1.515E-10	1.688E-09	3.425E-08	2.891E-06	3.189E-04	7.087E-03	1.727E-02
RN	0.0	4.225E-03	1.576E-02	7.232E-03	7.730E-04	3.702E-02	2.907E-01	5.876E-02
FR	0.0	1.522E-10	1.754E-09	3.747E-08	2.938E-06	3.194E-04	7.093E-03	1.728E-02
RA	0.0	4.225E-03	1.576E-02	7.232E-03	7.759E-04	3.734E-02	2.978E-01	7.603E-02
AC	0.0	2.039E-10	6.477E-09	2.676E-07	6.319E-06	3.603E-04	7.535E-03	1.787E-02
TH	0.0	1.488E-02	2.642E-02	1.807E-02	1.515E-02	5.871E-02	3.063E-01	8.707E-02
PA	0.0	1.942E-02	1.949E-02	2.109E-02	3.009E-02	3.285E-02	3.262E-02	2.729E-02
U	5.947E-02	1.036E-01	1.281E-01	3.443E-01	5.775E-01	5.661E-01	4.522E-01	7.499E-02
NP	8.907E-03	1.477E-02	1.483E-02	1.635E-02	2.485E-02	2.456E-02	2.166E-02	1.618E-02
PU	3.176E+03	3.086E+03	2.425E+03	7.090E+02	2.118E+01	1.280E+01	7.350E-01	2.042E-03
AM	1.106E+01	1.365E+01	3.195E+01	5.796E+01	1.380E+01	2.273E-03	4.848E-07	6.318E-13
CM	1.076E+02	1.035E+02	7.337E+01	2.349E+00	1.312E-04	3.094E-06	1.929E-09	7.207E-13
SUMTOT	3.294E+03	3.203E+03	2.531E+03	7.697E+02	3.564E+01	1.382E+01	4.212E+00	8.560E-01
TCTAL	3.294E+03	3.203E+03	2.531E+03	7.697E+02	3.564E+01	1.382E+01	4.212E+00	8.560E-01

ELEMENTS CONTRIBUTING < 0.0001 % ARE OMITTED

TABLE 5-DWPF. THERMAL POWER OF ACTINIDES AND DAUGHTERS
IN DECAY OF SRP HLW: NUCLIDES

BASED ON ONE CANISTER, SLUDGE + SUPERNATE GLASS (3710 LB/CANISTER).

NUCLIDE	IMMOBILZN	WATTS						
		1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
TL207	0.0	1.536E-13	1.403E-11	6.834E-10	1.004E-08	1.213E-07	1.312E-06	1.752E-06
TL209	0.0	5.436E-14	6.056E-13	1.229E-11	1.038E-09	1.144E-07	2.543E-06	6.197E-06
PB209	0.0	1.742E-13	1.941E-12	3.938E-11	3.325E-09	3.667E-07	8.149E-06	1.986E-05
PB210	0.0	1.615E-16	1.936E-13	3.327E-10	1.779E-07	8.564E-06	6.721E-05	1.347E-05
PB211	0.0	1.571E-13	1.436E-11	6.993E-10	1.027E-08	1.241E-07	1.342E-06	1.793E-06
PB214	0.0	2.218E-13	2.983E-11	9.256E-09	2.450E-06	1.179E-04	9.254E-04	1.854E-04
BI210	0.0	1.608E-15	1.927E-12	3.312E-09	1.771E-06	8.524E-05	6.690E-04	1.341E-04
BI211	0.0	2.092E-12	1.911E-10	9.309E-09	1.367E-07	1.652E-06	1.787E-05	2.386E-05
BI213	0.0	6.368E-13	7.094E-12	1.440E-10	1.215E-08	1.341E-06	2.979E-05	7.259E-05
BI214	0.0	8.915E-13	1.199E-10	3.720E-08	9.845E-06	4.739E-04	3.719E-03	7.452E-04
PO210	0.0	7.211E-15	2.680E-11	4.604E-08	2.462E-05	1.185E-03	9.300E-03	1.864E-03
PO212	0.0	1.434E-04	5.352E-04	2.455E-04	4.240E-08	8.515E-11	5.976E-10	5.961E-09
PC213	0.0	7.499E-12	8.355E-11	1.696E-09	1.431E-07	1.579E-05	3.509E-04	8.549E-04
PO214	0.0	3.229E-12	4.342E-10	1.347E-07	3.566E-05	1.716E-03	1.347E-02	2.699E-03
PO215	0.0	2.341E-12	2.139E-10	1.042E-08	1.530E-07	1.849E-06	2.000E-05	2.671E-05
PO216	0.0	1.729E-04	6.453E-04	2.959E-04	5.112E-08	1.027E-10	7.205E-10	7.187E-09
PC218	0.0	2.521E-12	3.390E-10	1.052E-07	2.784E-05	1.340E-03	1.052E-02	2.108E-03
AT217	0.0	6.464E-12	7.201E-11	1.462E-09	1.234E-07	1.361E-05	3.024E-04	7.368E-04
RN219	0.0	2.176E-12	1.988E-10	9.684E-09	1.422E-07	1.719E-06	1.859E-05	2.483E-05
RN220	0.0	1.604E-04	5.985E-04	2.745E-04	4.741E-08	9.521E-11	6.682E-10	6.665E-09
RN222	0.0	2.305E-12	3.100E-10	9.619E-08	2.546E-05	1.225E-03	9.617E-03	1.927E-03
FR221	0.0	5.846E-12	6.513E-11	1.322E-09	1.116E-07	1.231E-05	2.735E-04	6.664E-04
RA223	0.0	1.867E-12	1.706E-10	8.310E-09	1.221E-07	1.475E-06	1.595E-05	2.130E-05
RA224	0.0	1.450E-04	5.410E-04	2.481E-04	4.286E-08	8.607E-11	6.041E-10	6.025E-09
RA225	0.0	1.062E-13	1.183E-12	2.402E-11	2.027E-09	2.236E-07	4.969E-06	1.211E-05
RA226	0.0	2.009E-12	2.701E-10	8.382E-08	2.219E-05	1.068E-03	8.380E-03	1.679E-03
AC225	0.0	5.291E-12	5.895E-11	1.196E-09	1.010E-07	1.114E-05	2.475E-04	6.032E-04
AC227	0.0	2.539E-14	2.319E-12	1.130E-10	1.660E-09	2.006E-08	2.169E-07	2.897E-07
TH227	0.0	1.887E-12	1.725E-10	8.400E-09	1.234E-07	1.491E-06	1.612E-05	2.153E-05
TH228	0.0	1.382E-04	5.152E-04	2.364E-04	4.084E-08	8.201E-11	5.756E-10	5.741E-09
TH229	0.0	4.634E-12	5.163E-11	1.048E-09	8.845E-08	9.755E-06	2.168E-04	5.282E-04
TH230	0.0	9.269E-09	1.395E-07	5.059E-06	1.266E-04	1.347E-03	8.140E-03	1.645E-03
TH231	0.0	8.832E-08	8.838E-08	8.902E-08	9.534E-08	1.503E-07	3.221E-07	3.357E-07
TH234	0.0	4.257E-06	4.257E-06	4.257E-06	4.257E-06	4.257E-06	4.257E-06	4.257E-06
PA231	0.0	1.003E-10	1.005E-09	1.006E-08	1.033E-07	1.248E-06	1.350E-05	1.803E-05
PA233	0.0	2.022E-05	2.038E-05	2.400E-05	4.443E-05	5.061E-05	4.916E-05	3.673E-05
PA234M	0.0	5.189E-05	5.189E-05	5.189E-05	5.189E-05	5.189E-05	5.189E-05	5.189E-05
PA234	0.0	1.961E-07	1.961E-07	1.961E-07	1.961E-07	1.961E-07	1.961E-07	1.960E-07
U232	4.301E-04	4.593E-04	5.232E-04	2.259E-04	3.903E-08	4.743E-11	2.757E-11	1.215E-13
U233	4.605E-08	4.719E-08	5.765E-08	1.689E-07	2.009E-06	2.677E-05	2.257E-04	4.991E-04
U234	9.875E-04	1.108E-03	2.153E-03	9.365E-03	1.628E-02	1.589E-02	1.238E-02	1.244E-03

TABLE 5-DWPF. THERMAL POWER OF ACTINIOES AND DAUGHTERS
IN DECAY OF SRP HLW: NUCLIOES

BASED ON ONE CANISTER, SLUDGE + SUPERNATE GLASS (3710 LB/CANISTER).

WATTS

NUCLIDE	IMMOBILZN	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
U235	4.122E-06	4.122E-06	4.125E-06	4.155E-06	4.450E-06	7.015E-06	1.503E-05	1.567E-05
U236	3.054E-05	3.055E-05	3.061E-05	3.125E-05	3.737E-05	7.492E-05	9.819E-05	9.561E-05
U238	2.663E-04	2.663E-04	2.663E-04	2.663E-04	2.663E-04	2.663E-04	2.663E-04	2.663E-04
NP237	2.722E-04	2.723E-04	2.744E-04	3.232E-04	5.983E-04	6.815E-04	6.619E-04	4.945E-04
NP239	0.0	1.399E-05	1.398E-05	1.386E-05	1.274E-05	5.469E-06	1.167E-09	1.527E-15
PU236	4.249E-03	3.332E-03	3.736E-04	5.469E-11	5.428E-11	5.141E-11	2.989E-11	1.317E-13
PU238	4.919E+01	4.881E+01	4.546E+01	2.233E+01	1.825E-02	1.481E-23	0.0	0.0
PU239	3.979E-01	3.978E-01	3.977E-01	3.967E-01	3.866E-01	2.983E-01	2.233E-02	1.426E-13
PU240	2.704E-01	2.707E-01	2.730E-01	2.765E-01	2.515E-01	9.686E-02	6.936E-06	6.959E-17
PU241	5.176E-02	4.933E-02	3.198E-02	4.201E-04	1.922E-10	9.226E-11	5.986E-14	7.919E-46
PU242	3.616E-04	3.616E-04	3.616E-04	3.616E-04	3.610E-04	3.552E-04	3.023E-04	6.029E-05
AM241	3.661E-01	4.523E-01	1.060E+00	1.924E+00	4.581E-01	3.460E-07	6.414E-11	8.940E-43
AM243	1.860E-04	1.860E-04	1.859E-04	1.843E-04	1.694E-04	7.273E-05	1.552E-08	2.031E-14
CM242	1.288E-03	6.172E-04	4.193E-04	2.780E-04	4.589E-06	6.918E-24	0.0	0.0
CM244	3.763E+00	3.621E+00	2.566E+00	8.189E-02	9.008E-17	1.831E-22	1.672E-21	7.833E-21
SUMTOT	5.405E+01	5.360E+01	4.979E+01	2.502E+01	1.133E+00	4.213E-01	1.027E-01	1.941E-02
TOTAL	5.405E+01	5.360E+01	4.979E+01	2.502E+01	1.133E+00	4.213E-01	1.027E-01	1.941E-02

NUCLIDES CONTRIBUTING < 0.0010 % ARE OMITTED

TABLE 6-DWPF. THERMAL POWER OF ACTINIDES AND DAUGHTERS
IN DECAY OF SRP HLW: ELEMENTS

BASED ON ONE CANISTER, SLUDGE + SUPERNATE GLASS (3710 LB/CANISTER).

WATTS

ELEMENT	IMMOBILZN	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
TL	2.654E-05	3.572E-05	1.333E-04	6.113E-05	2.163E-08	2.358E-07	3.855E-06	7.950E-06
PB	0.0	8.044E-06	3.001E-05	1.377E-05	2.644E-06	1.270E-04	1.002E-03	2.206E-04
BI	0.0	7.185E-05	2.681E-04	1.230E-04	1.179E-05	5.621E-04	4.435E-03	9.757E-04
PC	0.0	3.164E-04	1.181E-03	5.417E-04	8.851E-05	4.259E-03	3.366E-02	7.552E-03
AT	0.0	6.464E-12	7.201E-11	1.462E-09	1.234E-07	1.361E-05	3.024E-04	7.368E-04
RN	0.0	1.604E-04	5.985E-04	2.746E-04	2.565E-05	1.227E-03	9.636E-03	1.952E-03
FR	0.0	5.848E-12	6.530E-11	1.330E-09	1.117E-07	1.231E-05	2.735E-04	6.664E-04
RA	0.0	1.450E-04	5.410E-04	2.482E-04	2.235E-05	1.070E-03	8.401E-03	1.713E-03
AC	0.0	5.316E-12	6.127E-11	1.309E-09	1.027E-07	1.116E-05	2.478E-04	6.035E-04
TH	0.0	1.425E-04	5.196E-04	2.458E-04	1.312E-04	1.362E-03	8.378E-03	2.199E-03
PA	0.0	7.231E-05	7.247E-05	7.610E-05	9.662E-05	1.039E-04	1.147E-04	1.068E-04
U	1.719E-03	1.942E-03	3.025E-03	9.893E-03	1.659E-02	1.626E-02	1.298E-02	2.121E-03
NP	2.722E-04	2.867E-04	2.887E-04	3.373E-04	6.111E-04	6.870E-04	6.619E-04	4.945E-04
PU	4.992E+01	4.953E+01	4.616E+01	2.300E+01	6.567E-01	3.955E-01	2.264E-02	6.029E-05
AM	3.663E-01	4.525E-01	1.060E+00	1.925E+00	4.583E-01	7.308E-05	1.559E-08	2.031E-14
CM	3.764E+00	3.622E+00	2.567E+00	8.219E-02	4.810E-06	1.026E-07	6.406E-11	3.125E-14
SUMTOT	5.405E+01	5.360E+01	4.979E+01	2.502E+01	1.133E+00	4.213E-01	1.027E-01	1.941E-02
TOTAL	5.405E+01	5.360E+01	4.979E+01	2.502E+01	1.133E+00	4.213E-01	1.027E-01	1.941E-02

ELEMENTS CONTRIBUTING < 0.0001 % ARE OMITTED

TABLE 7-DMPF. ALPHA RADIOACTIVITY OF ACTINIDES AND DAUGHTERS
IN DECAY OF SRP HLW: NUCLIDES

BASED ON ONE CANISTER, SLUDGE + SUPERNATE GLASS (3710 LB/CANISTER).

CURIES

NUCLIDE	IMMOBILZN	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
BI211	0.0	5.229E-11	4.778E-09	2.327E-07	3.418E-06	4.131E-05	4.467E-04	5.966E-04
BI213	0.0	3.272E-12	3.645E-11	7.398E-10	6.245E-08	6.888E-06	1.531E-04	3.730E-04
BI214	0.0	1.461E-14	1.964E-12	6.095E-10	1.613E-07	7.765E-06	6.094E-05	1.221E-05
PQ210	0.0	2.250E-13	8.359E-10	1.436E-06	7.680E-04	3.697E-02	2.901E-01	5.814E-02
PQ213	0.0	1.482E-10	1.651E-09	3.351E-08	2.829E-06	3.120E-04	6.933E-03	1.689E-02
PQ214	0.0	6.955E-11	9.351E-09	2.902E-06	7.680E-04	3.697E-02	2.901E-01	5.814E-02
PQ215	0.0	5.244E-11	4.791E-09	2.334E-07	3.428E-06	4.143E-05	4.480E-04	5.983E-04
PQ216	0.0	4.225E-03	1.576E-02	7.229E-03	1.249E-06	2.508E-09	1.760E-08	1.756E-07
PQ218	0.0	6.956E-11	9.353E-09	2.902E-06	7.682E-04	3.697E-02	2.902E-01	5.815E-02
AT217	0.0	1.515E-10	1.688E-09	3.425E-08	2.891E-06	3.189E-04	7.087E-03	1.727E-02
RN219	0.0	5.244E-11	4.791E-09	2.334E-07	3.428E-06	4.143E-05	4.480E-04	5.983E-04
RN220	0.0	4.225E-03	1.576E-02	7.229E-03	1.249E-06	2.508E-09	1.760E-08	1.756E-07
RN222	0.0	6.958E-11	9.355E-09	2.903E-06	7.684E-04	3.698E-02	2.902E-01	5.816E-02
FR221	0.0	1.515E-10	1.688E-09	3.425E-08	2.891E-06	3.189E-04	7.087E-03	1.727E-02
RA223	0.0	5.244E-11	4.791E-09	2.334E-07	3.428E-06	4.143E-05	4.480E-04	5.983E-04
RA224	0.0	4.225E-03	1.576E-02	7.229E-03	1.249E-06	2.508E-09	1.760E-08	1.756E-07
RA226	0.0	6.958E-11	9.355E-09	2.903E-06	7.684E-04	3.698E-02	2.902E-01	5.816E-02
AC225	0.0	1.515E-10	1.688E-09	3.425E-08	2.891E-06	3.189E-04	7.087E-03	1.727E-02
AC227	0.0	7.237E-13	6.609E-11	3.220E-09	4.731E-08	5.717E-07	6.182E-06	8.256E-06
TH227	0.0	5.172E-11	4.725E-09	2.302E-07	3.381E-06	4.085E-05	4.418E-04	5.900E-04
TH228	0.0	4.225E-03	1.575E-02	7.229E-03	1.249E-06	2.508E-09	1.760E-08	1.756E-07
TH229	0.0	1.515E-10	1.688E-09	3.425E-08	2.891E-06	3.189E-04	7.087E-03	1.727E-02
TH230	0.0	3.275E-07	4.931E-06	1.788E-04	4.473E-03	4.758E-02	2.877E-01	5.812E-02
PA231	0.0	3.329E-09	3.335E-08	3.340E-07	3.427E-06	4.142E-05	4.479E-04	5.983E-04
U232	1.340E-02	1.431E-02	1.630E-02	7.037E-03	1.216E-06	1.477E-09	8.588E-10	3.784E-12
U233	1.584E-06	1.623E-06	1.983E-06	5.812E-06	6.913E-05	9.209E-04	7.765E-03	1.717E-02
U234	3.429E-02	3.848E-02	7.475E-02	3.251E-01	5.654E-01	5.516E-01	4.297E-01	4.319E-02
U235	1.574E-04	1.574E-04	1.575E-04	1.587E-04	1.699E-04	2.679E-04	5.740E-04	5.983E-04
U236	1.127E-03	1.128E-03	1.130E-03	1.154E-03	1.379E-03	2.766E-03	3.625E-03	3.530E-03
U238	1.050E-02	1.050E-02	1.050E-02	1.050E-02	1.050E-02	1.050E-02	1.050E-02	1.050E-02
NP237	8.907E-03	8.911E-03	8.979E-03	1.057E-02	1.958E-02	2.230E-02	2.166E-02	1.618E-02
PU236	1.221E-01	9.575E-02	1.074E-02	1.572E-09	1.560E-09	1.477E-09	8.588E-10	3.784E-12
PU238	1.484E+03	1.473E+03	1.372E+03	6.737E+02	5.507E-01	4.468E-22	0.0	0.0
PU239	1.291E+01	1.291E+01	1.291E+01	1.287E+01	1.254E+01	9.680E+00	7.245E-01	4.626E-12
PU240	8.683E+00	8.693E+00	8.768E+00	8.880E+00	8.078E+00	3.111E+00	2.228E-04	2.235E-15
PU241	4.091E-02	3.898E-02	2.528E-02	3.320E-04	1.519E-10	7.291E-11	4.731E-14	6.258E-46
PU242	1.225E-02	1.225E-02	1.225E-02	1.224E-02	1.222E-02	1.203E-02	1.024E-02	2.042E-03
AM241	1.102E+01	1.362E+01	3.191E+01	5.793E+01	1.379E+01	1.042E-05	1.931E-09	2.691E-41
AM243	5.787E-03	5.787E-03	5.782E-03	5.733E-03	5.269E-03	2.263E-03	4.829E-07	6.318E-13
CM242	3.496E-02	1.675E-02	1.138E-02	7.545E-03	1.246E-04	1.877E-22	0.0	0.0

TABLE 7-DWPF. ALPHA RADIOACTIVITY OF ACTINIDES AND DAUGHTERS
IN DECAY OF SRP HLW: NUCLIDES

BASED ON ONE CANISTER, SLUDGE + SUPERNATE GLASS (3710 LB/CANISTER).

CURIES

NUCLIDE	IMMOBILZN	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
SUMTOT	1.625E+03	1.612E+03	1.499E+03	7.561E+02	3.559E+01	1.363E+01	2.986E+00	5.320E-01
TOTAL	1.625E+03	1.612E+03	1.499E+03	7.561E+02	3.559E+01	1.363E+01	2.986E+00	5.320E-01

NUCLIDES CONTRIBUTING < 0.0010 % ARE OMITTED

TABLE 8-DWPF. ALPHA RADIOACTIVITY OF ACTINIDES AND DAUGHTERS
IN DECAY OF SRP HLW: ELEMENTS

BASED ON ONE CANISTER, SLUDGE + SUPERNATE GLASS (3710 LB/CANISTER).

CURIES

ELEMENT	IMMOBILZN	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
BI	0.0	1.518E-03	5.664E-03	2.598E-03	4.091E-06	5.596E-05	6.607E-04	9.819E-04
PC	0.0	6.932E-03	2.586E-02	1.187E-02	2.313E-03	1.113E-01	8.778E-01	1.919E-01
AT	0.0	1.515E-10	1.688E-09	3.425E-08	2.891E-06	3.189E-04	7.087E-03	1.727E-02
RN	0.0	4.225E-03	1.576E-02	7.232E-03	7.730E-04	3.702E-02	2.907E-01	5.876E-02
FR	0.0	1.515E-10	1.688E-09	3.425E-08	2.891E-06	3.189E-04	7.087E-03	1.727E-02
RA	0.0	4.225E-03	1.576E-02	7.232E-03	7.730E-04	3.702E-02	2.907E-01	5.876E-02
AC	0.0	1.522E-10	1.754E-09	3.747E-08	2.938E-06	3.194E-04	7.093E-03	1.728E-02
TH	0.0	4.225E-03	1.576E-02	7.408E-03	4.481E-03	4.794E-02	2.952E-01	7.597E-02
PA	0.0	3.329E-09	3.335E-08	3.340E-07	3.427E-06	4.142E-05	4.479E-04	5.983E-04
U	5.947E-02	6.457E-02	1.028E-01	3.440E-01	5.775E-01	5.661E-01	4.522E-01	7.499E-02
NP	8.907E-03	8.911E-03	8.979E-03	1.057E-02	1.958E-02	2.230E-02	2.166E-02	1.618E-02
PU	1.506E+03	1.494E+03	1.393E+03	6.954E+02	2.118E+01	1.280E+01	7.350E-01	2.042E-03
AM	1.103E+01	1.362E+01	3.192E+01	5.794E+01	1.380E+01	2.273E-03	4.848E-07	6.318E-13
CM	1.076E+02	1.035E+02	7.337E+01	2.349E+00	1.312E-04	3.094E-06	1.929E-09	7.133E-13
SUMTOT	1.625E+03	1.612E+03	1.499E+03	7.561E+02	3.559E+01	1.363E+01	2.986E+00	5.320E-01
TOTAL	1.625E+03	1.612E+03	1.499E+03	7.561E+02	3.559E+01	1.363E+01	2.986E+00	5.320E-01

TABLE 9-DWPF. (ALPHA,N) NEUTRON SOURCES
IN DECAY OF SRP HLW

BASED ON ONE CANISTER, SLUDGE + SUPERNATE GLASS (3710 LB/CANISTER).

NEUTRONS/SEC

NUCLIDE	IMMOBILZN	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
BI211	0.0	8.835E-08	8.072E-06	3.932E-04	5.775E-03	6.979E-02	7.547E-01	1.008E+00
PG210	0.0	1.900E-10	7.059E-07	1.213E-03	6.486E-01	3.122E+01	2.450E+02	4.910E+01
PC213	0.0	4.050E-07	4.513E-06	9.158E-05	7.731E-03	8.527E-01	1.895E+01	4.617E+01
PC214	0.0	1.643E-07	2.210E-05	6.857E-03	1.815E+00	8.736E+01	6.856E+02	1.374E+02
PC215	0.0	1.146E-07	1.047E-05	5.100E-04	7.491E-03	9.053E-02	9.790E-01	1.307E+00
PO218	0.0	8.882E-08	1.194E-05	3.706E-03	9.808E-01	4.721E+01	3.705E+02	7.424E+01
AT217	0.0	2.999E-07	3.341E-06	6.781E-05	5.724E-03	6.314E-01	1.403E+01	3.419E+01
RN219	0.0	9.717E-08	8.878E-06	4.325E-04	6.352E-03	7.676E-02	8.301E-01	1.109E+00
RN222	0.0	6.615E-08	8.894E-06	2.760E-03	7.306E-01	3.516E+01	2.760E+02	5.530E+01
FR221	0.0	2.324E-07	2.590E-06	5.256E-05	4.437E-03	4.894E-01	1.088E+01	2.650E+01
RA223	0.0	6.336E-08	5.789E-06	2.820E-04	4.142E-03	5.005E-02	5.413E-01	7.229E-01
RA226	0.0	3.904E-08	5.249E-06	1.629E-03	4.312E-01	2.075E+01	1.629E+02	3.264E+01
AC225	0.0	1.721E-07	1.918E-06	3.892E-05	3.285E-03	3.623E-01	8.052E+00	1.962E+01
TH227	0.0	6.745E-08	6.163E-06	3.002E-04	4.409E-03	5.329E-02	5.762E-01	7.696E-01
TH229	0.0	1.072E-07	1.195E-06	2.425E-05	2.047E-03	2.258E-01	5.017E+00	1.223E+01
TH230	0.0	1.689E-04	2.543E-03	9.218E-02	2.306E+00	2.454E+01	1.483E+02	2.996E+01
U233	9.142E-04	9.367E-04	1.145E-03	3.354E-03	3.989E-02	5.314E-01	4.481E+00	9.908E+00
U234	1.904E+01	2.137E+01	4.151E+01	1.806E+02	3.140E+02	3.064E+02	2.387E+02	2.399E+01
U236	4.806E-01	4.807E-01	4.817E-01	4.918E-01	5.880E-01	1.179E+00	1.545E+00	1.504E+00
U238	3.303E+00	3.303E+00	3.303E+00	3.303E+00	3.303E+00	3.303E+00	3.303E+00	3.302E+00
NP237	6.282E+00	6.285E+00	6.334E+00	7.459E+00	1.381E+01	1.573E+01	1.528E+01	1.141E+01
PU238	1.412E+06	1.401E+06	1.305E+06	6.409E+05	5.240E+02	4.251E-19	0.0	0.0
PU239	9.403E+03	9.403E+03	9.401E+03	9.376E+03	9.136E+03	7.051E+03	5.277E+02	3.369E-09
PU240	6.579E+03	6.587E+03	6.644E+03	6.729E+03	6.121E+03	2.357E+03	1.688E-01	1.694E-12
PU242	7.531E+00	7.531E+00	7.531E+00	7.530E+00	7.518E+00	7.398E+00	6.296E+00	1.256E+00
AM241	1.057E+04	1.306E+04	3.061E+04	5.557E+04	1.323E+04	9.992E-03	1.852E-06	2.581E-38
CM244	1.227E+05	1.181E+05	8.371E+04	2.672E+03	2.939E-12	5.973E-18	5.455E-17	2.556E-16
TOTALS								
TABLE	1.562E+06	1.548E+06	1.436E+06	7.156E+05	2.936E+04	9.993E+03	2.747E+03	5.742E+02
ACTUAL	1.562E+06	1.548E+06	1.436E+06	7.156E+05	2.936E+04	9.993E+03	2.747E+03	5.742E+02

TABLE 10-DWPF. SPONTANEOUS FISSION NEUTRON SOURCES
IN DECAY OF SRP HLW

BASED ON ONE CANISTER, SLUDGE + SUPERNATE GLASS (3710 LB/CANISTER).

NEUTRONS/SEC

NUCLIDE	IMMOBILZN	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
U238	3.961E+02	3.961E+02	3.961E+02	3.961E+02	3.961E+02	3.961E+02	3.961E+02	3.961E+02
PU238	2.303E+05	2.285E+05	2.128E+05	1.045E+05	8.545E+01	6.932E-20	0.0	0.0
PU240	3.468E+04	3.472E+04	3.502E+04	3.547E+04	3.227E+04	1.243E+04	8.898E-01	8.928E-12
PU242	5.404E+03	5.404E+03	5.404E+03	5.404E+03	5.395E+03	5.309E+03	4.518E+03	9.010E+02
CM244	1.478E+07	1.422E+07	1.008E+07	3.217E+05	3.538E-10	7.192E-16	6.568E-15	3.077E-14
TOTALS								
TABLE	1.505E+07	1.449E+07	1.033E+07	4.675E+05	3.817E+04	1.814E+04	4.916E+03	1.298E+03
ACTUAL	1.505E+07	1.449E+07	1.033E+07	4.675E+05	3.817E+04	1.814E+04	4.916E+03	1.298E+03

TABLE 11-DWPF. PHOTON SPECTRUM OF ACTINIDES AND DAUGHTERS
IN DECAY OF SRP HLW

BASED ON ONE CANISTER, SLUDGE + SUPERNATE GLASS (3710 LB/CANISTER).

PHOTONS/SEC

E MEAN	IMMOBILZN	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
18 GROUP PHOTON RELEASE RATES, PHOTONS/SECOND								
1.000E-02	9.408E+12	9.340E+12	8.727E+12	4.479E+12	1.918E+11	4.398E+10	1.947E+10	5.517E+09
2.500E-02	1.036E+10	1.289E+10	3.003E+10	5.433E+10	1.304E+10	3.553E+08	1.809E+09	5.062E+08
3.750E-02	2.689E+10	2.690E+10	2.630E+10	1.582E+10	1.142E+09	1.998E+08	1.215E+09	5.410E+08
5.750E-02	1.519E+11	1.882E+11	4.398E+11	7.975E+11	1.901E+11	4.644E+08	2.114E+09	5.235E+08
8.500E-02	5.138E+09	5.637E+09	5.557E+09	3.245E+09	7.170E+08	9.707E+08	3.916E+09	1.534E+09
1.250E-01	2.689E+08	8.936E+08	8.909E+08	7.647E+08	3.651E+08	2.549E+08	7.081E+08	2.785E+08
2.250E-01	5.065E+08	1.031E+09	1.122E+09	4.800E+08	1.324E+08	6.804E+08	4.825E+09	1.181E+09
3.750E-01	3.644E+07	2.122E+08	2.325E+08	2.416E+08	3.522E+08	8.989E+08	4.584E+09	1.304E+09
5.750E-01	4.869E+07	7.142E+07	2.437E+08	1.264E+08	2.557E+07	7.523E+08	5.864E+09	1.192E+09
8.500E-01	5.581E+07	8.186E+07	1.530E+08	6.999E+07	8.464E+06	1.843E+08	1.423E+09	2.908E+08
1.250E+00	1.157E+07	1.565E+07	1.713E+07	6.404E+06	1.222E+07	4.703E+08	3.674E+09	7.403E+08
1.750E+00	5.180E+06	1.065E+07	2.367E+07	9.645E+06	8.243E+06	3.781E+08	2.968E+09	6.063E+08
2.250E+00	2.997E+06	2.887E+06	2.067E+06	1.210E+05	2.428E+06	1.164E+08	9.134E+08	1.830E+08
2.750E+00	4.133E+07	5.496E+07	2.000E+08	9.124E+07	6.370E+04	2.027E+06	1.589E+07	3.186E+06
3.500E+00	1.560E+06	1.502E+06	1.075E+06	5.630E+04	1.313E+04	3.827E+05	2.985E+06	5.981E+05
5.000E+00	6.661E+05	6.416E+05	4.587E+05	2.347E+04	2.216E+03	1.048E+03	2.848E+02	7.590E+01
7.000E+00	7.667E+04	7.385E+04	5.276E+04	2.631E+03	2.517E+02	1.194E+02	3.250E+01	8.691E+00
9.500E+00	8.799E+03	8.475E+03	6.053E+03	2.975E+02	2.873E+01	1.365E+01	3.722E+00	9.966E-01
TOTAL	9.604E+12	9.576E+12	9.232E+12	5.352E+12	3.977E+11	4.971E+10	5.351E+10	1.440E+10

TABLE 12-DWPF. CONCENTRATIONS OF FISSION PRODUCTS
IN DECAY OF SRP HLW: NUCLIDES

BASED ON ONE CANISTER, SLUDGE + SUPERNATE GLASS (3710 LB/CANISTER).

GRAMS

NUCLIDE	IMMOBILZN	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
RB 87	9.961E+00	9.961E+00	9.961E+00	9.961E+00	9.961E+00	9.961E+00	9.961E+00	9.961E+00
SR 90	3.426E+02	3.345E+02	2.700E+02	3.170E+01	1.576E-08	0.0	0.0	0.0
ZR 90	0.0	8.062E+00	7.259E+01	3.110E+02	3.427E+02	3.427E+02	3.427E+02	3.427E+02
ZR 93	4.443E+02	4.443E+02	4.443E+02	4.443E+02	4.441E+02	4.423E+02	4.246E+02	2.824E+02
NB 93	0.0	1.486E-05	5.147E-04	1.640E-02	1.975E-01	2.005E+00	1.968E+01	1.619E+02
TC 99	1.816E+02	1.816E+02	1.816E+02	1.815E+02	1.810E+02	1.758E+02	1.312E+02	7.013E+00
RU 99	0.0	5.909E-04	5.909E-03	5.908E-02	5.900E-01	5.814E+00	5.044E+01	1.746E+02
PD107	2.863E+01	2.863E+01	2.863E+01	2.863E+01	2.863E+01	2.860E+01	2.833E+01	2.573E+01
AG107	0.0	3.055E-06	3.055E-05	3.055E-04	3.055E-03	3.053E-02	3.039E-01	2.898E+00
SN126	1.556E+01	1.556E+01	1.556E+01	1.555E+01	1.545E+01	1.452E+01	7.780E+00	1.520E-02
TE126	0.0	1.078E-04	1.078E-03	1.078E-02	1.075E-01	1.042E+00	7.780E+00	1.554E+01
CS135	8.633E+01	8.633E+01	8.633E+01	8.633E+01	8.630E+01	8.607E+01	8.377E+01	6.387E+01
BA135	0.0	2.602E-05	2.602E-04	2.602E-03	2.601E-02	2.598E-01	2.563E+00	2.246E+01
CS137	4.989E+02	4.875E+02	3.960E+02	4.949E+01	4.607E-08	0.0	0.0	0.0
BA137	0.0	1.140E+01	1.029E+02	4.494E+02	4.989E+02	4.989E+02	4.989E+02	4.989E+02
CE142	4.005E+02	4.005E+02	4.005E+02	4.005E+02	4.005E+02	4.005E+02	4.005E+02	4.005E+02
CE144	3.093E+00	1.269E+00	4.194E-04	6.469E-39	0.0	0.0	0.0	0.0
ND144	4.110E+02	4.128E+02	4.141E+02	4.141E+02	4.141E+02	4.141E+02	4.141E+02	4.141E+02
PM147	2.609E+01	2.003E+01	1.858E+00	8.758E-11	0.0	0.0	0.0	0.0
SM147	8.796E+01	9.402E+01	1.122E+02	1.140E+02	1.140E+02	1.140E+02	1.140E+02	1.140E+02
SM148	1.916E+01	1.916E+01	1.916E+01	1.916E+01	1.916E+01	1.916E+01	1.916E+01	1.916E+01
SM149	7.420E+00	7.420E+00	7.420E+00	7.420E+00	7.420E+00	7.420E+00	7.420E+00	7.420E+00
SM151	9.418E+00	9.346E+00	8.720E+00	4.360E+00	4.256E-03	3.342E-33	0.0	0.0
EU151	0.0	7.226E-02	6.982E-01	5.058E+00	9.414E+00	9.418E+00	9.418E+00	9.418E+00
SUMTOT	2.580E+03	2.580E+03	2.580E+03	2.580E+03	2.580E+03	2.580E+03	2.580E+03	2.580E+03
TOTAL	2.580E+03	2.580E+03	2.580E+03	2.580E+03	2.580E+03	2.580E+03	2.580E+03	2.580E+03

NUCLIDES CONTRIBUTING < 0.1000 % ARE OMITTED

TABLE 13-DWPF. CONCENTRATIONS OF FISSION PRODUCTS
IN DECAY OF SRP HLW: ELEMENTS

BASED ON ONE CANISTER, SLUDGE + SUPERNATE GLASS (3710 LB/CANISTER).

GRAMS

ELEMENT	IMMOBILZN	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
SE	2.439E+00	2.439E+00	2.439E+00	2.436E+00	2.413E+00	2.192E+00	8.391E-01	5.679E-05
BR	0.0	2.602E-05	2.602E-04	2.601E-03	2.589E-02	2.468E-01	1.600E+00	2.439E+00
RB	9.961E+00	9.961E+00	9.961E+00	9.961E+00	9.961E+00	9.961E+00	9.961E+00	9.961E+00
SR	3.426E+02	3.345E+02	2.700E+02	3.170E+01	1.628E-07	1.470E-06	1.470E-05	1.470E-04
ZR	4.443E+02	4.524E+02	5.169E+02	7.553E+02	7.868E+02	7.850E+02	7.673E+02	6.251E+02
NB	5.152E-04	7.160E-04	2.527E-03	2.064E-02	2.017E-01	2.009E+00	1.968E+01	1.619E+02
TC	1.816E+02	1.816E+02	1.816E+02	1.815E+02	1.810E+02	1.758E+02	1.312E+02	7.013E+00
RU	6.729E-01	3.389E-01	6.604E-03	5.908E-02	5.900E-01	5.814E+00	5.044E+01	1.746E+02
PD	2.863E+01	2.896E+01	2.930E+01	2.930E+01	2.930E+01	2.927E+01	2.900E+01	2.641E+01
AG	2.647E-05	1.267E-05	3.055E-05	3.055E-04	3.055E-03	3.053E-02	3.039E-01	2.898E+00
SN	1.556E+01	1.556E+01	1.556E+01	1.555E+01	1.545E+01	1.452E+01	7.780E+00	1.520E-02
SB	8.226E-01	6.405E-01	6.756E-02	1.034E-03	1.368E-03	1.368E-03	1.367E-03	1.367E-03
TE	1.533E-02	1.975E-01	7.716E-01	8.487E-01	9.454E-01	1.880E+00	8.617E+00	1.638E+01
CS	5.855E+02	5.740E+02	4.823E+02	1.358E+02	8.630E+01	8.607E+01	8.377E+01	6.387E+01
BA	7.724E-05	1.147E+01	1.032E+02	4.497E+02	4.992E+02	4.994E+02	5.017E+02	5.216E+02
CE	4.036E+02	4.018E+02	4.005E+02	4.005E+02	4.005E+02	4.005E+02	4.005E+02	4.005E+02
ND	4.110E+02	4.128E+02	4.141E+02	4.141E+02	4.141E+02	4.141E+02	4.141E+02	4.141E+02
PM	2.609E+01	2.003E+01	1.858E+00	8.758E-11	0.0	0.0	0.0	0.0
SM	1.240E+02	1.299E+02	1.475E+02	1.450E+02	1.406E+02	1.406E+02	1.406E+02	1.406E+02
EU	3.337E+00	3.098E+00	1.988E+00	5.059E+00	9.414E+00	9.418E+00	9.418E+00	9.418E+00
GD	0.0	3.112E-01	2.041E+00	3.321E+00	3.322E+00	3.322E+00	3.322E+00	3.322E+00
SUMTOT	2.580E+03	2.580E+03	2.580E+03	2.580E+03	2.580E+03	2.580E+03	2.580E+03	2.580E+03
TOTAL	2.580E+03	2.580E+03	2.580E+03	2.580E+03	2.580E+03	2.580E+03	2.580E+03	2.580E+03

ELEMENTS CONTRIBUTING < 0.0100 % ARE OMITTED

TABLE 14--DWPf. RADIOACTIVITY OF FISSION PRODUCTS
IN DECAY OF SRP HLW: NUCLIDES

BASED ON ONE CANISTER, SLUDGE + SUPERNATE GLASS (3710 LB/CANISTER).

CURIES

NUCLIDE	IMMOBILZN	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
SE 79	1.700E-01	1.700E-01	1.700E-01	1.698E-01	1.682E-01	1.528E-01	5.848E-02	3.958E-06
SR 90	4.675E+04	4.565E+04	3.685E+04	4.326E+03	2.151E-06	0.0	0.0	0.0
Y 90	4.787E+04	4.566E+04	3.686E+04	4.327E+03	2.152E-06	0.0	0.0	0.0
ZR 93	1.117E+00	1.117E+00	1.117E+00	1.117E+00	1.116E+00	1.112E+00	1.067E+00	7.099E-01
NB 93M	0.0	5.272E-02	4.236E-01	1.054E+00	1.061E+00	1.056E+00	1.014E+00	6.744E-01
NB 94	9.647E-05	9.647E-05	9.644E-05	9.614E-05	9.323E-05	6.857E-05	3.173E-06	1.429E-19
TC 99	3.080E+00	3.080E+00	3.080E+00	3.079E+00	3.070E+00	2.981E+00	2.224E+00	1.189E-01
RU106	2.252E+03	1.132E+03	2.324E+00	3.232E-27	0.0	0.0	0.0	0.0
RH106	2.260E+03	1.132E+03	2.324E+00	3.232E-27	0.0	0.0	0.0	0.0
PD107	1.473E-02	1.473E-02	1.473E-02	1.473E-02	1.473E-02	1.472E-02	1.457E-02	1.324E-02
SE125	8.497E+02	6.616E+02	6.958E+01	1.151E-08	0.0	0.0	0.0	0.0
TE125M	2.760E+02	1.623E+02	1.698E+01	2.809E-09	0.0	0.0	0.0	0.0
SN126	4.416E-01	4.416E-01	4.416E-01	4.413E-01	4.386E-01	4.121E-01	2.208E-01	4.315E-04
SB126	6.160E-02	6.183E-02	6.182E-02	6.179E-02	6.140E-02	5.769E-02	3.092E-02	6.041E-05
SB126M	4.415E-01	4.416E-01	4.416E-01	4.413E-01	4.386E-01	4.121E-01	2.208E-01	4.315E-04
CS134	3.373E+02	2.410E+02	1.170E+01	8.453E-13	0.0	0.0	0.0	0.0
CS135	9.944E-02	9.944E-02	9.944E-02	9.944E-02	9.941E-02	9.914E-02	9.649E-02	7.357E-02
CS137	4.342E+04	4.242E+04	3.446E+04	4.307E+03	4.009E-06	0.0	0.0	0.0
BA137M	4.156E+04	4.013E+04	3.260E+04	4.074E+03	3.792E-06	0.0	0.0	0.0
CE144	9.871E+03	4.051E+03	1.339E+00	2.064E-35	0.0	0.0	0.0	0.0
PR144	9.871E+03	4.051E+03	1.339E+00	2.065E-35	0.0	0.0	0.0	0.0
PR144M	1.187E+02	4.861E+01	1.606E-02	2.477E-37	0.0	0.0	0.0	0.0
PM147	2.420E+04	1.858E+04	1.723E+03	8.122E-08	0.0	0.0	0.0	0.0
SM151	2.479E+02	2.460E+02	2.295E+02	1.147E+02	1.120E-01	8.796E-32	0.0	0.0
EU152	3.688E+00	3.505E+00	2.216E+00	2.257E-02	2.713E-22	0.0	0.0	0.0
EU154	6.197E+02	5.718E+02	2.768E+02	1.959E-01	6.157E-33	0.0	0.0	0.0
EU155	4.750E+02	4.131E+02	1.174E+02	4.042E-04	0.0	0.0	0.0	0.0
SUMTOT	2.310E+05	2.052E+05	1.432E+05	1.716E+04	6.580E+00	6.298E+00	4.948E+00	1.591E+00
TOTAL	2.310E+05	2.052E+05	1.432E+05	1.716E+04	6.580E+00	6.298E+00	4.948E+00	1.591E+00

NUCLIDES CONTRIBUTING < 0.0010 % ARE OMITTED

TABLE 15-DWPF. RADIOACTIVITY OF FISSION PRODUCTS
IN DECAY OF SRP HLW: ELEMENTS

BASED ON ONE CANISTER, SLUDGE + SUPERNATE GLASS (3710 LB/CANISTER).

CURIES

ELEMENT	IMMOBILZN	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
SE	1.700E-01	1.700E-01	1.700E-01	1.698E-01	1.682E-01	1.528E-01	5.848E-02	3.958E-06
SR	4.675E+04	4.565E+04	3.685E+04	4.326E+03	2.151E-06	0.0	0.0	0.0
Y	4.787E+04	4.566E+04	3.686E+04	4.327E+03	2.152E-06	0.0	0.0	0.0
ZR	1.127E+00	1.117E+00	1.117E+00	1.117E+00	1.116E+00	1.112E+00	1.067E+00	7.099E-01
NB	2.137E-02	5.326E-02	4.237E-01	1.055E+00	1.061E+00	1.056E+00	1.014E+00	6.744E-01
TC	3.080E+00	3.080E+00	3.080E+00	3.079E+00	3.070E+00	2.981E+00	2.224E+00	1.189E-01
RU	2.252E+03	1.132E+03	2.324E+00	3.232E-27	0.0	0.0	0.0	0.0
RH	2.260E+03	1.132E+03	2.324E+00	3.232E-27	0.0	0.0	0.0	0.0
PD	1.473E-02	1.473E-02	1.473E-02	1.473E-02	1.473E-02	1.472E-02	1.457E-02	1.324E-02
SN	7.756E-01	5.555E-01	5.104E-01	4.611E-01	4.386E-01	4.121E-01	2.208E-01	4.315E-04
SB	8.502E+02	6.621E+02	7.008E+01	5.031E-01	5.000E-01	4.697E-01	2.517E-01	4.919E-04
TE	2.763E+02	1.623E+02	1.698E+01	2.809E-09	0.0	0.0	0.0	0.0
CS	4.375E+04	4.266E+04	3.447E+04	4.307E+03	9.942E-02	9.914E-02	9.649E-02	7.357E-02
BA	4.156E+04	4.013E+04	3.260E+04	4.074E+03	3.792E-06	0.0	0.0	0.0
CE	9.871E+03	4.051E+03	1.339E+00	9.614E-06	9.614E-06	9.614E-06	9.614E-06	9.614E-06
PR	9.990E+03	4.100E+03	1.355E+00	2.089E-35	0.0	0.0	0.0	0.0
PM	2.420E+04	1.858E+04	1.723E+03	8.122E-08	0.0	0.0	0.0	0.0
SM	2.479E+02	2.460E+02	2.295E+02	1.147E+02	1.120E-01	2.593E-06	2.593E-06	2.593E-06
EU	1.098E+03	9.883E+02	3.964E+02	2.188E-01	2.713E-22	0.0	0.0	0.0
SUMTOT	2.310E+05	2.052E+05	1.432E+05	1.716E+04	6.580E+00	6.298E+00	4.948E+00	1.591E+00
TCTAL	2.310E+05	2.052E+05	1.432E+05	1.716E+04	6.580E+00	6.298E+00	4.948E+00	1.591E+00

ELEMENTS CONTRIBUTING < 0.0100 % ARE OMITTED

TABLE 16-DWPF. THERMAL POWER OF FISSION PRODUCTS
IN DECAY OF SRP HLW: NUCLIDES

BASED ON ONE CANISTER, SLUDGE + SUPERNATE GLASS (3710 LB/CANISTER).

WATTS

NUCLIDE	IMMOBILZN	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
SE 79	4.232E-05	4.232E-05	4.231E-05	4.227E-05	4.187E-05	3.803E-05	1.456E-05	9.854E-10
SR 90	5.426E+01	5.298E+01	4.277E+01	5.021E+00	2.497E-09	0.0	0.0	0.0
Y 90	2.653E+02	2.531E+02	2.043E+02	2.398E+01	1.193E-08	0.0	0.0	0.0
ZR 93	1.298E-04	1.298E-04	1.298E-04	1.297E-04	1.297E-04	1.292E-04	1.240E-04	8.248E-05
NB 93M	0.0	9.340E-06	7.506E-05	1.868E-04	1.879E-04	1.871E-04	1.797E-04	1.195E-04
NB 94	9.830E-07	9.830E-07	9.827E-07	9.797E-07	9.500E-07	6.987E-07	3.233E-08	1.456E-21
TC 99	1.545E-03	1.545E-03	1.544E-03	1.544E-03	1.540E-03	1.495E-03	1.115E-03	5.964E-05
RU106	1.339E-01	6.733E-02	1.382E-04	1.922E-31	0.0	0.0	0.0	0.0
RH106	2.167E+01	1.086E+01	2.229E-02	3.100E-29	0.0	0.0	0.0	0.0
PD107	8.732E-07	8.732E-07	8.732E-07	8.732E-07	8.731E-07	8.723E-07	8.640E-07	7.848E-07
SB125	2.656E+00	2.068E+00	2.175E-01	3.599E-11	0.0	0.0	0.0	0.0
TE125M	2.320E-01	1.364E-01	1.427E-02	2.361E-12	0.0	0.0	0.0	0.0
SN126	5.508E-04	5.508E-04	5.508E-04	5.504E-04	5.470E-04	5.139E-04	2.754E-04	5.382E-07
SB126	1.138E-03	1.142E-03	1.142E-03	1.142E-03	1.134E-03	1.066E-03	5.712E-04	1.116E-06
SB126M	5.622E-03	5.623E-03	5.623E-03	5.619E-03	5.584E-03	5.247E-03	2.812E-03	5.494E-06
CS134	3.433E+00	2.453E+00	1.191E-01	8.604E-15	0.0	0.0	0.0	0.0
CS135	3.319E-05	3.319E-05	3.319E-05	3.319E-05	3.318E-05	3.309E-05	3.220E-05	2.455E-05
CS137	4.802E+01	4.692E+01	3.811E+01	4.764E+00	4.434E-09	0.0	0.0	0.0
BA137M	1.632E+02	1.576E+02	1.280E+02	1.600E+01	1.489E-08	0.0	0.0	0.0
CE144	6.547E+00	2.687E+00	8.879E-04	1.369E-38	0.0	0.0	0.0	0.0
PR144	7.255E+01	2.978E+01	9.839E-03	1.518E-37	0.0	0.0	0.0	0.0
PR144M	4.063E-02	1.663E-02	5.496E-06	8.476E-41	0.0	0.0	0.0	0.0
PM147	8.679E+00	6.664E+00	6.180E-01	2.913E-11	0.0	0.0	0.0	0.0
SM147	2.738E-08	2.927E-08	3.493E-08	3.551E-08	3.551E-08	3.551E-08	3.551E-08	3.551E-08
SM151	2.906E-02	2.884E-02	2.691E-02	1.345E-02	1.313E-05	1.031E-35	0.0	0.0
EU152	2.790E-02	2.651E-02	1.676E-02	1.707E-04	2.052E-24	0.0	0.0	0.0
EU154	5.543E+00	5.114E+00	2.476E+00	1.752E-03	5.507E-35	0.0	0.0	0.0
EU155	3.455E-01	3.004E-01	8.540E-02	2.940E-07	0.0	0.0	0.0	0.0
SUMTOT	6.527E+02	5.708E+02	4.168E+02	4.979E+01	9.213E-03	8.710E-03	5.125E-03	2.941E-04
TCTAL	6.527E+02	5.708E+02	4.168E+02	4.979E+01	9.213E-03	8.710E-03	5.125E-03	2.941E-04

NUCLIDES CONTRIBUTING < 0.0010 % ARE OMITTED

TABLE 17-DWPF. THERMAL POWER OF FISSION PRODUCTS
IN DECAY OF SRP HLW: ELEMENTS

BASED ON ONE CANISTER, SLUDGE + SUPERNATE GLASS (3710 LB/CANISTER).

WATTS

ELEMENT	IMMOBILZN	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
SE	4.232E-05	4.232E-05	4.231E-05	4.227E-05	4.187E-05	3.803E-05	1.456E-05	9.854E-10
SR	5.426E+01	5.298E+01	4.277E+01	5.021E+00	2.497E-09	0.0	0.0	0.0
Y	2.653E+02	2.531E+02	2.043E+02	2.398E+01	1.193E-08	0.0	0.0	0.0
ZR	1.807E-04	1.307E-04	1.298E-04	1.297E-04	1.297E-04	1.292E-04	1.240E-04	8.248E-05
NB	1.026E-04	1.244E-05	7.604E-05	1.878E-04	1.888E-04	1.878E-04	1.797E-04	1.195E-04
TC	1.545E-03	1.545E-03	1.544E-03	1.544E-03	1.540E-03	1.495E-03	1.115E-03	5.964E-05
RU	1.339E-01	6.733E-02	1.382E-04	1.922E-31	0.0	0.0	0.0	0.0
RH	2.167E+01	1.086E+01	2.229E-02	3.100E-29	0.0	0.0	0.0	0.0
PD	8.732E-07	8.732E-07	8.732E-07	8.732E-07	8.731E-07	8.723E-07	8.640E-07	7.848E-07
SN	1.505E-03	8.191E-04	6.886E-04	5.900E-04	5.470E-04	5.139E-04	2.754E-04	5.382E-07
SB	2.663E+00	2.075E+00	2.243E-01	6.761E-03	6.719E-03	6.312E-03	3.383E-03	6.610E-06
TE	2.323E-01	1.364E-01	1.427E-02	2.361E-12	0.0	0.0	0.0	0.0
CS	5.145E+01	4.938E+01	3.823E+01	4.764E+00	3.318E-05	3.309E-05	3.220E-05	2.455E-05
BA	1.632E+02	1.576E+02	1.280E+02	1.600E+01	1.489E-08	0.0	0.0	0.0
CE	6.547E+00	2.687E+00	8.879E-04	1.369E-38	0.0	0.0	0.0	0.0
PR	7.260E+01	2.979E+01	9.844E-03	1.518E-37	0.0	0.0	0.0	0.0
PM	8.679E+00	6.664E+00	6.180E-01	2.913E-11	0.0	0.0	0.0	0.0
SM	2.906E-02	2.884E-02	2.691E-02	1.345E-02	1.317E-05	3.551E-08	3.551E-08	3.551E-08
EU	5.917E+00	5.441E+00	2.578E+00	1.923E-03	2.052E-24	0.0	0.0	0.0
SUMTOT	6.527E+02	5.708E+02	4.168E+02	4.979E+01	9.213E-03	8.710E-03	5.125E-03	2.941E-04
TCTAL	6.527E+02	5.708E+02	4.168E+02	4.979E+01	9.213E-03	8.710E-03	5.125E-03	2.941E-04

ELEMENTS CONTRIBUTING < 0.0100 % ARE OMITTED

TABLE 18-DWPF. PHOTON SPECTRUM OF FISSION PRODUCTS
IN DECAY OF SRP HLW

BASED ON ONE CANISTER, SLUDGE + SUPERNATE GLASS (3710 LB/CANISTER).

PHOTONS/SEC

EMEAN	IMMOBILZN	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
18 GROUP PHOTON RELEASE RATES, PHOTONS/SECOND								
1.000E-02	1.751E+15	1.487E+15	1.059E+15	1.249E+14	2.015E+10	1.950E+10	1.479E+10	5.178E+09
2.500E-02	3.863E+14	3.236E+14	2.209E+14	2.585E+13	8.700E+09	8.200E+09	4.586E+09	6.491E+07
3.750E-02	3.907E+14	3.249E+14	2.248E+14	2.661E+13	1.467E+09	1.393E+09	8.511E+08	2.840E+07
5.750E-02	3.417E+14	2.876E+14	2.041E+14	2.397E+13	3.448E+09	3.256E+09	1.857E+09	2.954E+07
8.500E-02	2.181E+14	1.791E+14	1.227E+14	1.430E+13	8.535E+09	8.026E+09	4.342E+09	1.729E+07
1.250E-01	1.876E+14	1.392E+14	8.314E+13	9.215E+12	5.032E+08	4.750E+08	2.687E+08	3.375E+06
2.250E-01	1.835E+14	1.508E+14	1.041E+14	1.213E+13	8.045E+08	7.564E+08	4.087E+08	1.426E+06
3.750E-01	9.244E+13	7.417E+13	4.554E+13	5.238E+12	1.779E+10	1.671E+10	8.955E+09	1.750E+07
5.750E-01	1.691E+15	1.603E+15	1.268E+15	1.580E+14	3.949E+10	3.710E+10	1.988E+10	3.885E+07
8.500E-01	3.687E+13	2.932E+13	1.248E+13	8.501E+11	1.983E+09	1.862E+09	9.954E+08	1.945E+06
1.250E+00	2.116E+13	1.699E+13	7.824E+12	2.816E+11	4.798E+08	4.508E+08	2.416E+08	4.721E+05
1.750E+00	1.358E+12	9.089E+11	3.465E+11	2.172E+10	2.047E+04	1.922E+04	1.030E+04	2.013E+01
2.250E+00	2.901E+12	1.202E+12	5.235E+08	2.385E+06	1.401E-03	2.154E-04	2.154E-04	2.154E-04
2.750E+00	2.046E+10	1.003E+10	1.882E+07	1.079E-04	1.079E-04	1.079E-04	1.079E-04	1.079E-04
3.500E+00	2.349E+09	1.177E+09	2.416E+06	7.947E-05	7.947E-05	7.947E-05	7.947E-05	7.947E-05
5.000E+00	2.251E-05	2.278E-05	2.358E-05	2.366E-05	2.366E-05	2.366E-05	2.366E-05	2.366E-05
7.000E+00	1.461E-06	1.478E-06	1.530E-06	1.535E-06	1.535E-06	1.535E-06	1.535E-06	1.535E-06
9.500E+00	9.237E-08	9.346E-08	9.675E-08	9.708E-08	9.708E-08	9.708E-08	9.708E-08	9.708E-08
TOTAL	5.305E+15	4.618E+15	3.353E+15	4.013E+14	1.033E+11	9.773E+10	5.718E+10	5.382E+09

TABLE 19-DWPF. CONCENTRATIONS OF ACTIVATION PRODUCTS
IN DECAY OF SRP HLW: NUCLIDES

BASED ON ONE CANISTER, SLUDGE + SUPERNATE GLASS (3710 LB/CANISTER).

GRAMS

NUCLIDE	IMMOBILZN	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
CO 59	0.0	2.741E-06	2.740E-05	2.739E-04	2.729E-03	2.625E-02	1.833E-01	3.162E-01
CO 60	1.502E-01	1.317E-01	4.031E-02	2.903E-07	0.0	0.0	0.0	0.0
NI 59	3.163E-01	3.163E-01	3.163E-01	3.160E-01	3.136E-01	2.900E-01	1.330E-01	5.459E-05
NI 60	0.0	1.851E-02	1.099E-01	1.502E-01	1.502E-01	1.502E-01	1.502E-01	1.502E-01
NI 63	4.824E-02	4.788E-02	4.474E-02	2.271E-02	2.578E-05	9.179E-35	0.0	0.0
CU 63	0.0	3.621E-04	3.501E-03	2.553E-02	4.821E-02	4.824E-02	4.824E-02	4.824E-02
SUMTOT	5.147E-01	5.147E-01	5.147E-01	5.147E-01	5.147E-01	5.147E-01	5.147E-01	5.147E-01
TOTAL	5.147E-01	5.147E-01	5.147E-01	5.147E-01	5.147E-01	5.147E-01	5.147E-01	5.147E-01

NUCLIDES CONTRIBUTING < 0.1000 % ARE OMITTED

TABLE 20-DWPF. CONCENTRATIONS OF ACTIVATION PRODUCTS
IN DECAY OF SRP HLW: ELEMENTS

BASED ON ONE CANISTER, SLUDGE + SUPERNATE GLASS (3710 LB/CANISTER).

GRAMS

ELEMENT	IMMOBILZN	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
CO	1.502E-01	1.317E-01	4.034E-02	2.742E-04	2.729E-03	2.625E-02	1.833E-01	3.162E-01
NI	3.645E-01	3.827E-01	4.709E-01	4.889E-01	4.638E-01	4.402E-01	2.832E-01	1.503E-01
CU	0.0	3.621E-04	3.501E-03	2.553E-02	4.821E-02	4.824E-02	4.824E-02	4.824E-02
SUMTOT	5.147E-01	5.147E-01	5.147E-01	5.147E-01	5.147E-01	5.147E-01	5.147E-01	5.147E-01
TCTAL	5.147E-01	5.147E-01	5.147E-01	5.147E-01	5.147E-01	5.147E-01	5.147E-01	5.147E-01

ELEMENTS CONTRIBUTING < 0.0010 % ARE OMITTED

TABLE 21-DWPF. RADIOACTIVITY OF ACTIVATION PRODUCTS
IN DECAY OF SRP HLW: NUCLIDES

BASED ON ONE CANISTER, SLUDGE + SUPERNATE GLASS (3710 LB/CANISTER).

CURIES

NUCLIDE	IMMOBILZN	1.0YR	10.0YR	100.0YR	1000.0YR	10.0KY	100.0KY	1.0MY
CO 60	1.699E+02	1.490E+02	4.560E+01	3.283E-04	0.0	0.0	0.0	0.0
NI 59	2.397E-02	2.397E-02	2.396E-02	2.395E-02	2.376E-02	2.198E-02	1.008E-02	4.137E-06
NI 63	2.977E+00	2.954E+00	2.761E+00	1.401E+00	1.591E-03	5.664E-33	0.0	0.0
SUMTOT	1.729E+02	1.519E+02	4.838E+01	1.426E+00	2.535E-02	2.198E-02	1.008E-02	4.137E-06
TOTAL	1.729E+02	1.519E+02	4.838E+01	1.426E+00	2.535E-02	2.198E-02	1.008E-02	4.137E-06

NUCLIDES CONTRIBUTING < 0.0010 % ARE OMITTED