

APPENDIX DATA

ATTACHMENT E: WWIS NUCLIDE REPORT

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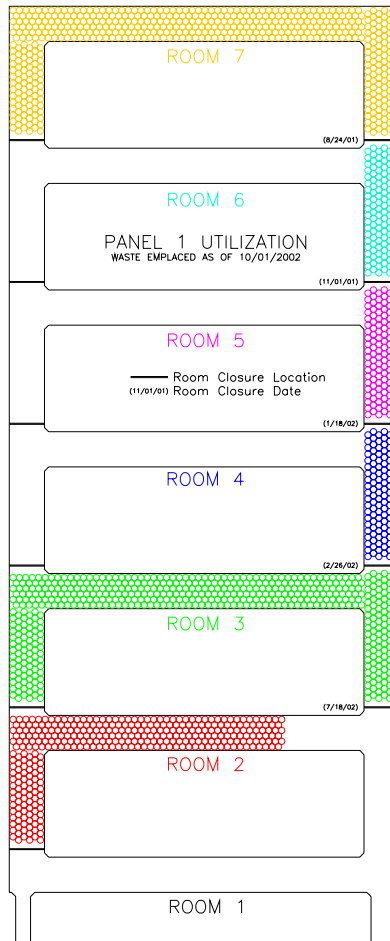
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1 ***Panel One Nuclide Inventory by Room***

2 ***This attachment identifies the total amounts of radionuclides by nuclide emplaced in each***
 3 ***room of Panel 1 as of September 30, 2002. The information is derived from reports generated***
 4 ***by the WIPP Waste Information System (WWIS). The WWIS database is a computerized data***
 5 ***management system used by the WIPP to gather, store, and process information pertaining to***
 6 ***contact-handled (CH) transuranic (TRU) waste destined for or disposed of at the WIPP.***



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Figure DATA-E1. Panel 1 Waste Emplacement

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Table DATA-E1. Panel 1 – Room 2

<i>Radionuclide</i>	<i>Activity (Curies)</i>	<i>Mass (Grams)</i>
²⁴¹ Am – Americium 241	9.2850E+03	2.6758E+03
²⁴³ Am – Americium 243	9.9560E-04	4.9289E-03
¹³⁷ Cs – Cesium 137	8.0278E-05	9.1225E-07
⁴⁰ K – Potassium 40	8.4940E-06	1.5047E+00
²³⁷ Np – Neptunium 237	1.4797E-02	2.0754E+01
²³⁸ Pu – Plutonium 238	5.0904E+02	2.9424E+01
²³⁹ Pu – Plutonium 239	1.4237E+04	2.2634E+05
²⁴⁰ Pu – Plutonium 240	3.2407E+03	1.4090E+04
²⁴¹ Pu – Plutonium 241	5.0010E+04	4.8087E+02
²⁴² Pu – Plutonium 242	3.1581E-01	7.9550E+01
⁹⁰ Sr – Strontium 90	0.0000E+00	0.0000E+00
²³³ U – Uranium 233	1.0058E-01	1.0305E+01
²³⁴ U – Uranium 234	4.7176E-01	7.4619E+01
²³⁵ U – Uranium 235	4.0517E-02	1.8501E+04
²³⁸ U – Uranium 238	2.8812E+00	8.4742E+06
<i>Totals</i>	7.7285E+04	8.7365E+06

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Table DATA-E2. Panel 1 – Room 3

<i>Radionuclide</i>	<i>Activity (Curies)</i>	<i>Mass (Grams)</i>
²⁴¹ Am – Americium 241	4.8984E+04	1.4116E+04
¹³⁷ Cs – Cesium 137	1.2539E-05	1.4248E-07
²³⁷ Np – Neptunium 237	1.5878E-01	2.2269E+02
²³⁸ Pu – Plutonium 238	2.1564E+03	1.2465E+02
²³⁹ Pu – Plutonium 239	5.5875E+04	8.8832E+05
²⁴⁰ Pu – Plutonium 240	1.2569E+04	5.4648E+04
²⁴¹ Pu – Plutonium 241	1.7815E+05	1.7129E+03
²⁴² Pu – Plutonium 242	1.1899E+00	2.9973E+02
²²⁶ Ra – Radium 226	7.8785E-06	7.8785E-06
⁹⁰ Sr – Strontium 90	0.0000E+00	0.0000E+00
²³³ U – Uranium 233	2.8513E-02	2.9214E+00
²³⁴ U – Uranium 234	4.3515E-01	6.8854E+01
²³⁵ U – Uranium 235	4.7486E-02	2.1683E+04
²³⁸ U – Uranium 238	2.3434E+00	6.8923E+06
<i>Totals</i>	2.9774E+05	7.8735E+06

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Table DATA-E3. Panel 1 – Room 4

<i>Radionuclide</i>	<i>Activity (Curies)</i>	<i>Mass (Grams)</i>
²⁴¹ Am – Americium 241	5.6147E+03	1.6181E+03
²³⁷ Np – Neptunium 237	1.6499E-02	2.3141E+01
²³⁸ Pu – Plutonium 238	7.1070E+02	4.1081E+01
²³⁹ Pu – Plutonium 239	1.5038E+04	2.3908E+05
²⁴⁰ Pu – Plutonium 240	3.3797E+03	1.4694E+04
²⁴¹ Pu – Plutonium 241	5.7280E+04	5.5077E+02
²⁴² Pu – Plutonium 242	3.2172E-01	8.1037E+01
²³⁴ U – Uranium 234	1.0038E-01	1.5883E+01
²³⁵ U – Uranium 235	9.3989E-03	4.2917E+03
²³⁸ U – Uranium 238	4.3477E-01	1.2787E+06
Totals	8.2025E+04	1.5391E+06

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Table DATA-E4. Panel 1 – Room 5

<i>Radionuclide</i>	<i>Activity (Curies)</i>	<i>Mass (Grams)</i>
²⁴¹ Am – Americium 241	1.1232E+04	3.2369E+03
²³⁷ Np – Neptunium 237	4.1192E-02	5.7773E+01
²³⁸ Pu – Plutonium 238	4.9307E+02	2.8501E+01
²³⁹ Pu – Plutonium 239	1.2341E+04	1.9620E+05
²⁴⁰ Pu – Plutonium 240	2.7427E+03	1.1925E+04
²⁴¹ Pu – Plutonium 241	3.8036E+04	3.6573E+02
²⁴² Pu – Plutonium 242	2.3423E-01	5.9000E+01
²³³ U – Uranium 233	5.2969E-03	5.4272E-01
²³⁴ U – Uranium 234	6.4339E-02	1.0180E+01
²³⁵ U – Uranium 235	8.3825E-03	3.8276E+03
²³⁸ U – Uranium 238	2.6287E-01	7.7313E+05
Totals	6.4845E+04	9.8885E+05

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Table DATA-E5. Panel 1 – Room 6

<i>Radionuclide</i>	<i>Activity (Curies)</i>	<i>Mass (Grams)</i>
²²⁷ Ac – Actinium	3.6430E-04	4.9741E-06
²⁴¹ Am – Americium 241	1.4472E+04	4.1705E+03
²⁴³ Am – Americium 243	1.5729E-03	7.7878E-03
¹³⁷ Cs – Cesium 137	7.2349E-06	7.6137E-07
⁴⁰ K – Potassium 40	1.6160E-06	2.8610E-01
²³⁷ Np – Neptunium 237	7.5073E-02	1.0530E+02

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Table DATA-E5. Panel 1 – Room 6 — Continued

<i>Radionuclide</i>	<i>Activity (Curies)</i>	<i>Mass (Grams)</i>
²³¹ <i>Pu – Protactinium 231</i>	<i>4.9790E-04</i>	<i>1.0419E-02</i>
²³⁸ <i>Pu – Plutonium 238</i>	<i>3.3829E+02</i>	<i>1.9554E+01</i>
²³⁹ <i>Pu – Plutonium 239</i>	<i>1.2851E+04</i>	<i>2.0432E+05</i>
²⁴⁰ <i>Pu – Plutonium 240</i>	<i>2.8699E+03</i>	<i>1.2478E+04</i>
²⁴¹ <i>Pu – Plutonium 241</i>	<i>2.6727E+04</i>	<i>2.5699E+02</i>
²⁴² <i>Pu – Plutonium 242</i>	<i>2.1064E-01</i>	<i>5.3054E+01</i>
²³⁰ <i>Th – Thorium</i>	<i>2.4100E-05</i>	<i>1.1800E-03</i>
²³³ <i>U – Uranium 233</i>	<i>4.3707E-03</i>	<i>4.4782E-01</i>
²³⁴ <i>U – Uranium 234</i>	<i>2.8120E-02</i>	<i>4.4512E+00</i>
²³⁵ <i>U – Uranium 235</i>	<i>2.5512E-03</i>	<i>1.1650E+03</i>
²³⁸ <i>U – Uranium 238</i>	<i>1.2067E-01</i>	<i>3.5492E+05</i>
<i>Totals</i>	<i>5.7259E+04</i>	<i>5.7749E+05</i>

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Table DATA-E6. Panel 1 – Room 7

<i>Radionuclide</i>	<i>Activity (Curies)</i>	<i>Mass (Grams)</i>
²⁴¹ <i>Am – Americium 241</i>	<i>2.7844E+04</i>	<i>8.0252E+03</i>
²⁴³ <i>Am – Americium 243</i>	<i>2.2362E-03</i>	<i>1.1140E-02</i>
⁶⁰ <i>Co – Cobalt 60</i>	<i>3.4696E-07</i>	<i>3.0400E-10</i>
¹³⁷ <i>Cs – Cesium 137</i>	<i>2.4119E-04</i>	<i>2.7401E-06</i>
⁴⁰ <i>K – Potassium 40</i>	<i>1.8587E-05</i>	<i>3.2901E+00</i>
²² <i>Na – Sodium 22 (NA-22)</i>	<i>5.3435E-06</i>	<i>8.4500E-10</i>
²³⁷ <i>Np – Neptunium 237</i>	<i>9.3755E-02</i>	<i>1.3149E+02</i>
²³¹ <i>Pa – Protactinium 231</i>	<i>6.1146E-06</i>	<i>1.3003E-05</i>
²³⁸ <i>Pu – Plutonium 238</i>	<i>1.4362E+03</i>	<i>8.3073E+01</i>
²³⁹ <i>Pu – Plutonium 239</i>	<i>2.7257E+04</i>	<i>4.3332E+05</i>
²⁴⁰ <i>Pu – Plutonium 240</i>	<i>6.1924E+03</i>	<i>2.6925E+04</i>
²⁴¹ <i>Pu – Plutonium 241</i>	<i>8.6568E+04</i>	<i>8.3333E+02</i>
²⁴² <i>Pu – Plutonium 242</i>	<i>6.8228E-01</i>	<i>1.7200E+02</i>
²³⁰ <i>Th – Thorium</i>	<i>2.6073E-06</i>	<i>2.3646E+01</i>
²³³ <i>U – Uranium 233</i>	<i>1.3393E-01</i>	<i>1.3722E+01</i>
²³⁴ <i>U – Uranium 234</i>	<i>1.6387E-01</i>	<i>2.5948E+01</i>
²³⁵ <i>U – Uranium 235</i>	<i>1.3687E-02</i>	<i>6.2499E+03</i>
²³⁸ <i>U – Uranium 238</i>	<i>4.8689E-01</i>	<i>1.4312E+06</i>
<i>Totals</i>	<i>1.4930E+05</i>	<i>1.9070E+06</i>

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<i>Panel 1 – Room Totals</i>	<i>7.2845E+05</i>	<i>2.1622E+07</i>
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