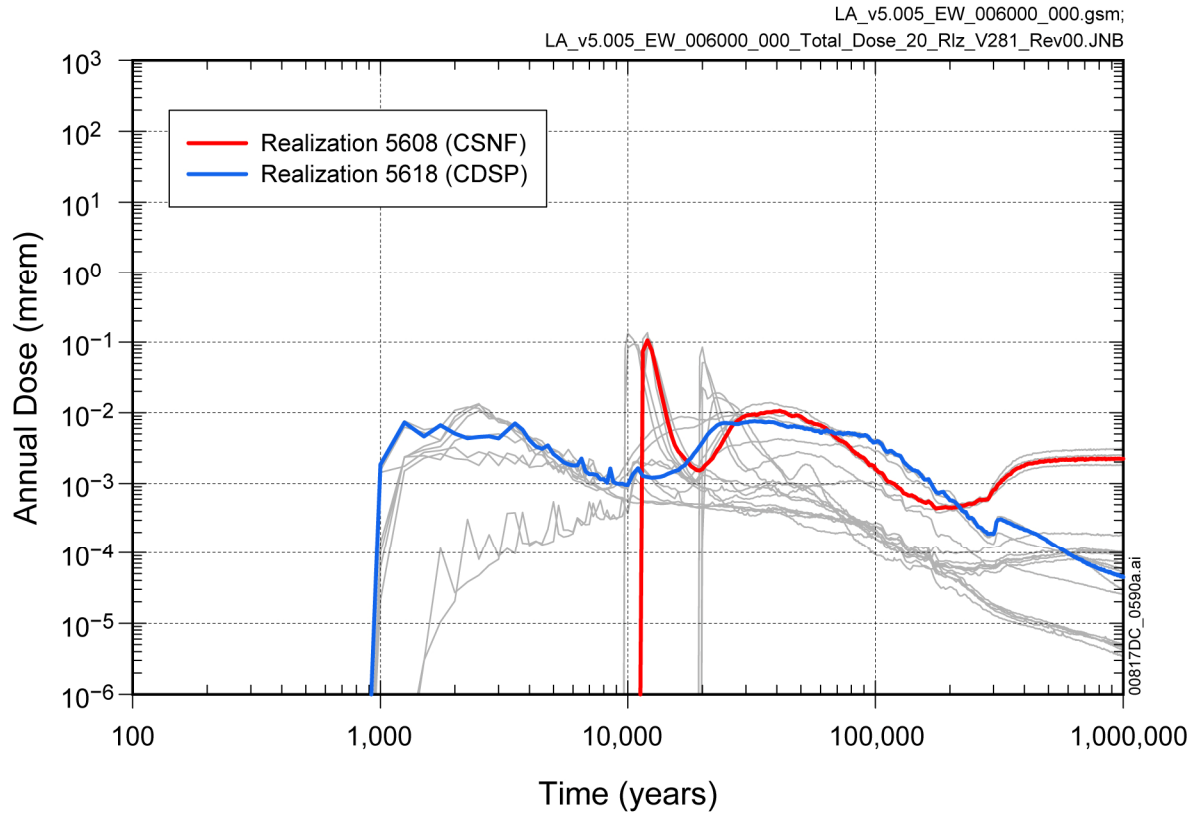


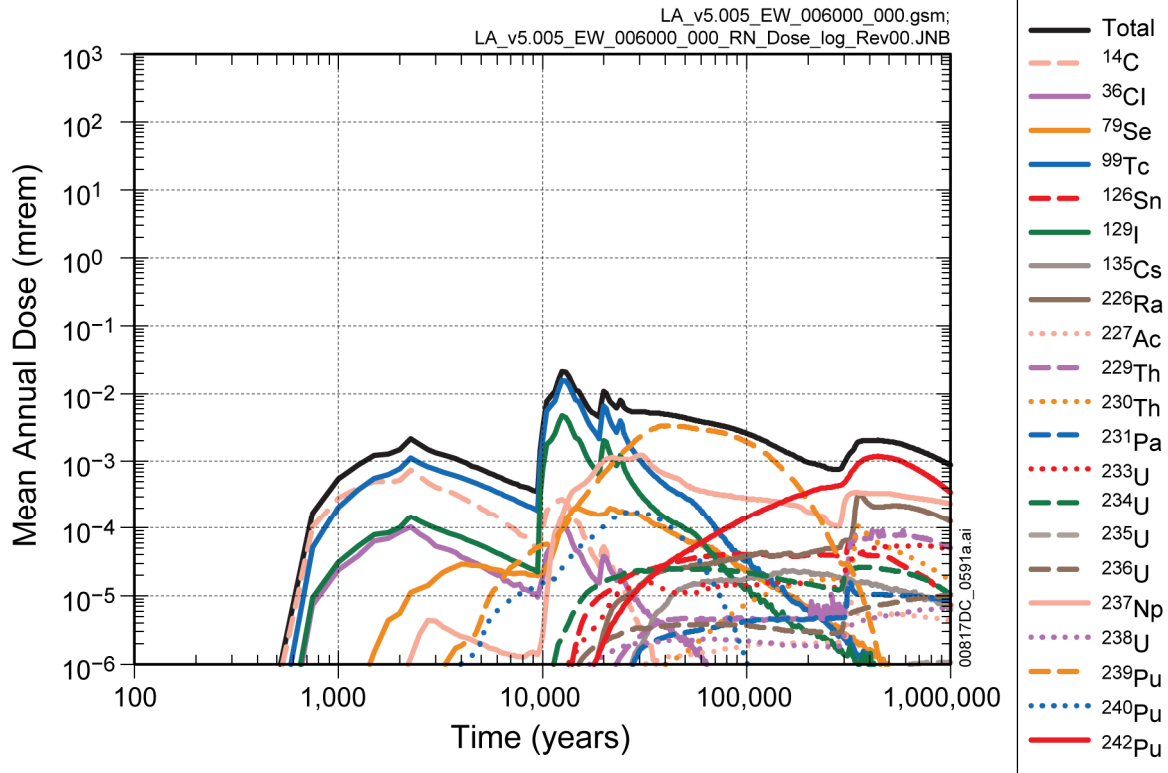
Source: Output DTN: MO0710ADTSPAWO.000 [DIRS 183752].

Figure 7.7-1-1[a]. Expected Annual Dose from 300 Epistemic Vectors, Along with their Quantiles and Expected Dose from Epistemic Vector 281 for the Waste Package Early Failure Modeling Case for 1,000,000 Years after Repository Closure: (a) Linear Time and (b) Log Time



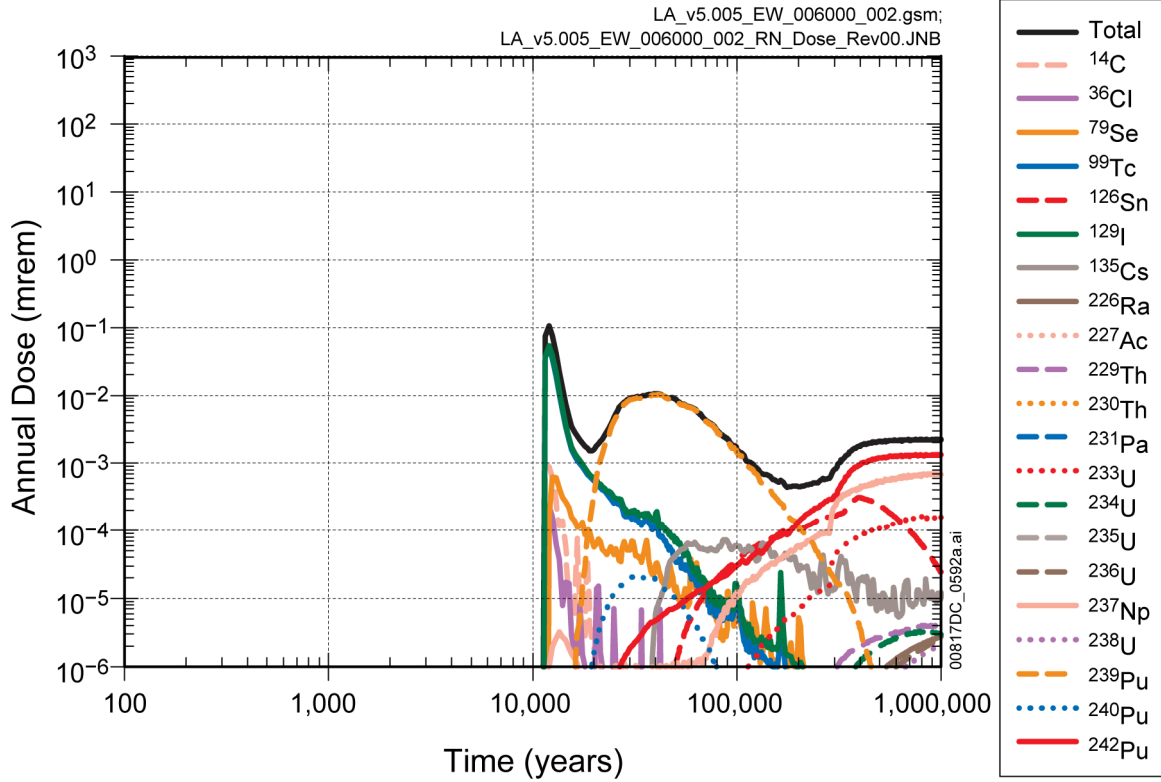
Source: Output DTN: MO0710ADTSPAWO.000 [DIRS 183752].

Figure 7.7.1-2[a]. Annual Dose from Realizations 5601 through 5620 of the Waste Package Early Failure Modeling Case for 1,000,000 Years after Repository Closure



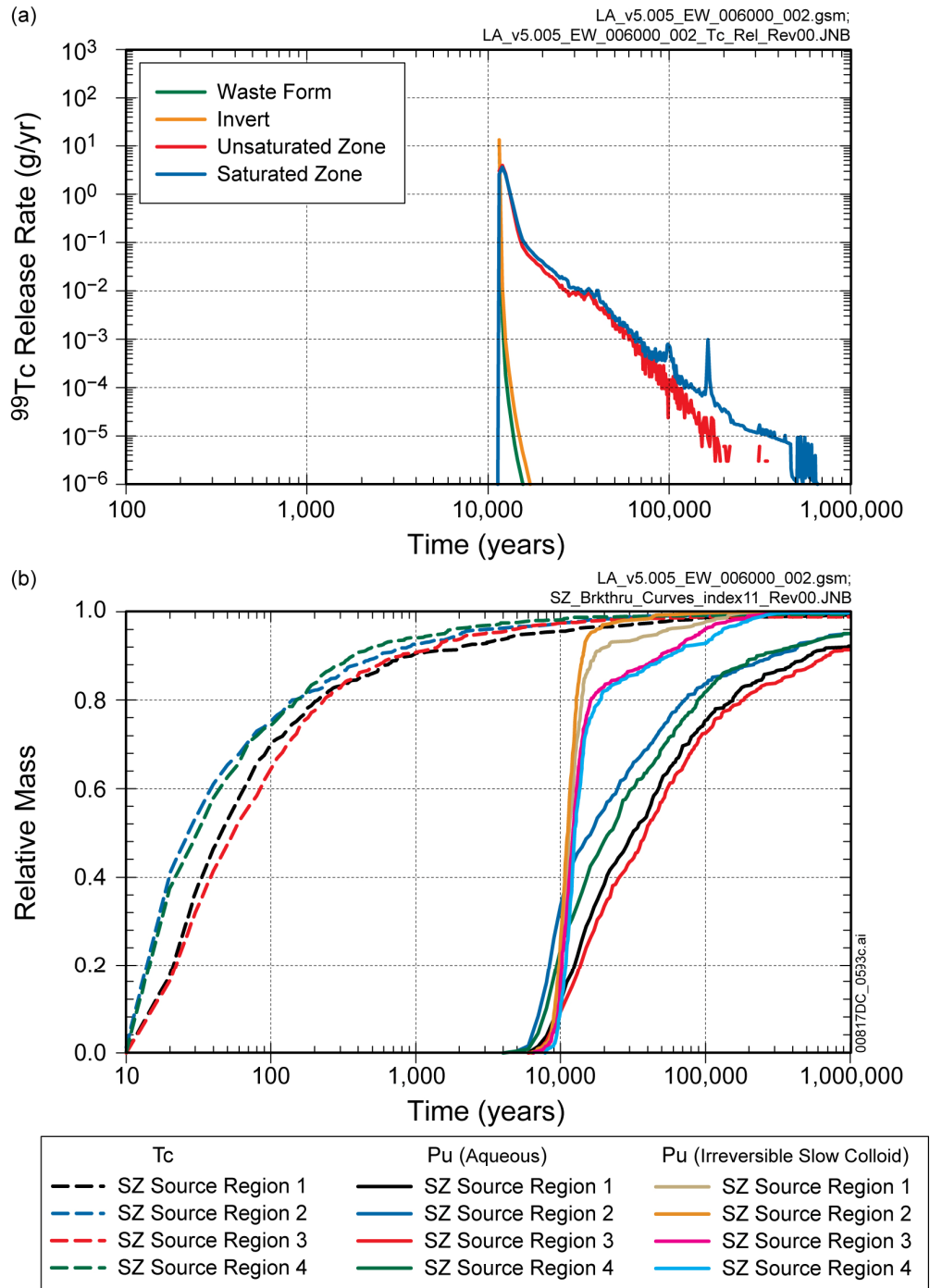
Source: Output DTN: MO0710ADTSPAWO.000 [DIRS 183752].

Figure 7.7.1-3[a]. Major Radionuclide Contributors to Mean Annual Dose for the Waste Package Early Failure Modeling Case for 1,000,000 Years after Repository Closure



Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

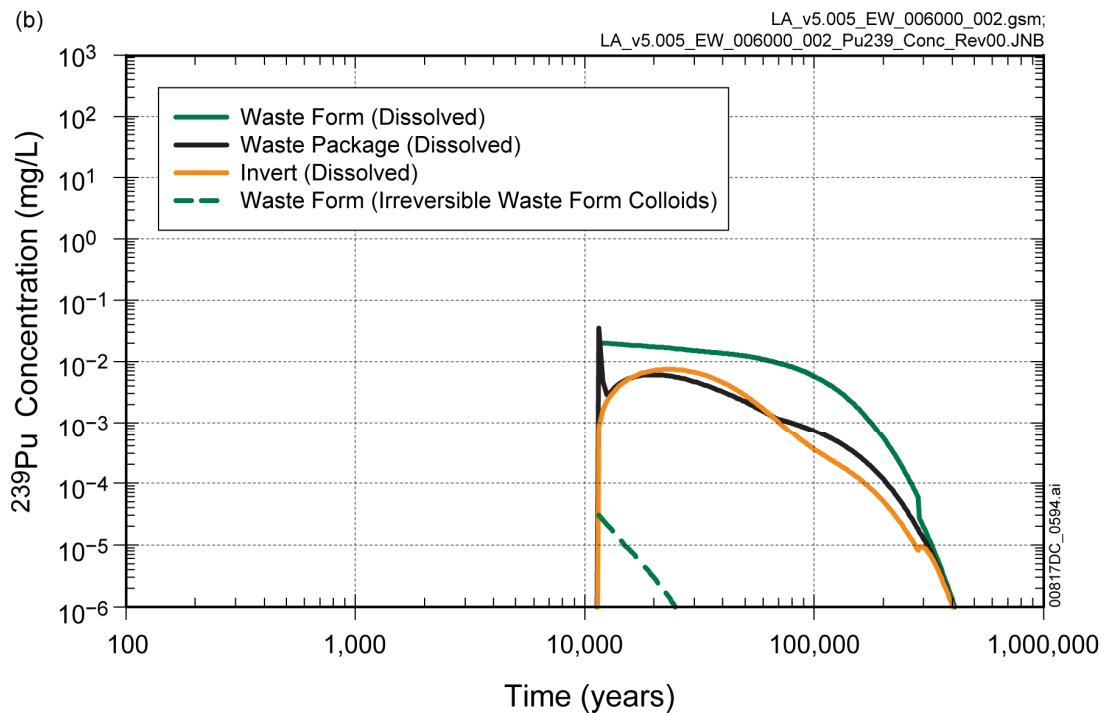
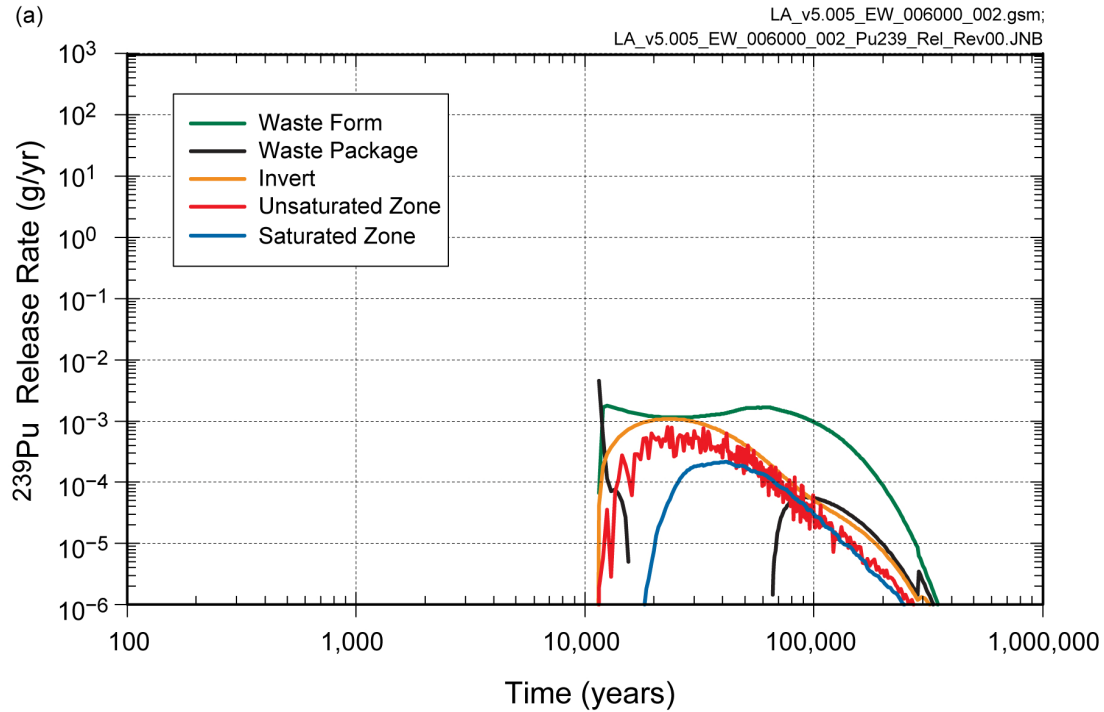
Figure 7.7.1-4[a]. Major Radionuclide Contributors to Annual Dose for Realization 5608 of the Waste Package Early Failure Modeling Case for 1,000,000 Years after Repository Closure



Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

NOTE: In the (b) plot, the mass of plutonium dissolved and reversibly associated with colloids is denoted as aqueous.

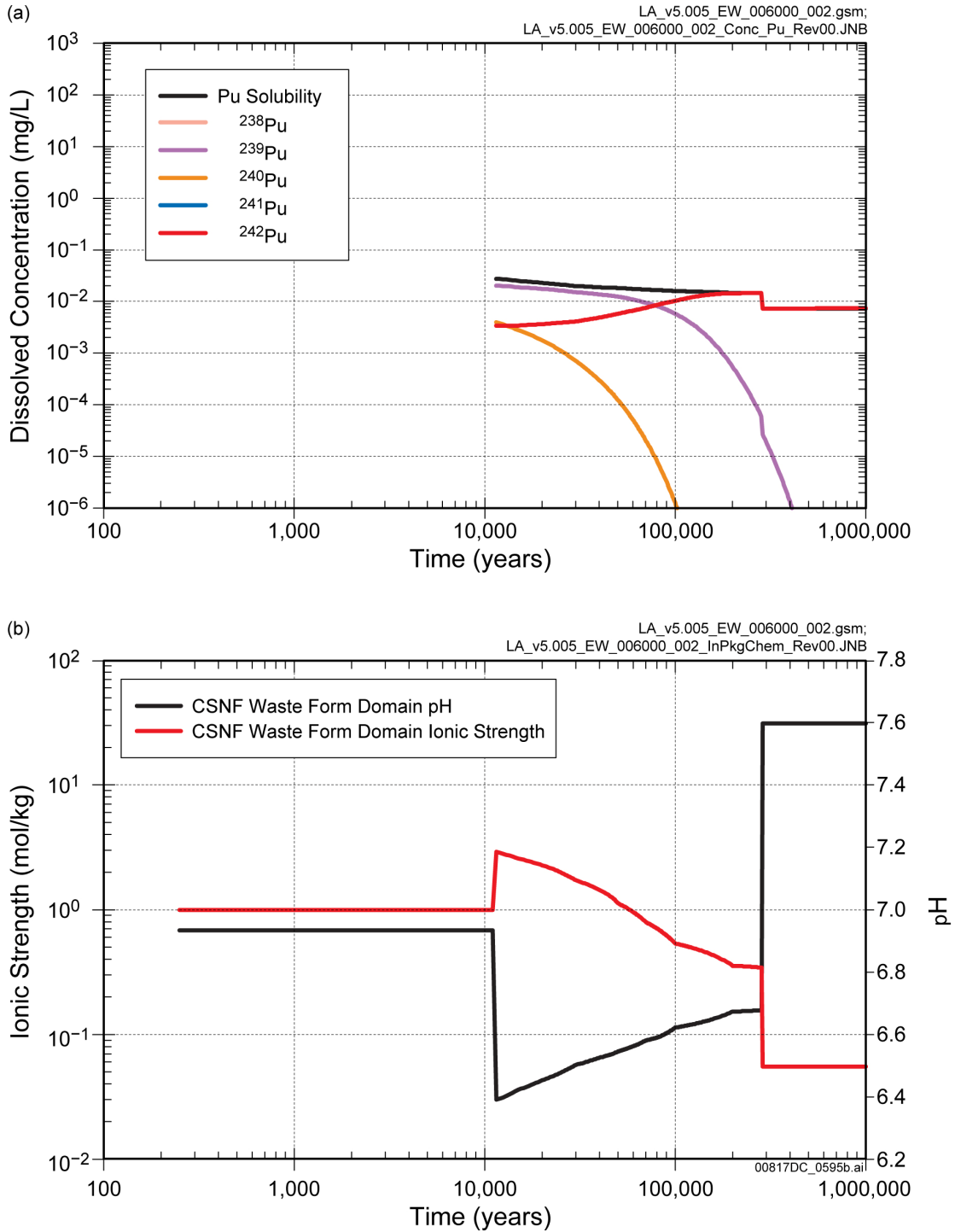
Figure 7.7-1-5[a]. (a) Release Rates of Technetium from the Waste Form, EBS, Unsaturated Zone, and Saturated Zone for Realization 5608 and (b) Saturated Zone Breakthrough Curves of Technetium and Plutonium for Epistemic Uncertainty Vector 281 of the Waste Package Early Failure Modeling Case for 1,000,000 Years after Repository Closure



Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

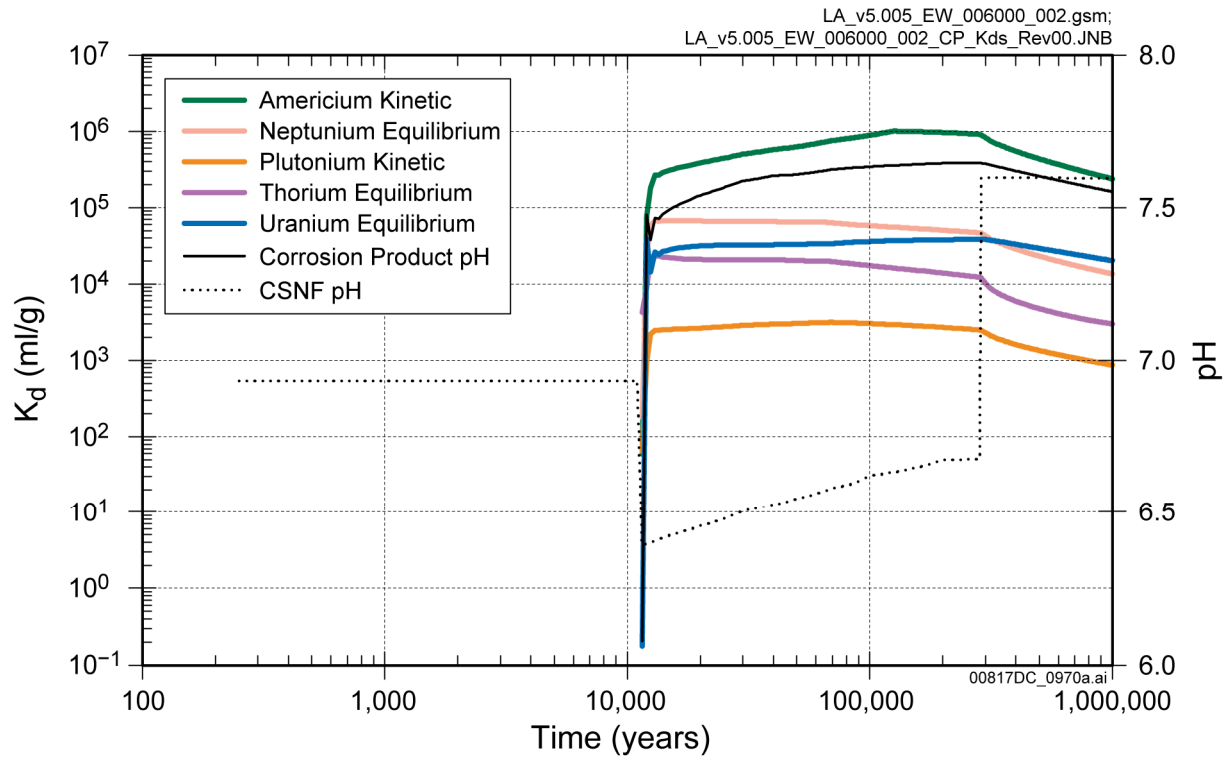
NOTE: In the (a) plot, the release rate does not include the mass released as irreversibly associated with colloids.

Figure 7.7.1-6[a]. (a) Release Rates and (b) Concentration of ²³⁹Pu for Realization 5608 of the Waste Package Early Failure Modeling Case for 1,000,000 Years after Repository Closure



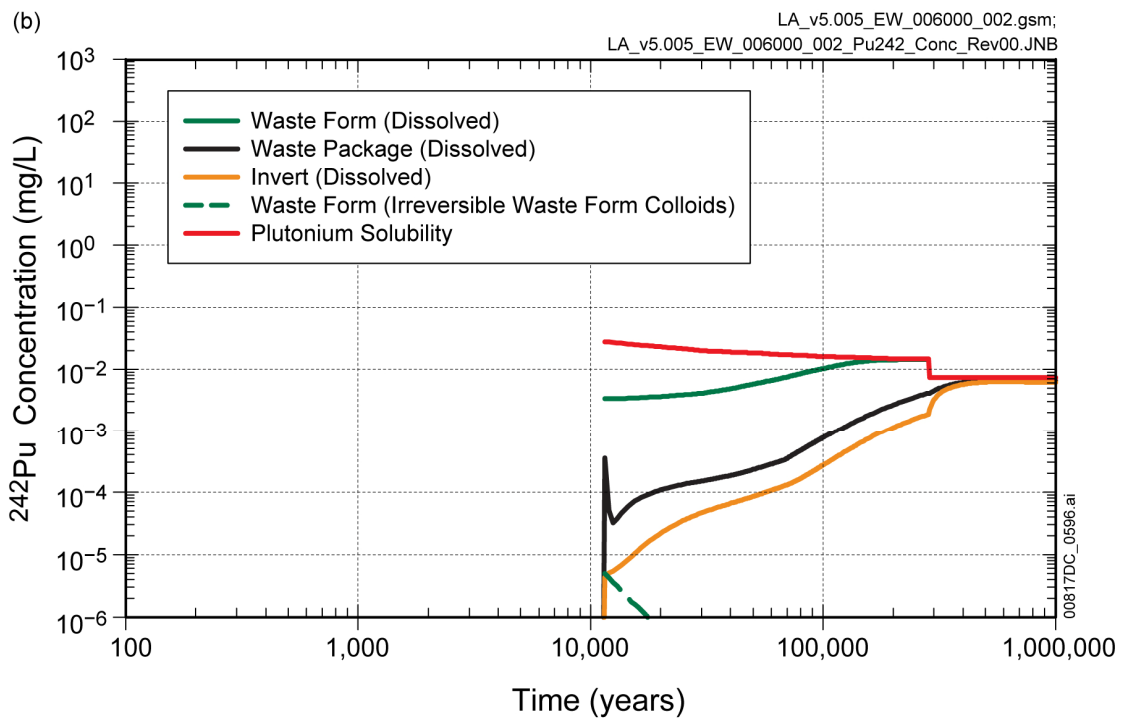
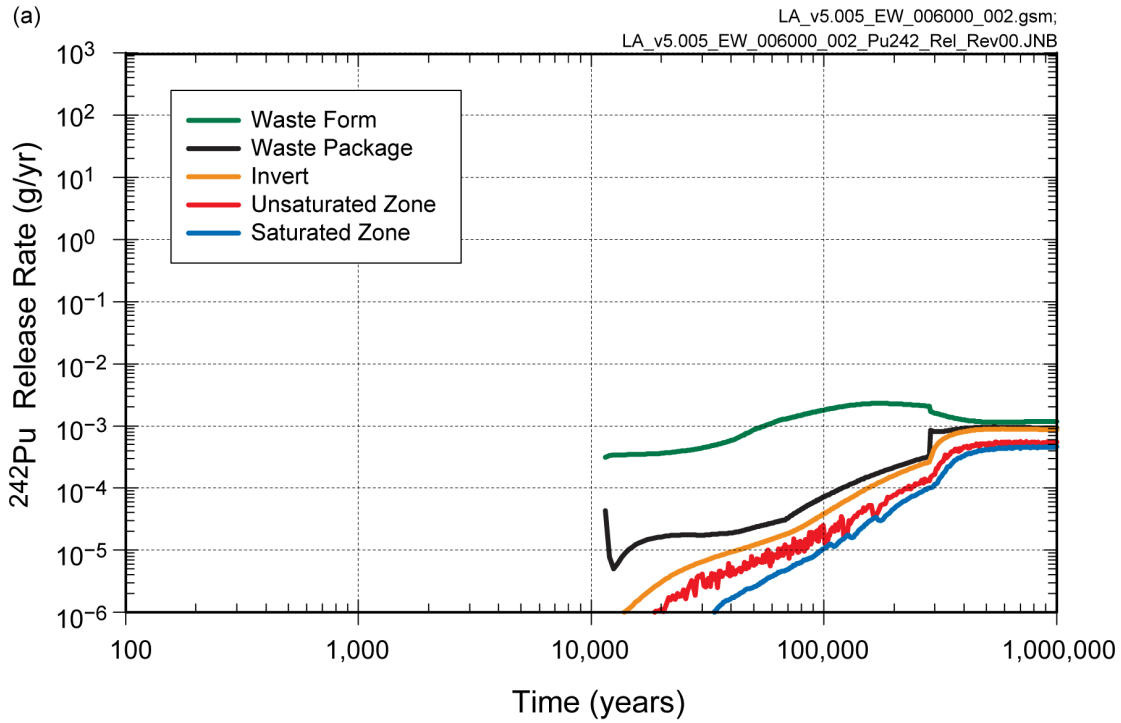
Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

Figure 7.7.1-7[a]. (a) Dissolved Concentrations of Plutonium in the CSNF Waste Form Domain for Realization 5608 and (b) CSNF Waste Form Domain Chemistry for Realization 5608 of the Waste Package Early Failure Modeling Case for 1,000,000 Years after Repository Closure



Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

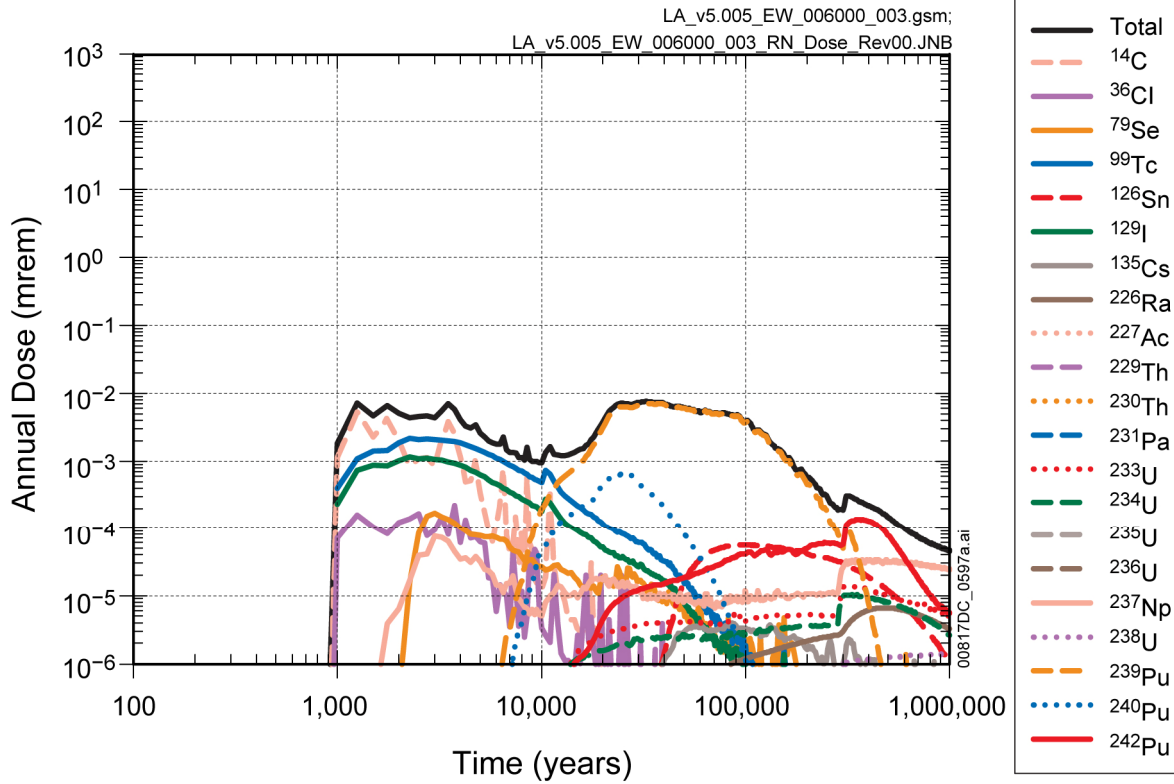
Figure 7.7.1-8[a]. Corrosion Product Sorption Coefficients (K_d s) and In-package pH for Realization 5608 of the Waste Package Early Failure Modeling Case for 1,000,000 Years after Repository Closure



Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

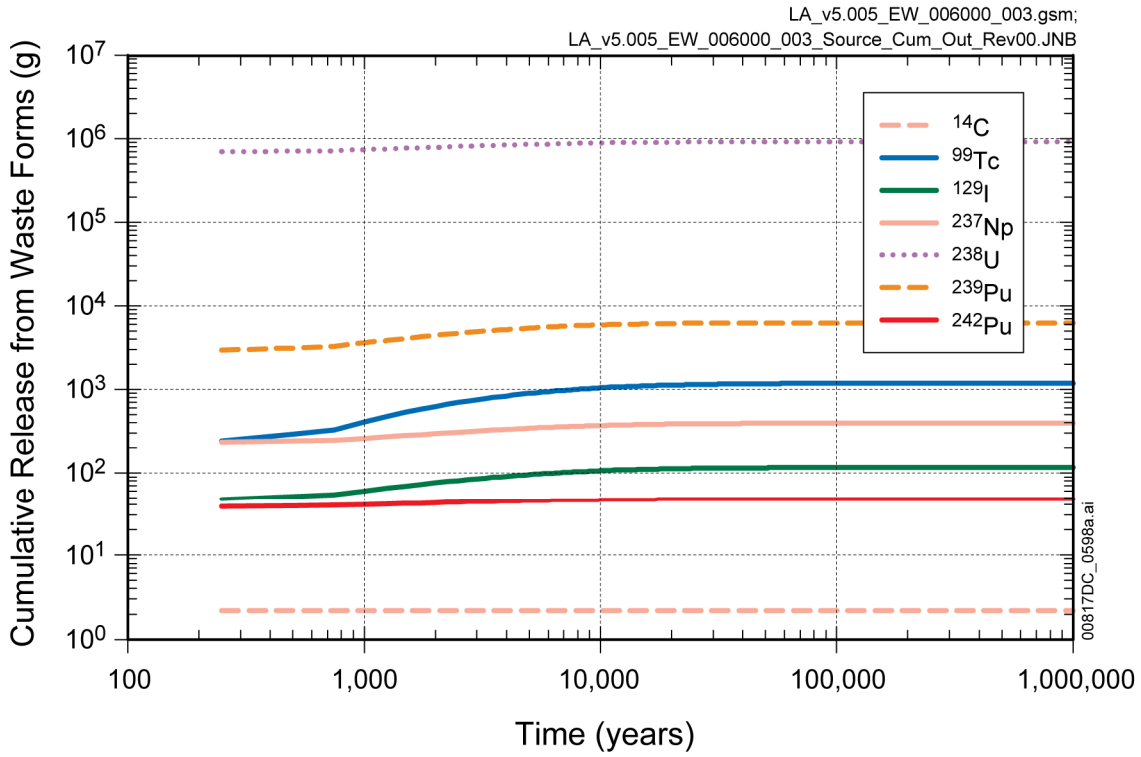
NOTE: In the (a) plot, the release rate does not include the mass released as irreversibly associated with colloids.

Figure 7.7.1-9[a]. (a) Release Rates and (b) Concentration of ²⁴²Pu for Realization 5608 of the Waste Package Early Failure Modeling Case for 1,000,000 Years after Repository Closure



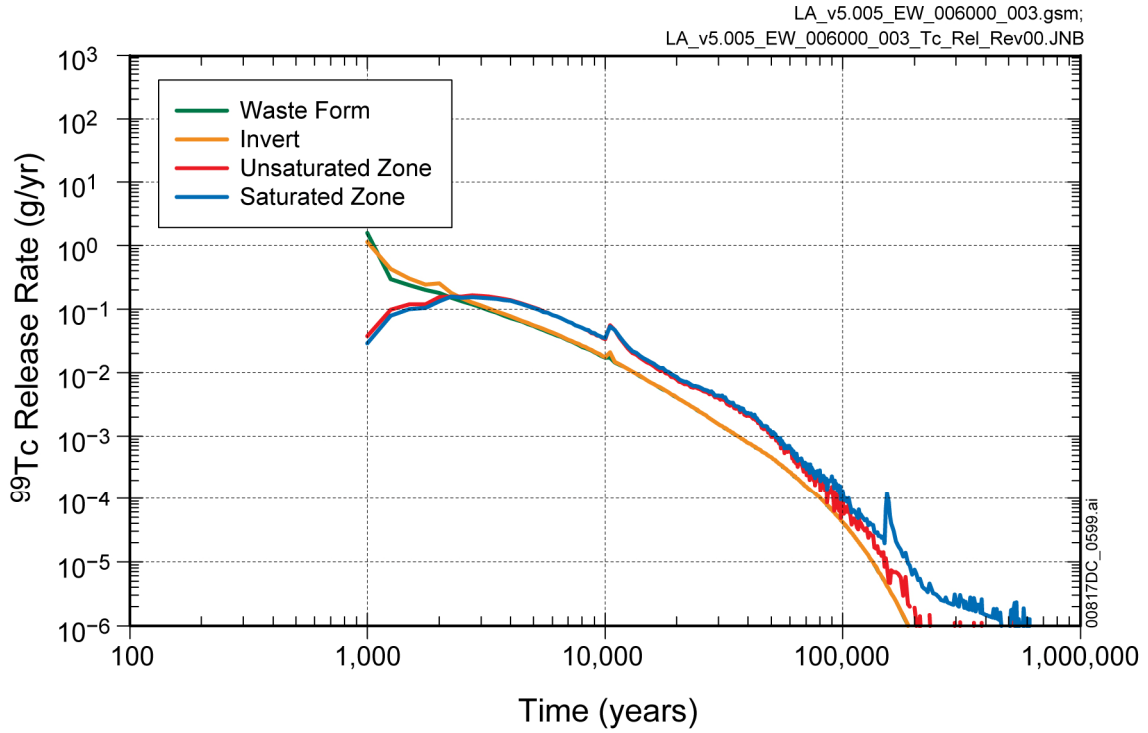
Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

Figure 7.7.1-10[a]. Major Radionuclide Contributors to Annual Dose for Realization 5618 of the Waste Package Early Failure Modeling Case for 1,000,000 Years after Repository Closure



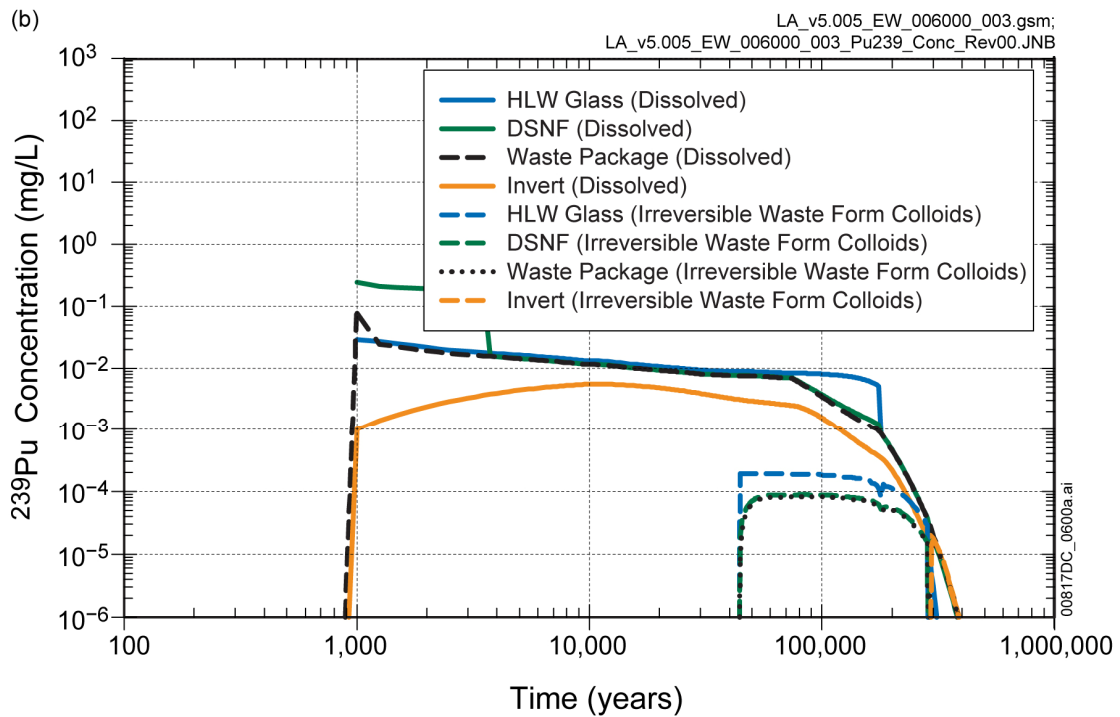
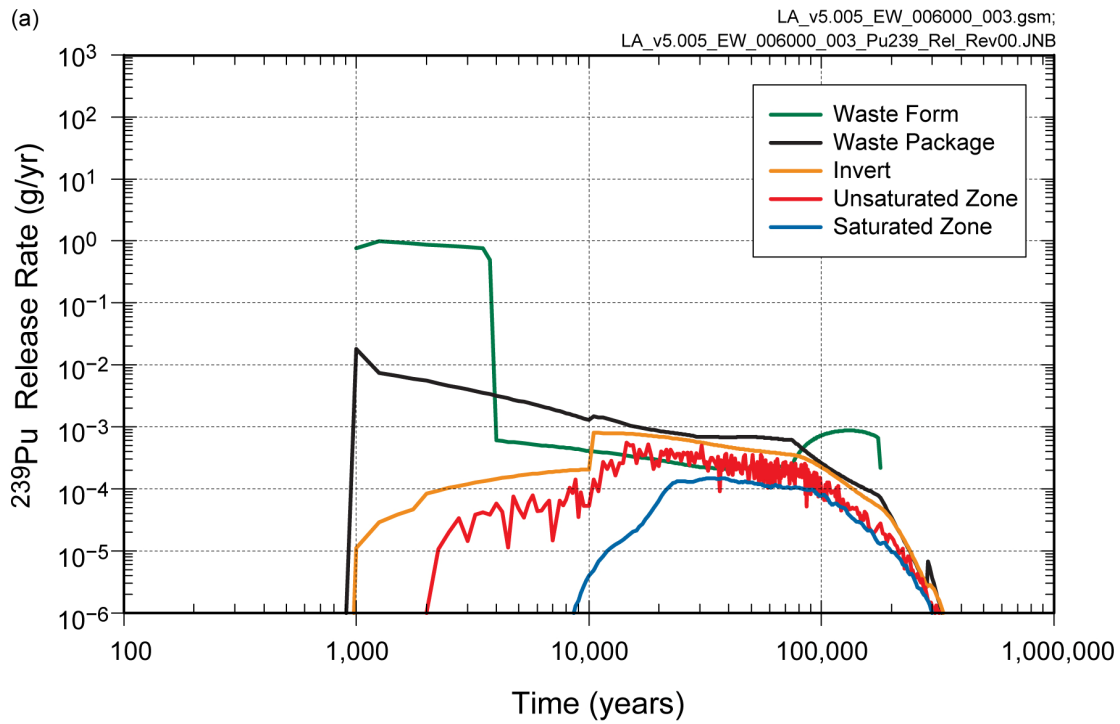
Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

Figure 7.7.1-11[a]. Cumulative Release from HLW and DSNF Waste Forms for Realization 5618 of the Waste Package Early Failure Modeling Case for 1,000,000 Years after Repository Closure



Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

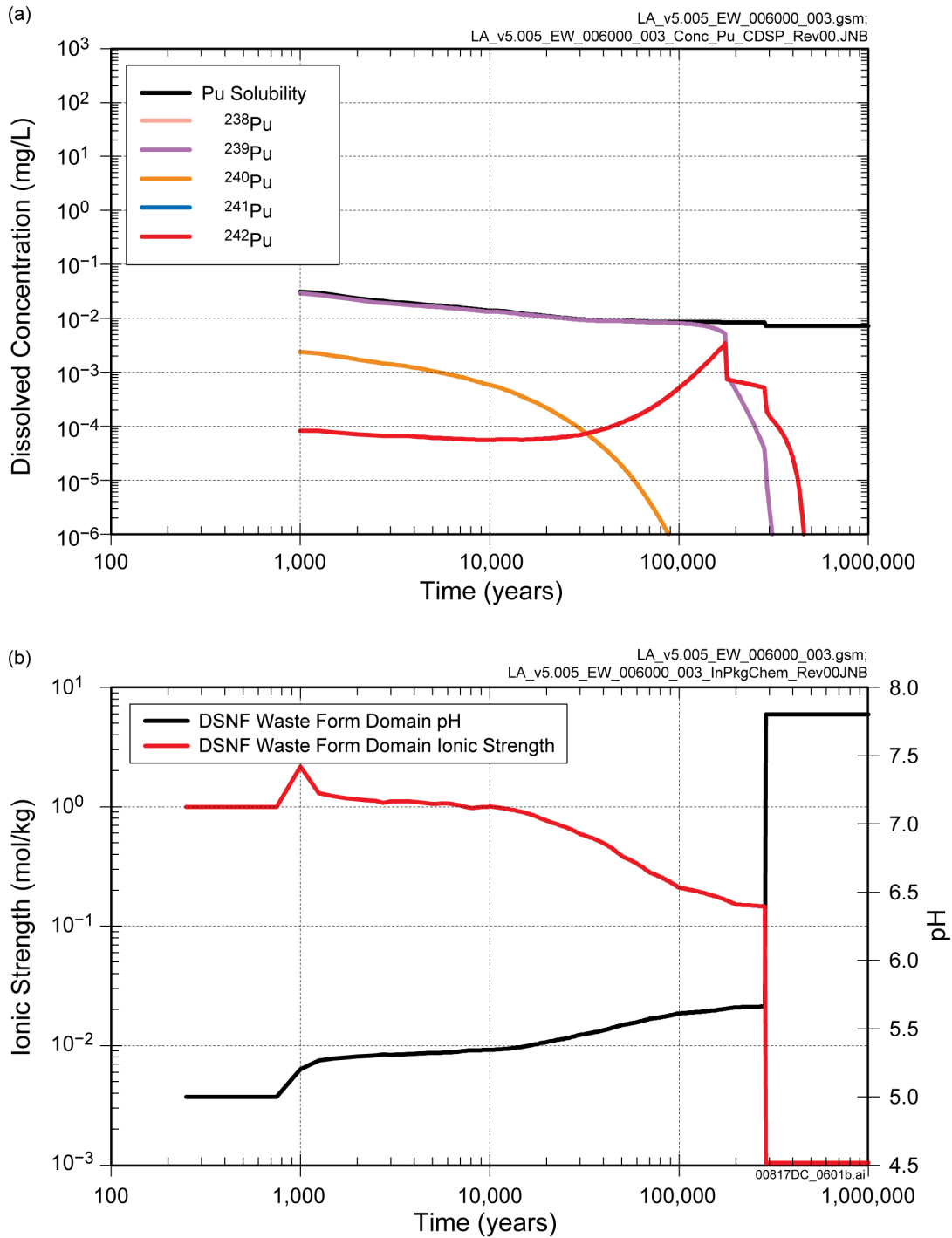
Figure 7.7.1-12[a]. Release Rates of ⁹⁹Tc from the Waste Form, Invert, Unsaturated Zone, and Saturated Zone for Realization 5618 of the Waste Package Early Failure Modeling Case for 1,000,000 Years after Repository Closure



Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

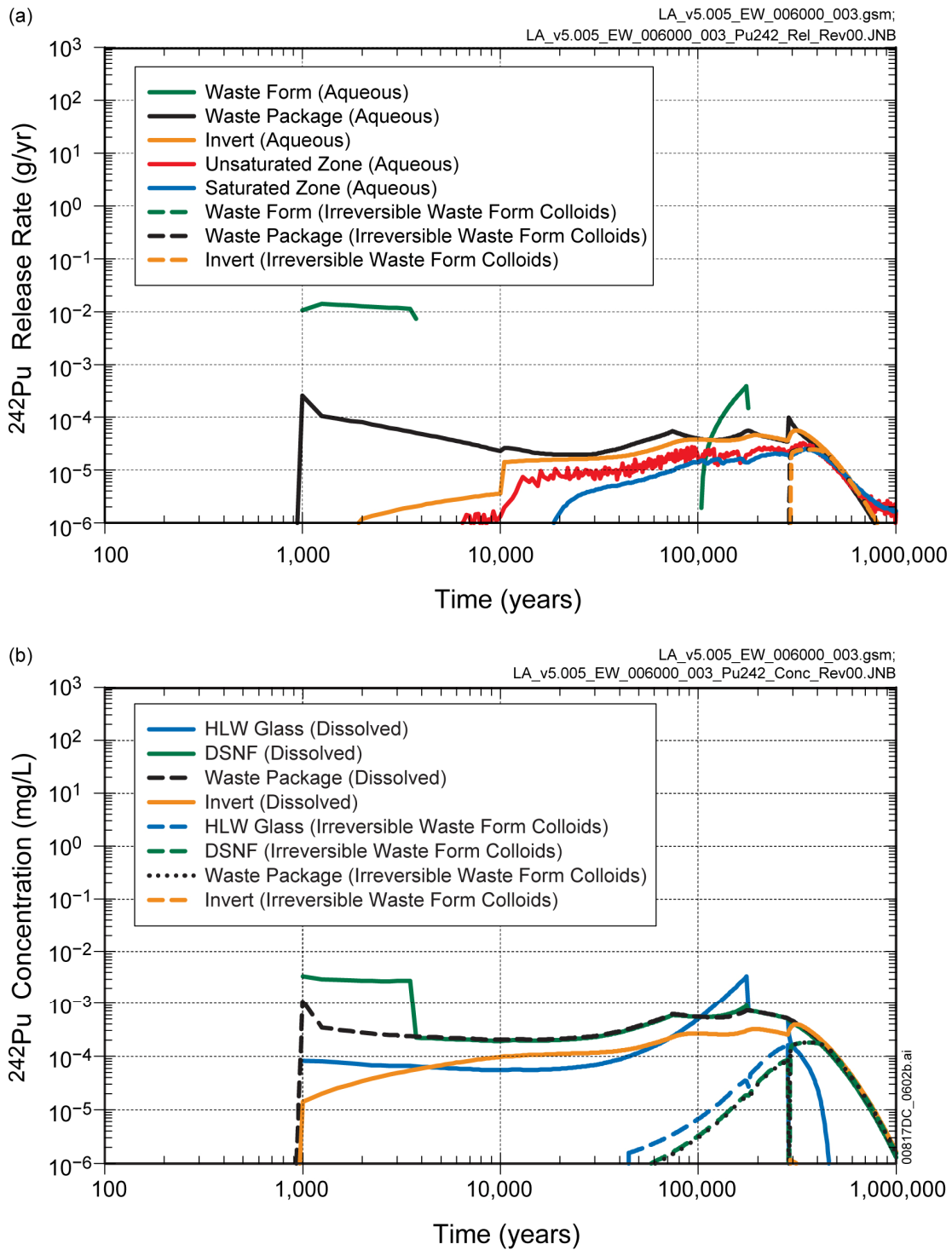
NOTE: In the (a) plot, the release rate does not include the mass released as irreversibly associated with colloids.

Figure 7.7.1-13[a]. (a) Release Rates and (b) Concentration of ^{239}Pu for Realization 5618 of the Waste Package Early Failure Modeling Case for 1,000,000 Years after Repository Closure



Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

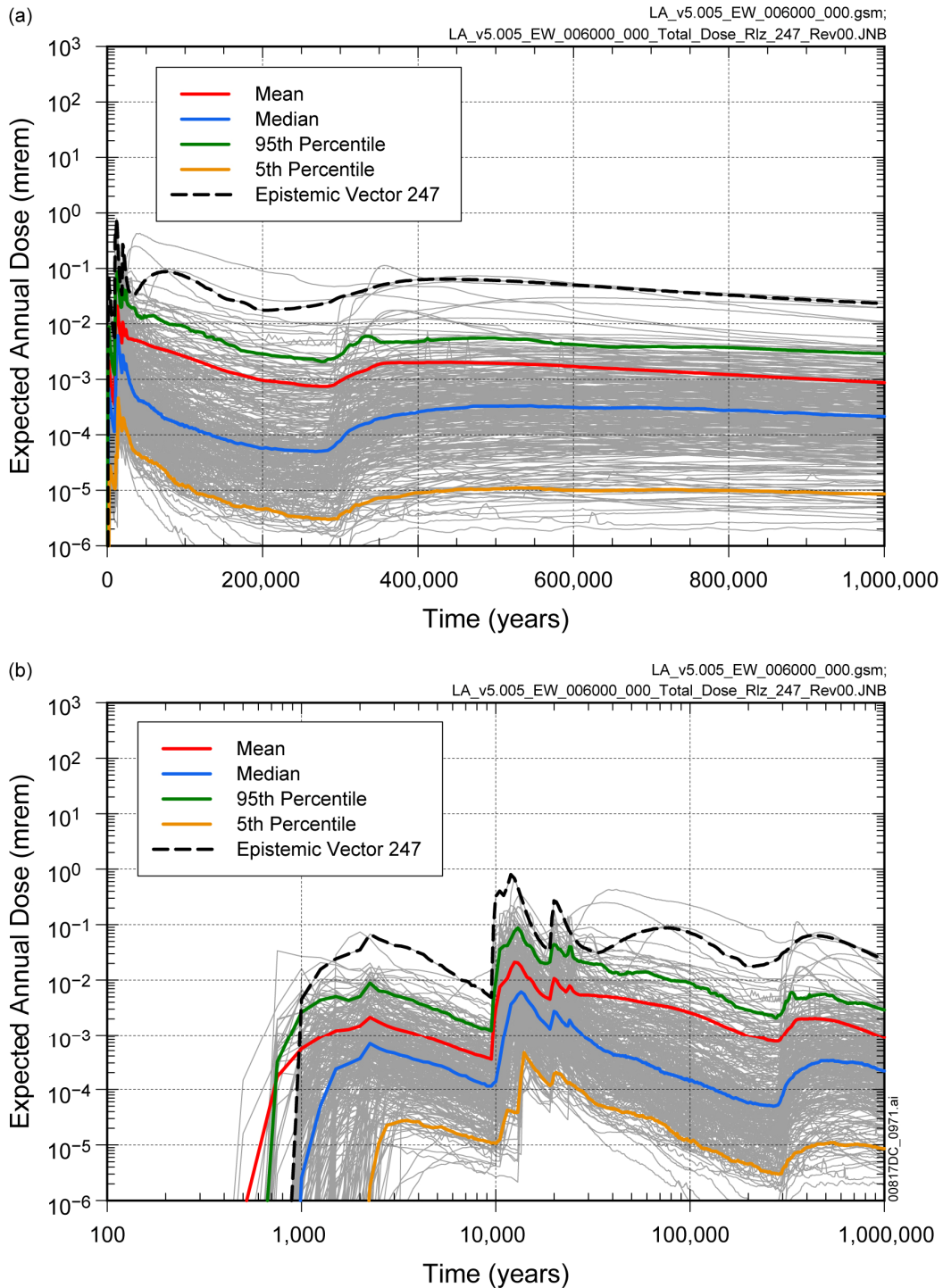
Figure 7.7.1-14[a]. (a) Dissolved Concentrations of Plutonium in the High-Level Radioactive Waste Domain and (b) DSNF Waste Form Domain Chemistry for Realization 5618 of the Waste Package Early Failure Modeling Case for 1,000,000 Years after Repository Closure



Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

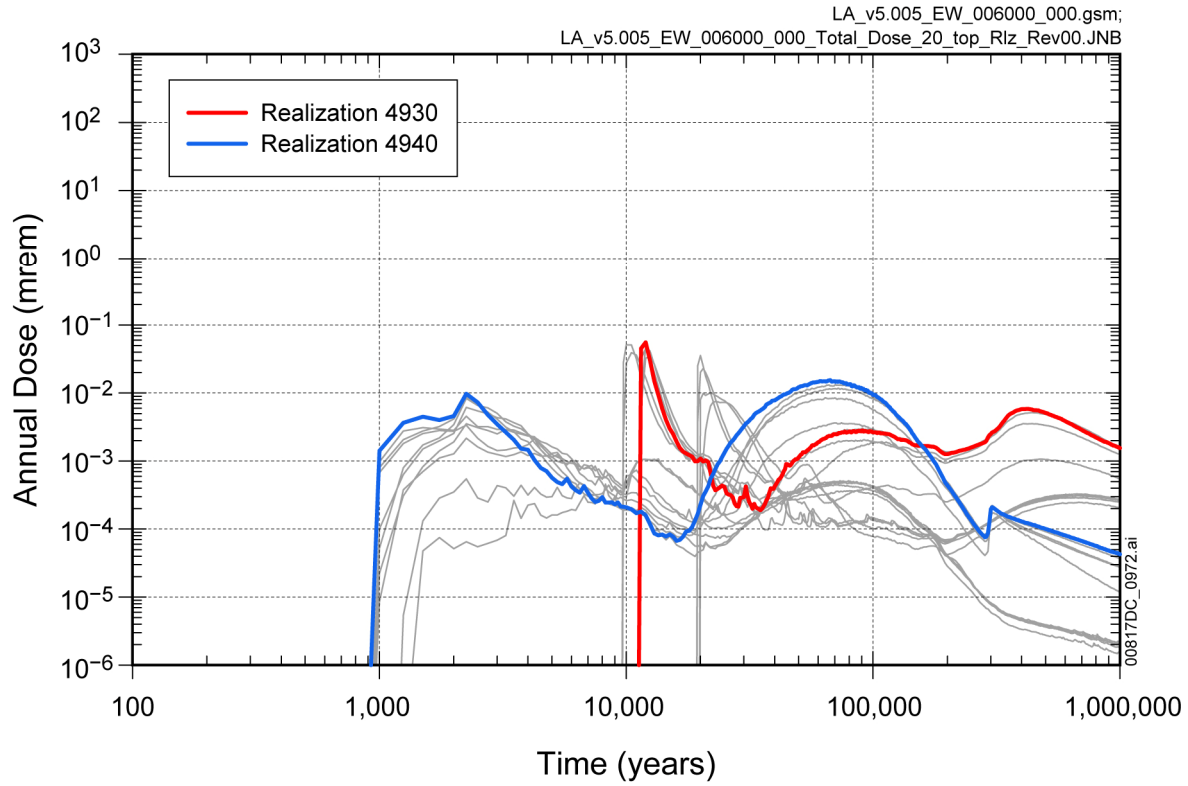
NOTE: In the (a) plot, plutonium dissolved and reversibly associated with colloids is denoted as aqueous.

Figure 7.7.1-15[a]. (a) Release Rates and (b) Concentration of ^{242}Pu for Realization 5618 of the Waste Package Early Failure Modeling Case for 1,000,000 Years after Repository Closure



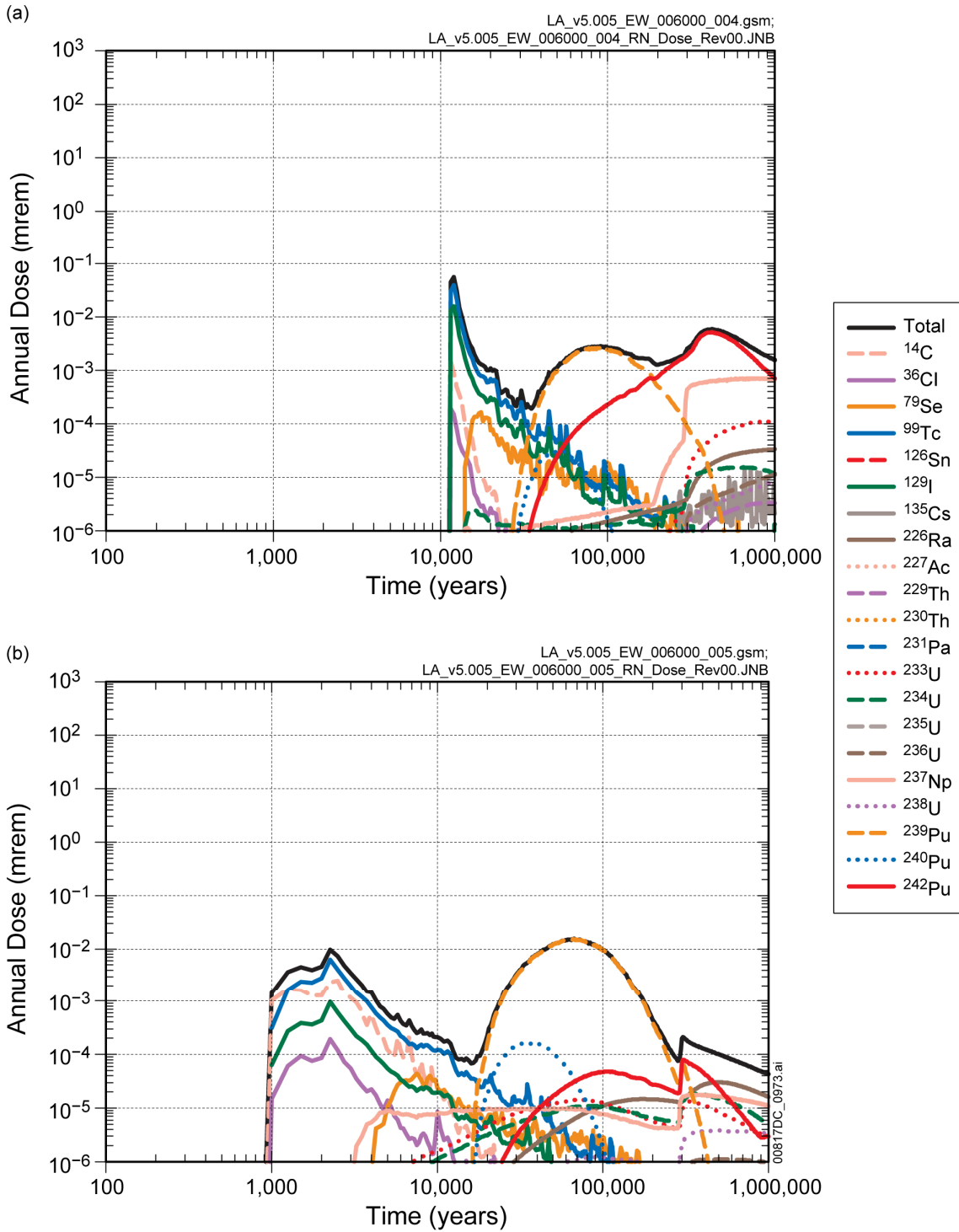
Source: Output DTN: MO0710ADTSPAWO.000 [DIRS 183752].

Figure 7.7.1-16[a]. Expected Annual Dose from 300 Epistemic Uncertainty Vectors, Along with their Quantiles and Expected Dose from Epistemic Uncertainty Vector 247 for the Waste Package Early Failure Modeling Case for 1,000,000 Years after Repository Closure: (a) Linear Time and (b) Log Time



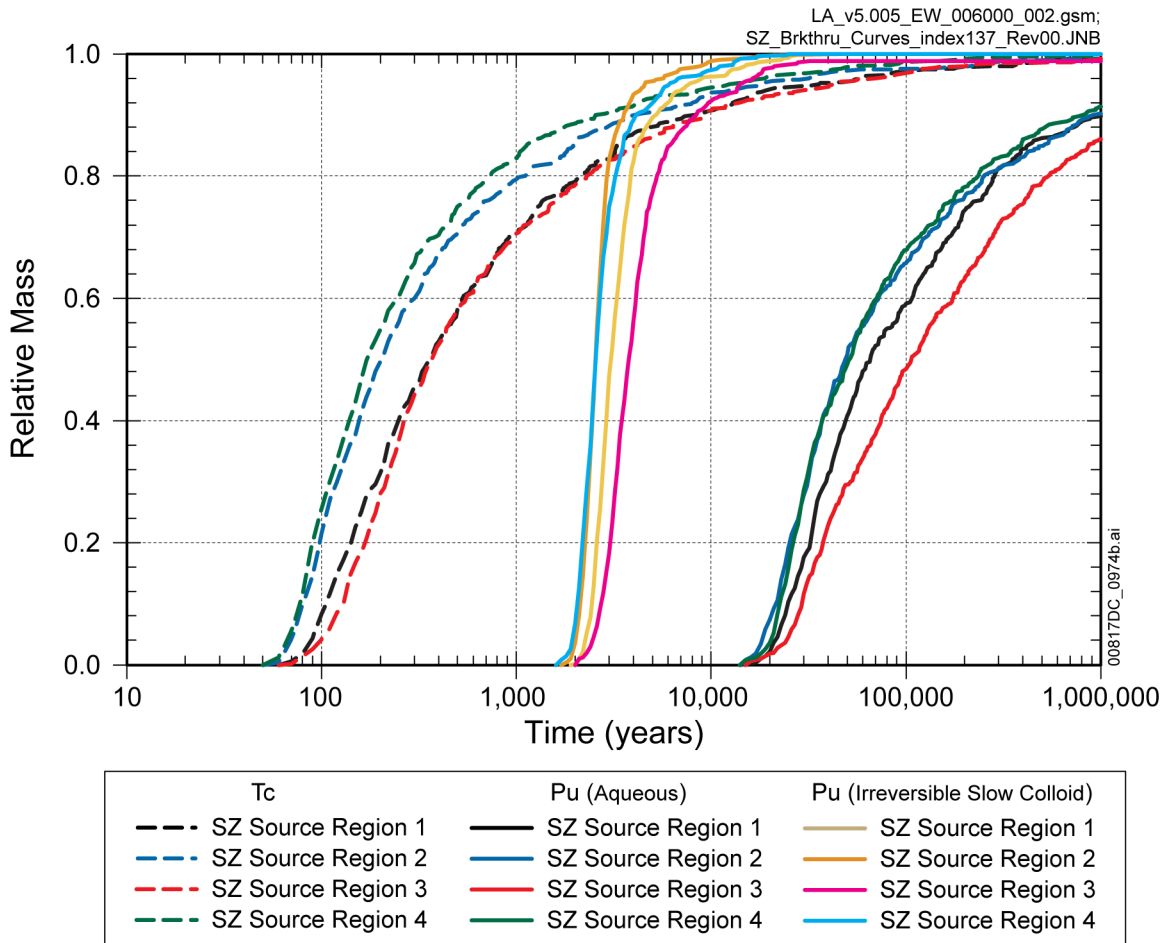
Source: Output DTN: MO0710ADTSPAWO.000 [DIRS 183752].

Figure 7.7.1-17[a]. Annual Dose from Realizations 4921 through 4940 of the Waste Package Early Failure Modeling Case for 1,000,000 Years after Repository Closure



Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

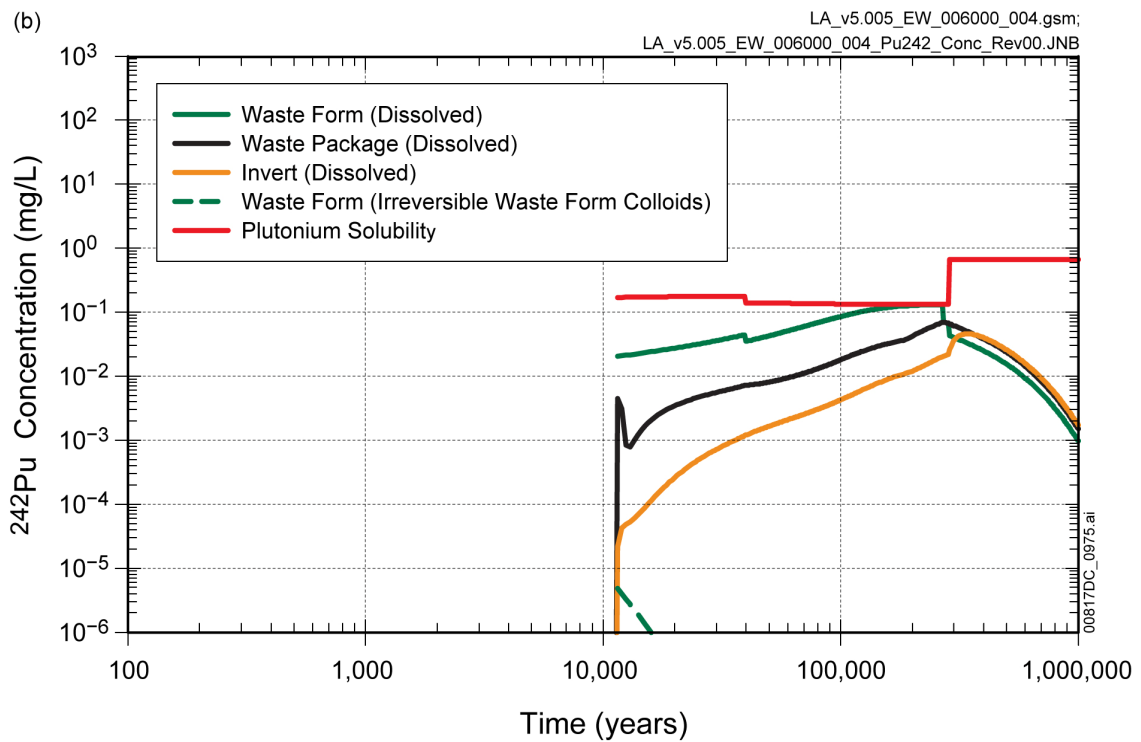
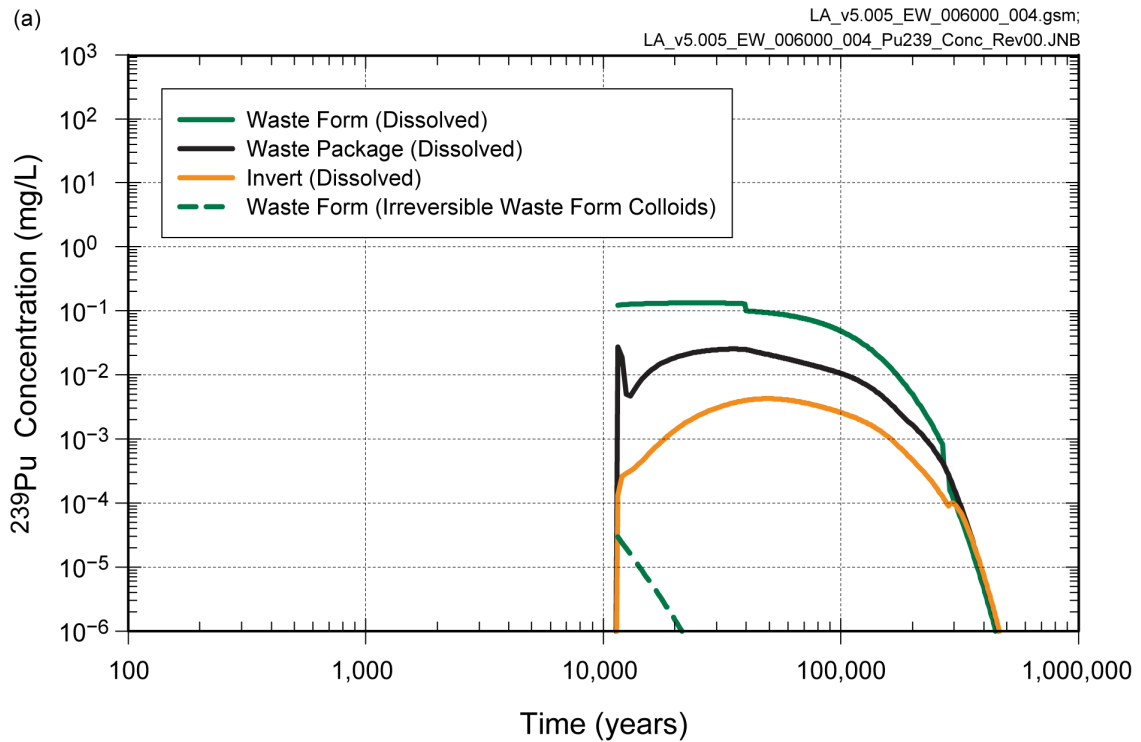
Figure 7.7.1-18[a]. Major Radionuclide Dose Contributors for Realization (a) 4930 and (b) 4940 of the Waste Package Early Failure Modeling Case for 1,000,000 Years after Repository Closure



Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

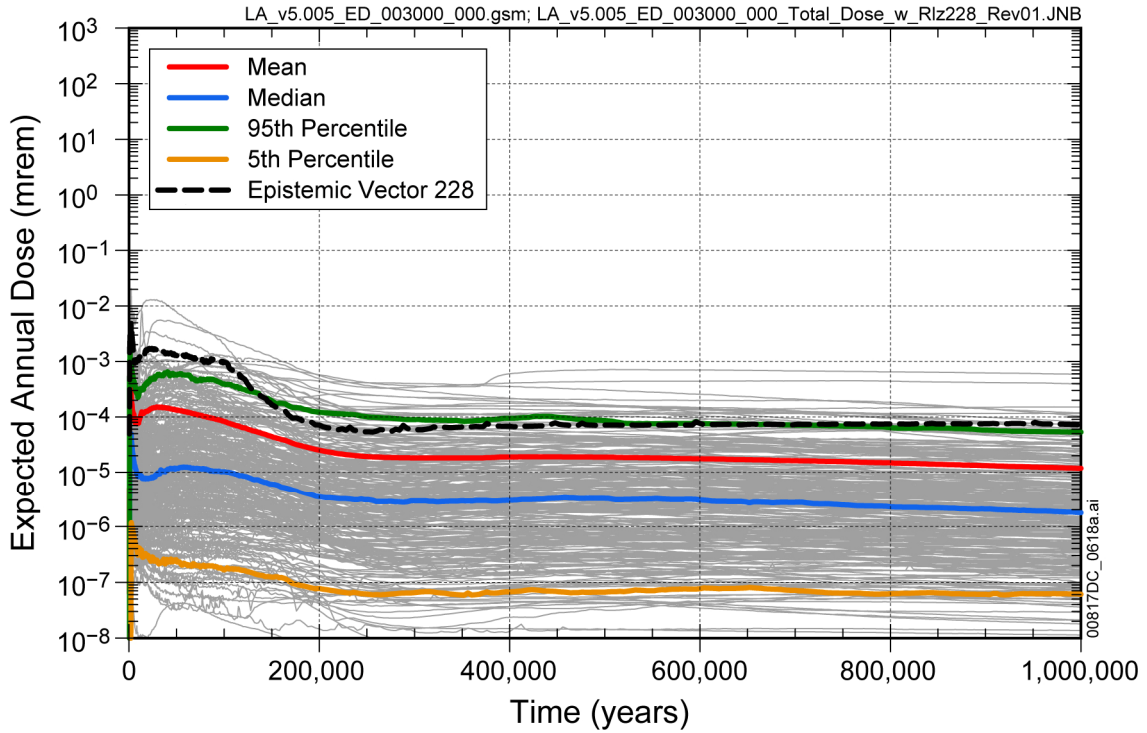
NOTE: Plutonium dissolved and reversibly associated with colloids is denoted as aqueous.

Figure 7.7.1-19[a]. Saturated Zone Breakthrough Curves for Epistemic Uncertainty Vector 247 of the Waste Package Early Failure Modeling Case for 1,000,000 Years after Repository Closure



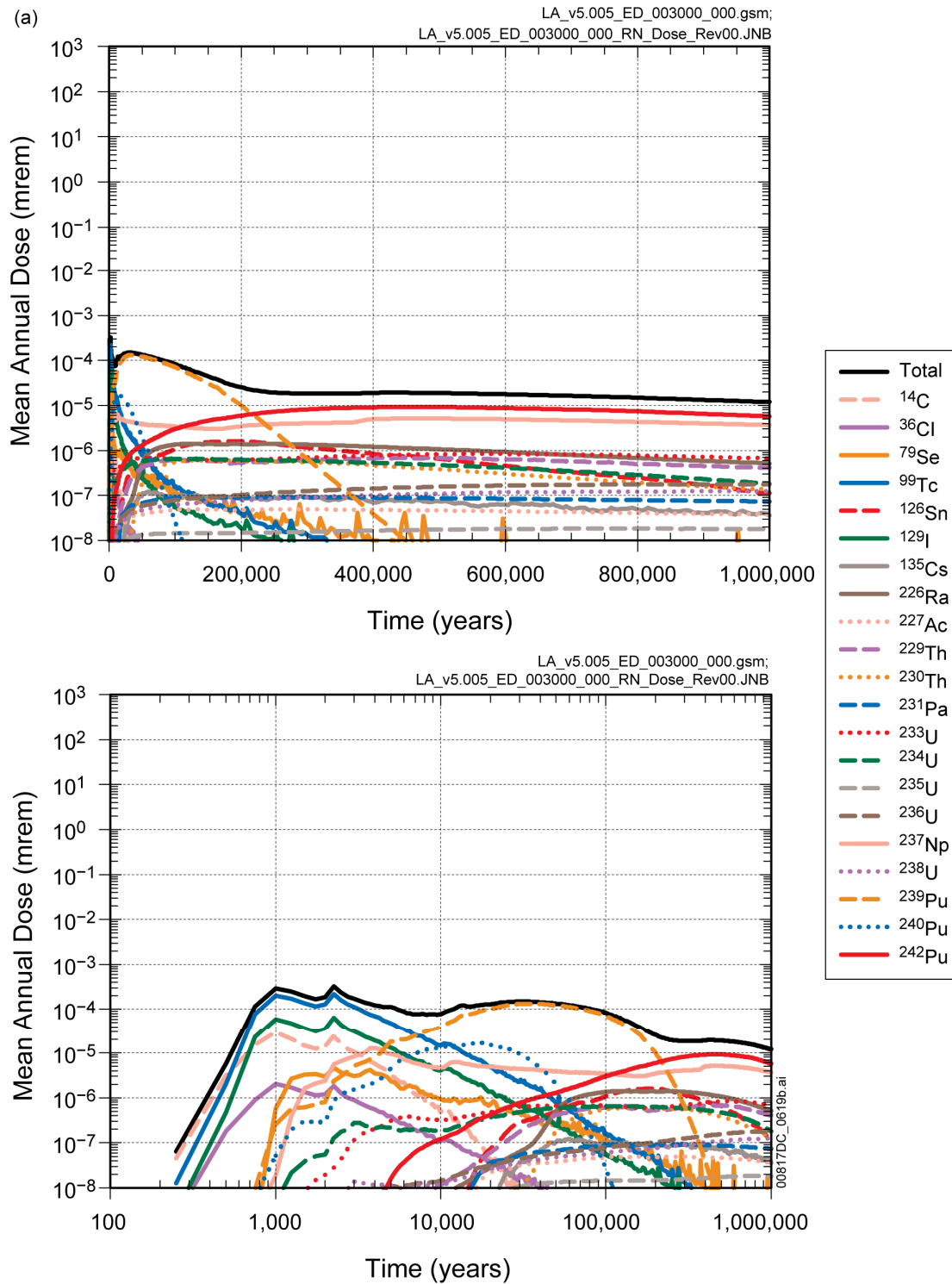
Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

Figure 7.7.1-20[a]. Concentration of (a) ^{239}Pu and (b) ^{242}Pu for Realization 4930 of the Waste Package Early Failure Modeling Case for 1,000,000 Years after Repository Closure



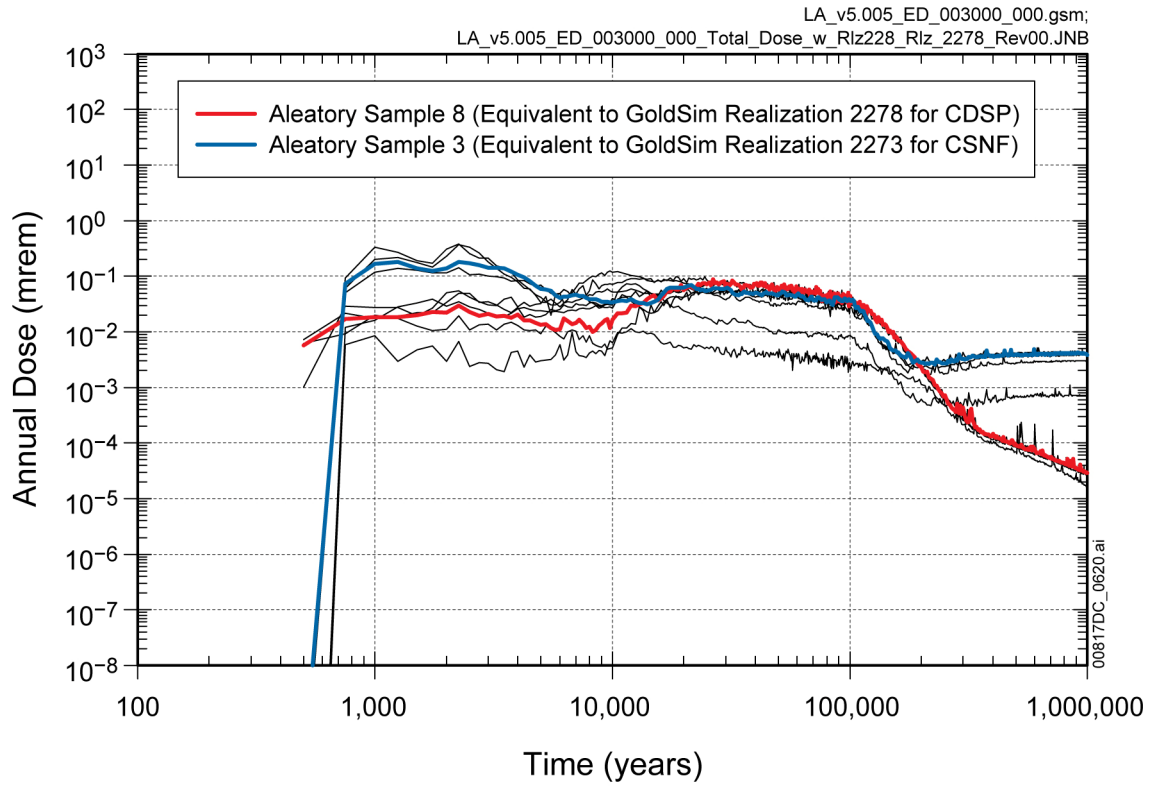
Source: Output DTN: MO0710ADTSPAWO.000 [DIRS 183752].

Figure 7.7.1-21[a]. Expected Annual Dose from 300 Epistemic Uncertainty Vectors, Along with their Quantiles and Expected Dose from Epistemic Uncertainty Vector 228 for the Drip Shield Early Failure Modeling Case for 1,000,000 Years after Repository Closure



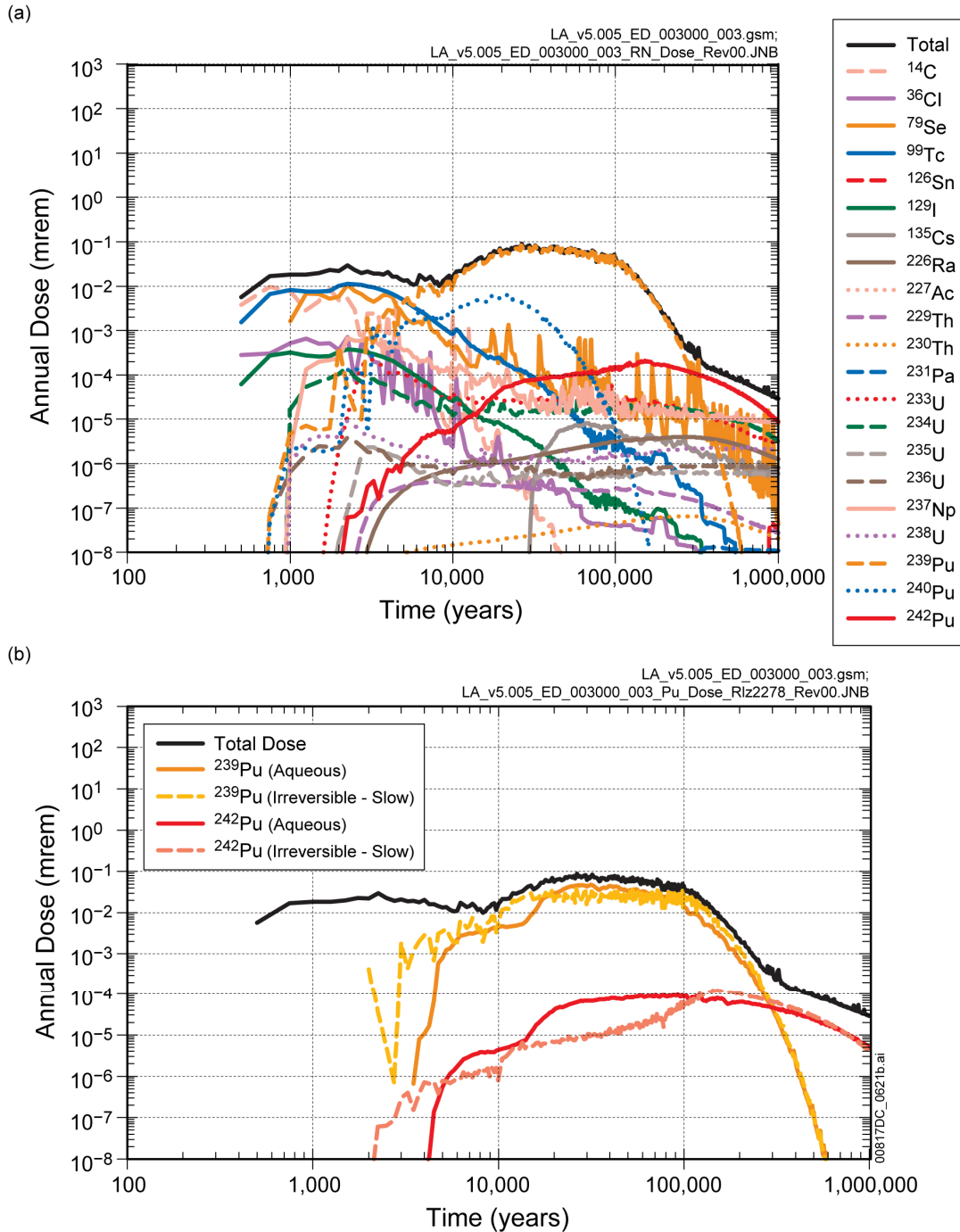
Source: Output DTN: MO0710ADTSPAWO.000 [DIRS 183752].

Figure 7.7-1-22[a]. Major Radionuclide Contributors to Mean Annual Dose for the Drip Shield Early Failure Modeling Case for 1,000,000 Years after Repository Closure



Source: Output DTN: MO0710ADTSPAWO.000 [DIRS 183752].

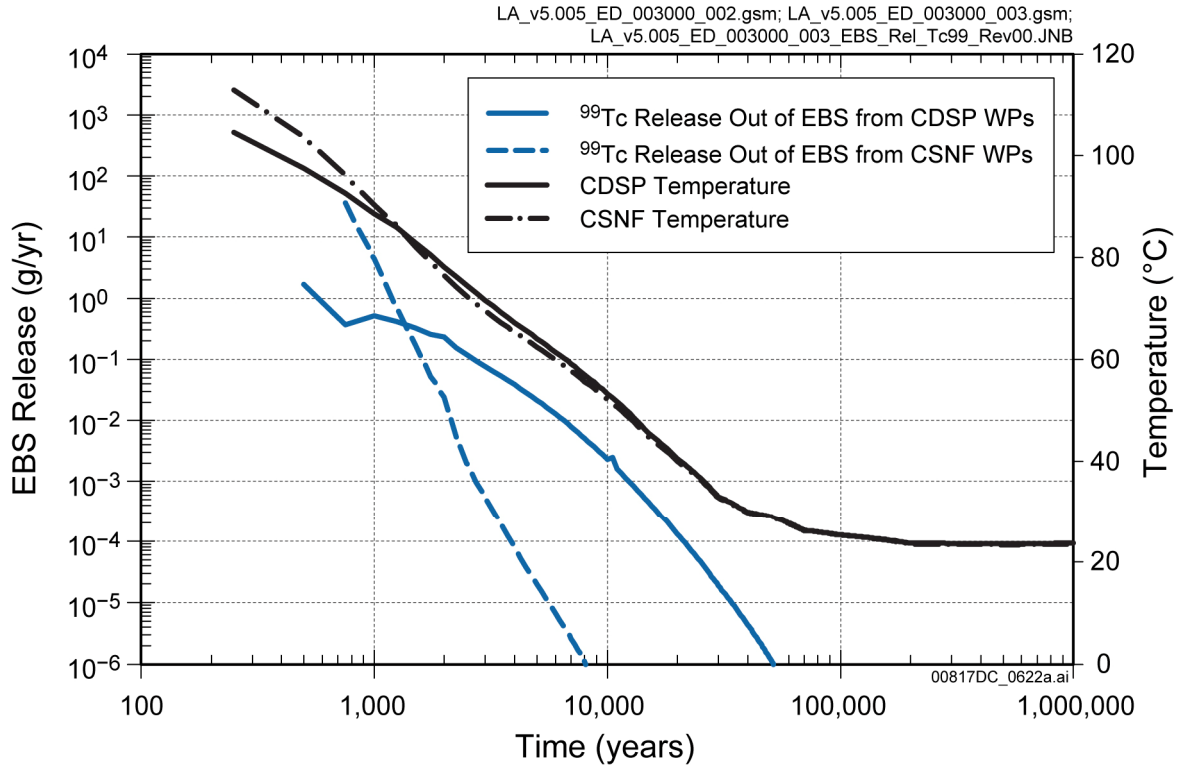
Figure 7.7.1-23[a]. Annual Dose for Ten Aleatory Uncertainty Realizations (Vectors) for the Epistemic Uncertainty Vector 228 of the Drip Shield Early Failure Modeling Case for 1,000,000 Years after Repository Closure



Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

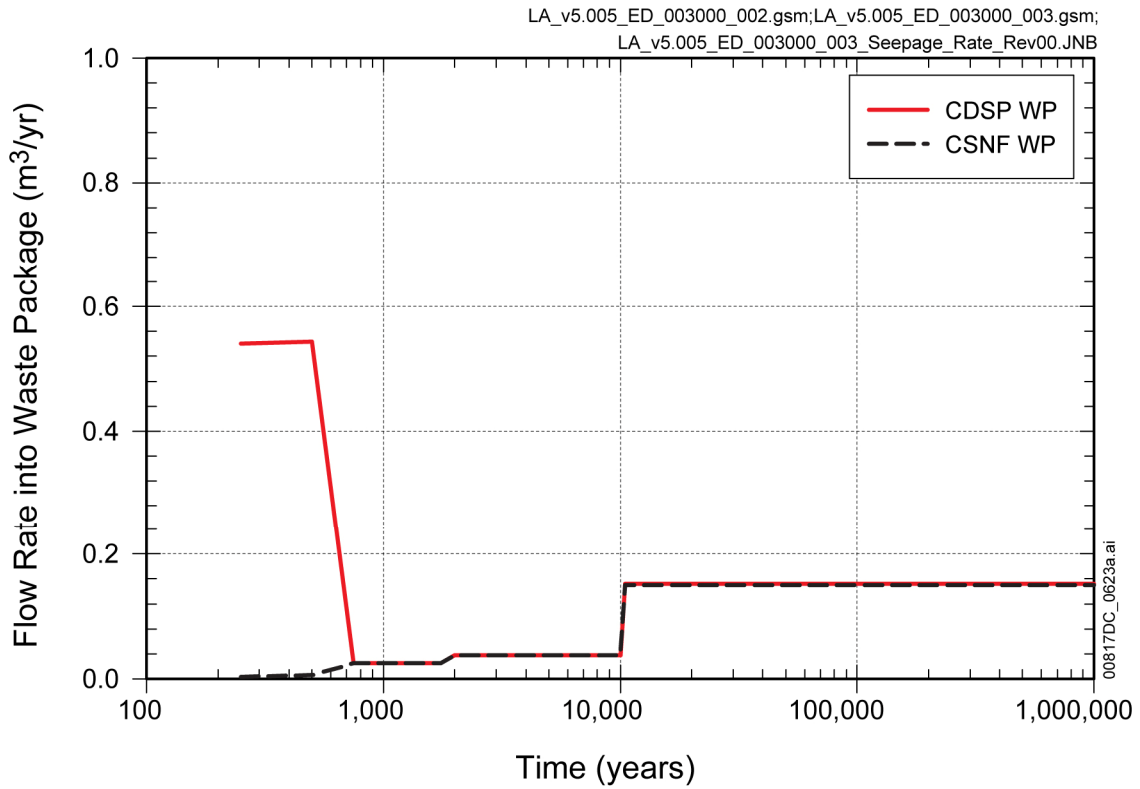
NOTE: Plutonium dissolved and reversibly associated with colloids is denoted as aqueous.

Figure 7.7.1-24[a]. (a) Annual Dose along with Major Radionuclide Dose Contributors and (b) Contribution of ^{239}Pu and ^{242}Pu (Aqueous and Associated Irreversibly with Colloids) for Realization 2278 of the Drip Shield Early Failure Modeling Case for 1,000,000 Years after Repository Closure



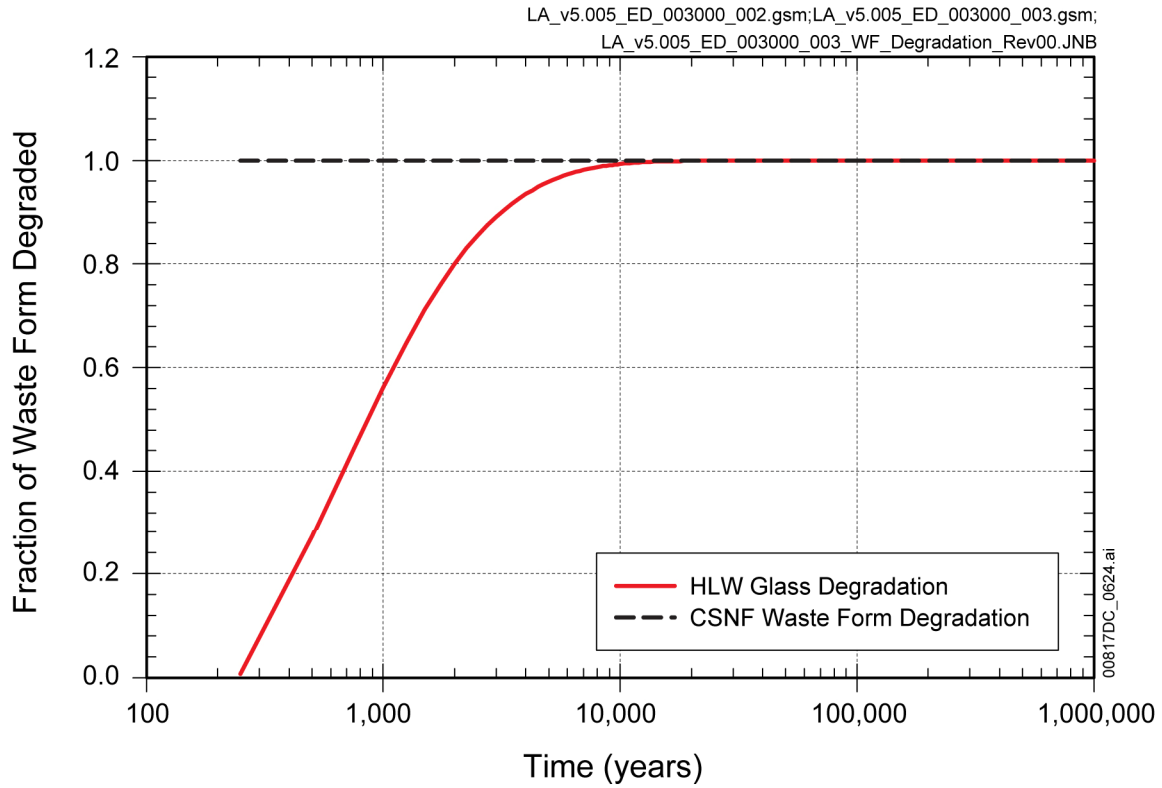
Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

Figure 7.7.1-25[a]. EBS Release Rates of ^{99}Tc Along with Waste Package Temperatures for the Two Selected Realizations (2273 and 2278) of the Drip Shield Early Failure Modeling Case for 1,000,000 Years after Repository Closure



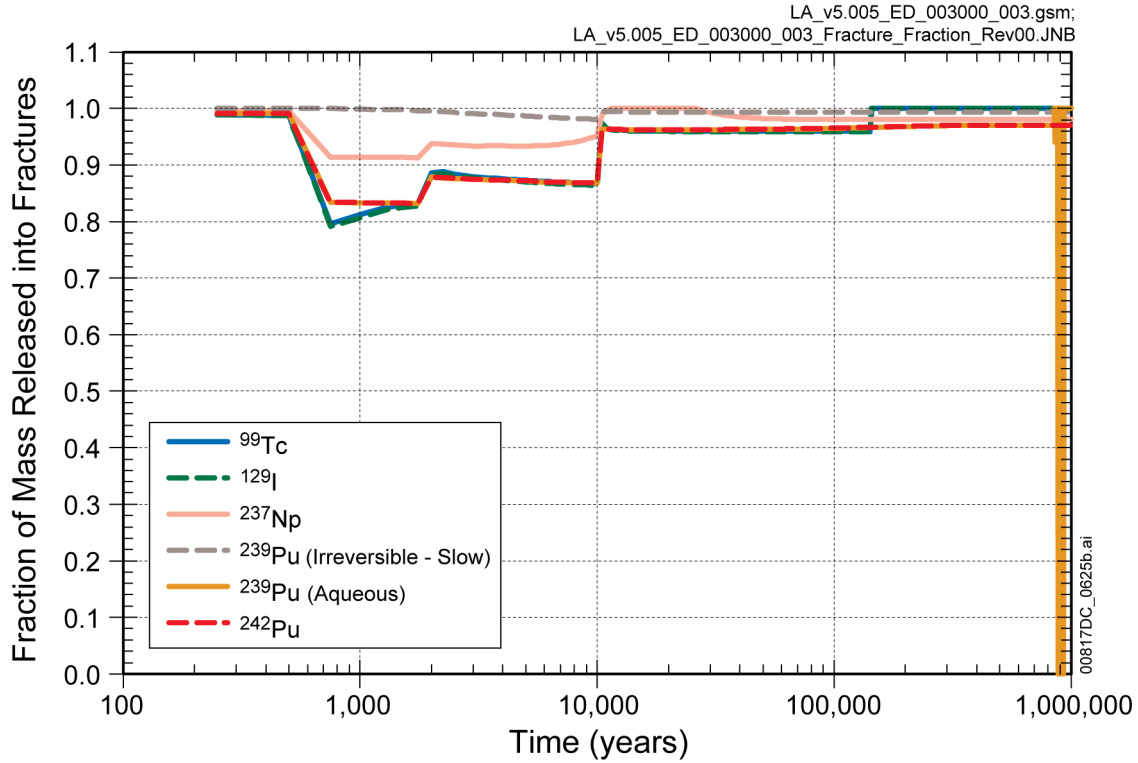
Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

Figure 7.7.1-26[a]. Plow Rate Incident on the Waste Package Showing the Effects of Drift Wall Condensation and Climate Change for the Two Selected Realizations (2273 and 2278) of the Drip Shield Early Failure Modeling Case for 1,000,000 Years after Repository Closure



Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

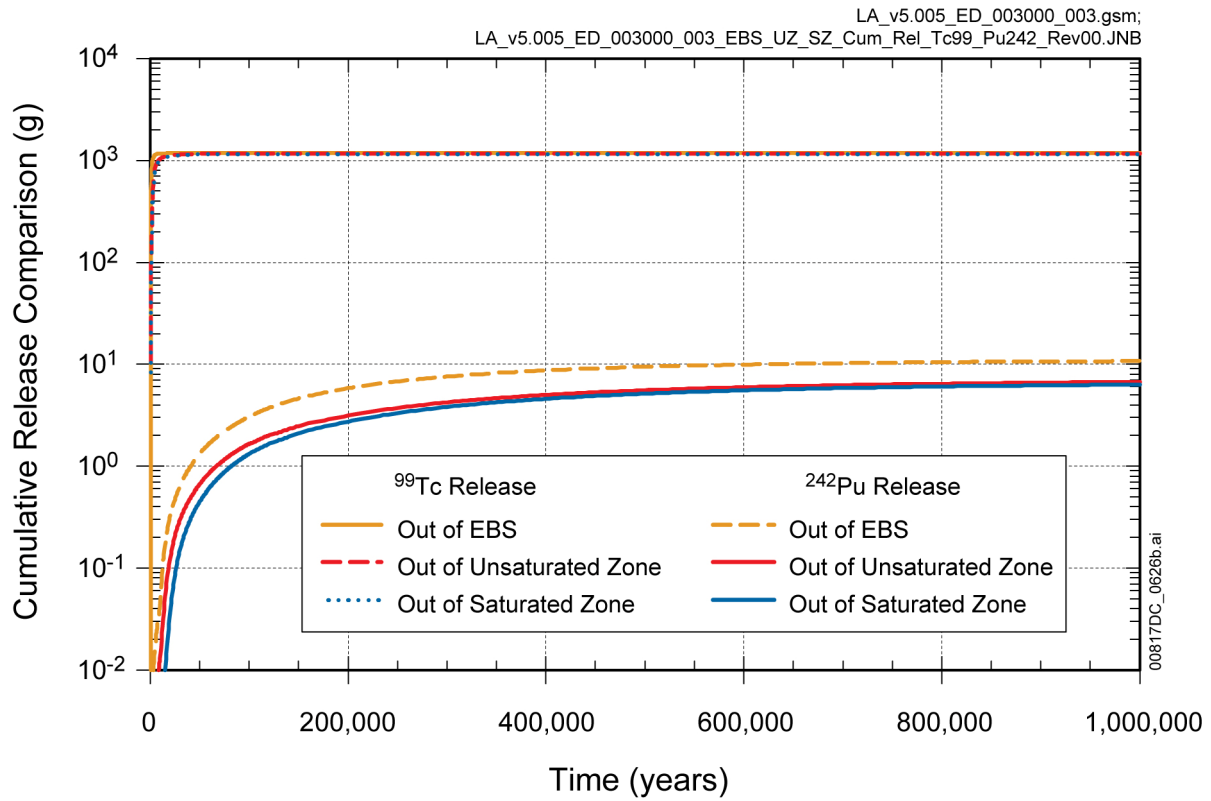
Figure 7.7.1-27[a]. Fraction of CSNF and HLW Glass Waste Form Degraded for the Two Selected Realizations (2273 and 2278) of the Drip Shield Early Failure Modeling Case for 1,000,000 Years after Repository Closure



Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

NOTES: GoldSim realization 2278 represents a CDSP WP in percolation subregion 3. Plutonium dissolved and reversibly associated with colloids is denoted as aqueous.

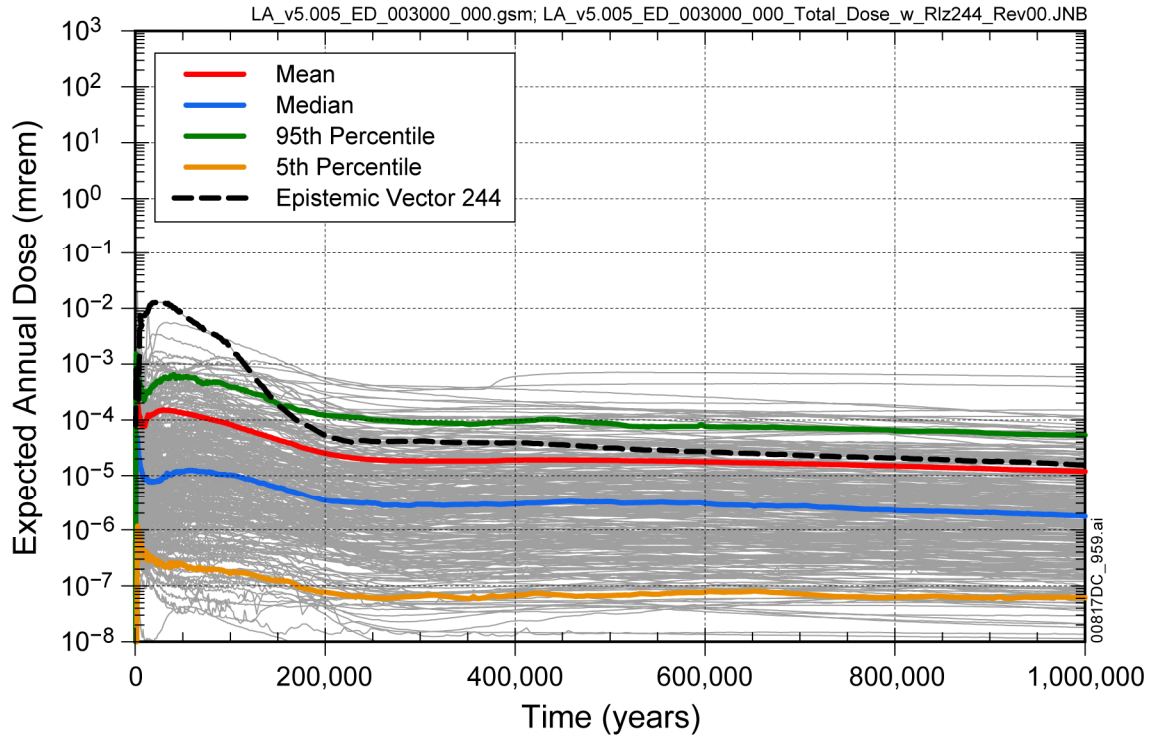
Figure 7.7.1-28[a]. Fraction of EBS Mass Flux Released into Unsaturated Zone Fractures for Selected Radionuclides for Realization 2278 of the Drip Shield Early Failure Modeling Case for 1,000,000 Years after Repository Closure



Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

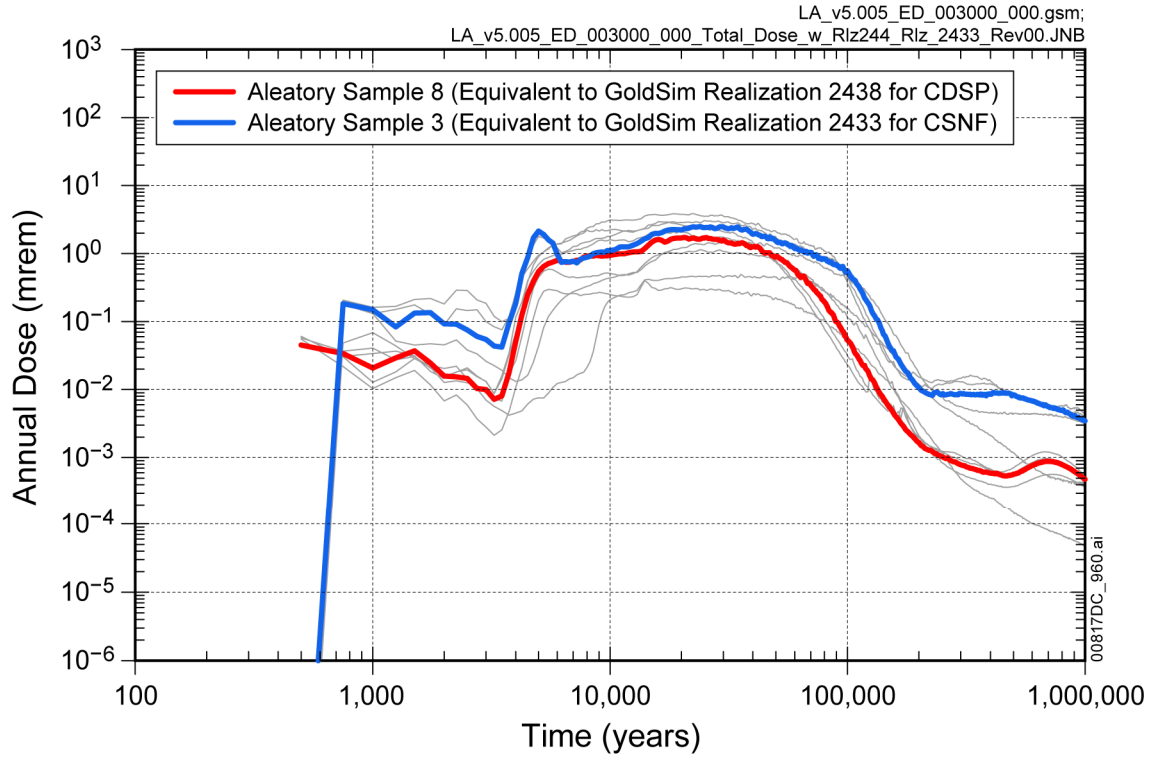
NOTE: For ²⁴²Pu, the release includes the mass released in the dissolved state and reversibly associated with colloids.

Figure 7.7.1-29[a]. Cumulative Mass Release of ⁹⁹Tc and ²⁴²Pu from the EBS, Unsaturated Zone, and Saturated Zone for Realization 2278 of the Drip Shield Early Failure Modeling Case for 1,000,000 Years after Repository Closure



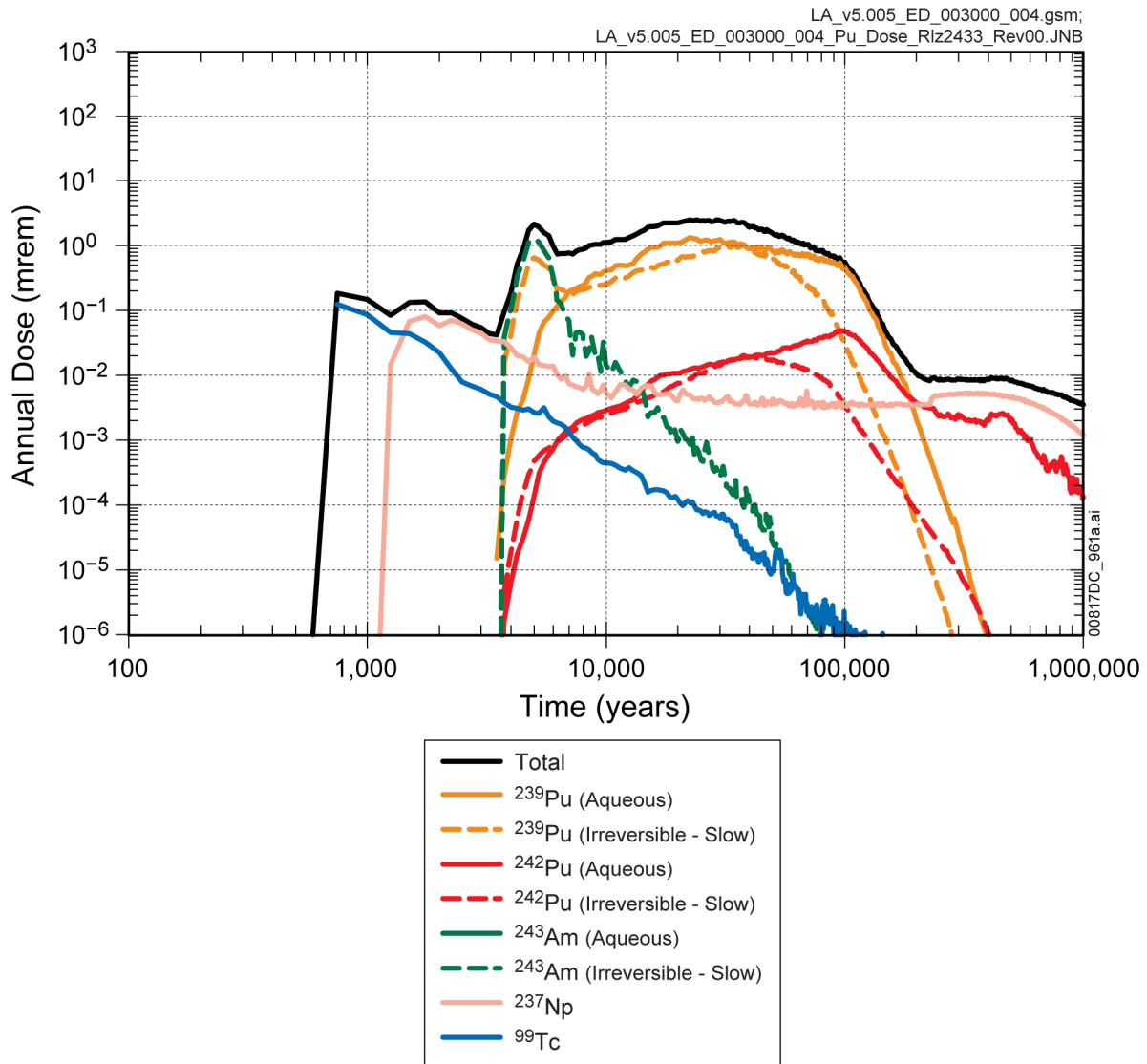
Source: Output DTN: MO0710ADTSPAWO.000 [DIRS 183752].

Figure 7.7.1-30[a]. Expected Annual Dose and Epistemic Uncertainty Vector 244 for the Drip Shield Early Failure Modeling Case for 1,000,000 Years after Repository Closure



Source: Output DTN: MO0710ADTSPAWO.000 [DIRS 183752].

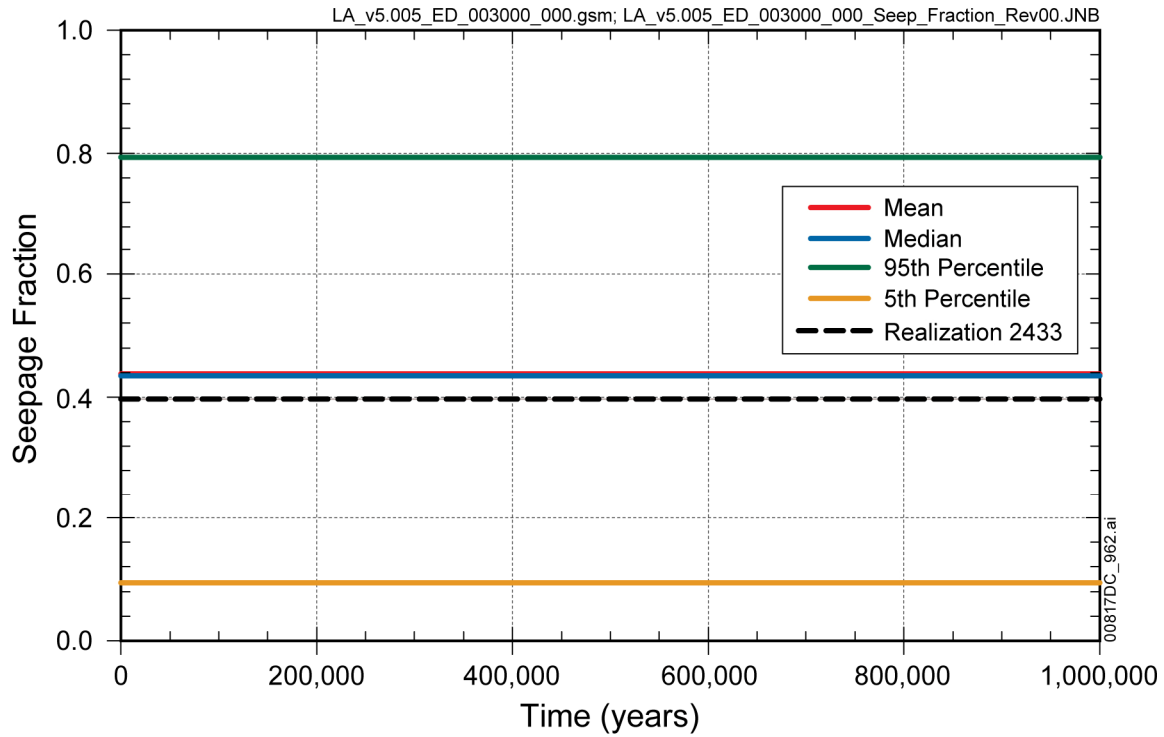
Figure 7.7.1-31[a]. Ten Aleatory Uncertainty Vectors for the Epistemic Uncertainty Vector 244 of the Drip Shield Early Failure Modeling Case for 1,000,000 Years after Repository Closure



Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

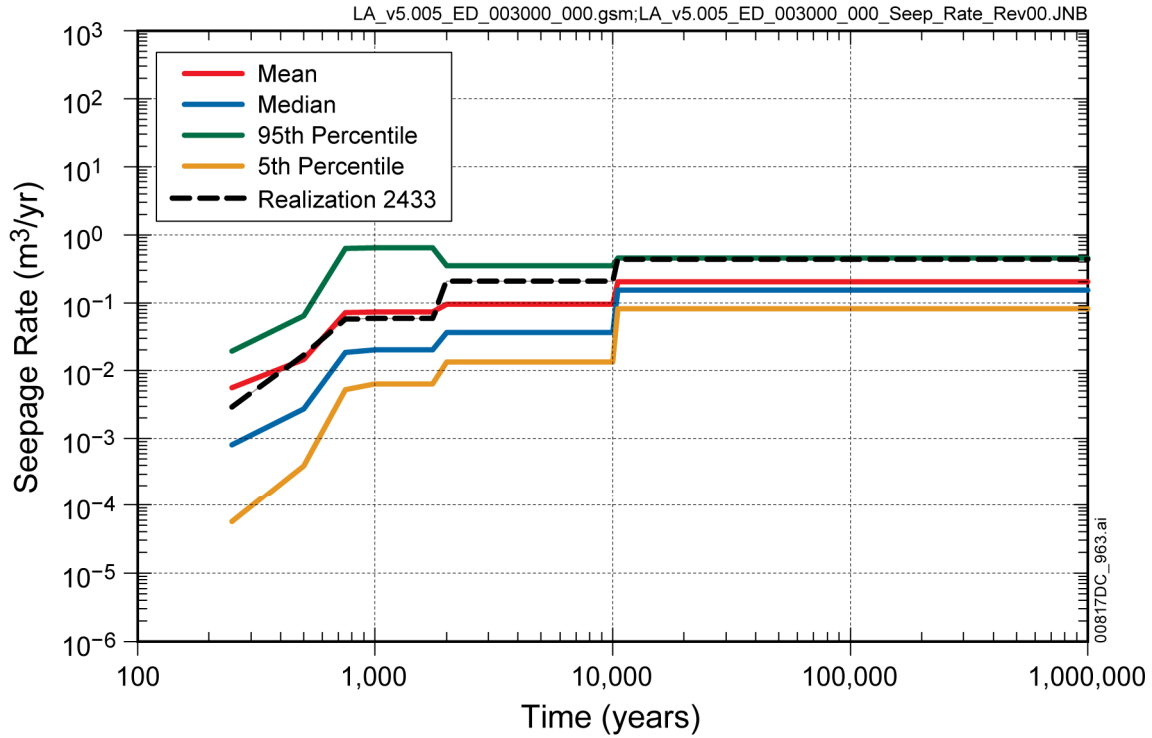
NOTE: Radionuclides dissolved and reversibly associated with colloids are denoted as aqueous.

Figure 7.7.1-32[a]. Major Radionuclide Dose Contributors to Annual Dose for Realization 2433 of the Drip Shield Early Failure Modeling Case for 1,000,000 Years after Repository Closure



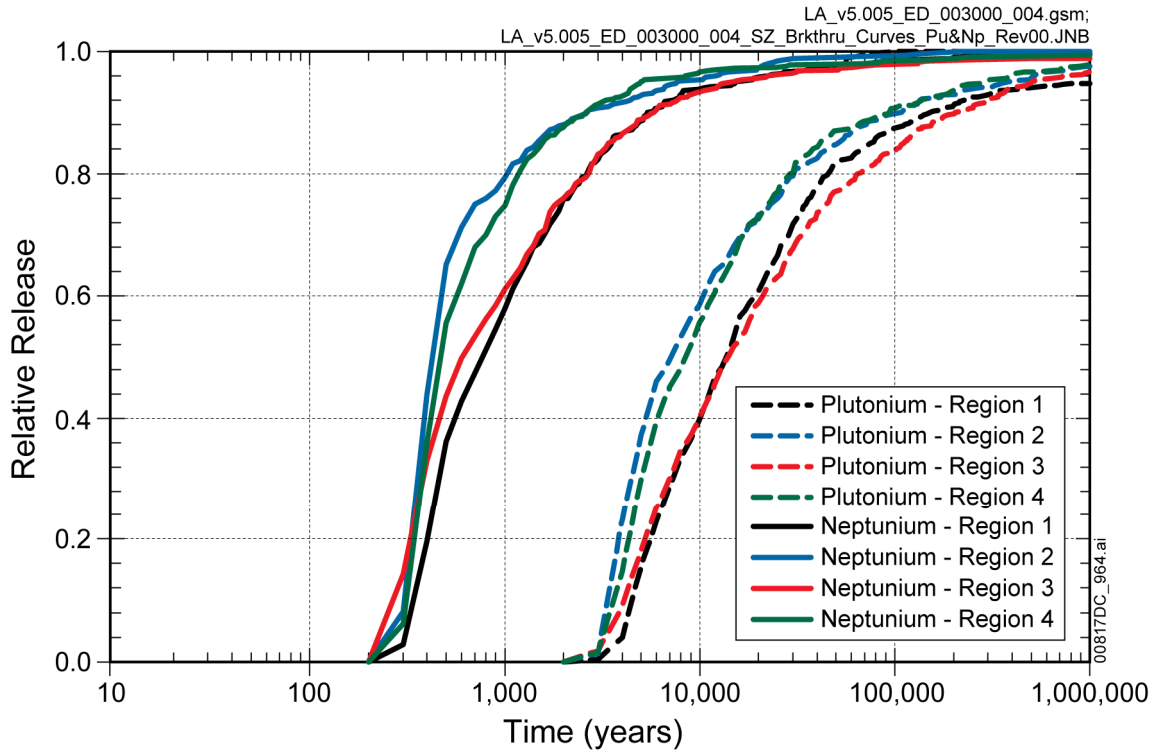
Source: Output DTN: MO0710ADTSPAWO.000 [DIRS 183752].

Figure 7.7.1-33[a]. Seepage Fraction Statistics and Seepage Fraction for Realization 2433 for the Drip Shield Early Failure Modeling Case for 1,000,000 Years after Repository Closure



Source: Output DTN: MO0710ADTSPAWO.000 [DIRS 183752].

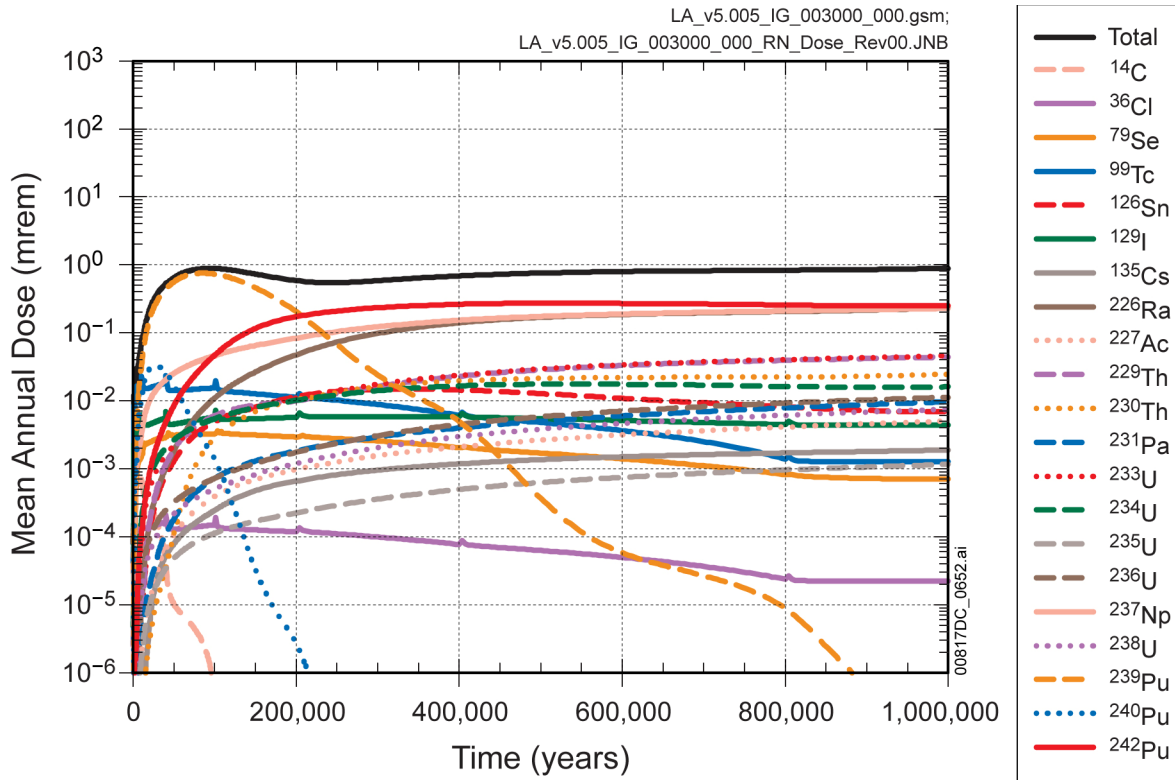
Figure 7.7.1-34[a]. Seepage Rate Statistics and Seepage Rate for Realization 2433 for the Drip Shield Early Failure Modeling Case for 1,000,000 Years after Repository Closure



Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

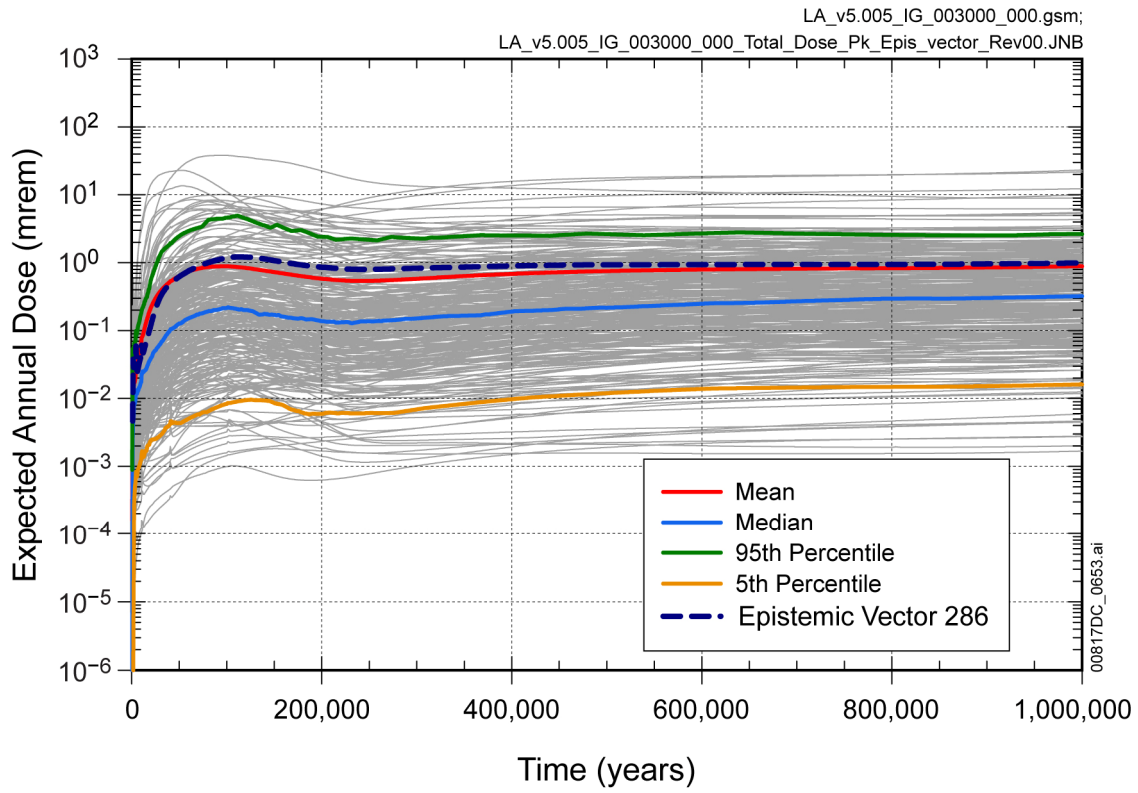
NOTE: For plutonium, release includes the mass released in the dissolved state and reversibly associated with colloids.

Figure 7.7.1-35[a]. Saturated Zone Breakthrough Curves for Plutonium and Neptunium for All Four Saturated Zone Regions for Realization 2433 of the Drip Shield Early Failure Modeling Case for 1,000,000 Years after Repository Closure



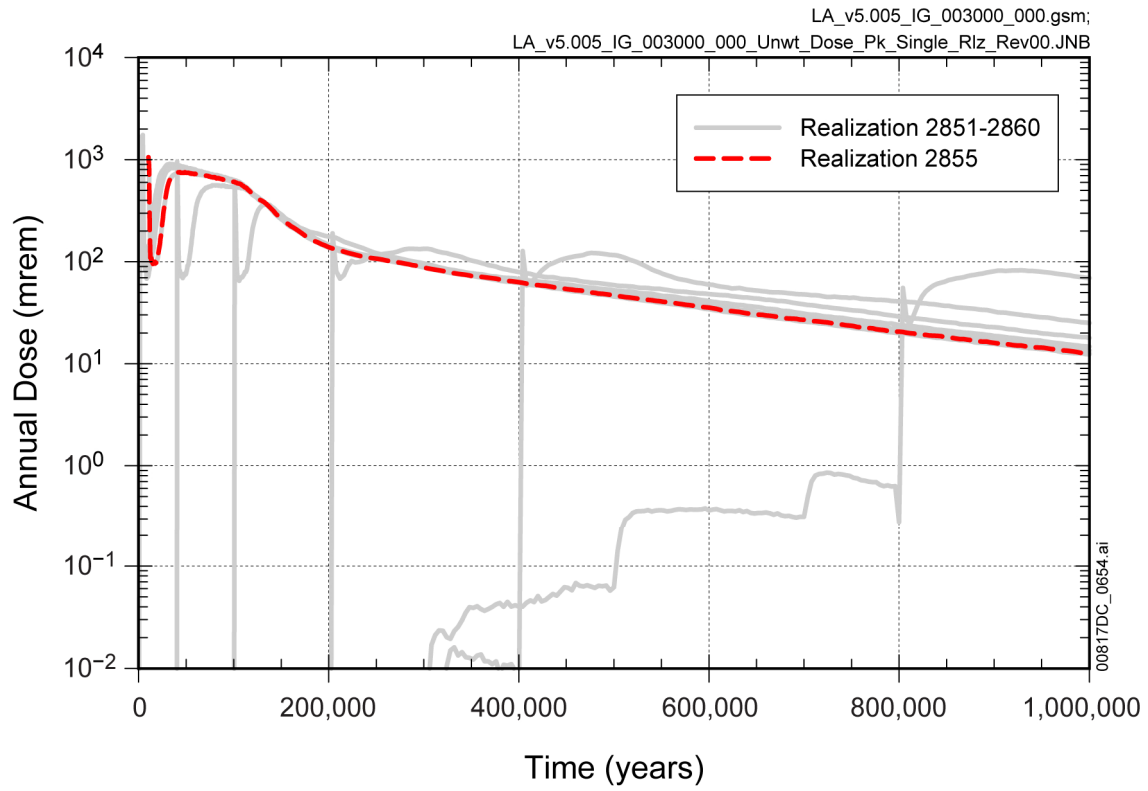
Source: Output DTN: MO0710ADTSPAWO.000 [DIRS 183752].

Figure 7.7.1-36[a]. Major Radionuclide Contributors to Mean Annual Dose for the Igneous Intrusion Modeling Case for 1,000,000 Years after Repository Closure



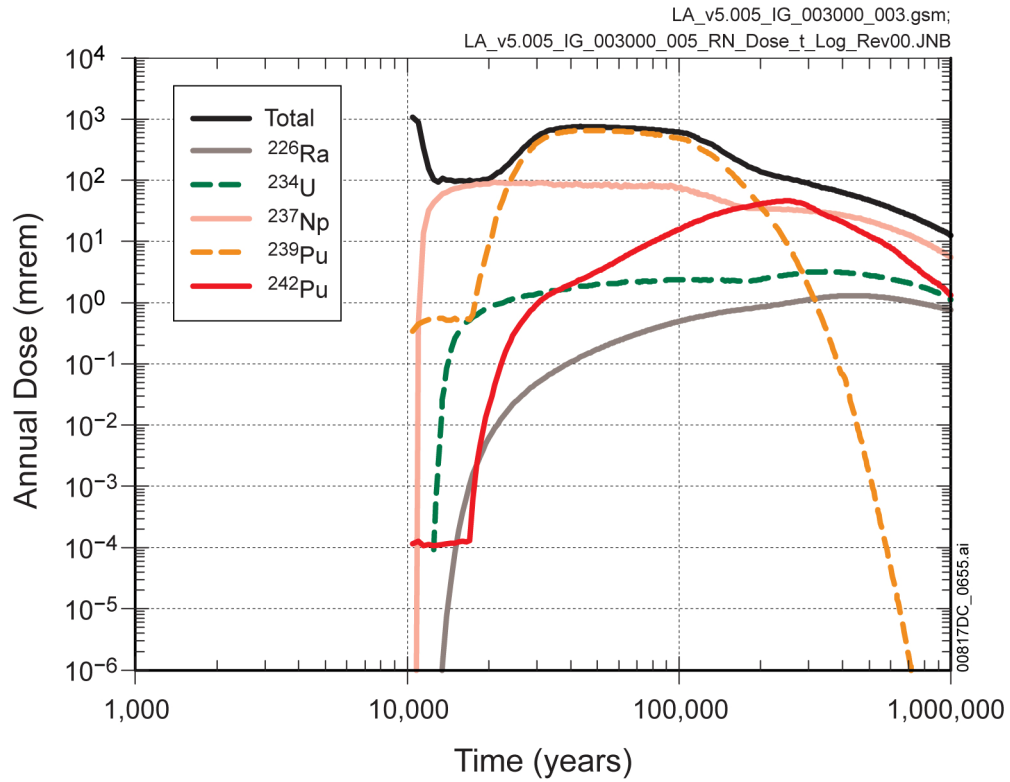
Source: Output DTN: MO0710ADTSPAWO.000 [DIRS 183752].

Figure 7.7.1-37[a]. Expected Annual Dose from the 300 Epistemic Uncertainty Vectors Along with their Quantiles and Expected Dose from Epistemic Uncertainty Vector 286 for the Igneous Intrusion Modeling Case for 1,000,000 Years after Repository Closure



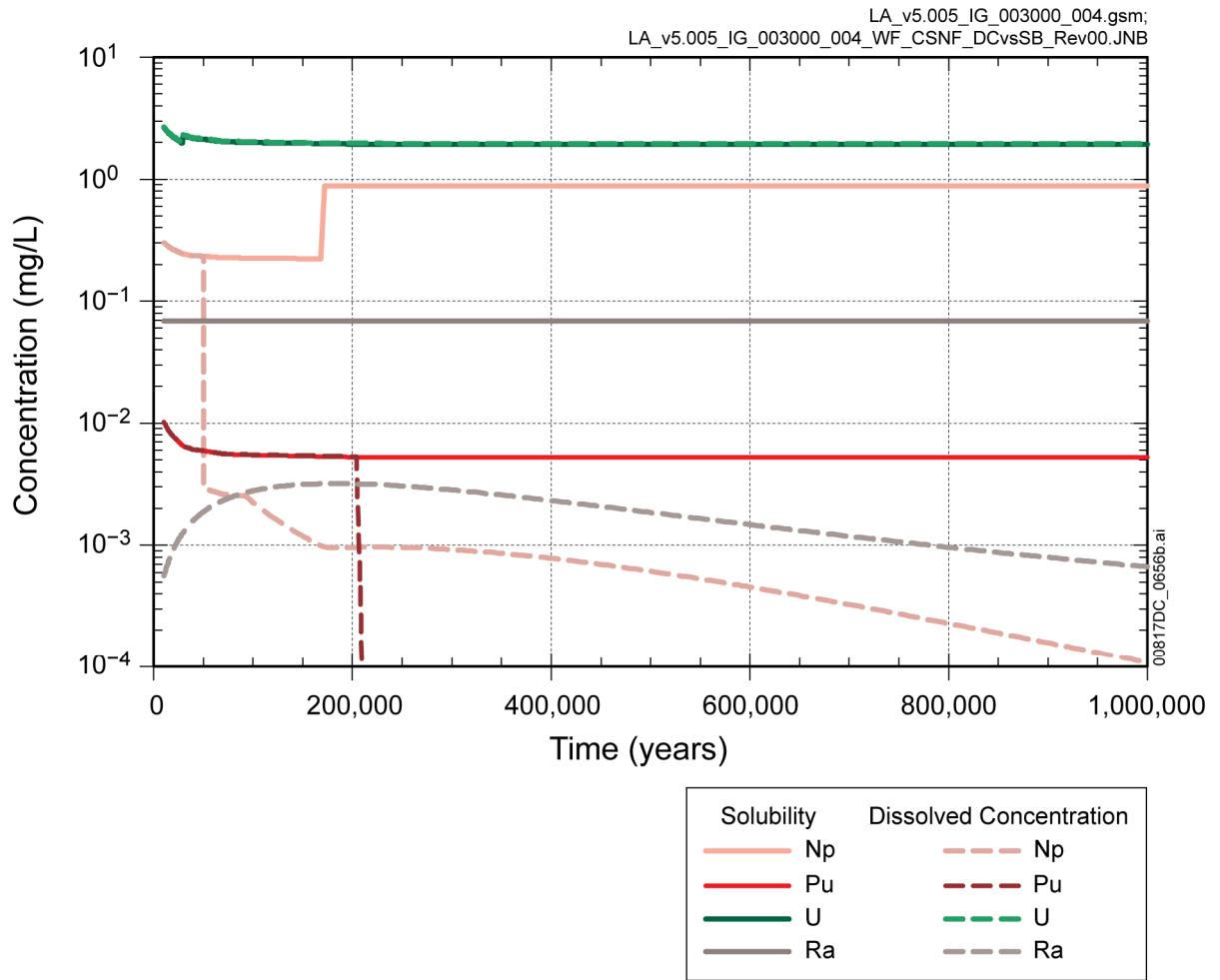
Source: Output DTN: MO0710ADTSPAWO.000 [DIRS 183752].

Figure 7.7.1-38[a]. Annual Dose for Realizations 2851 through 2860 (representing Epistemic Uncertainty Vector 286) along with Selected Realization 2855 of the Igneous Intrusion Modeling Case for 1,000,000 Years after Repository Closure



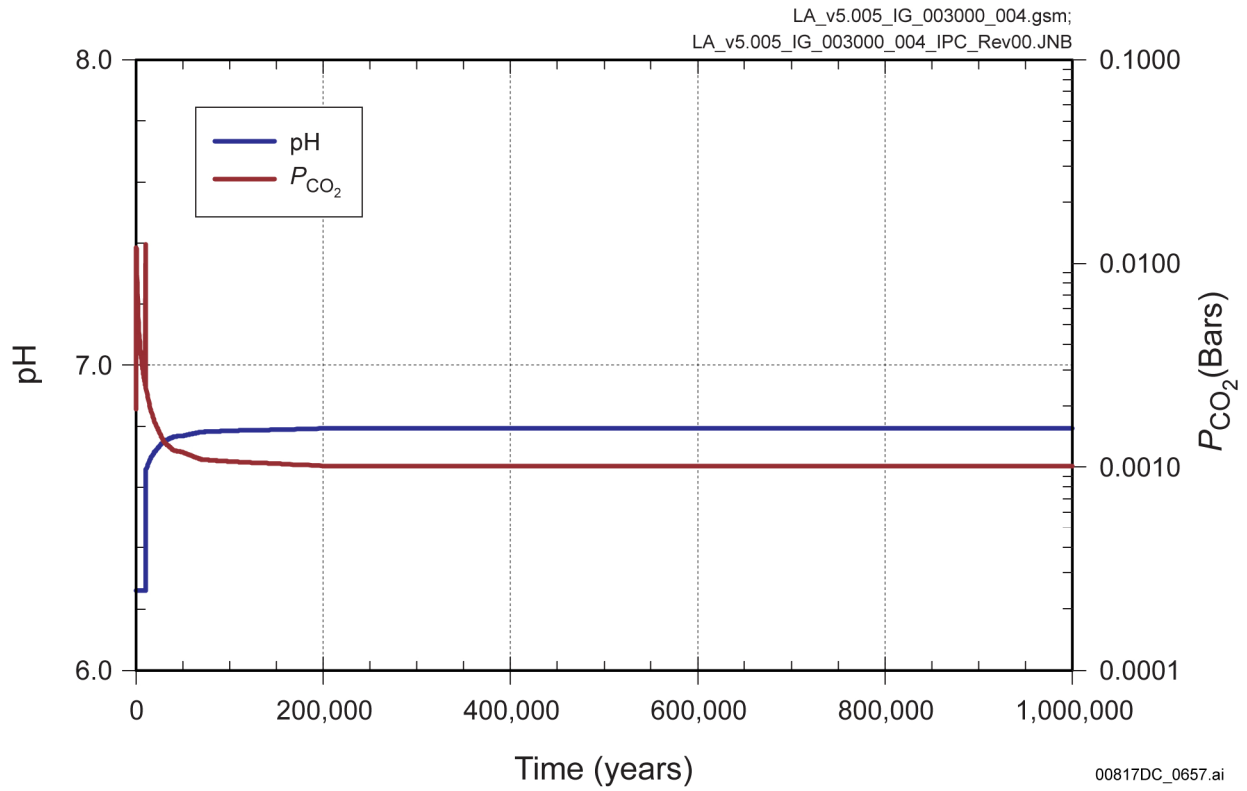
Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

Figure 7.7.1-39[a]. Major Radionuclide Dose Contributors to Annual Dose for Realization 2855 of the Igneous Intrusion Modeling Case for 1,000,000 Years after Repository Closure



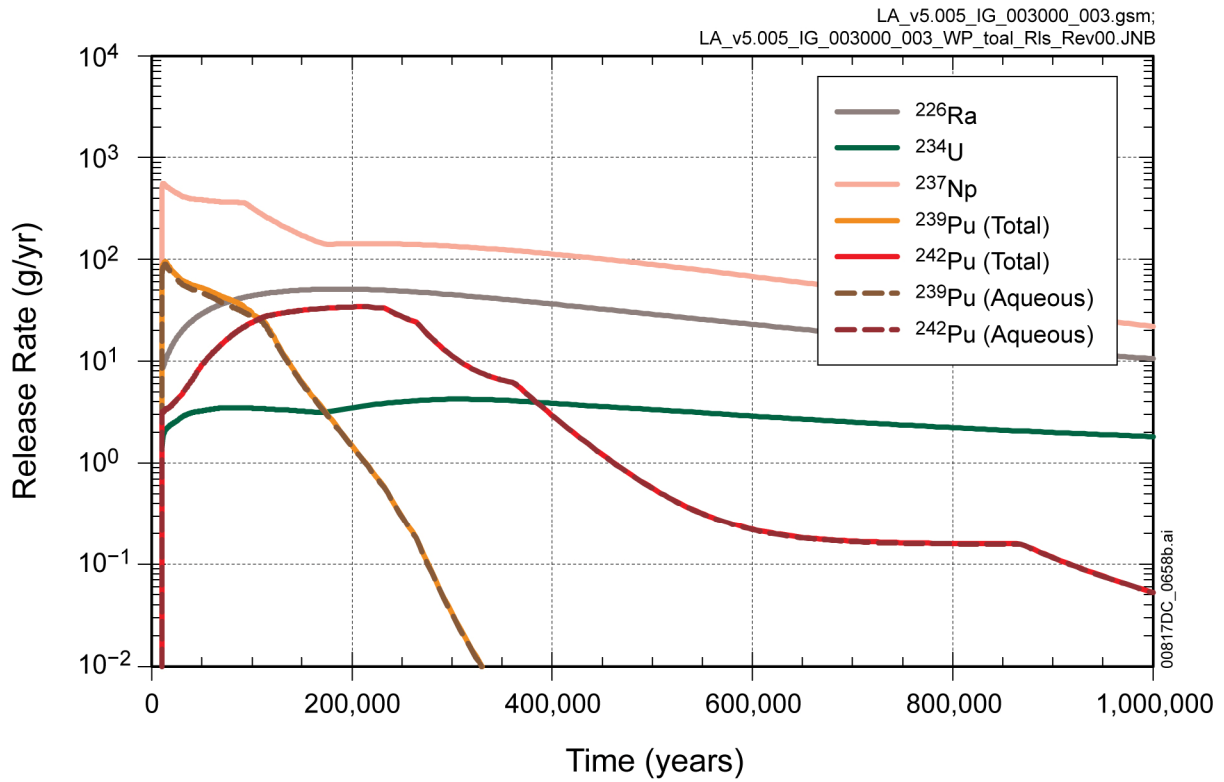
Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

Figure 7.7.1-40[a]. Dissolved Concentrations and Solubility Limits of Neptunium, Plutonium, Uranium, and Radium in the CSNF Waste Form Domain for Percolation Subregion 3 Seeping Environment for Realization 2855 of the Igneous Intrusion Modeling Case for 1,000,000 Years after Repository Closure



Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

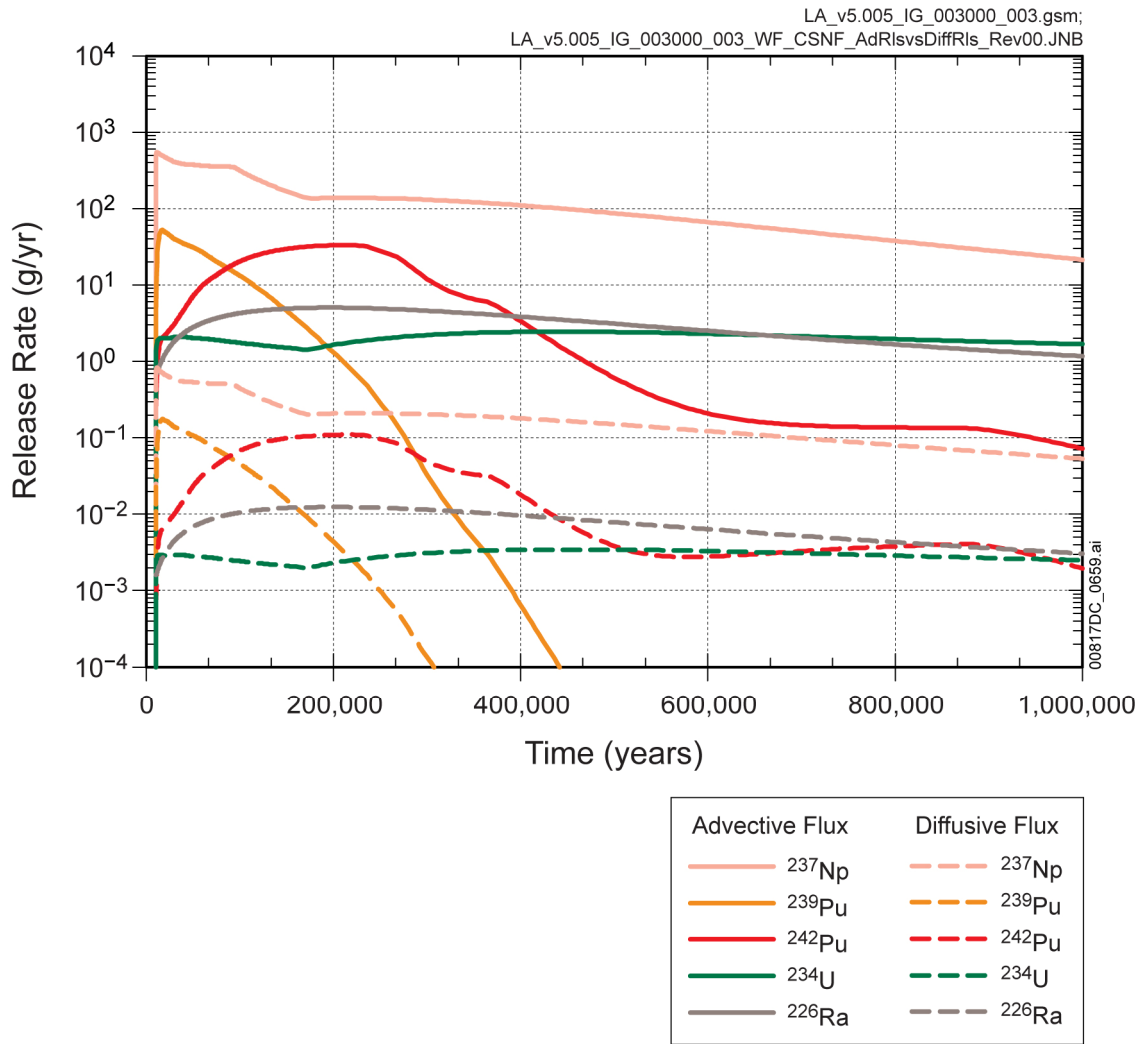
Figure 7.7.1-41[a]. In-Package pH and P_{CO_2} in the Waste Form Domain for Percolation Subregion 3 Seeping Environment for Realization 2855 of the Igneous Intrusion Modeling Case for 1,000,000 Years after Repository Closure



Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

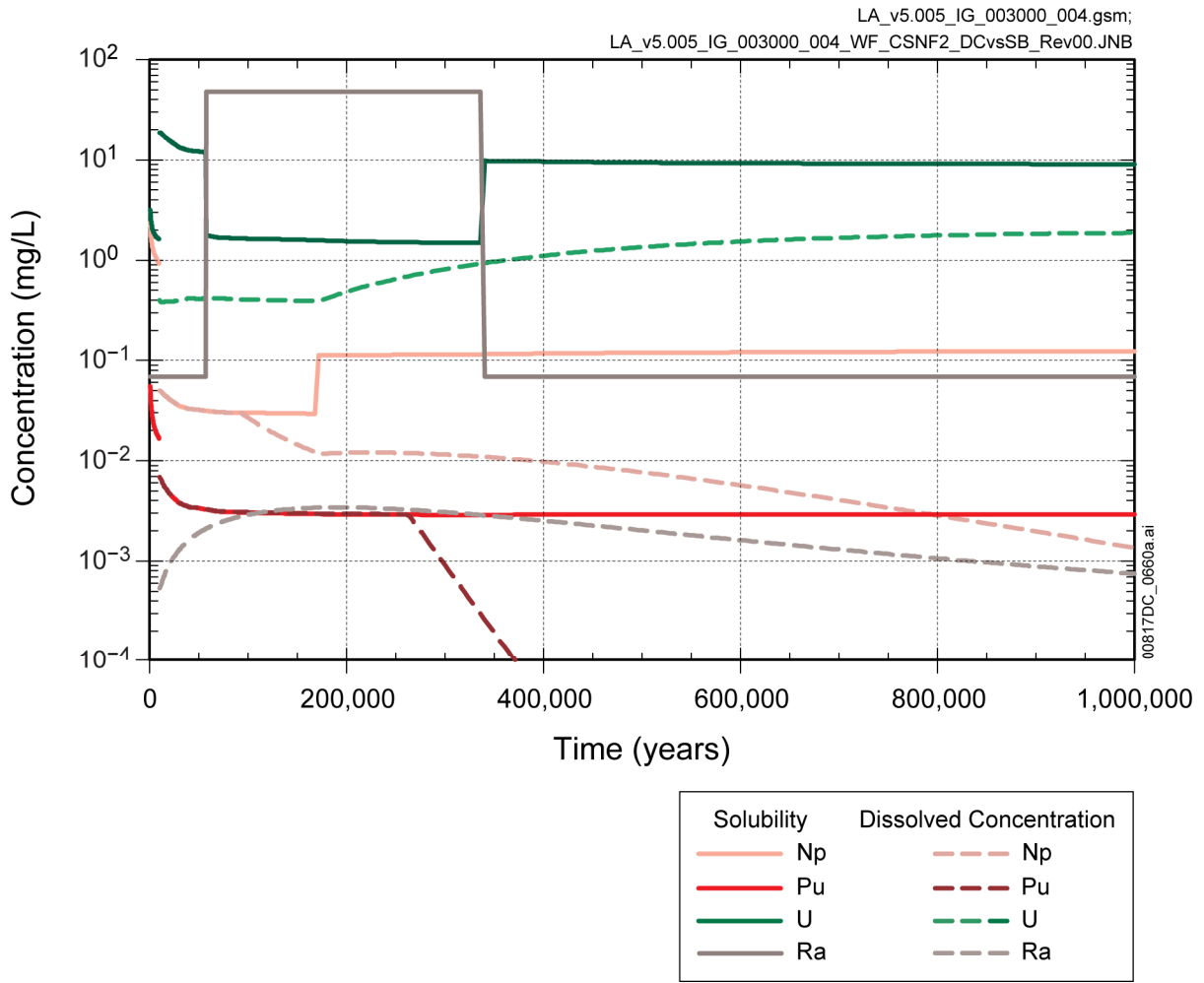
NOTE: Plutonium dissolved and reversibly associated with colloids is denoted as aqueous.

Figure 7.7.1-42[a]. Release Rate of Major Radionuclides from all Waste Packages for Realization 2855 of the Igneous Intrusion Modeling Case for 1,000,000 Years after Repository Closure



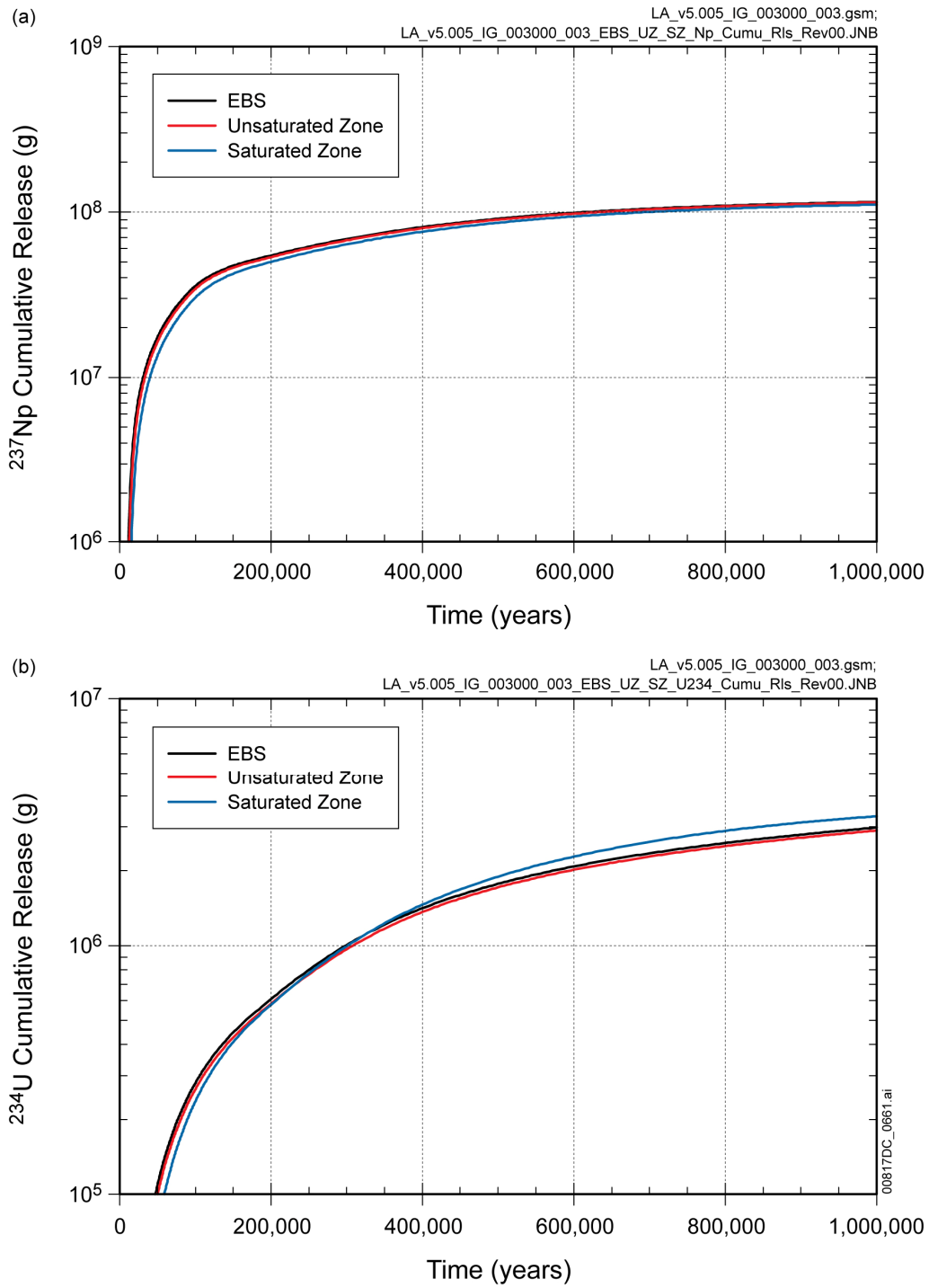
Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

Figure 7.7.1-43[a]. Advective and Diffusive Release Rates of Major Radionuclides (Dissolved and Reversibly Associated with Colloids) from the CSNF WPs for Realization 2855 of the Igneous Intrusion Modeling Case for 1,000,000 Years after Repository Closure



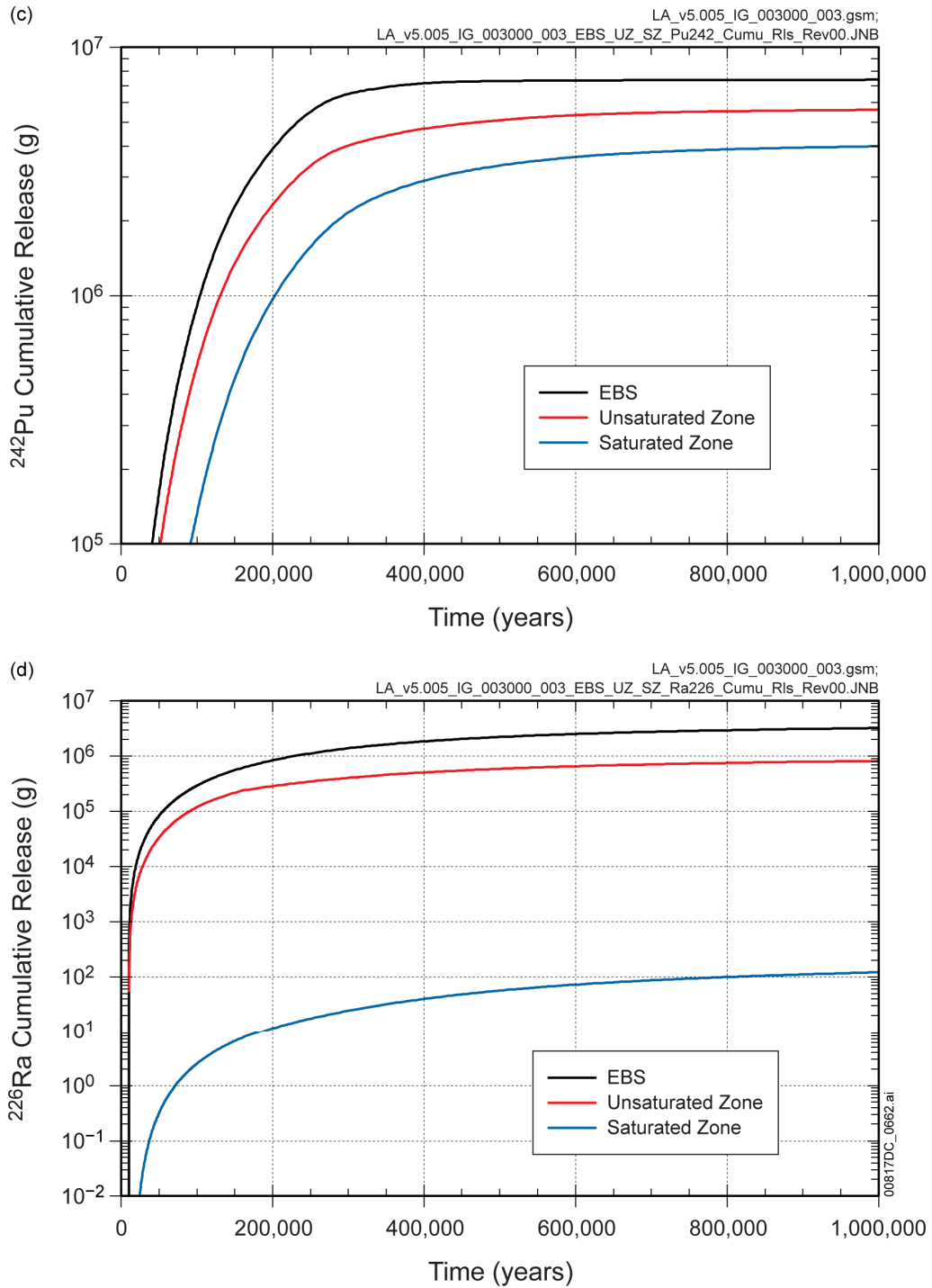
Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

Figure 7.7.1-44[a]. Total Dissolved Concentrations and Solubility Limits of Neptunium, Plutonium, Uranium, and Radium in the Corrosion Products Domain of CSNF WPs Located in Percolation Subregion 3 Seeping Environment for Realization 2855 of the Igneous Intrusion Modeling Case for 1,000,000 Years after Repository Closure



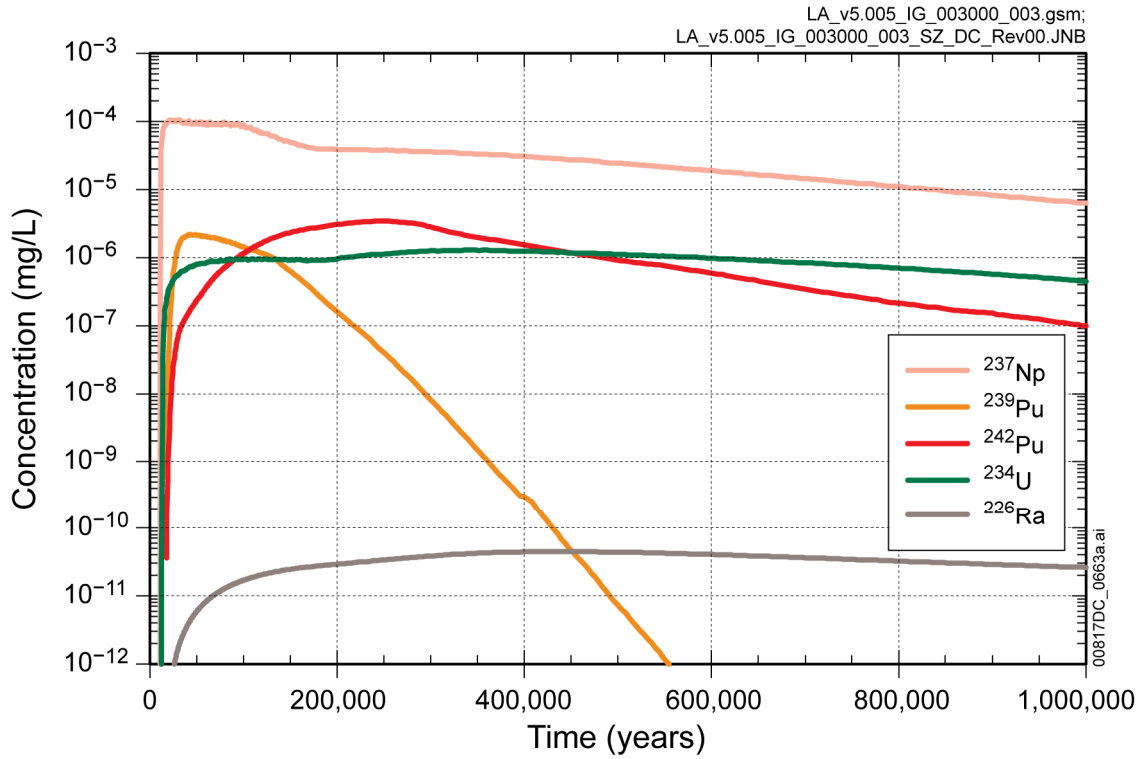
Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

Figure 7.7-1-45[a]. Cumulative Releases of: (a) ^{237}Np , (b) ^{234}U , (c) ^{242}Pu (Dissolved and Reversibly Associated with Colloids), and (d) ^{226}Ra from the EBS, Unsaturated Zone, and Saturated Zone for Realization 2855 of the Igneous Intrusion Modeling Case for 1,000,000 Years after Repository Closure



Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

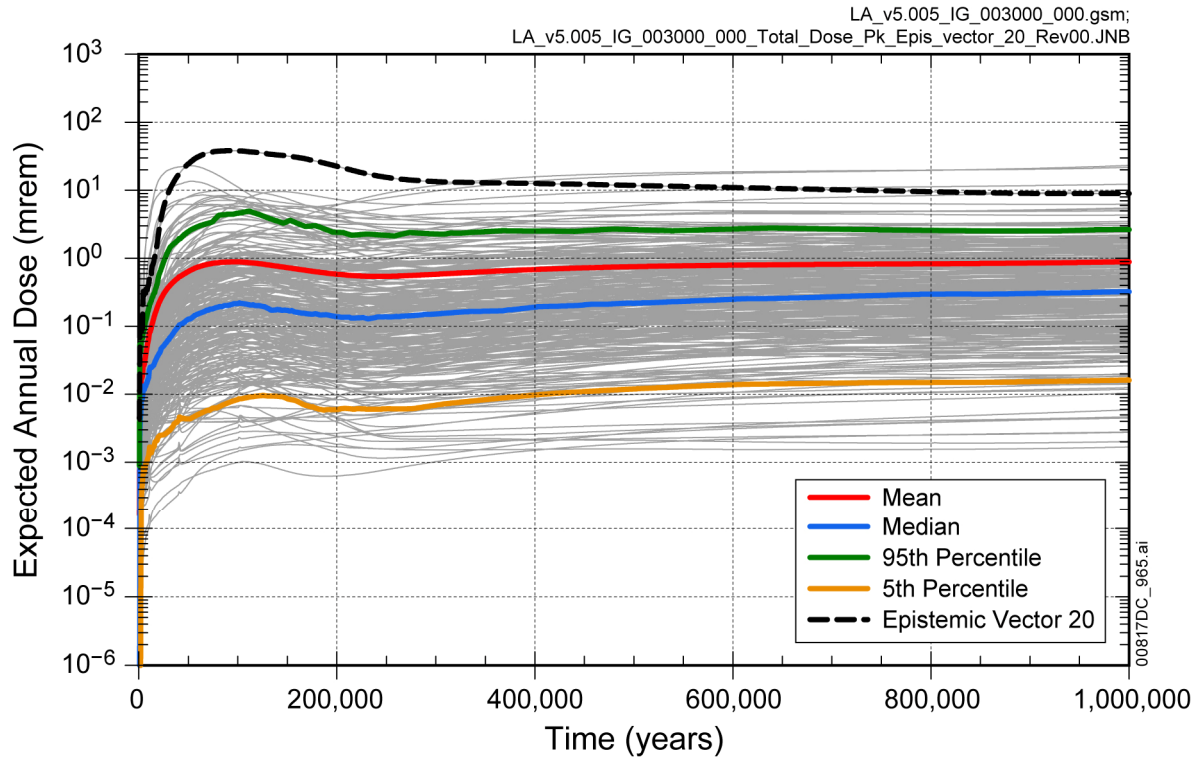
Figure 7.7.1-45[a]. Cumulative Releases of: (a) ^{237}Np , (b) ^{234}U , (c) ^{242}Pu (Dissolved and Reversibly Associated with Colloids), and (d) ^{226}Ra from the EBS, Unsaturated Zone, and Saturated Zone for Realization 2855 of the Igneous Intrusion Modeling Case for 1,000,000 Years after Repository Closure (Continued)



Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

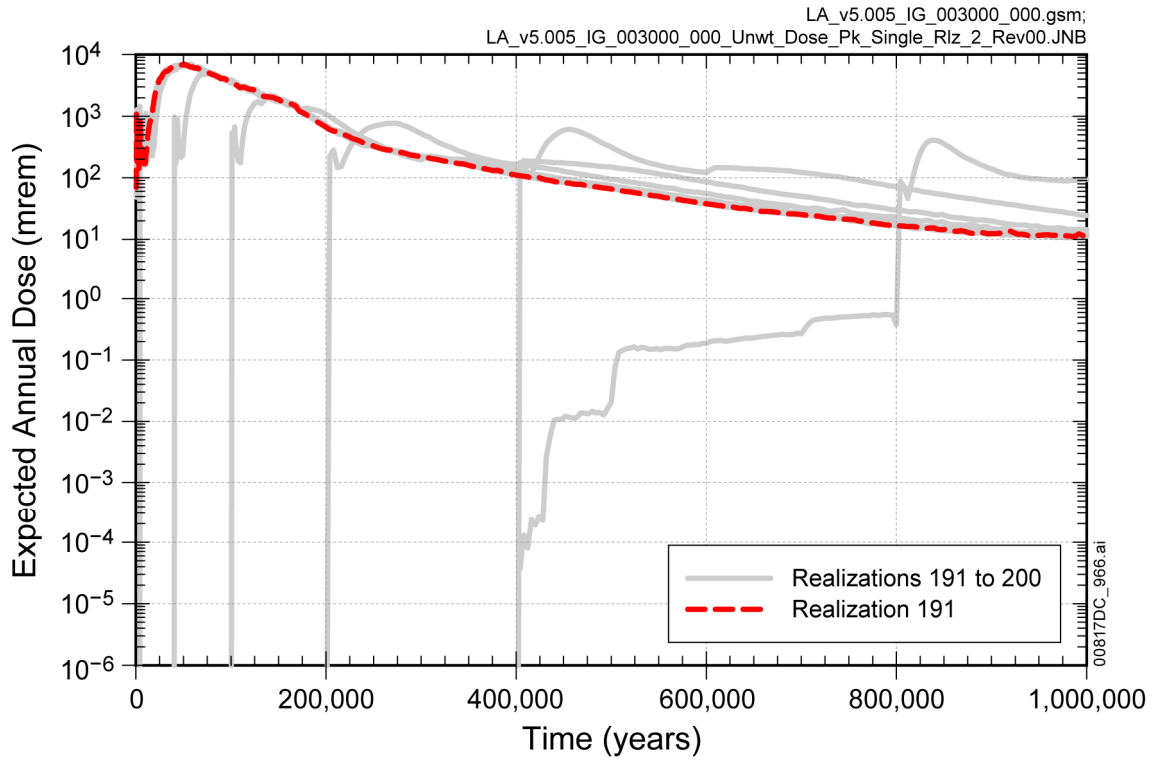
NOTE: The saturated zone concentrations shown on this figure are obtained by dividing the annual releases of radionuclides from the saturated zone by the 3,000 acre-ft/yr annual water usage, as required by regulations.

Figure 7.7.1-46[a]. Concentrations of Major Radionuclides (Dissolved and Reversibly Associated with Colloids) at the RMEI Location for Realization 2855 of the Igneous Intrusion Modeling Case for 1,000,000 Years after Repository Closure



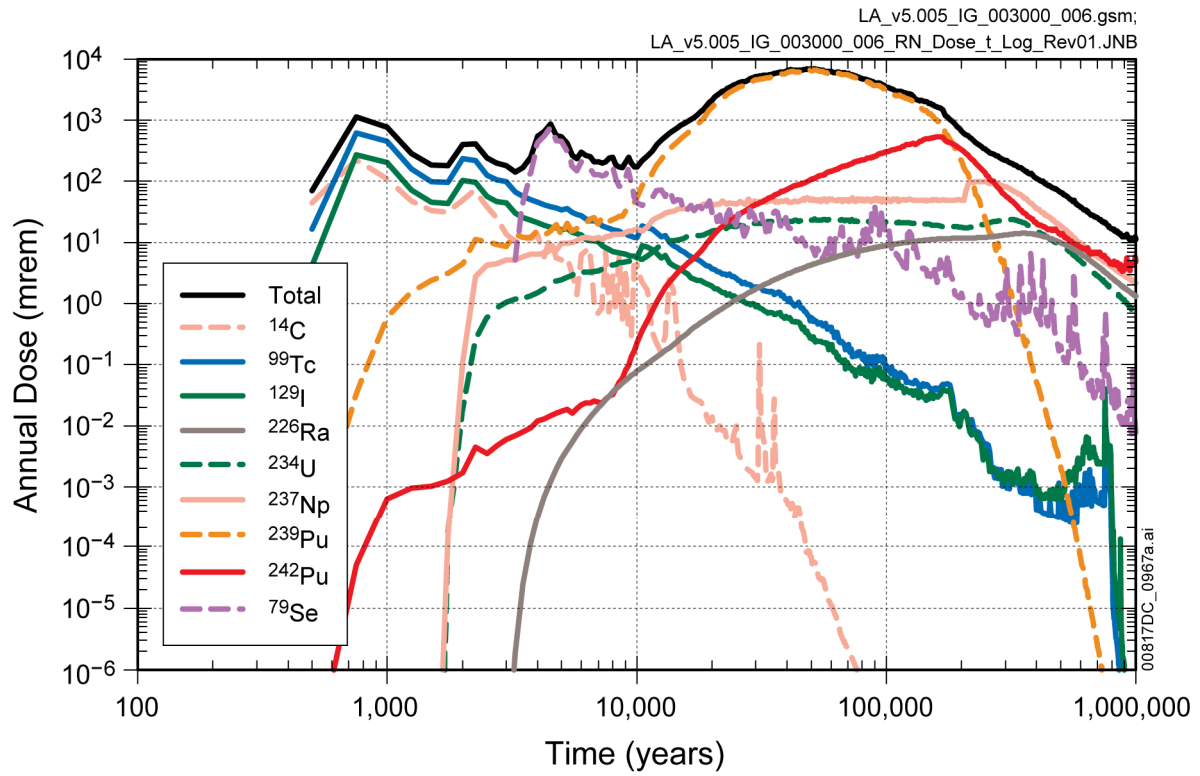
Source: Output DTN: MO0710ADTSPAWO.000 [DIRS 183752].

Figure 7.7.1-47[a]. Expected Annual Dose from the 300 Epistemic Uncertainty Vectors along with their Quantiles and Expected Dose from Epistemic Uncertainty Vector 20 for the Igneous Intrusion Modeling Case for 1,000,000 Years after Repository Closure



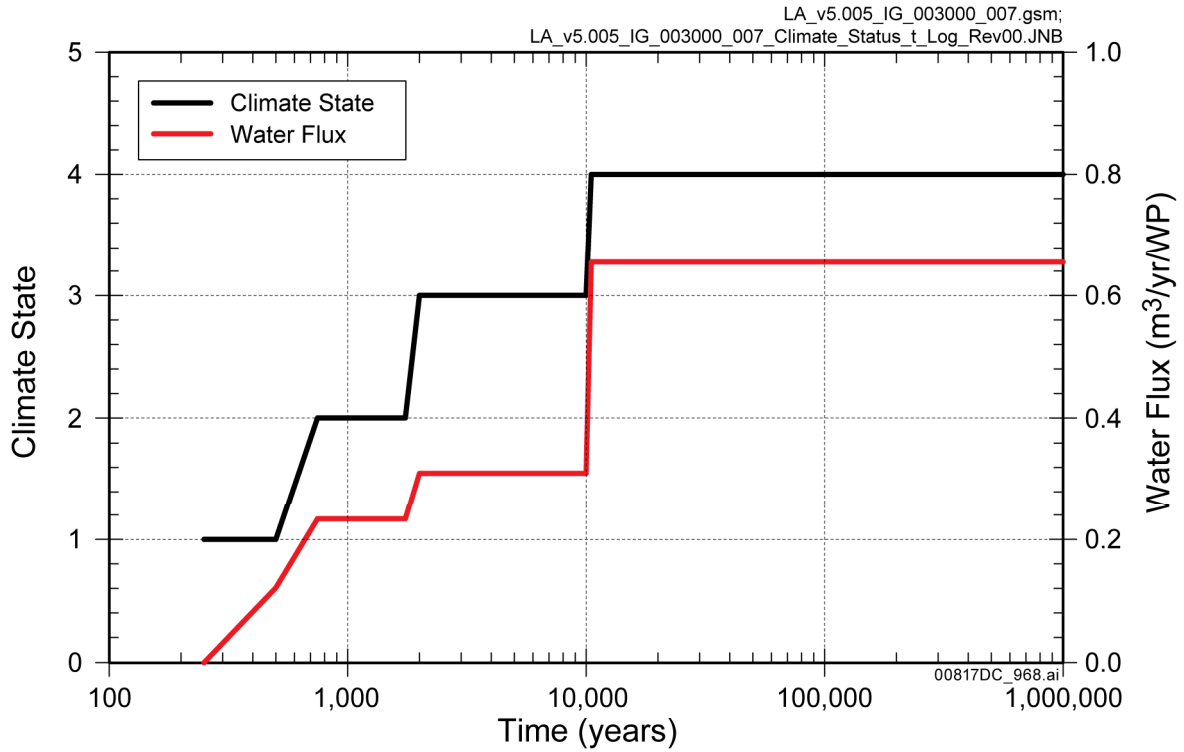
Source: Output DTN: MO0710ADTSPAWO.000 [DIRS 183752].

Figure 7.7.1-48[a]. Annual Dose from the Ten Aleatory Vectors Associated with the Epistemic Uncertainty Vector 20 for the Igneous Intrusion Modeling Case for 1,000,000 Years after Repository Closure



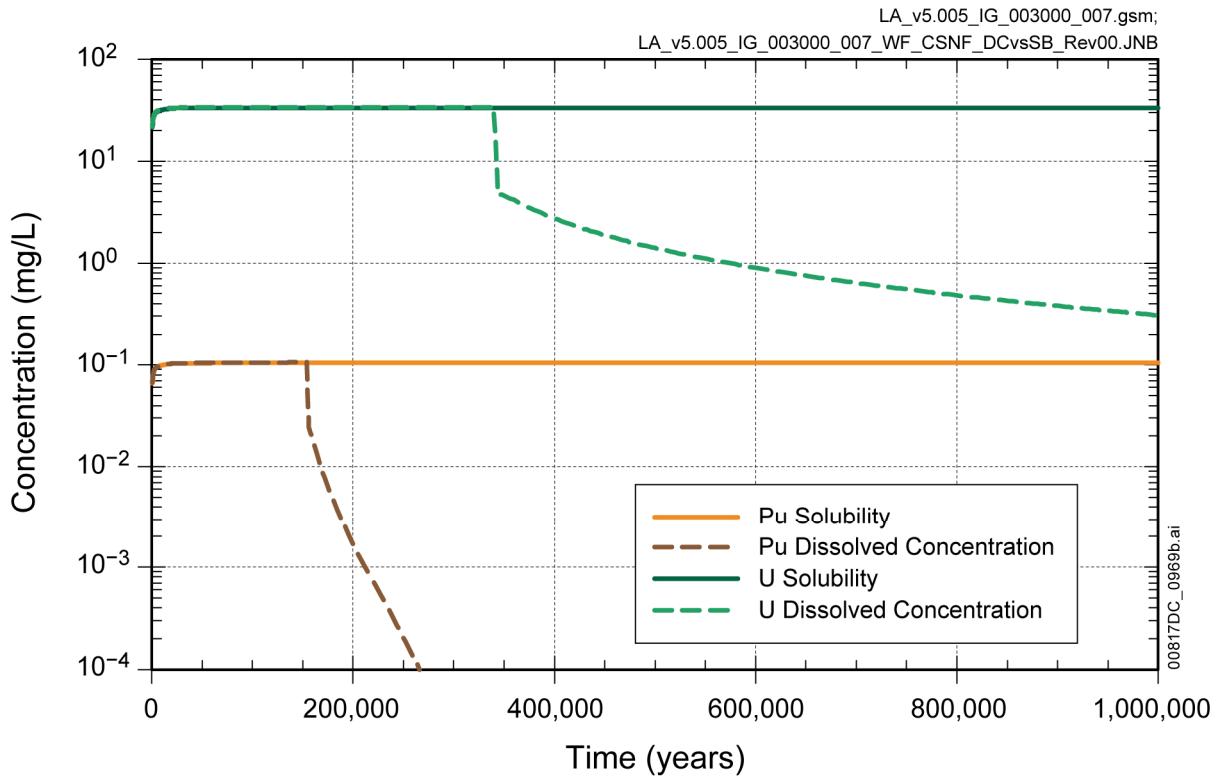
Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

Figure 7.7.1-49[a]. Major Radionuclide Dose Contributors to Annual Dose for Realization 191 of the Igneous Intrusion Modeling Case for 1,000,000 Years after Repository Closure



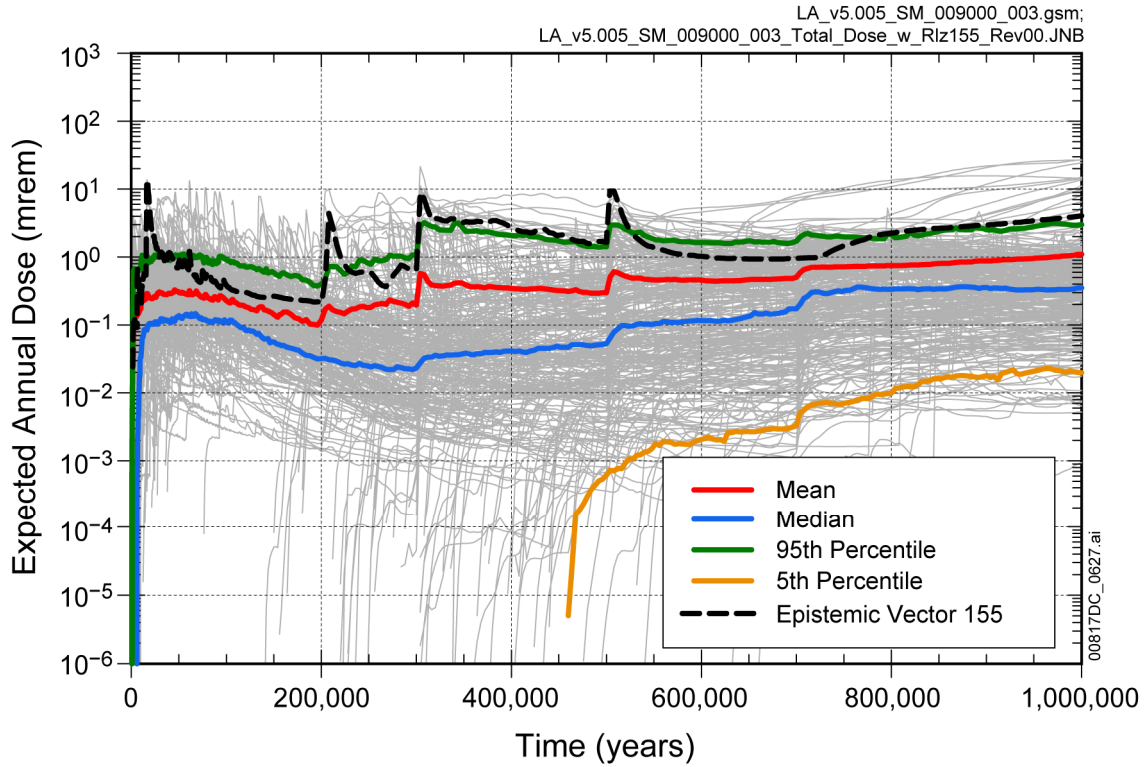
Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

Figure 7.7.1-50[a]. Climate Status and Water Flux for Realization 191 of the Igneous Intrusion Modeling Case for 1,000,000 Years after Repository Closure



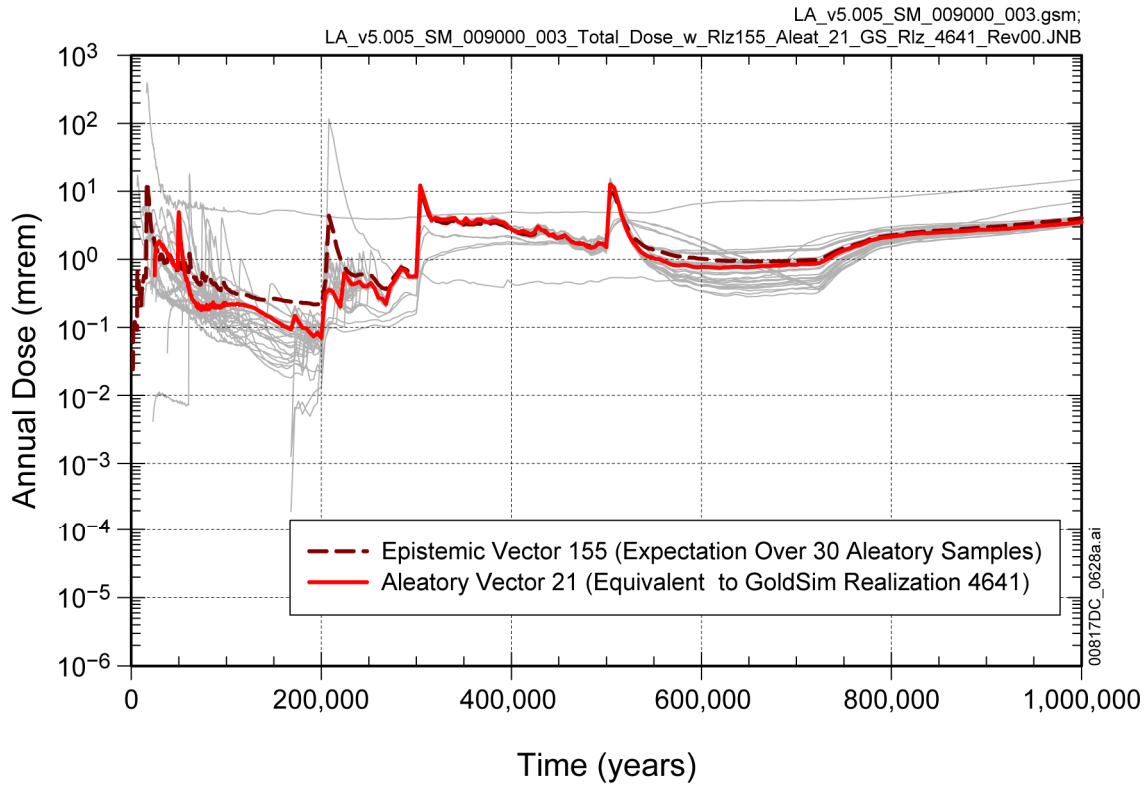
Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

Figure 7.7.1-51[a]. Solubility and Dissolved Concentrations of Plutonium and Uranium within the CSNF Domain for Realization 191 of the Igneous Intrusion Modeling Case for 1,000,000 Years after Repository Closure



Source: Output DTN: MO0710ADTSPAWO.000 [DIRS 183752].

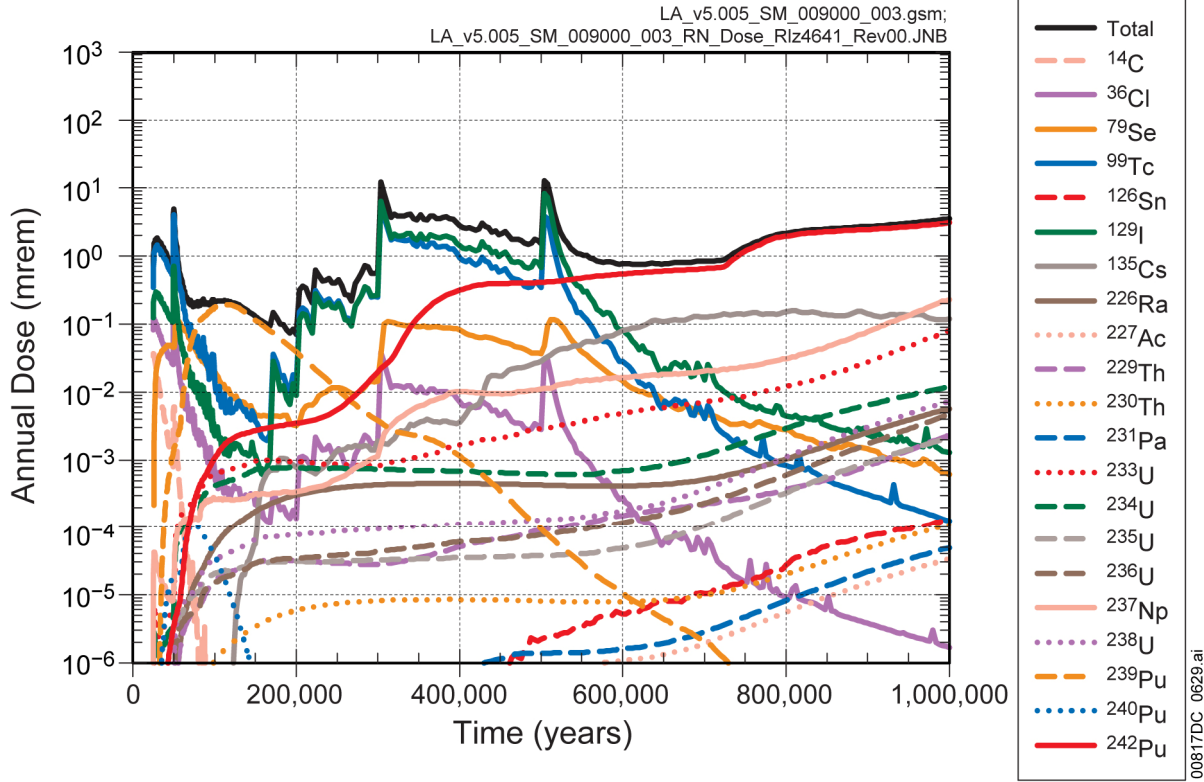
Figure 7.7.1-52[a]. Expected Annual Dose from the 300 Epistemic Uncertainty Vectors Along With their Quantiles and Expected Dose from Epistemic Uncertainty Vector 155 for the Seismic Ground Motion Modeling Case for 1,000,000 Years after Repository Closure



Source: Output DTN: MO0710ADTSPAWO.000 [DIRS 183752].

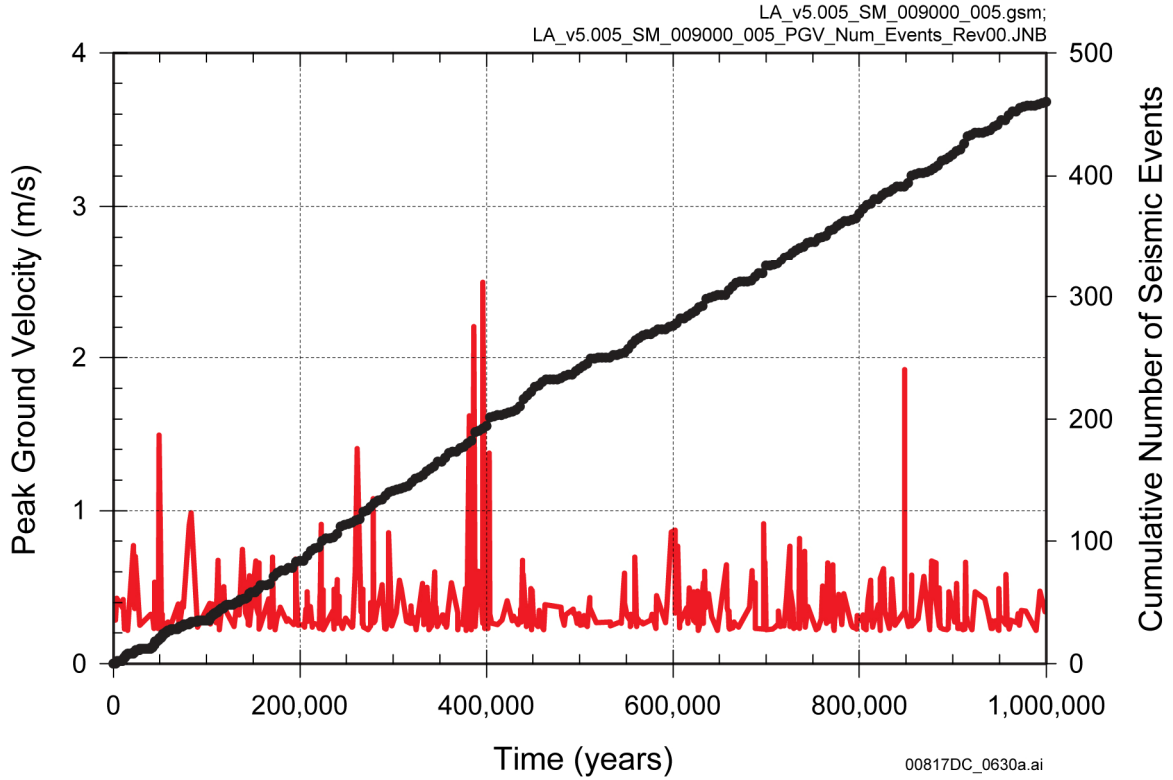
NOTES: The dashed line is the expected annual dose for epistemic uncertainty vector 155 by taking expectation over the thirty aleatory vectors. The solid red line is the annual dose from aleatory vector 21, which is equivalent to GoldSim realization 4641.

Figure 7.7.1-53[a]. Annual Dose from the Thirty Aleatory Vectors (Seismic Event Sequences) Associated with the Epistemic Uncertainty Vector 155 for the Seismic Ground Motion Modeling Case for 1,000,000 Years after Repository Closure



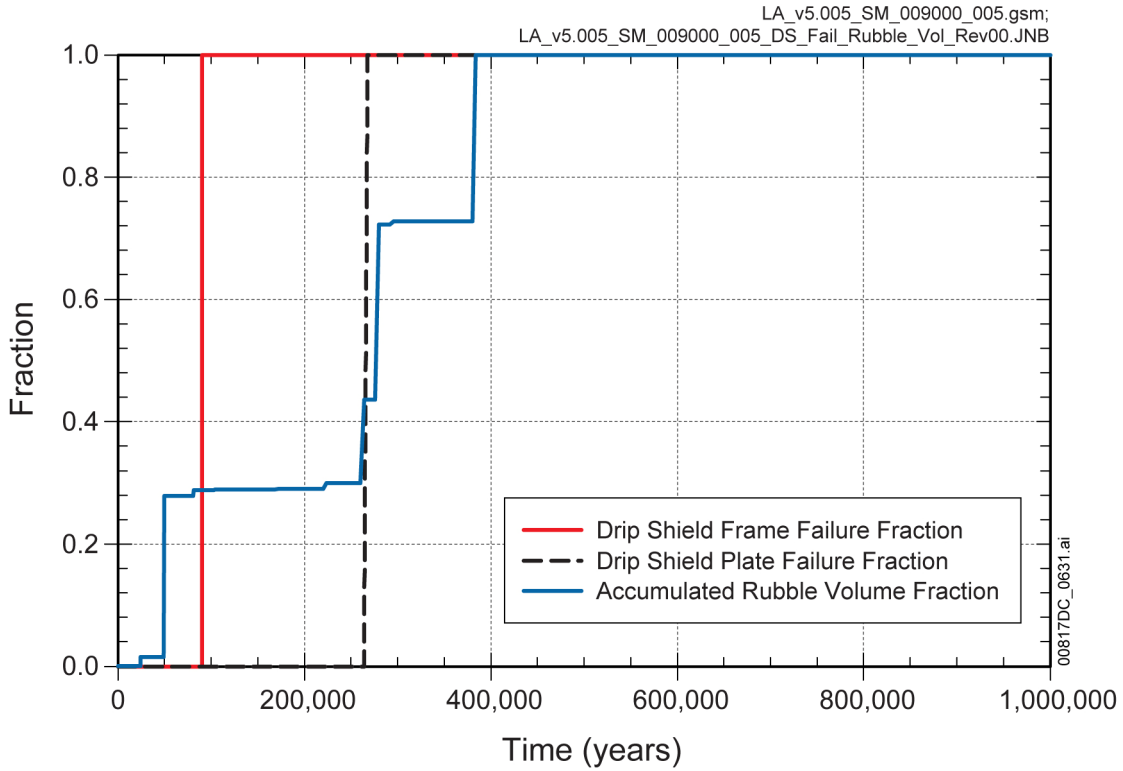
Source: Output DTN: MO0710ADTSPAWO.000 [DIRS 183752].

Figure 7.7.1-54[a]. Annual Dose along with Major Radionuclide Dose Contributors for Realization 4641 of the Seismic Ground Motion Modeling Case for 1,000,000 Years after Repository Closure



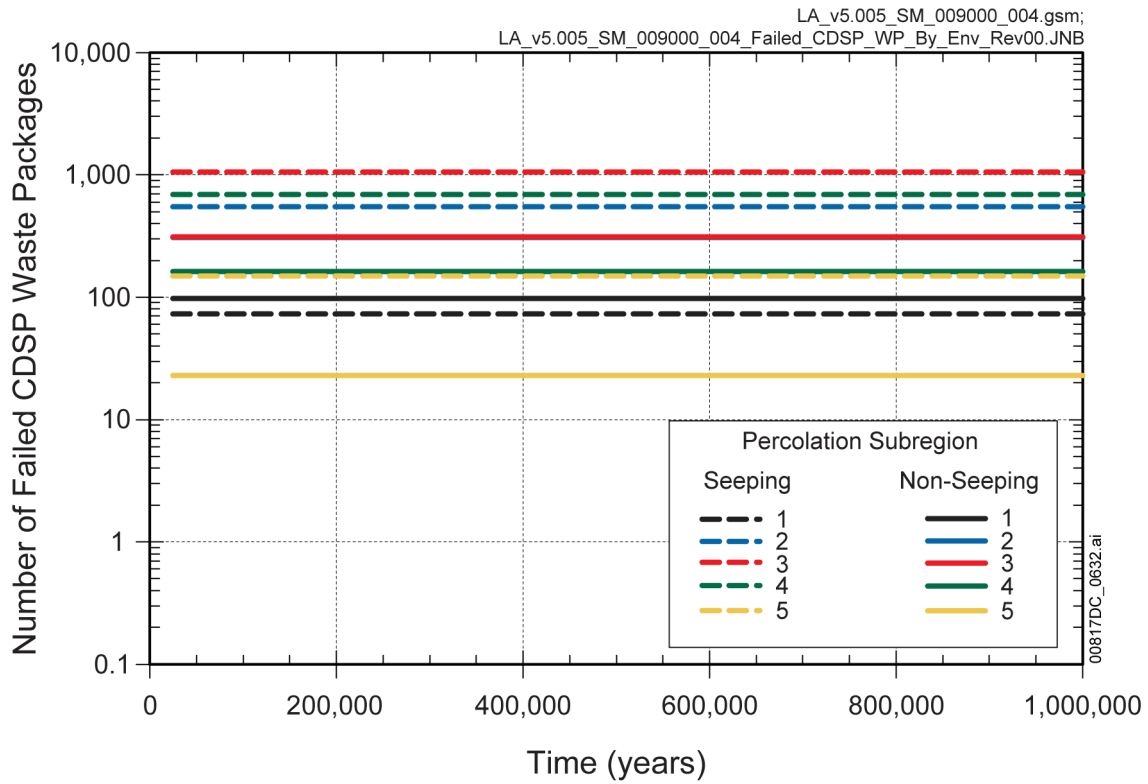
Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

Figure 7.7.1-55[a]. Number of Seismic Events and the Peak Ground Velocities for Realization 4641 of the Seismic Ground Motion Modeling Case for 1,000,000 Years after Repository Closure



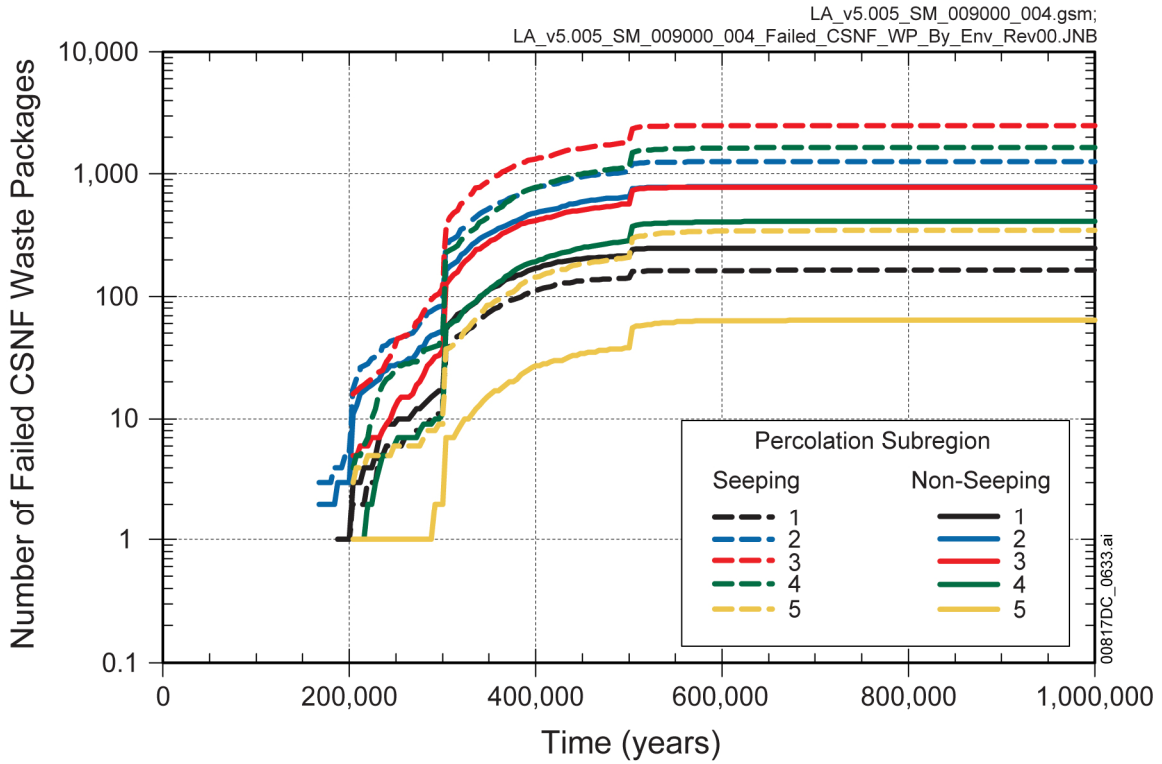
Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

Figure 7.7.1-56[a]. Failure Fraction for the Drip Shield Plate and Framework and the Fraction of the Collapsed Drift Filled with Rubble (Lithophysal Zone) for Realization 4641 of the Seismic Ground Motion Modeling Case for 1,000,000 Years after Repository Closure



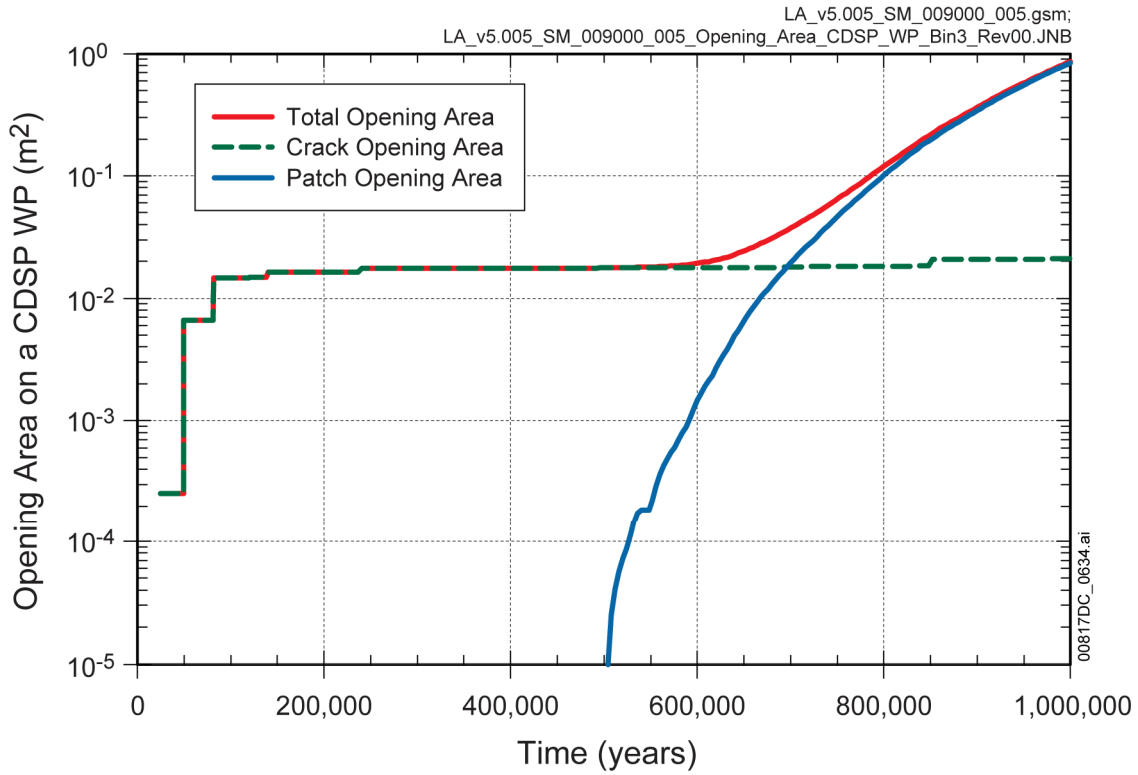
Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

Figure 7.7.1-57[a].CDSP WP Failure for Each Percolation Subregion for Both Seeping and Non-Seeping Environments for Realization 4641 of the Seismic Ground Motion Modeling Case for 1,000,000 Years after Repository Closure



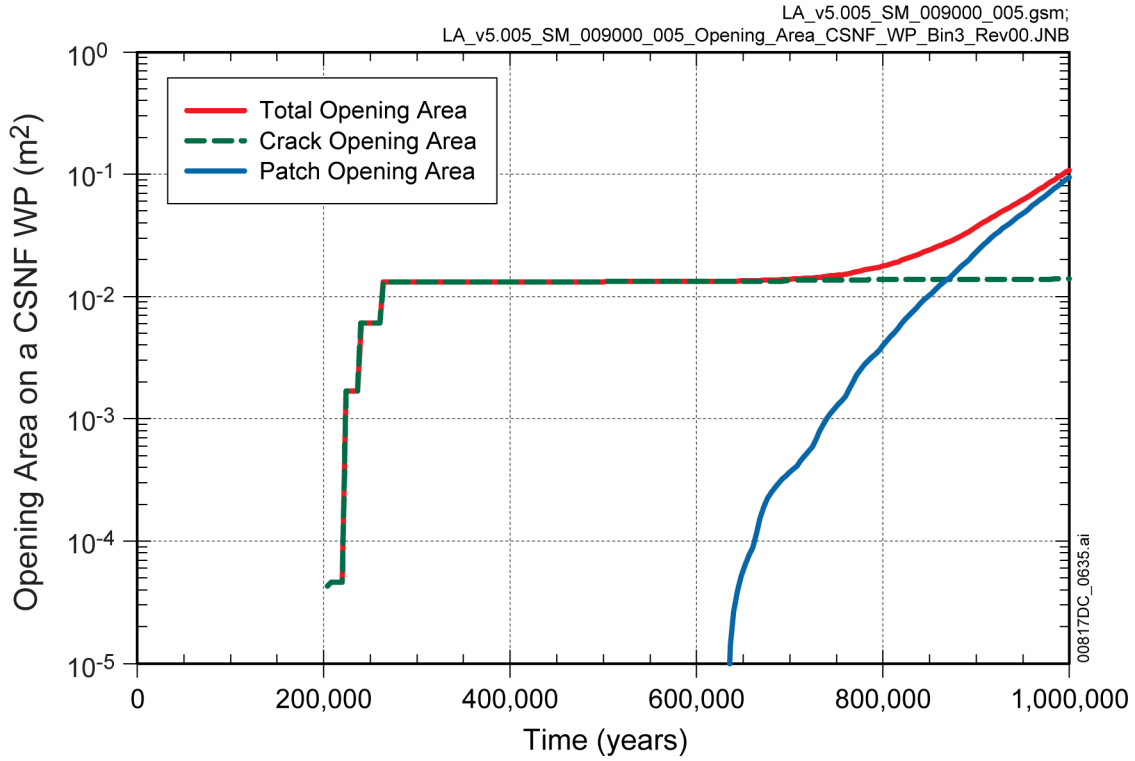
Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

Figure 7.7.1-58[a]. CSNF WP Failure for Each Percolation Subregion for Both Seeping and Non-Seeping Environments for Realization 4641 of the Seismic Ground Motion Modeling Case for 1,000,000 Years after Repository Closure



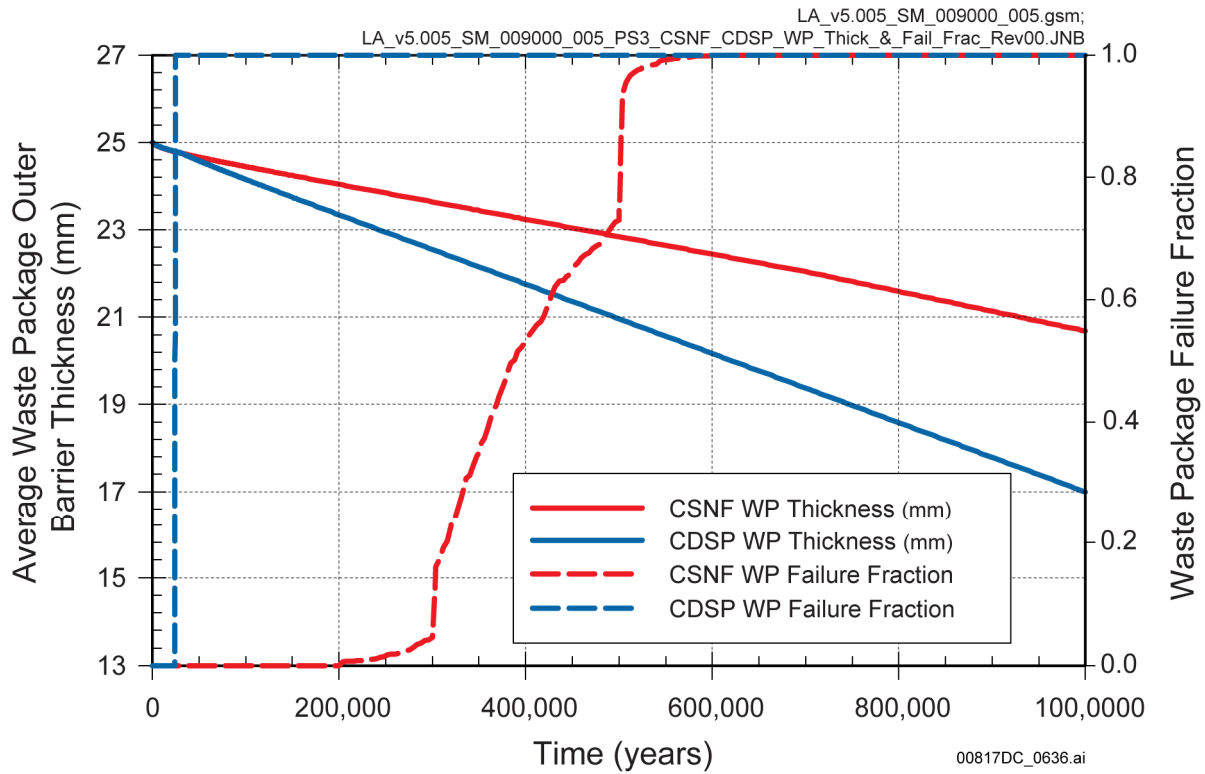
Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

Figure 7.7.1-59[a]. CDSP WP Opening Area after Failure from Cracks and Patches for Percolation Subregion 3 for Realization 4641 of the Seismic Ground Motion Modeling Case for 1,000,000 Years after Repository Closure



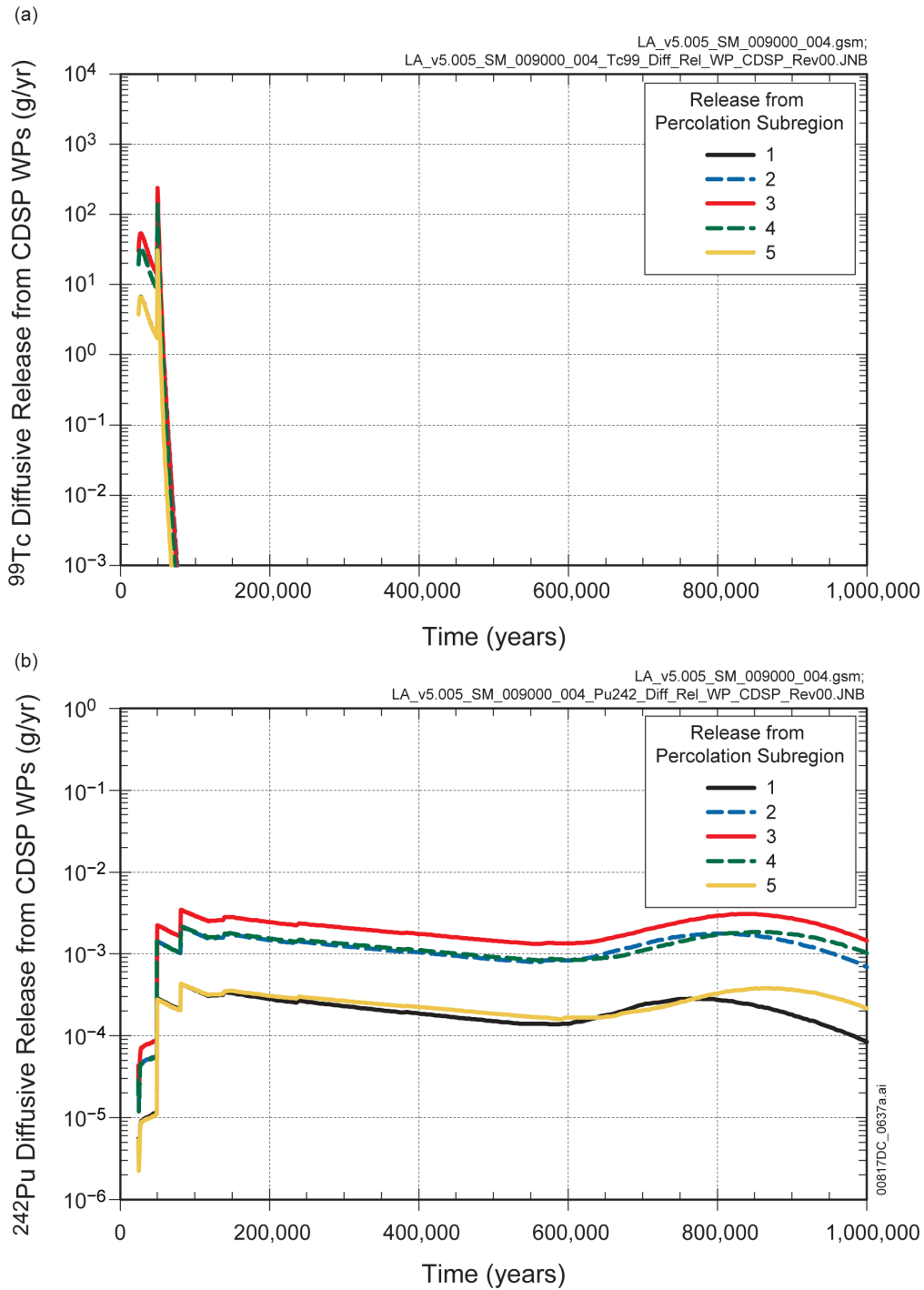
Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

Figure 7.7.1-60[a]. CSNF WP Opening Area after Failure from Cracks and Patches for Percolation Subregion 3 for Realization 4641 of the Seismic Ground Motion Modeling Case for 1,000,000 Years after Repository Closure



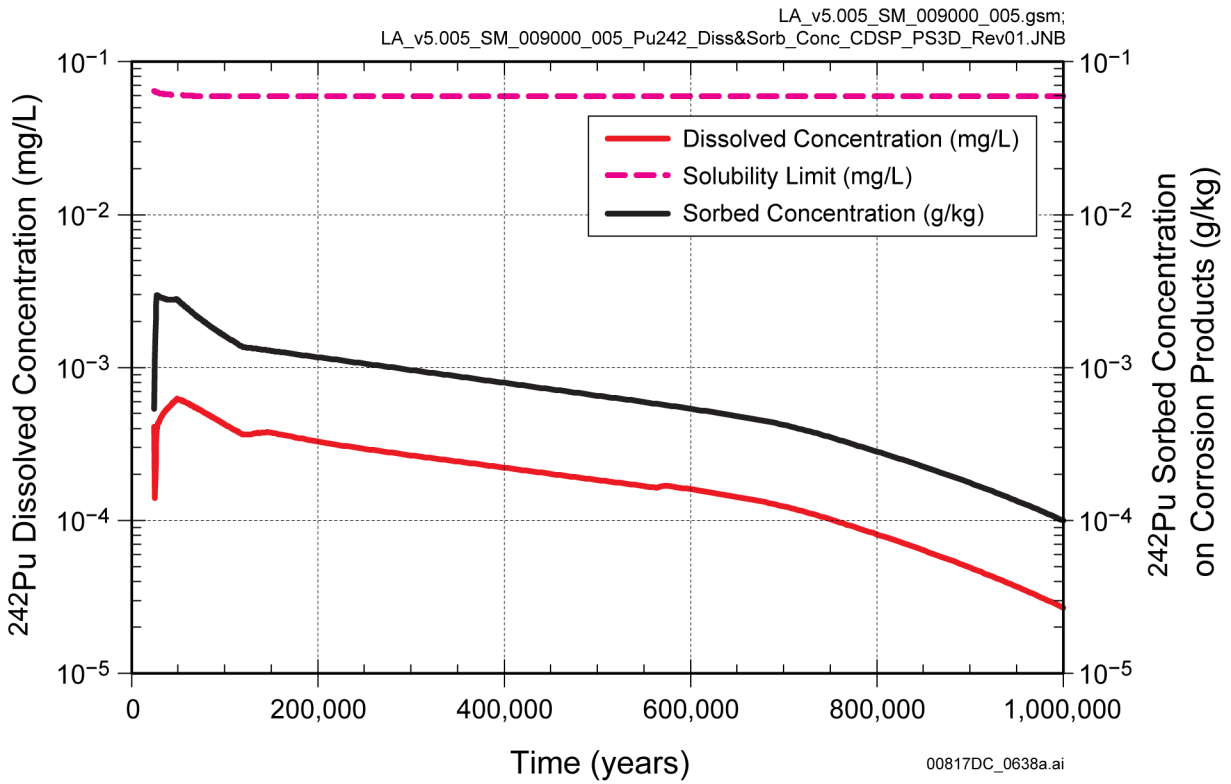
Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

Figure 7.7.1-61[a]. Average Waste Package Outer Barrier Thicknesses and Waste Package Failure Fractions for Percolation Subregion 3 for Realization 4641 of the Seismic Ground Motion Modeling Case for 1,000,000 Years after Repository Closure



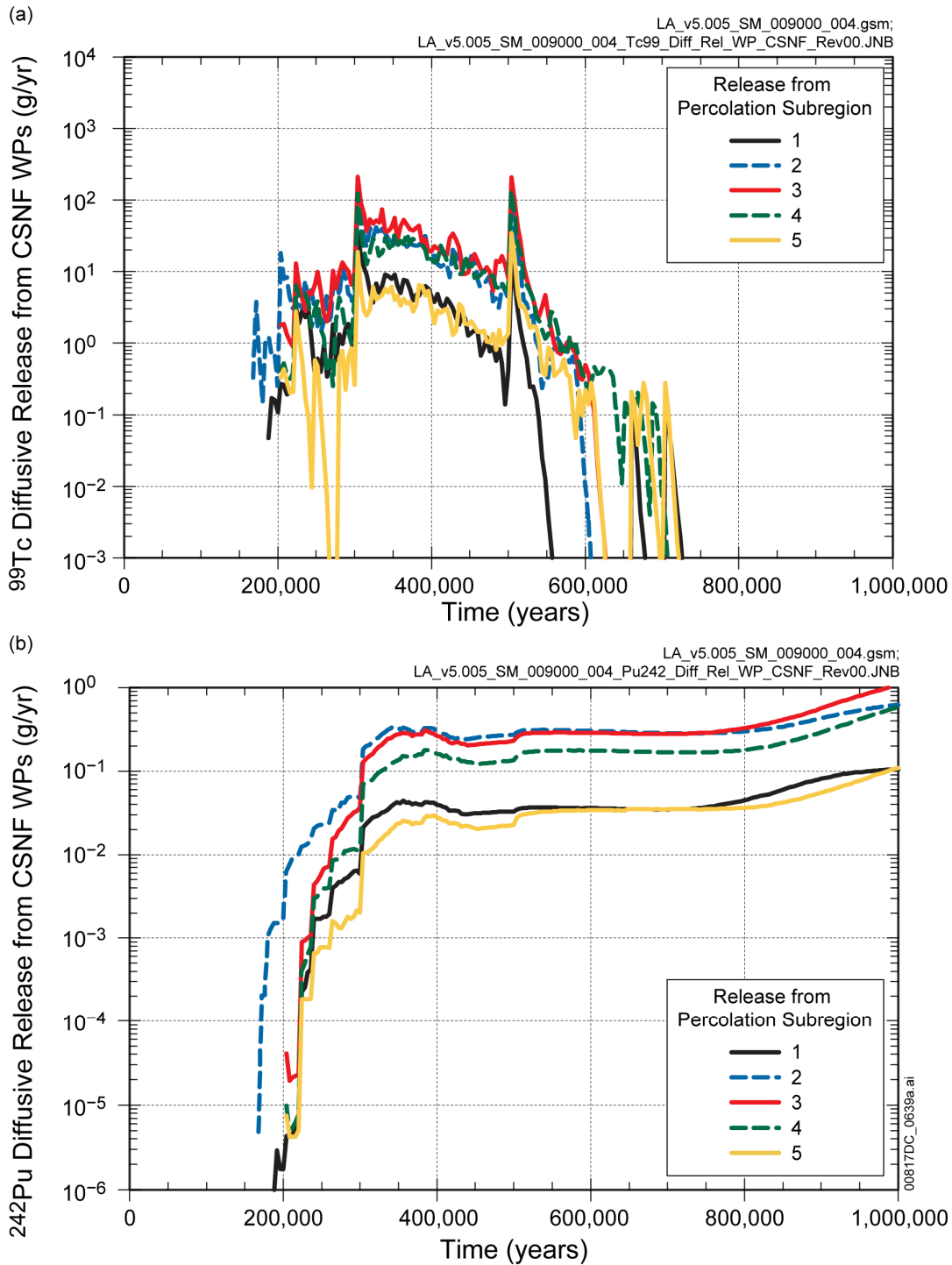
Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

Figure 7.7.1-62[a]. Diffusive Release Rates of: (a) ^{99}Tc and (b) ^{242}Pu (Dissolved and Reversibly Associated with Colloids) from CDSP WPs from each Percolation Subregion for Realization 4641 of the Seismic Ground Motion Modeling Case for 1,000,000 Years after Repository Closure



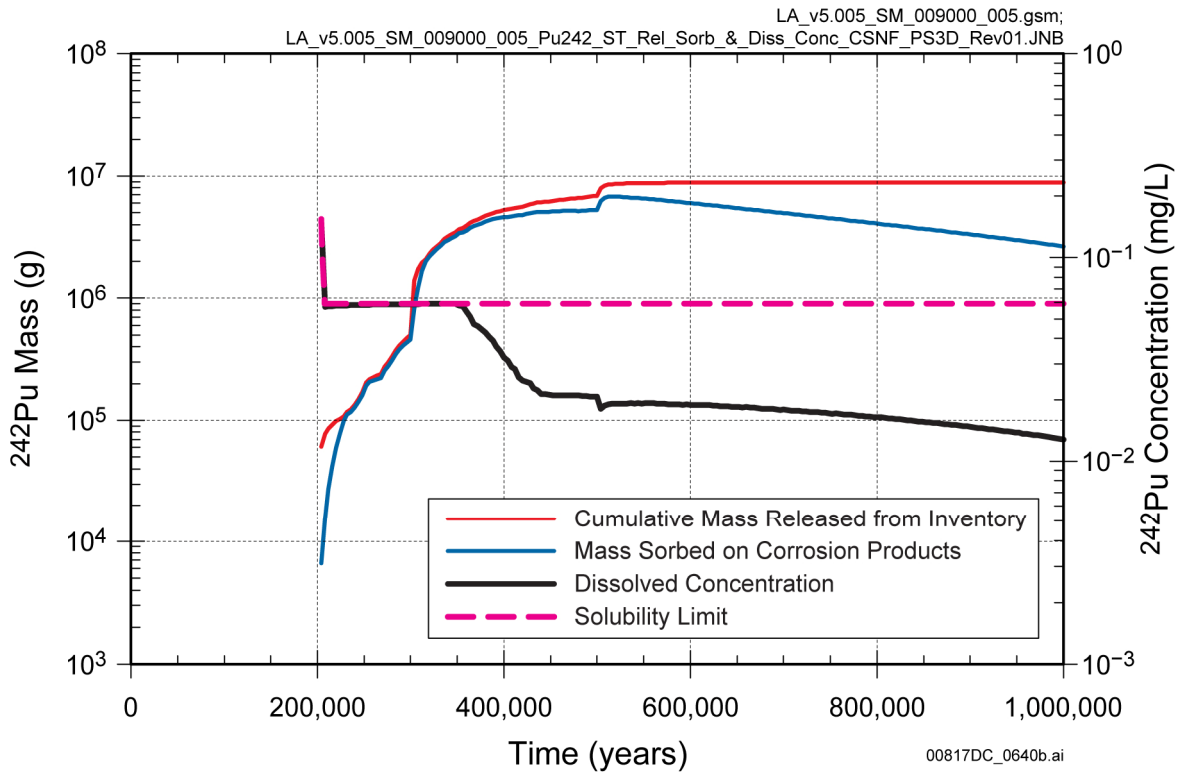
Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

Figure 7.7.1-63[a]. Dissolved Concentration of ²⁴²Pu in the Corrosion Products Domain Compared to the Sorbed Concentration on Corrosion Products for CDSP WPs for Percolation Subregion 3 Seeping Environment for Realization 4641 of the Seismic Ground Motion Modeling Case for 1,000,000 Years after Repository Closure



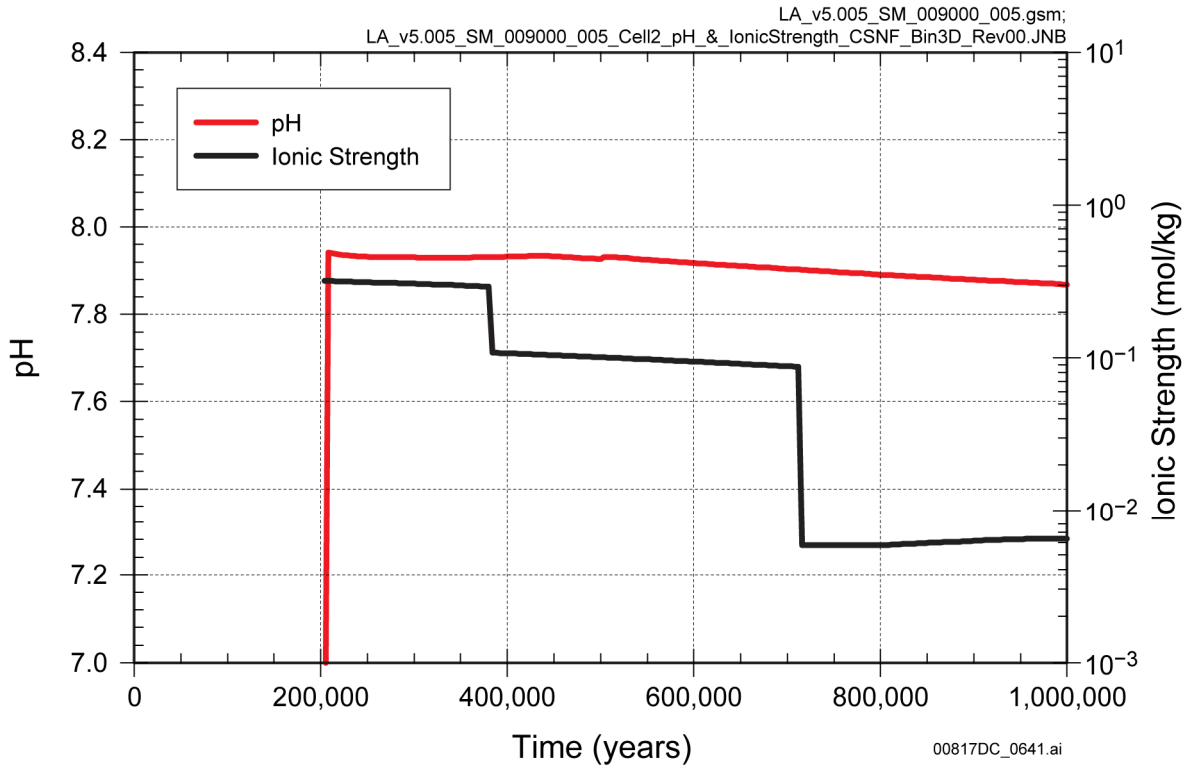
Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

Figure 7.7.1-64[a]. Diffusive Release Rates of (a) ⁹⁹Tc and (b) ²⁴²Pu (Dissolved and Reversibly Associated with Colloids) from CSNF WPs from each Percolation Subregion for Realization 4641 of the Seismic Ground Motion Modeling Case for 1,000,000 Years after Repository Closure



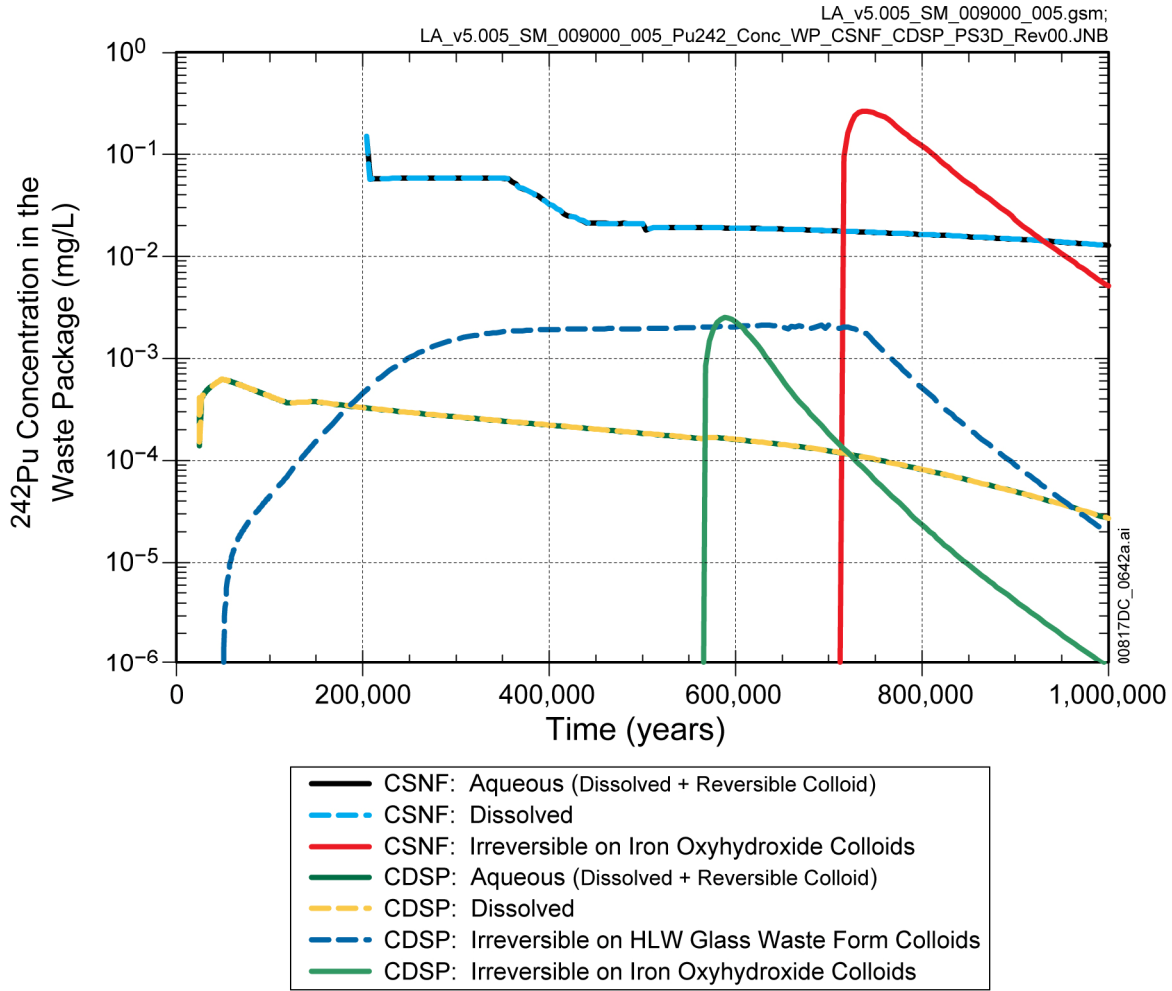
Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

Figure 7.7.1-65[a]. Comparison of ²⁴²Pu Cumulative Mass Released from the Inventory, Mass Sorbed on Corrosion Products, and the Dissolved Concentration in the Corrosion Products Domain for CSNF WPs for Percolation Subregion 3 Seeping Environment for Realization 4641 of the Seismic Ground Motion Modeling Case for 1,000,000 Years after Repository Closure



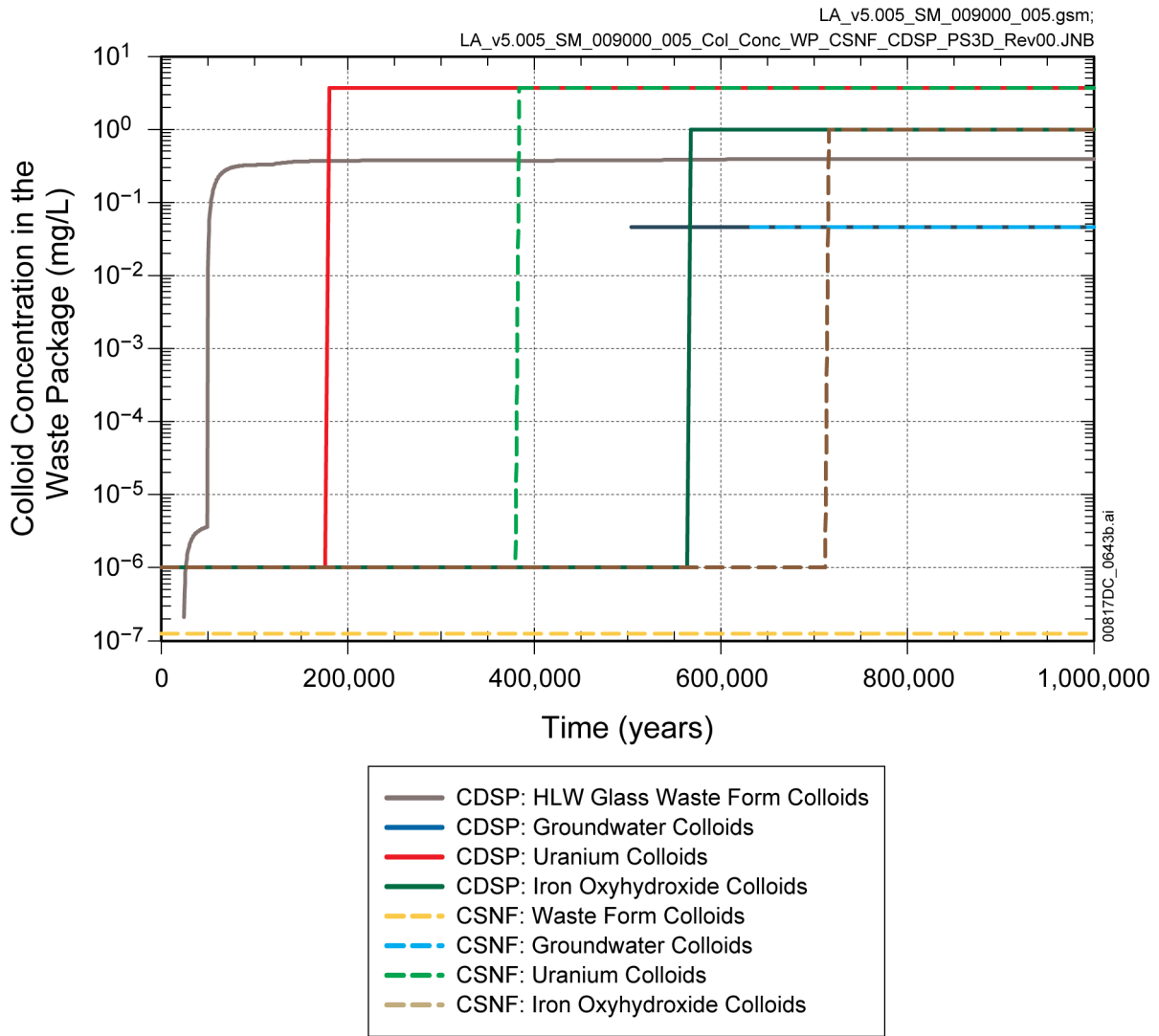
Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

Figure 7.7.1-66[a]. pH and Ionic Strength Profiles in the Corrosion Products Domain for CSNF WPs for Percolation Subregion 3, Seeping Environment for Realization 4641 of the Seismic Ground Motion Modeling Case for 1,000,000 Years after Repository Closure



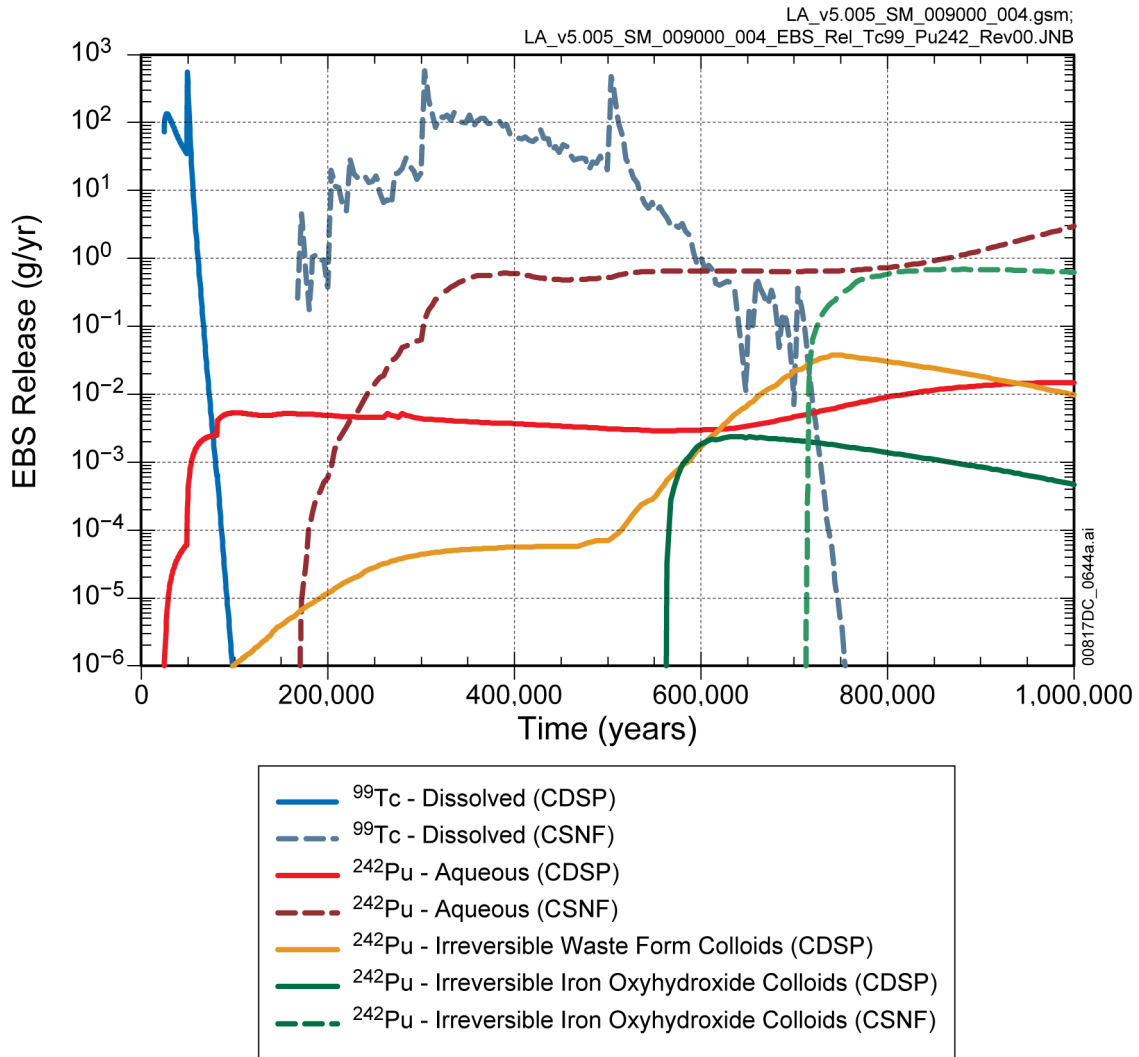
Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

Figure 7.7.1-67[a]. Concentration of ²⁴²Pu in the CSNF and CDSP WPs (Corrosion Products Domain) for Percolation Subregion 3 Seeping Environment for Realization 4641 of the Seismic Ground Motion Modeling Case for 1,000,000 Years after Repository Closure



Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

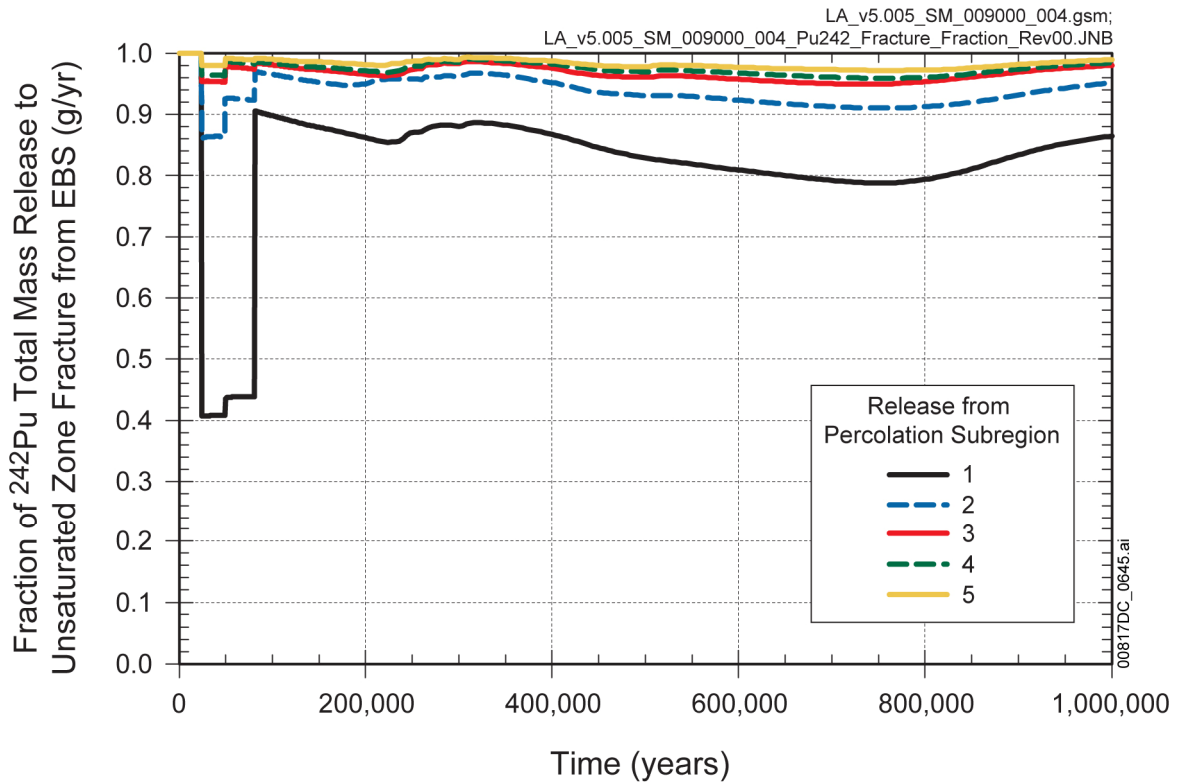
Figure 7.7.1-68[a]. Concentration of Various Colloids in the CSNF and CDSP WPs (Corrosion Products Domain) for Percolation Subregion 3 Seeping Environment for Realization 4641 of the Seismic Ground Motion Modeling Case for 1,000,000 Years after Repository Closure



Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

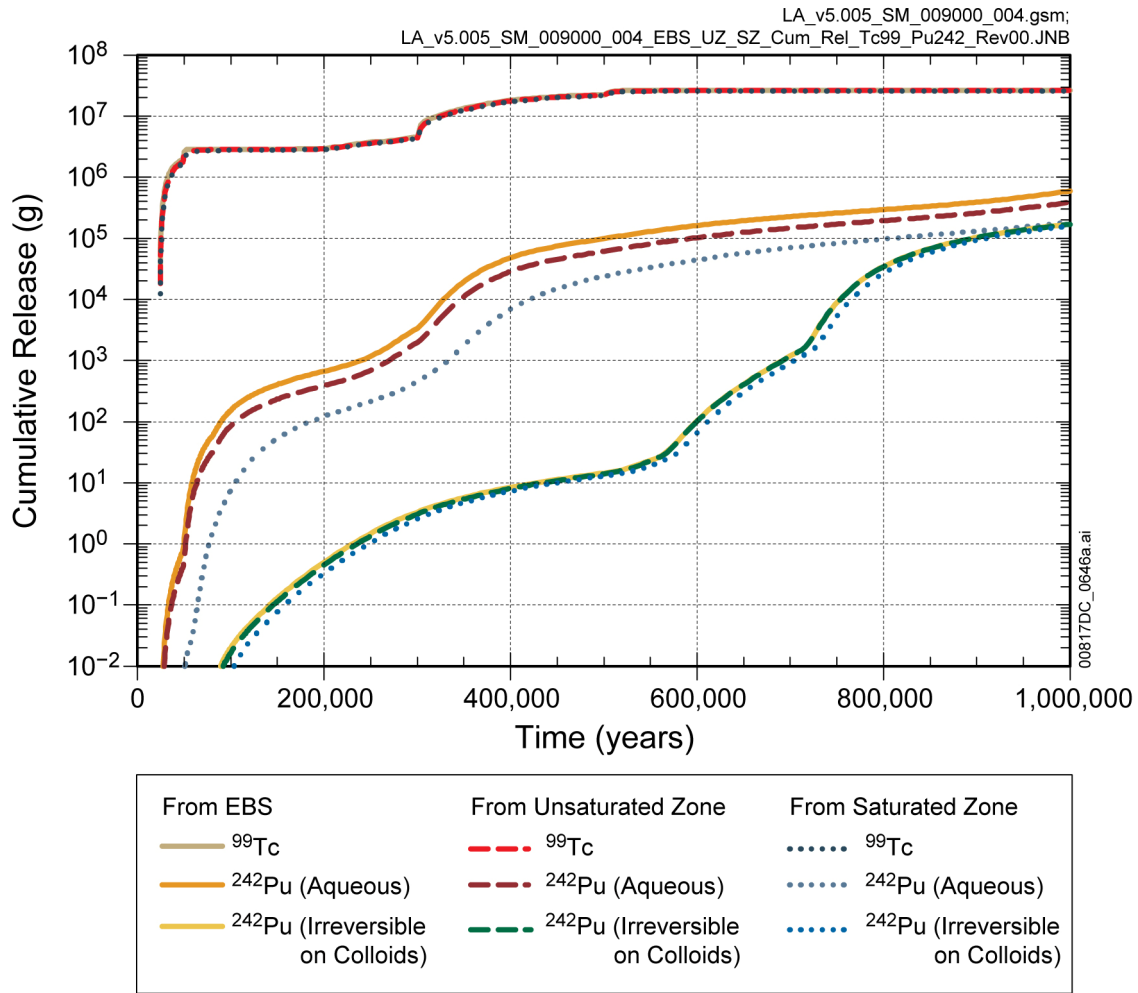
NOTE: Plutonium dissolved and reversibly associated with colloids is denoted as aqueous.

Figure 7.7.1-69[a]. EBS Release Rates from CSNF and CDSP WPs (All Percolation Subregions) for Realization 4641 of the Seismic Ground Motion Modeling Case for 1,000,000 Years after Repository Closure



Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

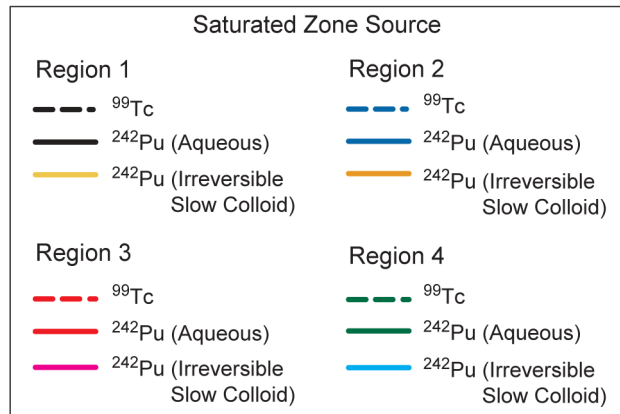
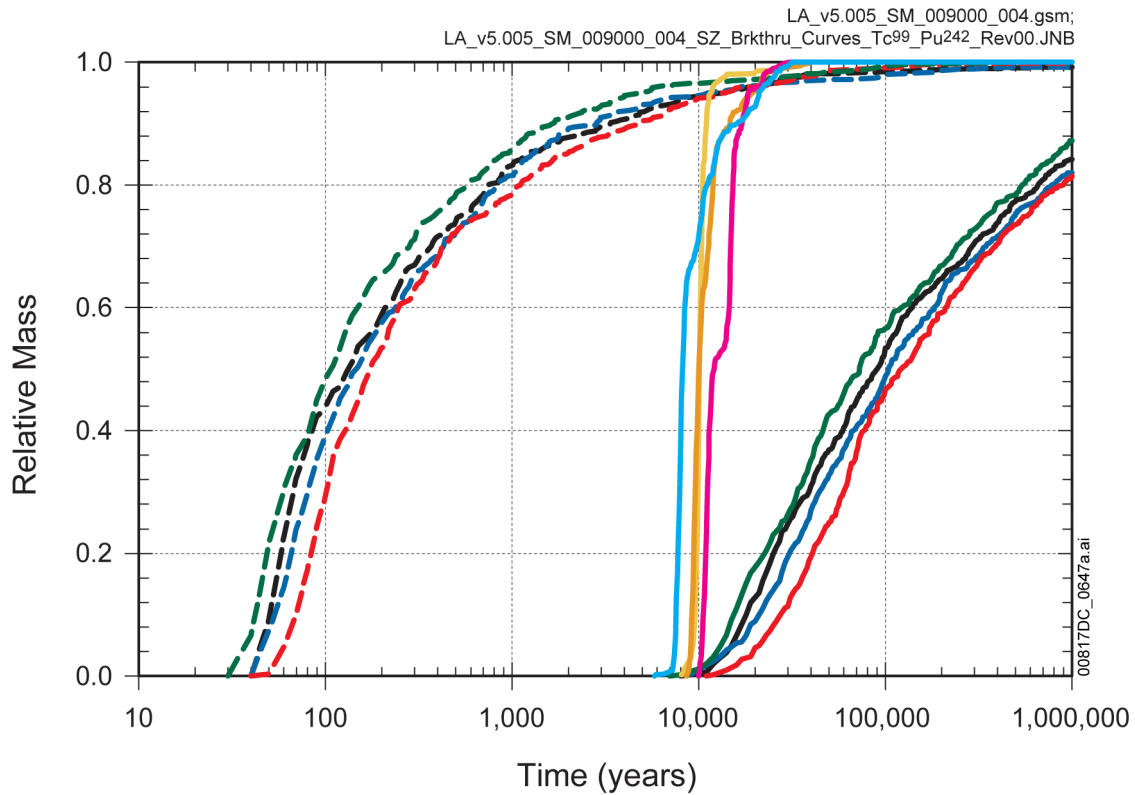
Figure 7.7.1-70[a]. Fraction of ²⁴²Pu Mass Going to Unsaturated Zone Fractures at the Repository Horizon for Realization 4641 of the Seismic Ground Motion Modeling Case for 1,000,000 Years after Repository Closure



Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

NOTE: Plutonium dissolved and reversibly associated with colloids is denoted as aqueous.

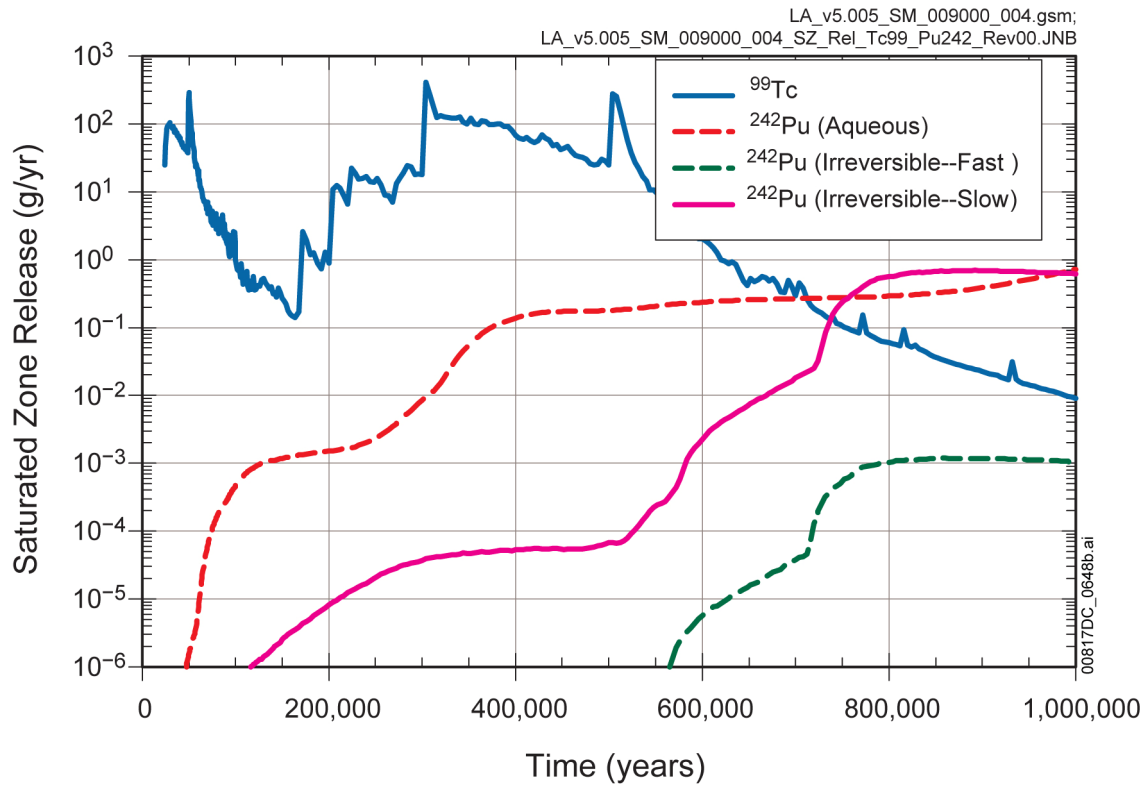
Figure 7.7.1-71[a]. Cumulative Mass Release of ^{99}Tc and ^{242}Pu from the EBS, Unsaturated Zone, and Saturated Zone for Realization 4641 of the Seismic Ground Motion Modeling Case for 1,000,000 Years after Repository Closure



Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

NOTES: The SZ breakthrough curve #122 is used in realization 4641. Plutonium dissolved and reversibly associated with colloids are denoted as aqueous.

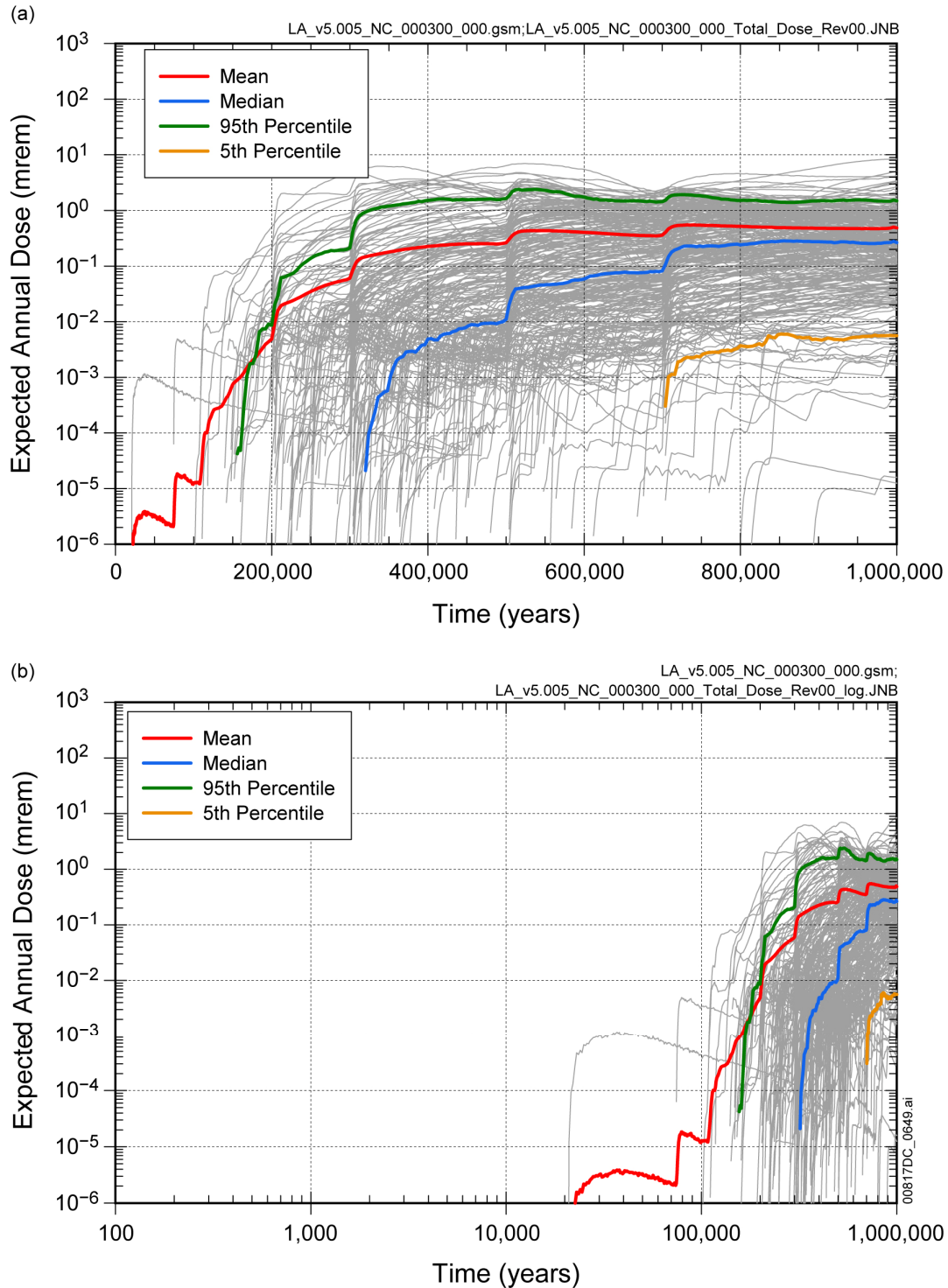
Figure 7.7.1-72[a]. Comparison of Saturated Zone Breakthrough Curves for ⁹⁹Tc and ²⁴²Pu for All Four Saturated Zone Source Regions for Realization 4641 of the Seismic Ground Motion Modeling Case for 1,000,000 Years after Repository Closure



Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

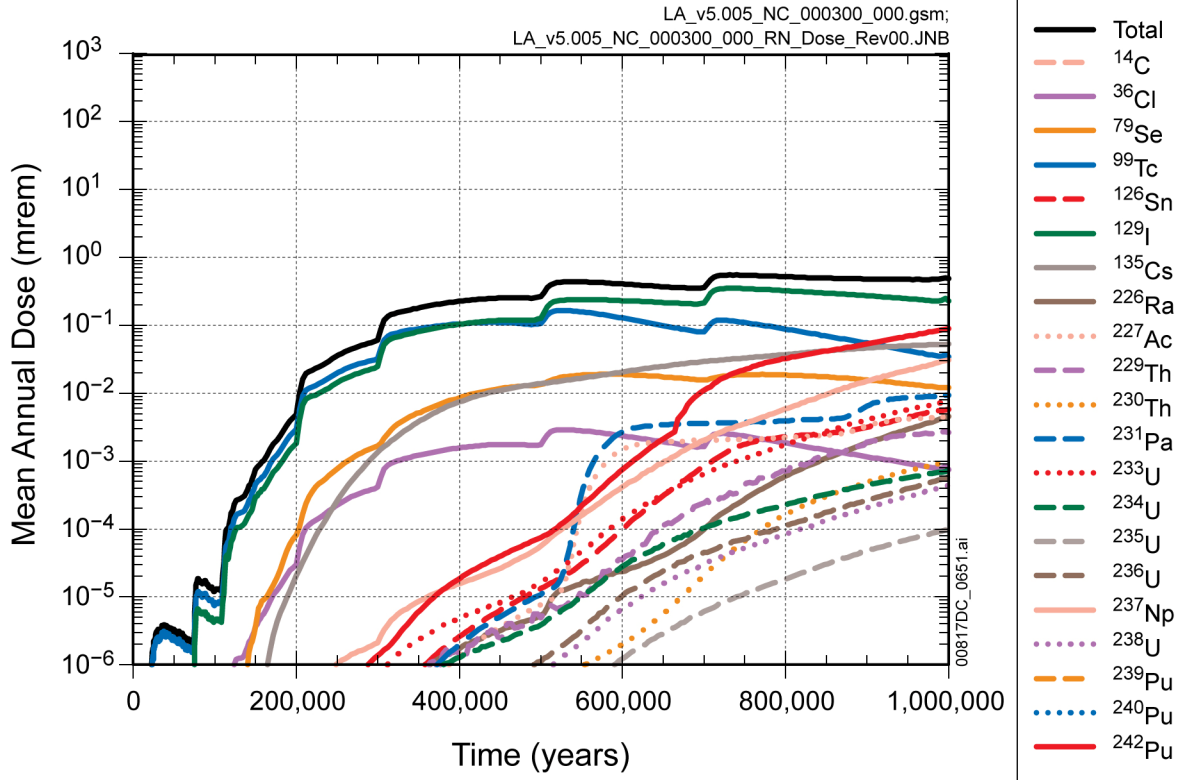
NOTE: Plutonium dissolved and reversibly associated with colloids is denoted as aqueous.

Figure 7.7.1-73[a]. Saturated Zone Release at the Location of the RMEI of ⁹⁹Tc and ²⁴²Pu for Realization 4641 of the Seismic Ground Motion Modeling Case for 1,000,000 Years after Repository Closure



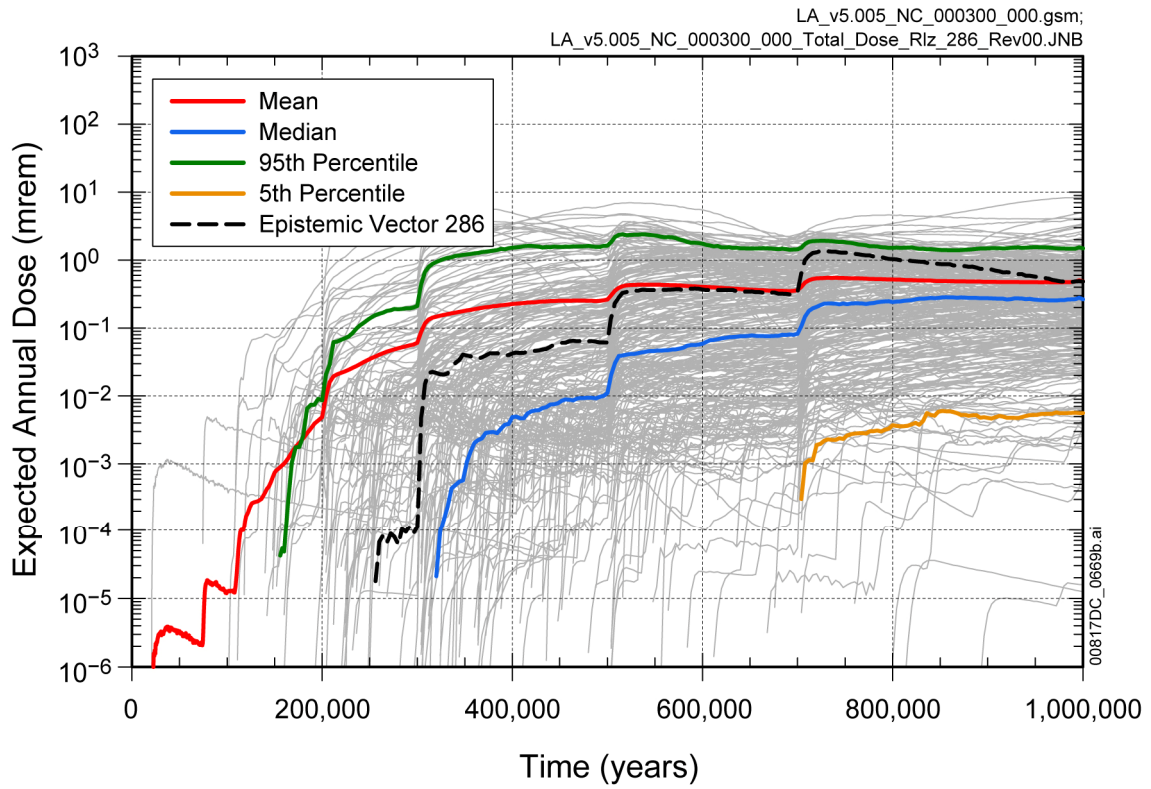
Source: Output DTN: MO0710ADTSPAWO.000 [DIRS 183752].

Figure 7.7.1-74[a]. Expected Annual Dose from 300 Epistemic Uncertainty Vectors, Along with their Quantiles for the Nominal Modeling Case for 1,000,000 Years after Repository Closure in (a) Linear Time and (b) Log Time



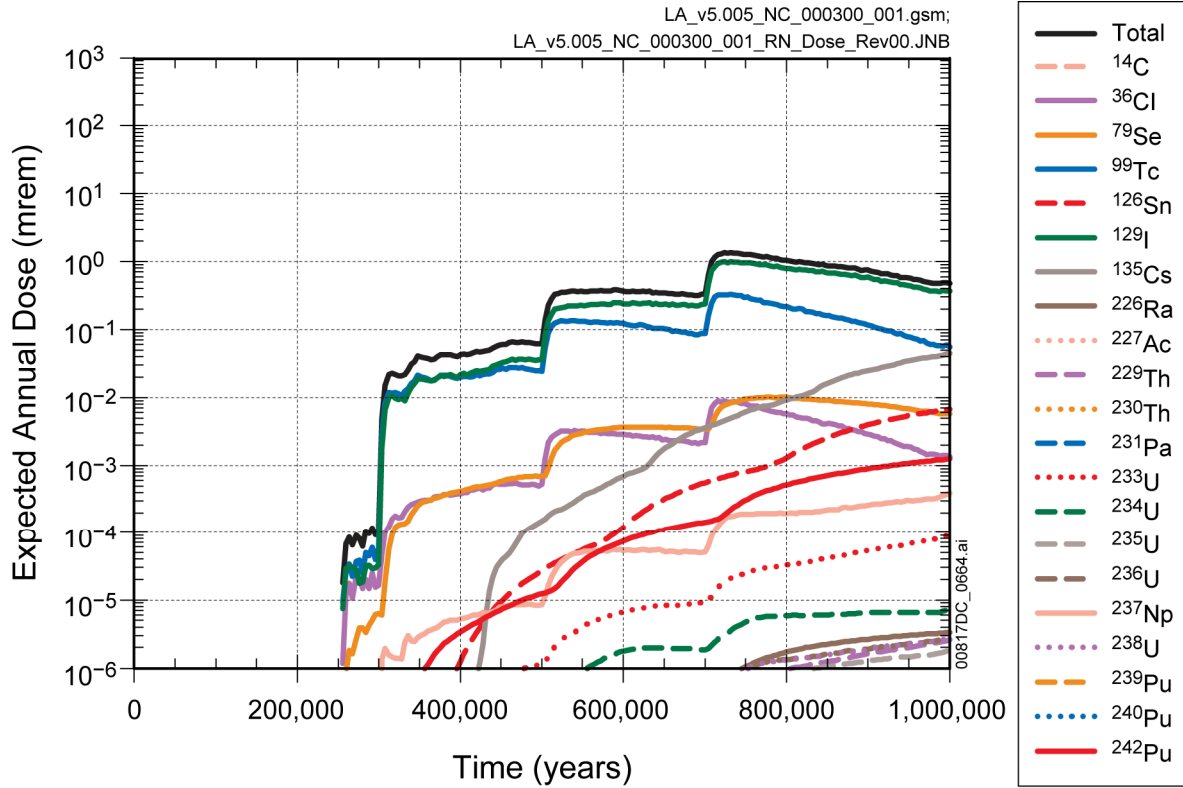
Source: Output DTN: MO0710ADTSPAWO.000 [DIRS 183752].

Figure 7.7.1-75[a]. Contribution of Individual Radionuclides to Mean Annual Dose for the Nominal Modeling Case for 1,000,000 Years after Repository Closure



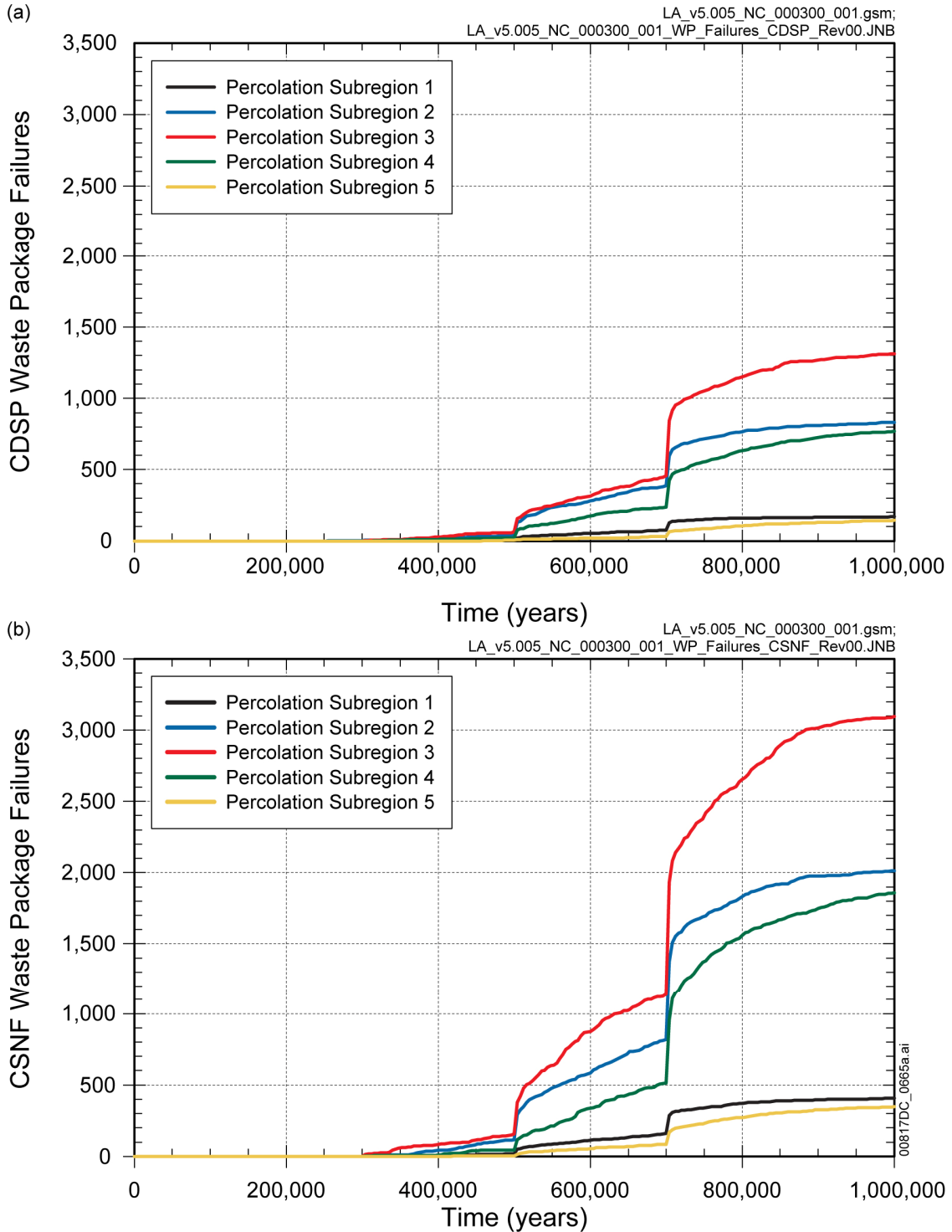
Source: Output DTN: MO0710ADTSPAWO.000 [DIRS 183752].

Figure 7.7.1-76[a]. Expected Annual Dose from 300 Epistemic Uncertainty Vectors, Along with their Quantiles and Expected Dose from Epistemic Uncertainty Vector 286 for the Nominal Modeling Case for 1,000,000 Years after Repository Closure



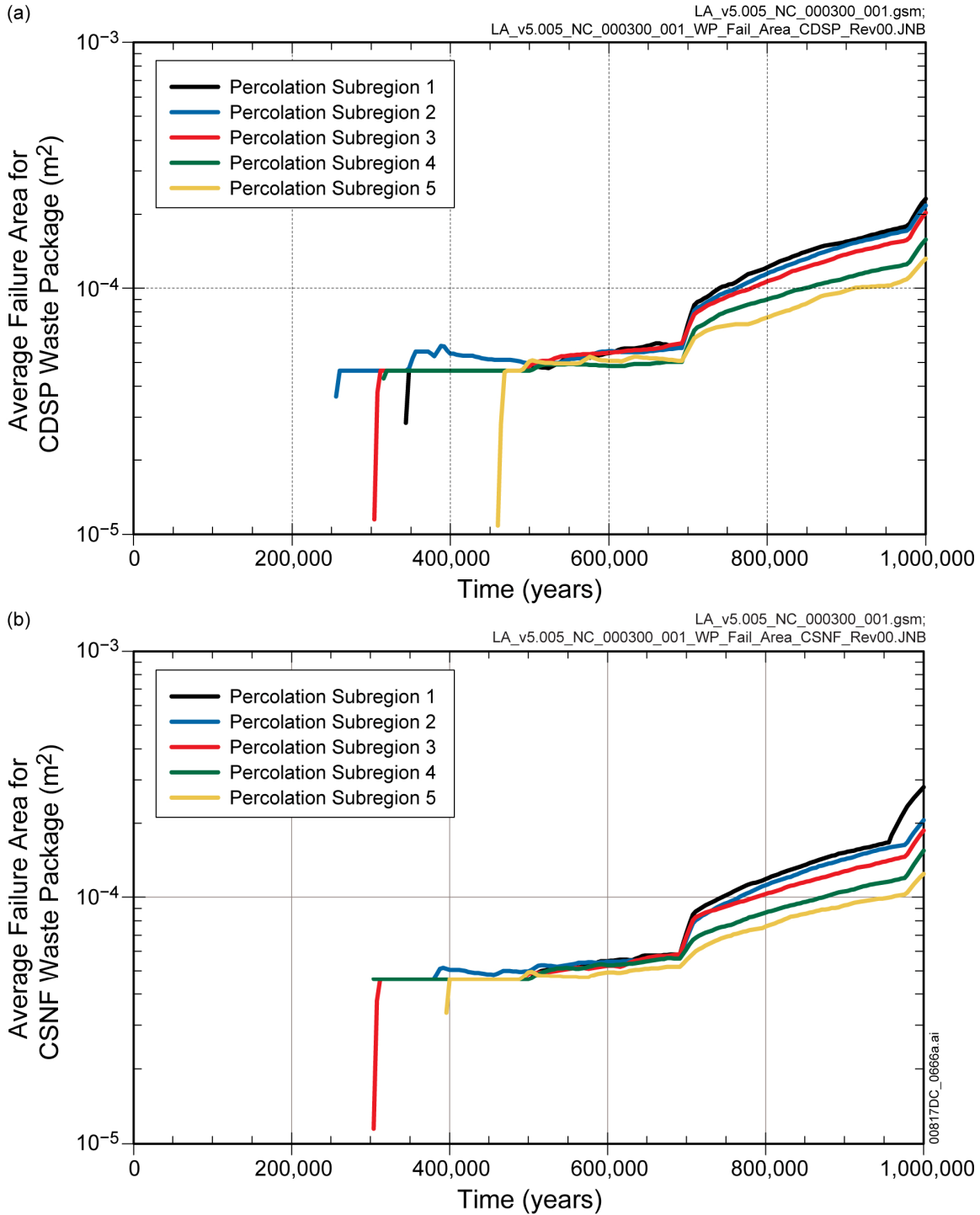
Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

Figure 7.7.1-77[a]. Contribution of Individual Radionuclides to Expected Annual Dose for Realization 286 of the Nominal Modeling Case for 1,000,000 Years after Repository Closure



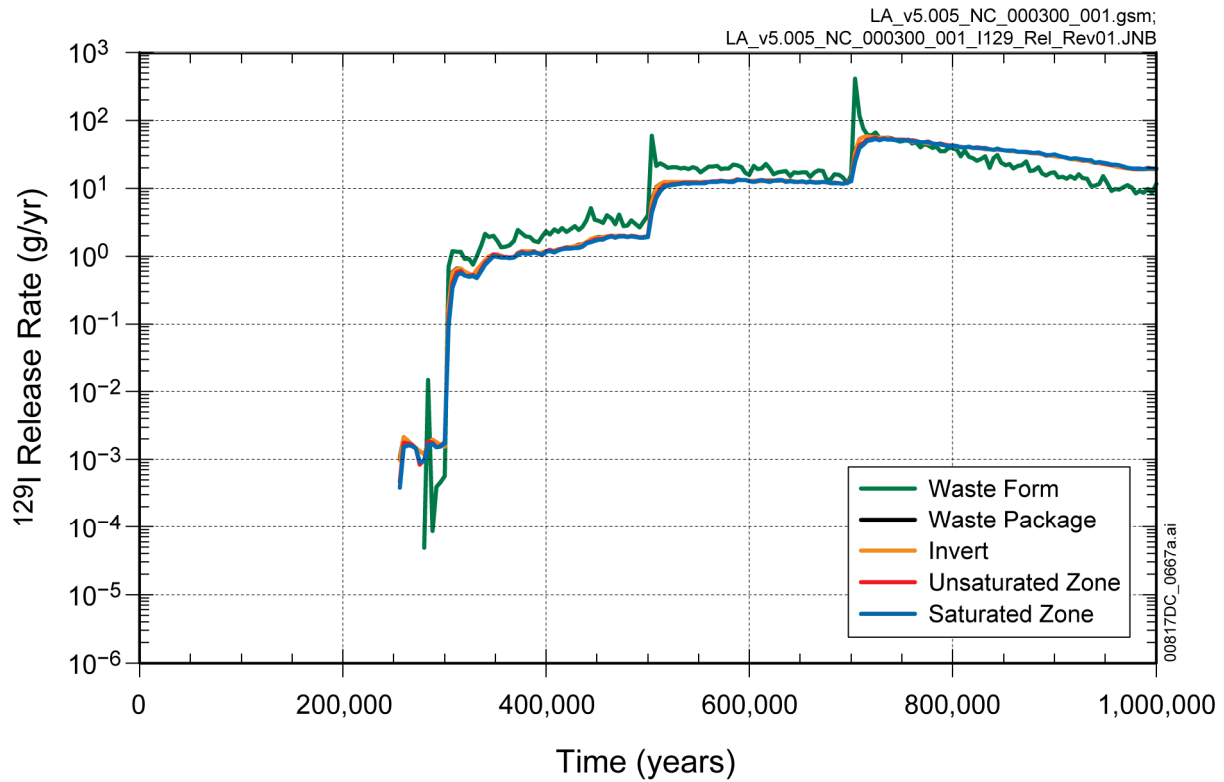
Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

Figure 7.7-1-78[a]. Expected Number of (a) CDSP WP Failures and (b) CSNF WP Failures by Percolation Subregion for Realization 286 of the Nominal Modeling Case for 1,000,000 Years after Repository Closure



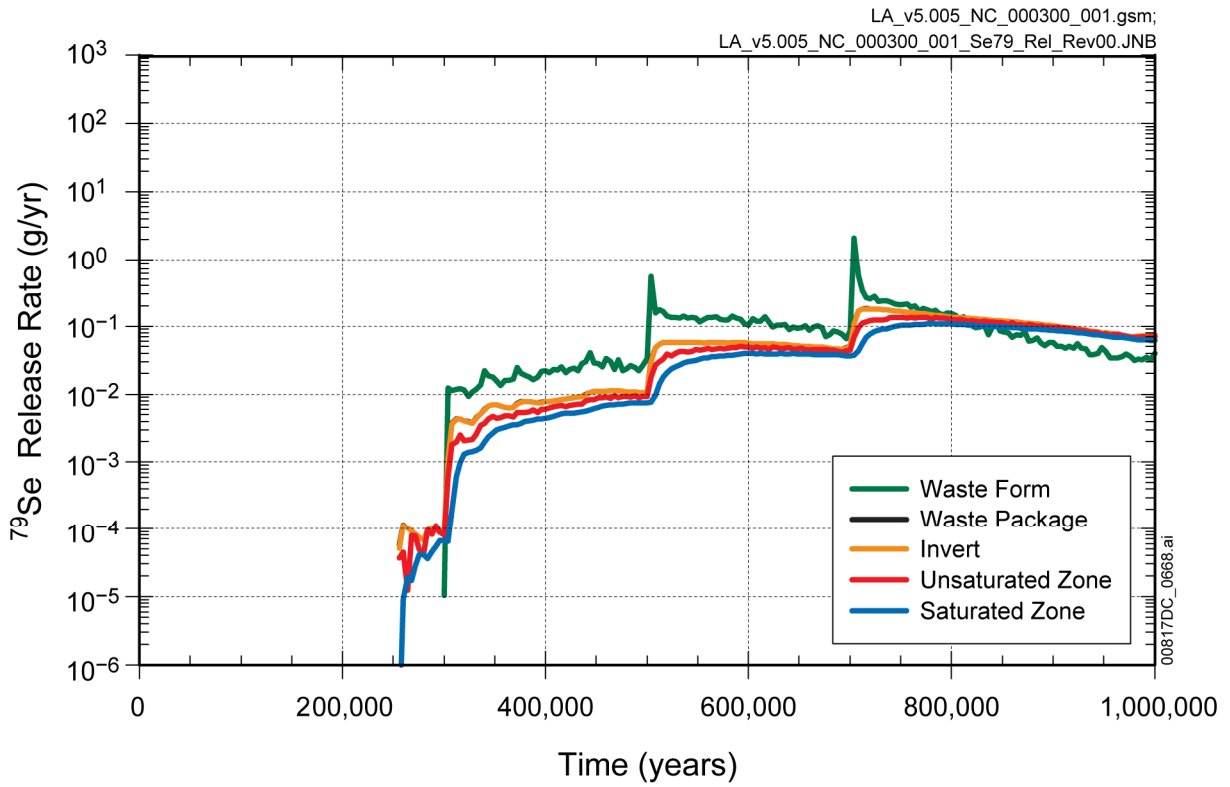
Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

Figure 7.7-179[a]. Average Failure Area for (a) CDSP WPs and (b) CSNF WPs by Percolation Subregion for Realization 286 of the Nominal Modeling Case for 1,000,000 Years after Repository Closure



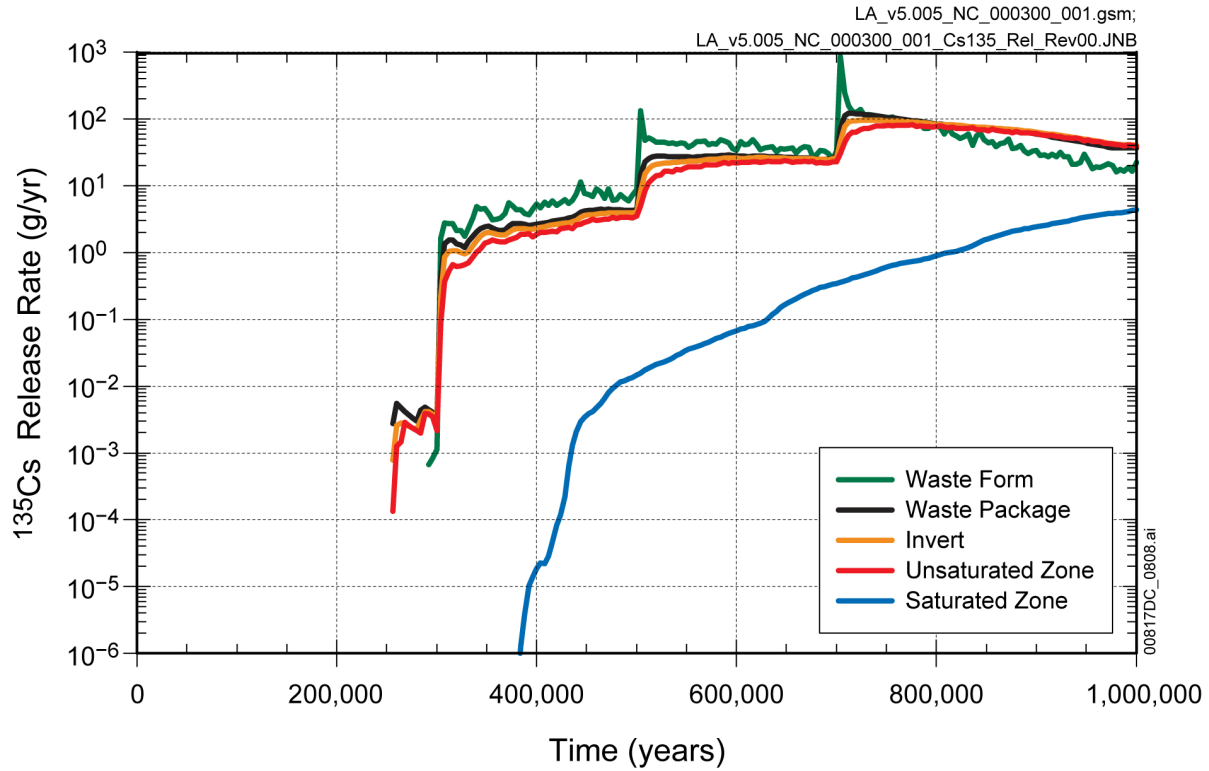
Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

Figure 7.7.1-80[a]. Release Rates of ¹²⁹I from the Waste Form, Waste Package, Invert, Unsaturated Zone, and Saturated Zone for Realization 286 of the Nominal Modeling Case for 1,000,000 Years after Repository Closure



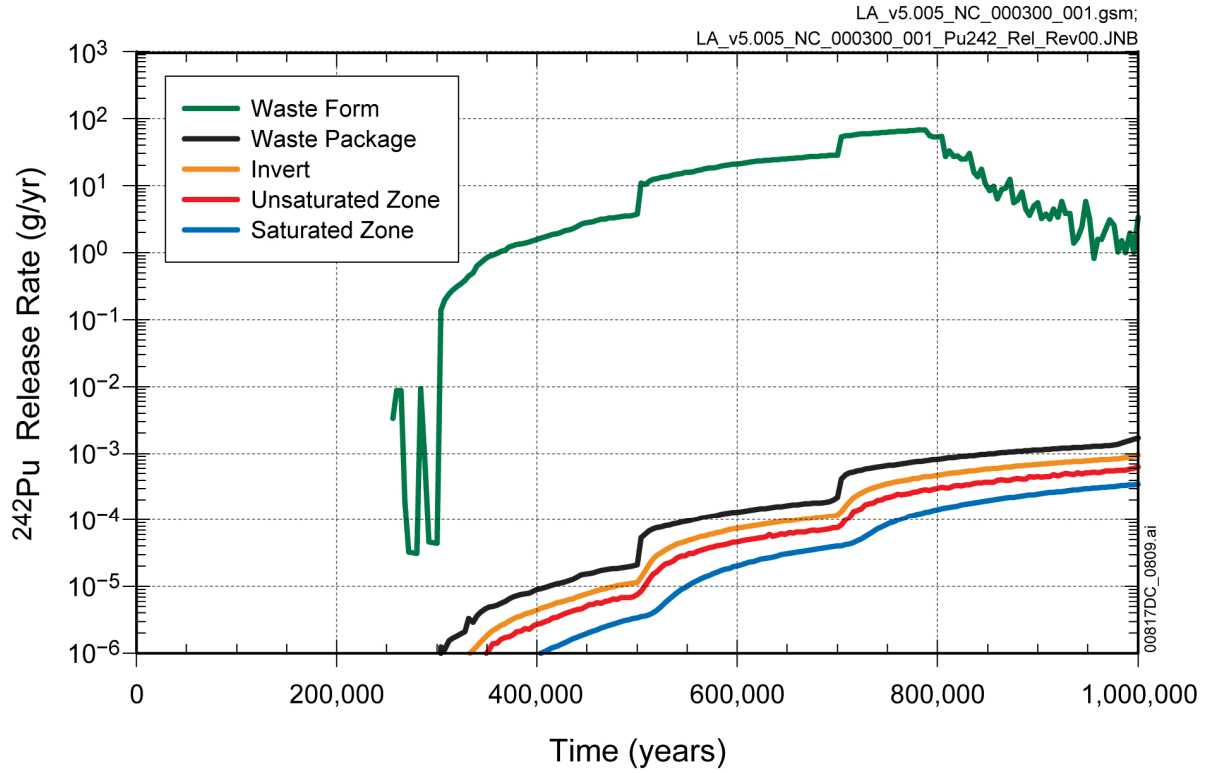
Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

Figure 7.7.1-81[a]. Release Rates of ⁷⁹Se from the Waste Form, Waste Package, Invert, Unsaturated Zone, and Saturated Zone for Realization 286 of the Nominal Modeling Case for 1,000,000 Years after Repository Closure



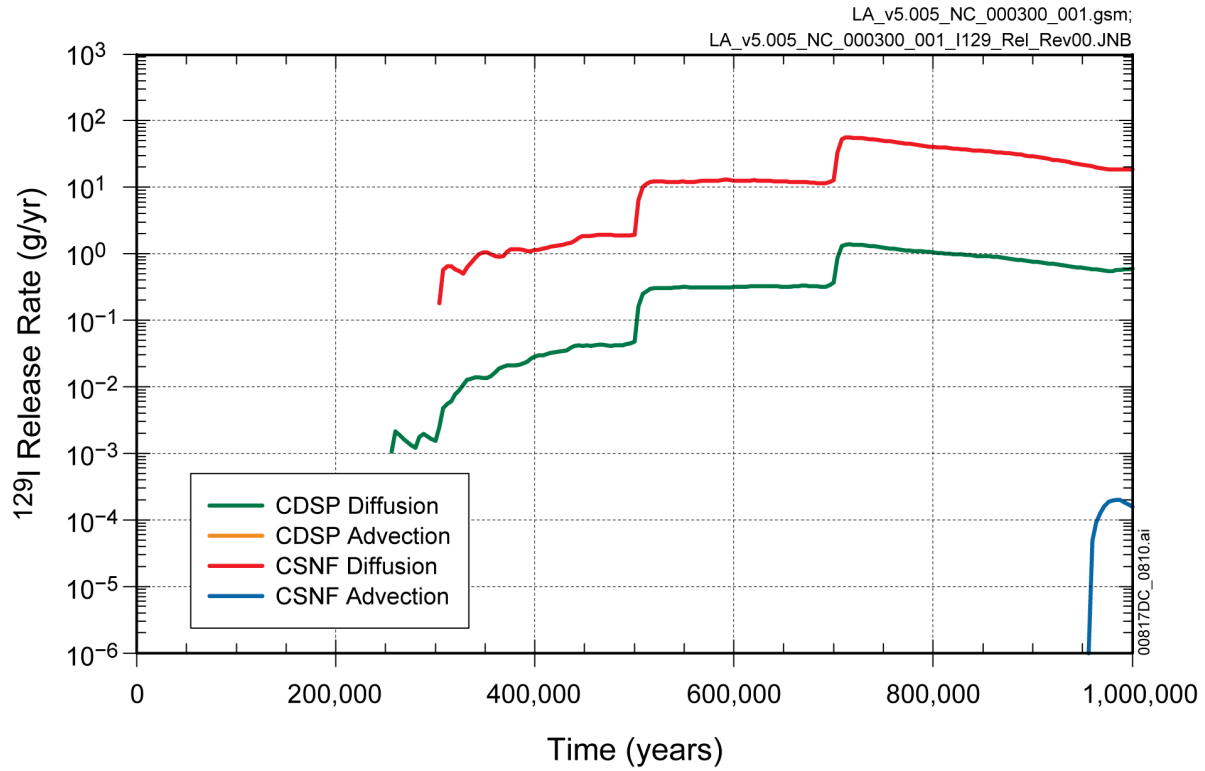
Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

Figure 7.7.1-82[a]. Release Rates of ¹³⁵Cs from the Waste Form, Waste Package, Invert, Unsaturated Zone, and Saturated Zone for Realization 286 of the Nominal Modeling Case for 1,000,000 Years after Repository Closure



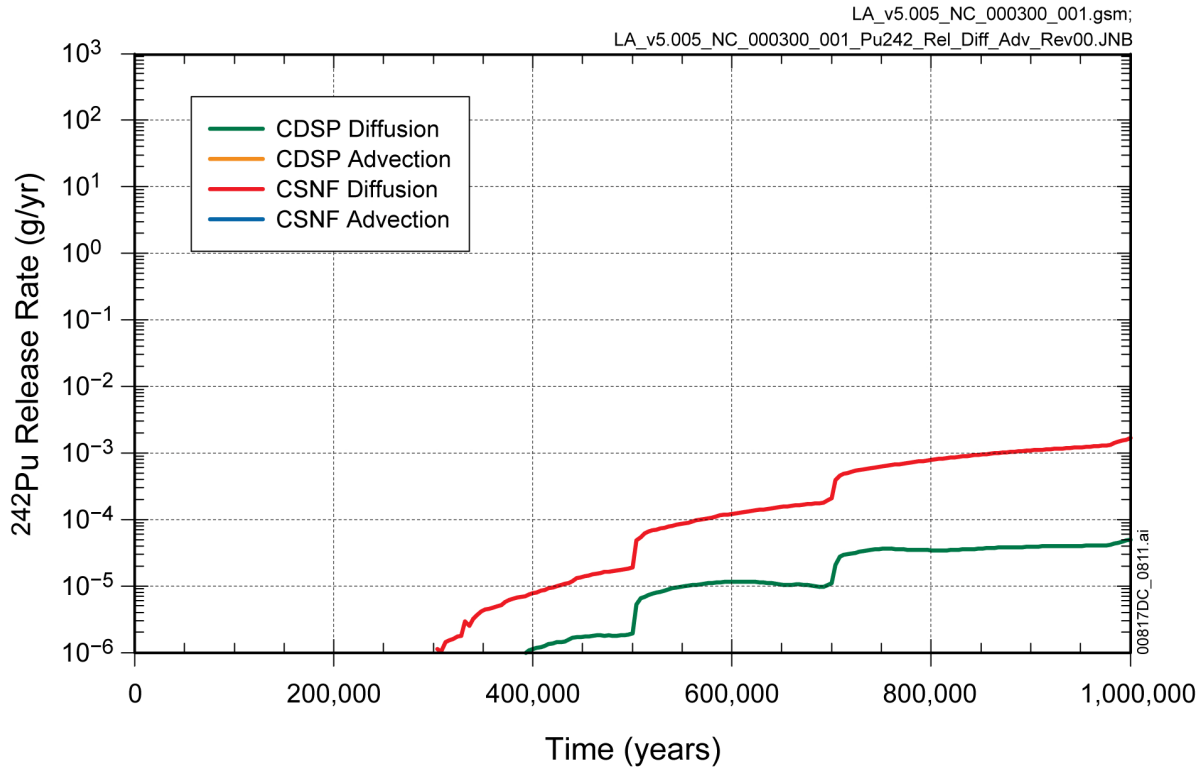
Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

Figure 7.7.1-83[a]. Release Rates of ²⁴²Pu (Dissolved and Reversibly Associated with Colloids) from the Waste Form, Waste Package, Invert, Unsaturated Zone, and Saturated Zone for Realization 286 of the Nominal Modeling Case for 1,000,000 Years after Repository Closure



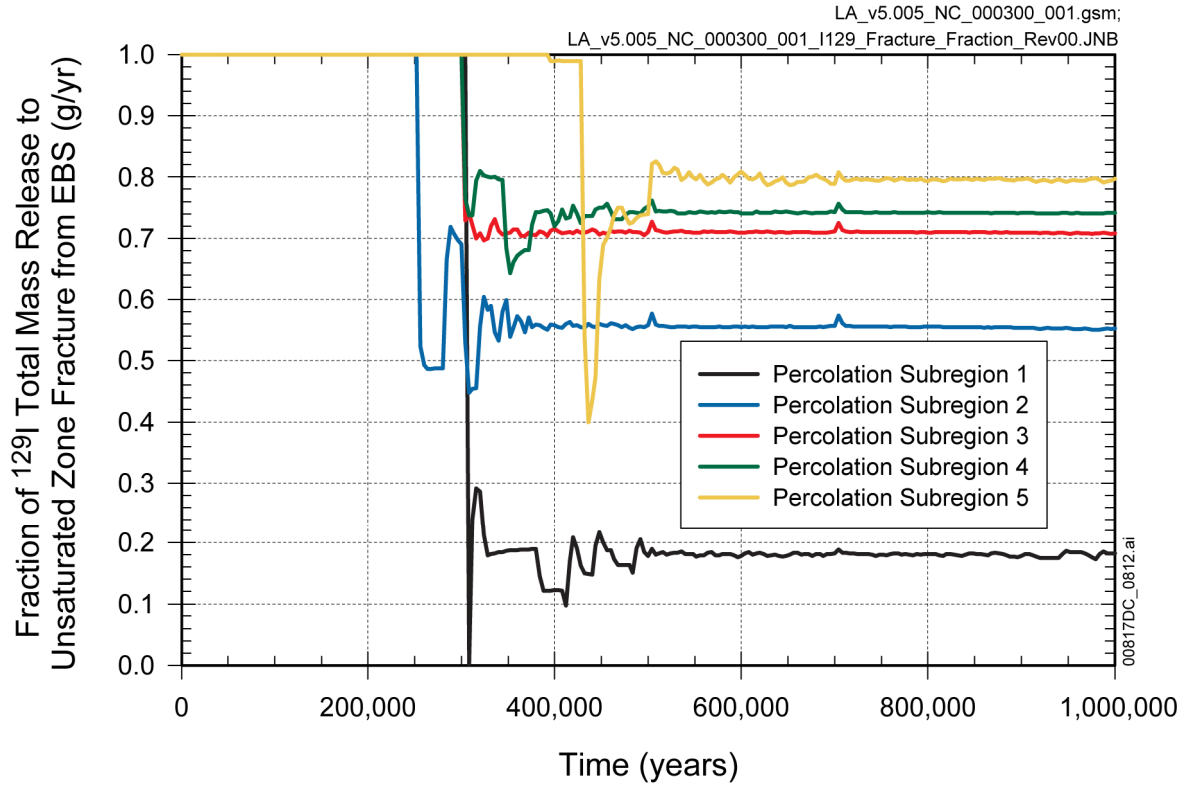
Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

Figure 7.7.1-84[a]. Diffusive and Advective Release Rates of ¹²⁹I from the CDSP and CSNF Waste Packages for Realization 286 of the Nominal Modeling Case for 1,000,000 Years after Repository Closure



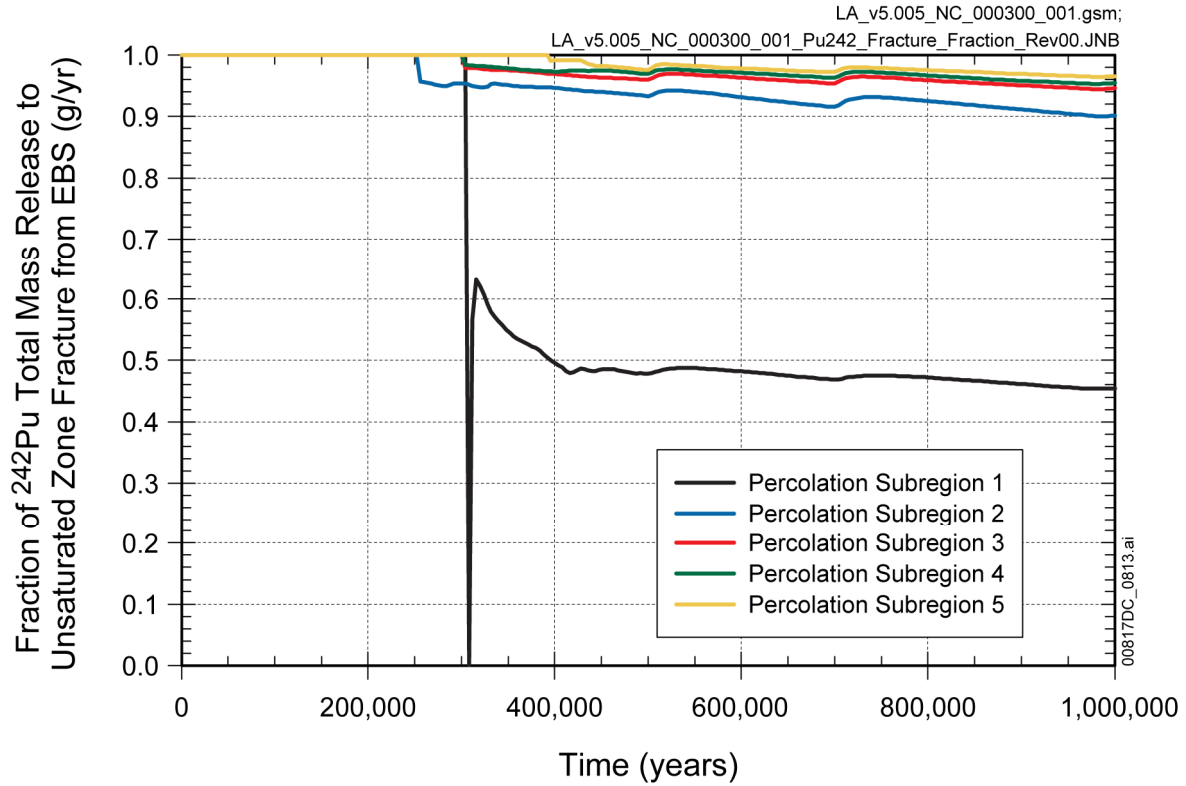
Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

Figure 7.7.1-85[a]. Diffusive and Advective Release Rates of ²⁴²Pu (Dissolved and Reversibly Associated with Colloids) from the CDSP and CSNF Waste Packages for Realization 286 of the Nominal Modeling Case for 1,000,000 Years after Repository Closure



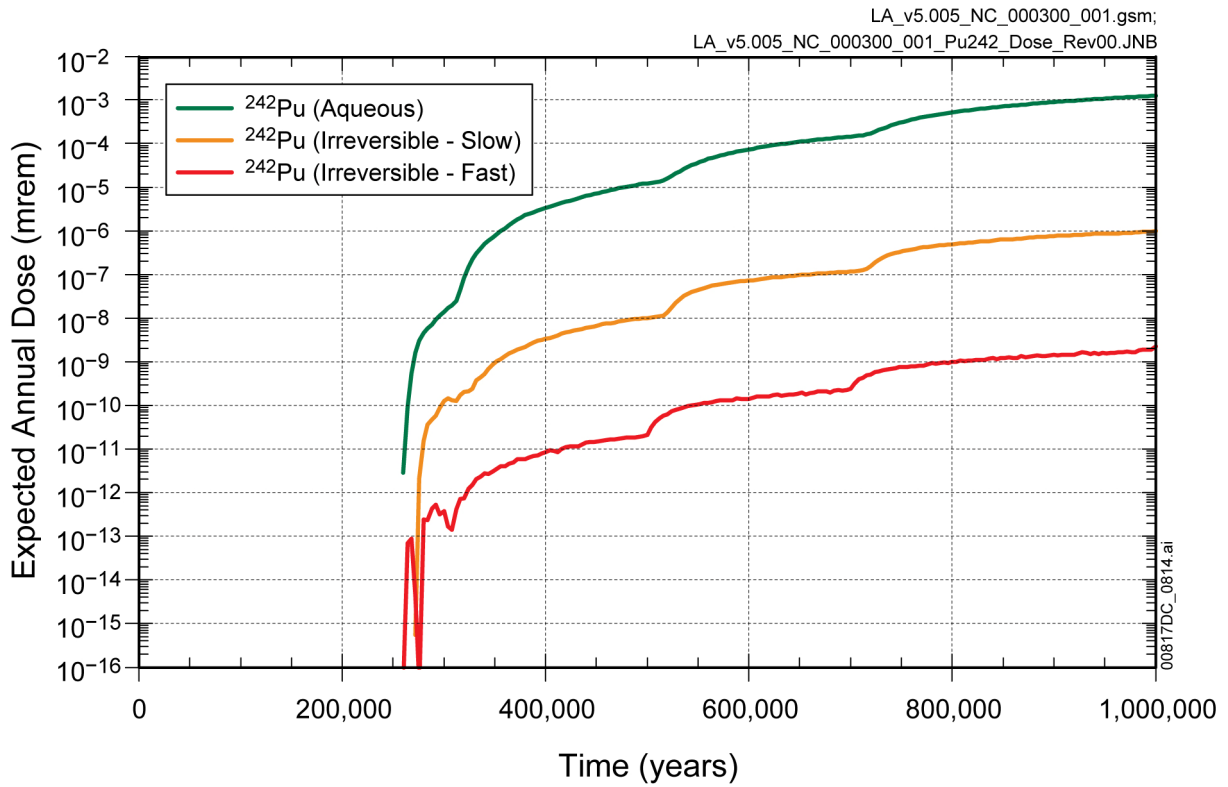
Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

Figure 7.7.1-86[a]. Fraction of ^{129}I Mass Going to Unsaturated Zone Fractures at the Repository Horizon for Realization 286 of the Nominal Modeling Case for 1,000,000 Years after Repository Closure



Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

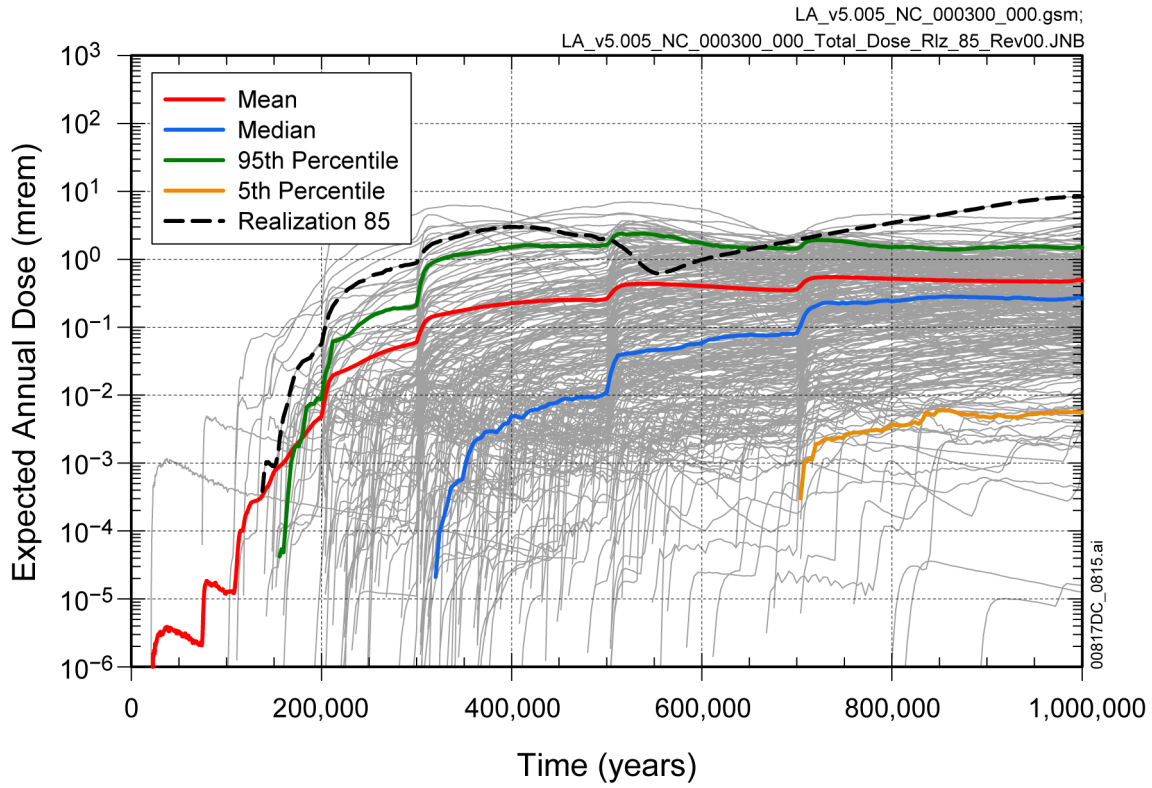
Figure 7.7.1-87[a]. Fraction of ²⁴²Pu Mass Going to Unsaturated Zone Fractures at the Repository Horizon for Realization 286 of the Nominal Modeling Case for 1,000,000 Years after Repository Closure



Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

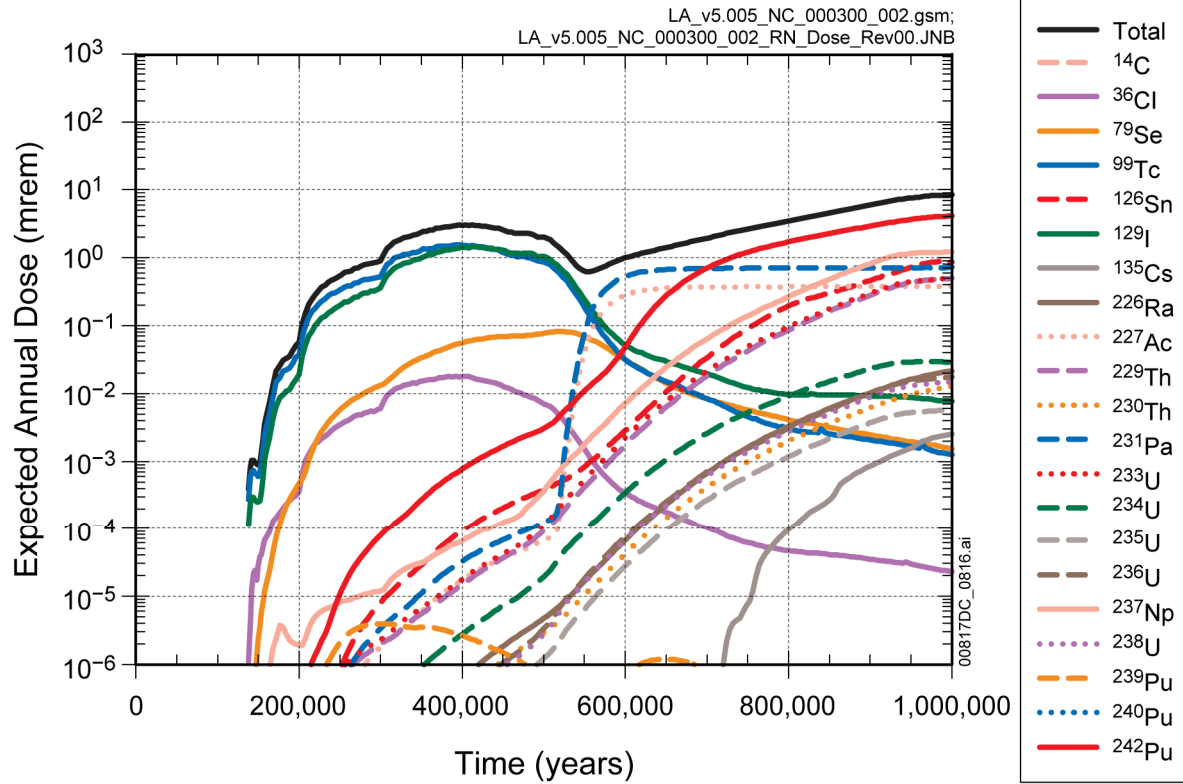
NOTE: Plutonium dissolved and reversibly associated with colloids is denoted as aqueous.

Figure 7.7.1-88[a]. Expected Annual Dose for Aqueous ²⁴²Pu and Slow and Fast Fractions of Irreversibly Sorbed Colloidal ²⁴²Pu for Realization 286 of the Nominal Modeling Case for 1,000,000 Years after Repository Closure



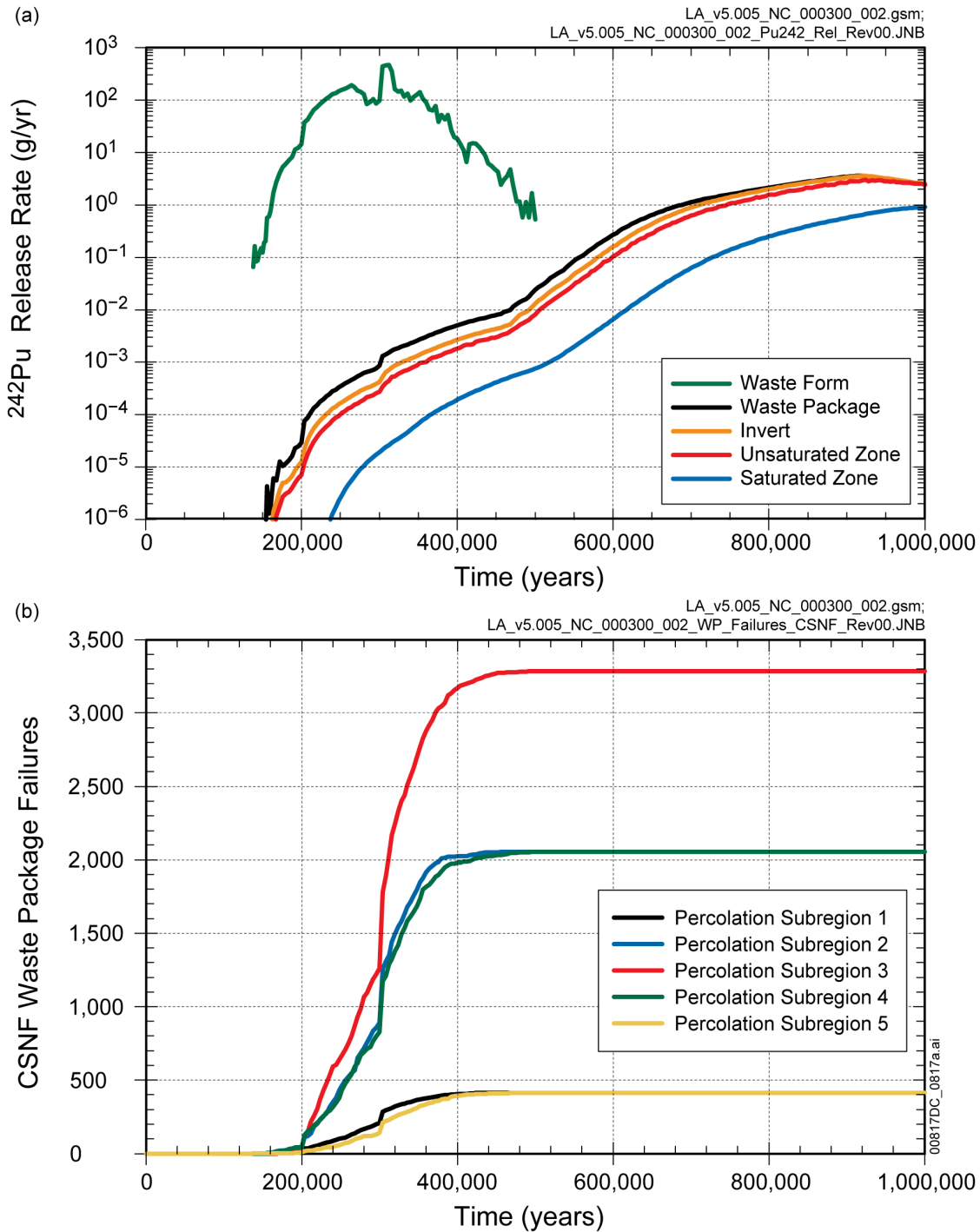
Source: Output DTN: MO0710ADTSPAWO.000 [DIRS 183752].

Figure 7.7.1-89[a]. Expected Annual Dose from the 300 Epistemic Uncertainty Vectors along with their Quantiles and Expected Dose from Epistemic Uncertainty Vector 85 for the Nominal Modeling Case for 1,000,000 Years after Repository Closure



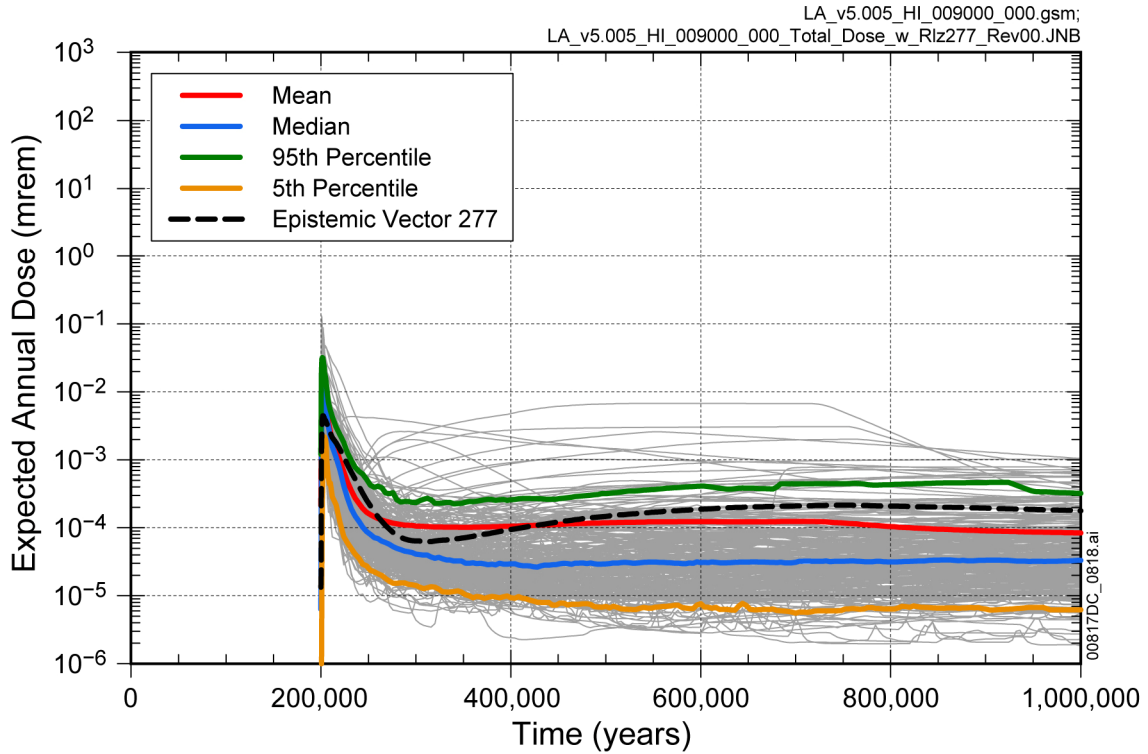
Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

Figure 7.7.1-90[a]. Contribution of Individual Radionuclides to Expected Annual Dose of Realization 85 of the Nominal Modeling Case for 1,000,000 Years after Repository Closure



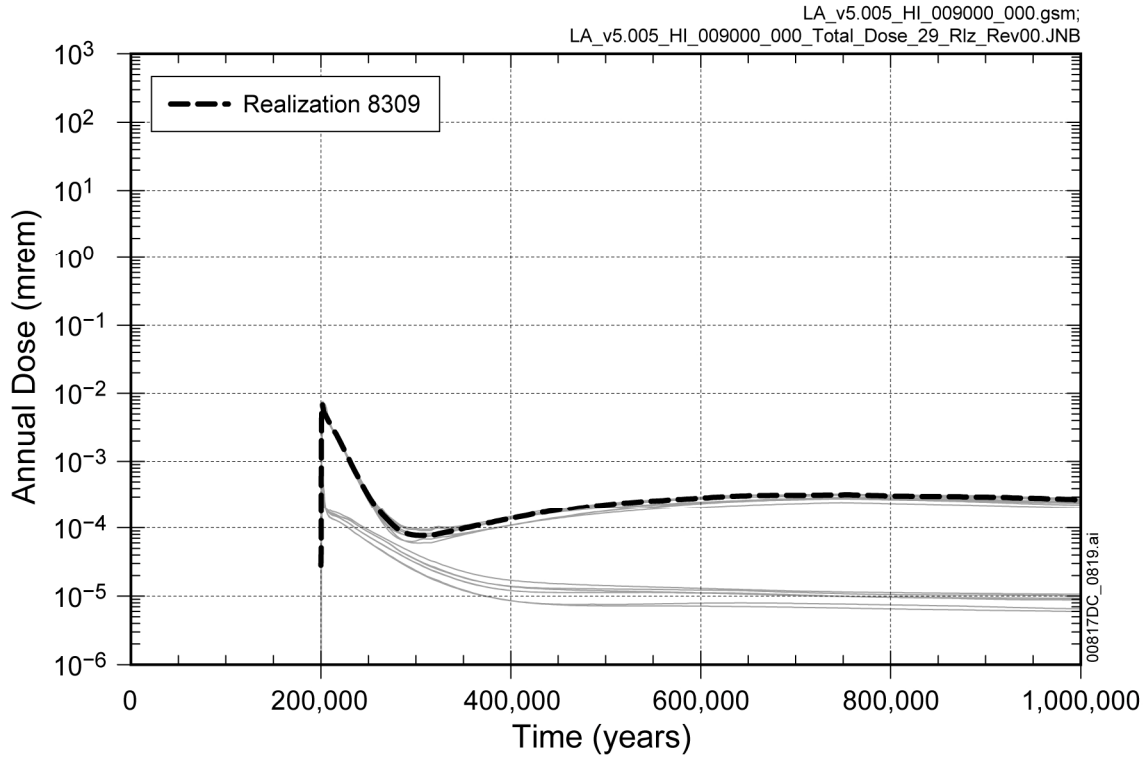
Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

Figure 7.7.1-91[a]. (a) Release Rates of ^{242}Pu (Dissolved and Reversibly Associated with Colloids) from the Waste Form, Waste Package, Invert, Unsaturated Zone, and Saturated Zone, and (b) CSNF WP Failure History for Realization 85 of the Nominal Modeling Case for 1,000,000 Years after Repository Closure



Source: Output DTN: MO0710ADTSPAWO.000 [DIRS 183752].

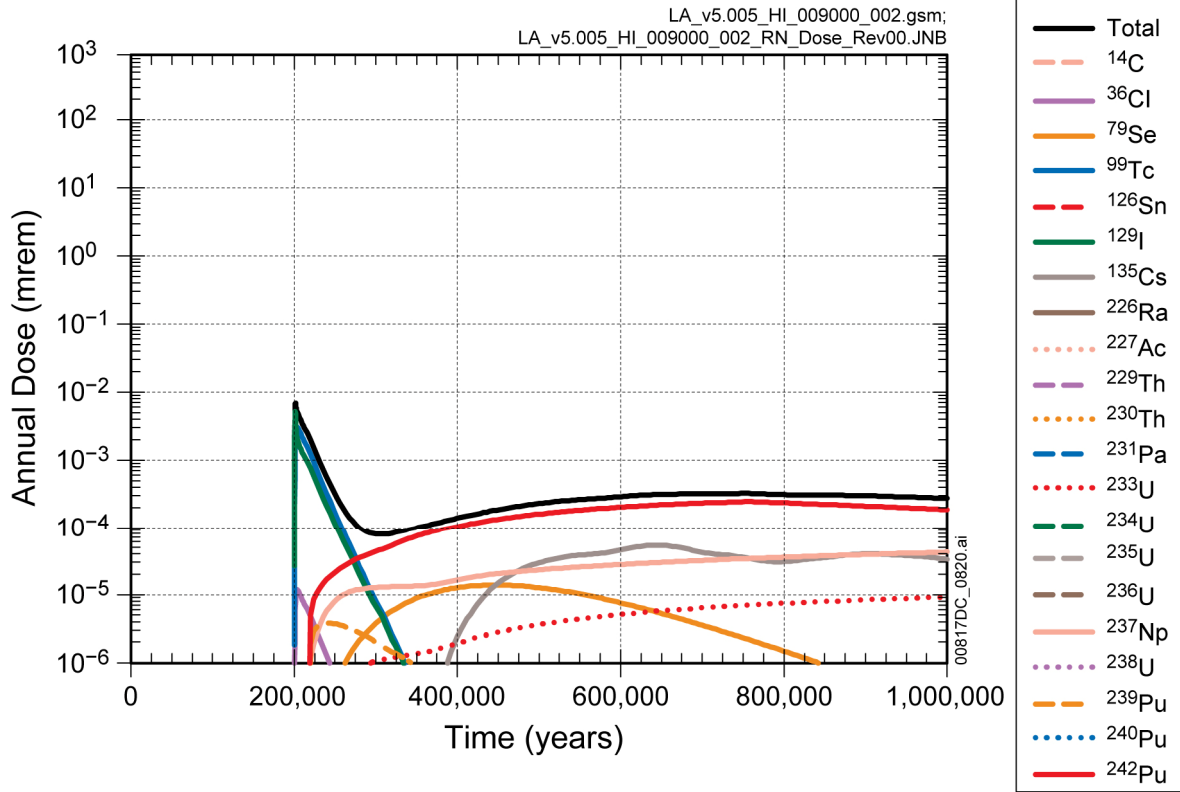
Figure 7.7.1-92[a]. Expected Annual Dose from the 300 Epistemic Uncertainty Vectors along with their Quantiles and Expected Dose from Epistemic Uncertainty Vector 277 for the Human Intrusion Modeling Case for 1,000,000 Years after Repository Closure



Source: Output DTN: MO0710ADTSPAWO.000 [DIRS 183752].

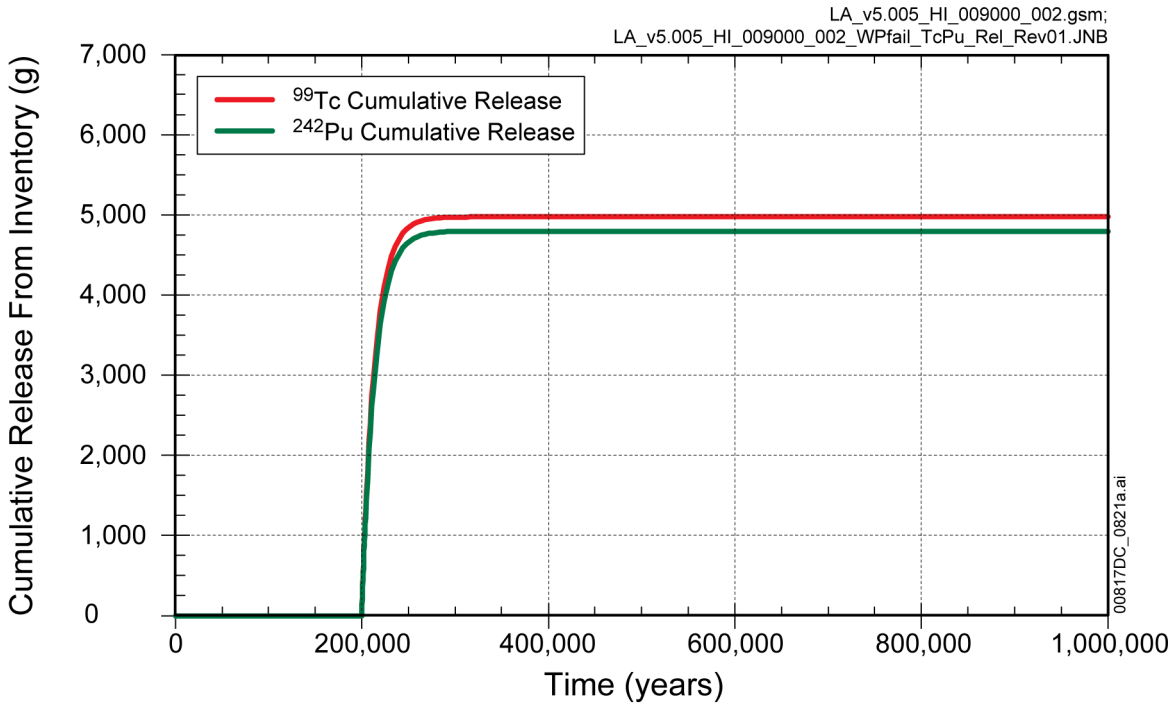
NOTE: The dashed line is the annual dose from aleatory vector 29, which is equivalent to GoldSim realization 8309.

Figure 7.7.1-93[a]. Annual Dose from the Thirty Aleatory Vectors Associated with the Epistemic Uncertainty Vector 277 for the Human Intrusion Modeling Case for 1,000,000 Years after Repository Closure



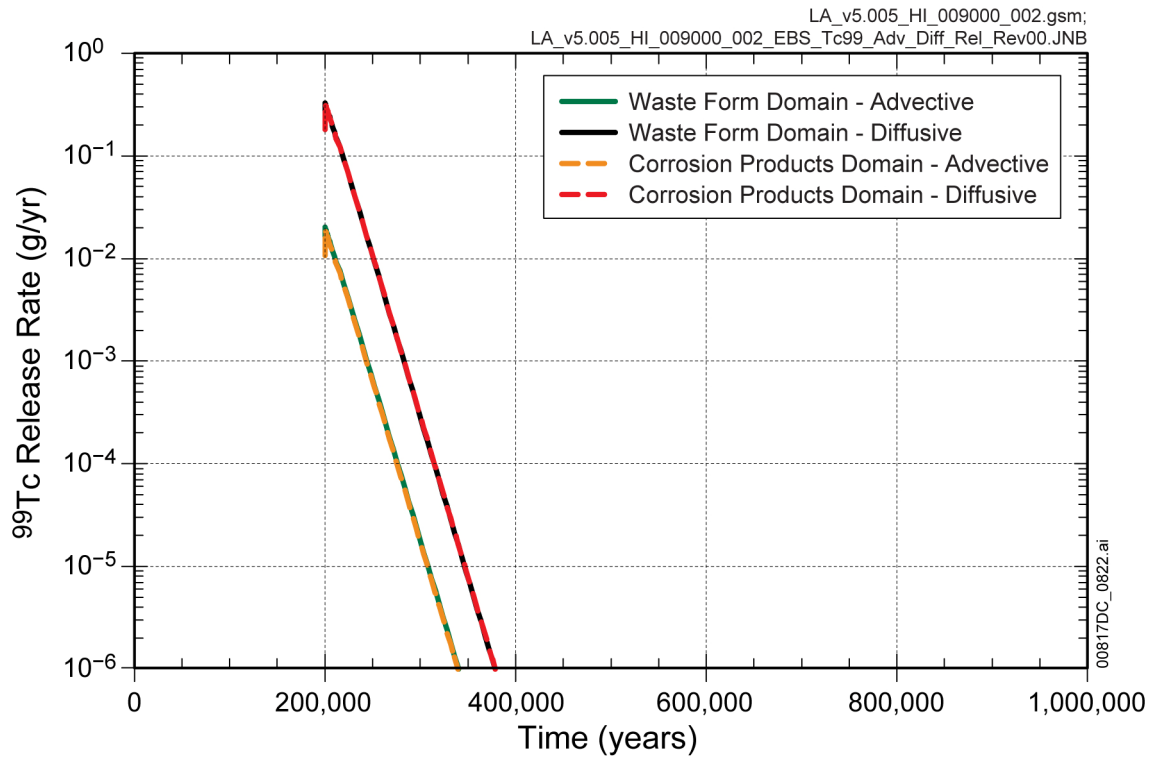
Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

Figure 7.7.1-94[a]. Annual Dose along with Major Radionuclide Dose Contributors for Realization 8309 of the Human Intrusion Modeling Case for 1,000,000 Years after Repository Closure



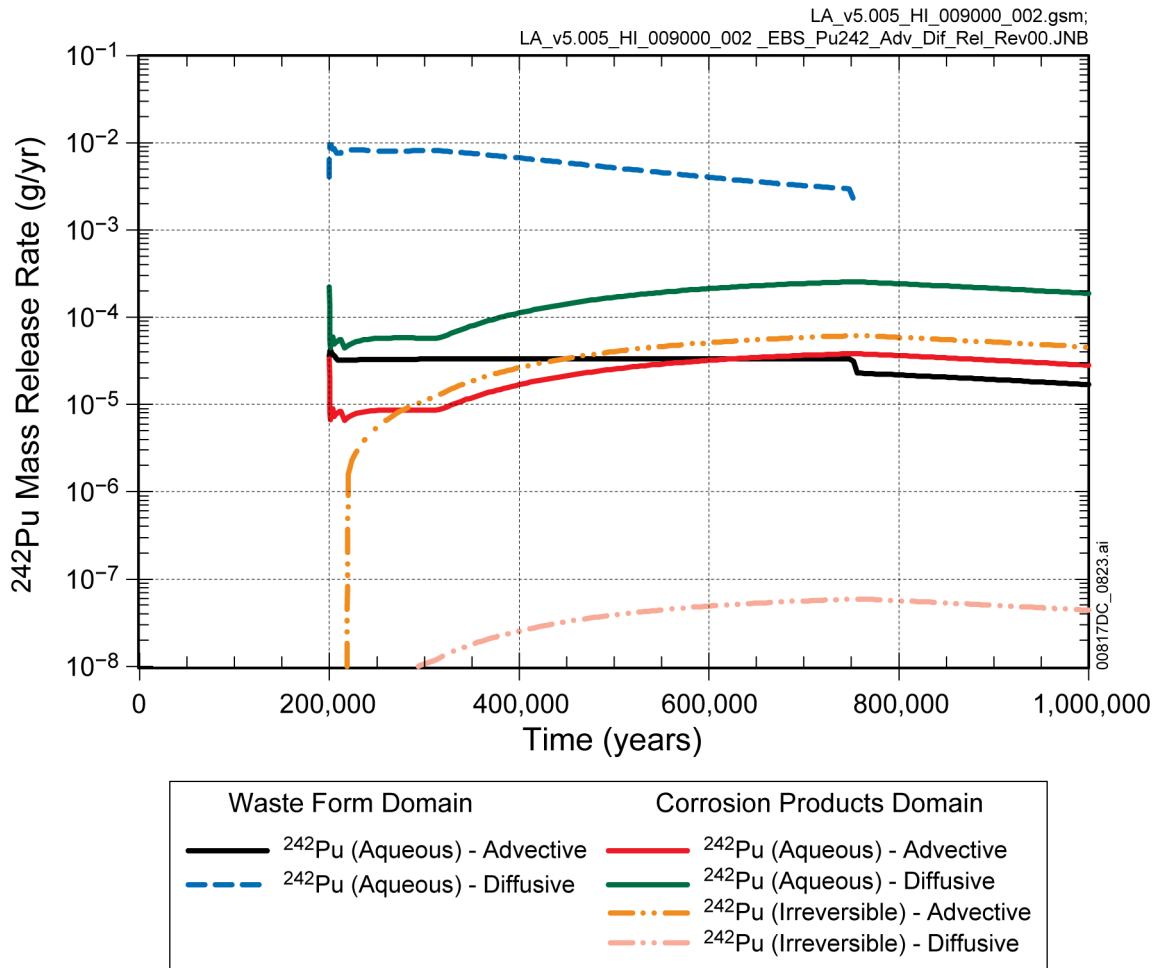
Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

Figure 7.7.1-95[a]. Cumulative Release of ⁹⁹Tc and ²⁴²Pu from the Inventory for Percolation Subregion 4 for Realization 8309 of the Human Intrusion Modeling Case for 1,000,000 Years after Repository Closure



Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

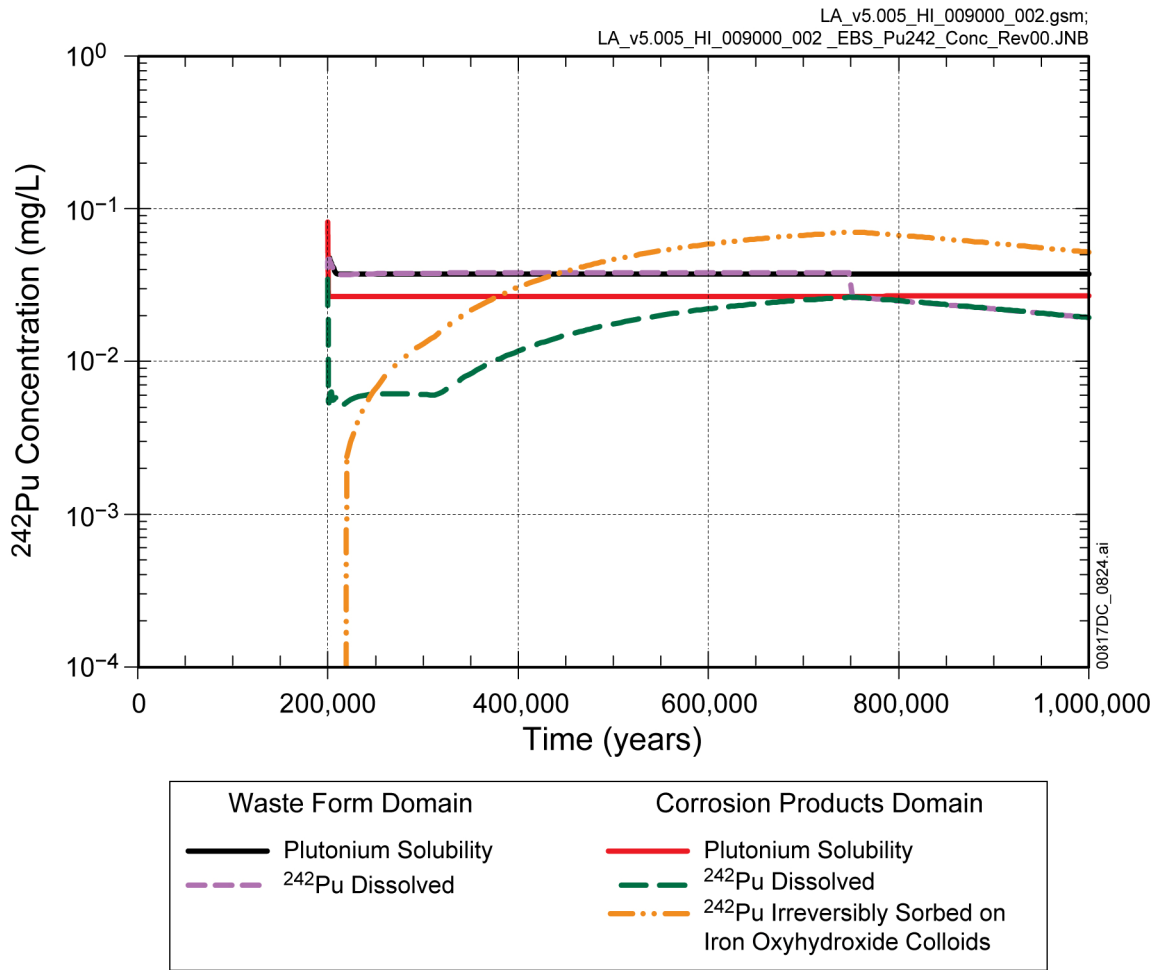
Figure 7.7.1-96[a]. Advective and Diffusive Release Rates of ⁹⁹Tc from Waste Form and Corrosion Products Domain for failed CSNF WPs for Realization 8309 of the Human Intrusion Modeling Case for 1,000,000 Years after Repository Closure



Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

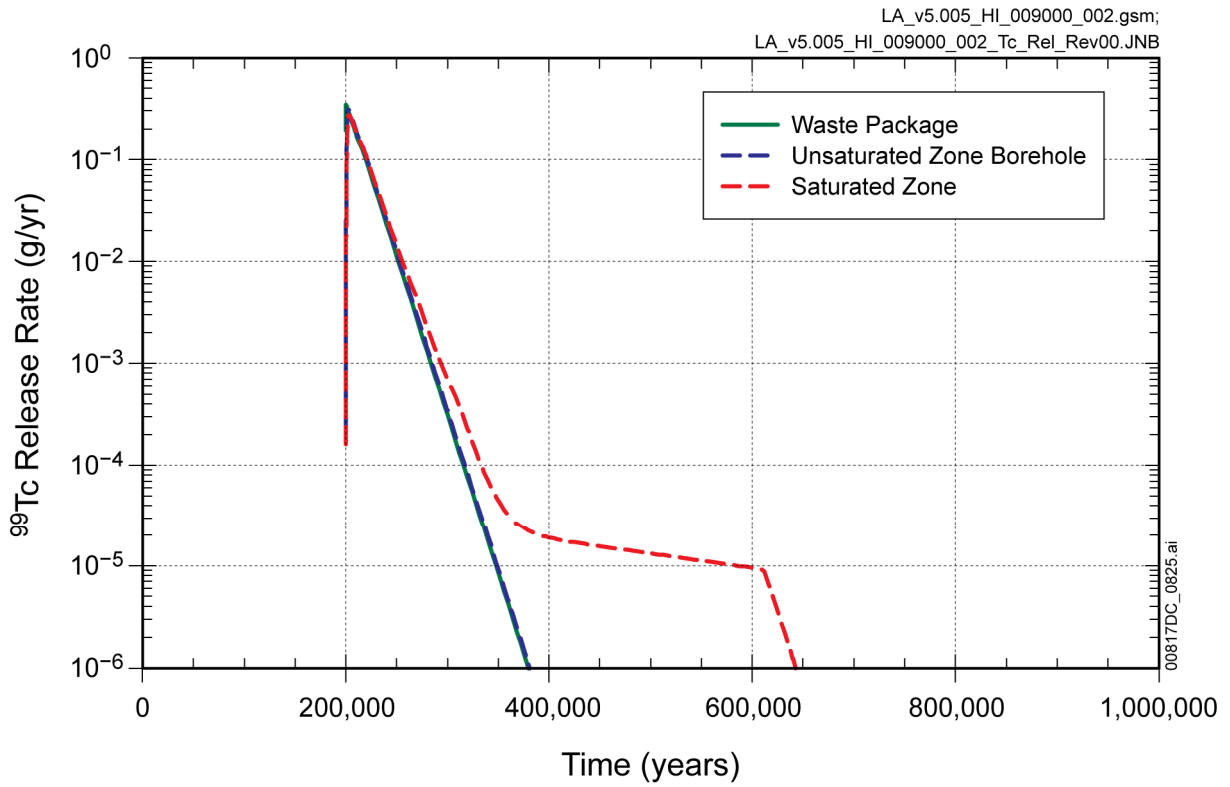
NOTE: Plutonium dissolved and reversibly associated with colloids is denoted as aqueous.

Figure 7.7.1-97[a]. Advective and Diffusive Release Rates of ²⁴²Pu (Aqueous) from Waste Form and Corrosion Products Domain and ²⁴²Pu (Irreversibly Sorbed on Iron Oxyhydroxide Colloids) from Corrosion Products Domain for failed CSNF WPs for Realization 8309 of the Human Intrusion Modeling Case for 1,000,000 Years after Repository Closure



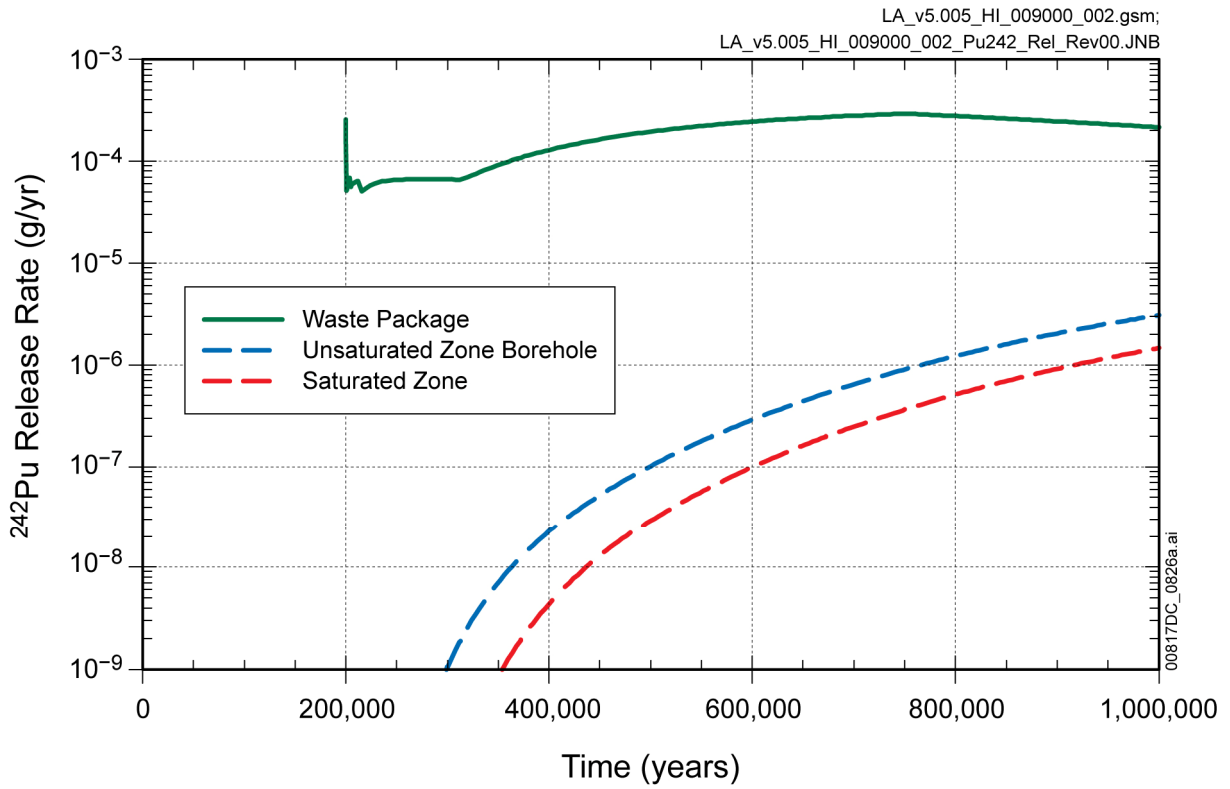
Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

Figure 7.7.1-98[a]. Dissolved Concentration of ²⁴²Pu in the Waste Form and Corrosion Products Domain, the Plutonium Solubility in Respective Domains, and Concentration of ²⁴²Pu Irreversibly Sorbed on Iron Oxyhydroxide Colloids for Realization 8309 of the Human Intrusion Modeling Case for 1,000,000 Years after Repository Closure



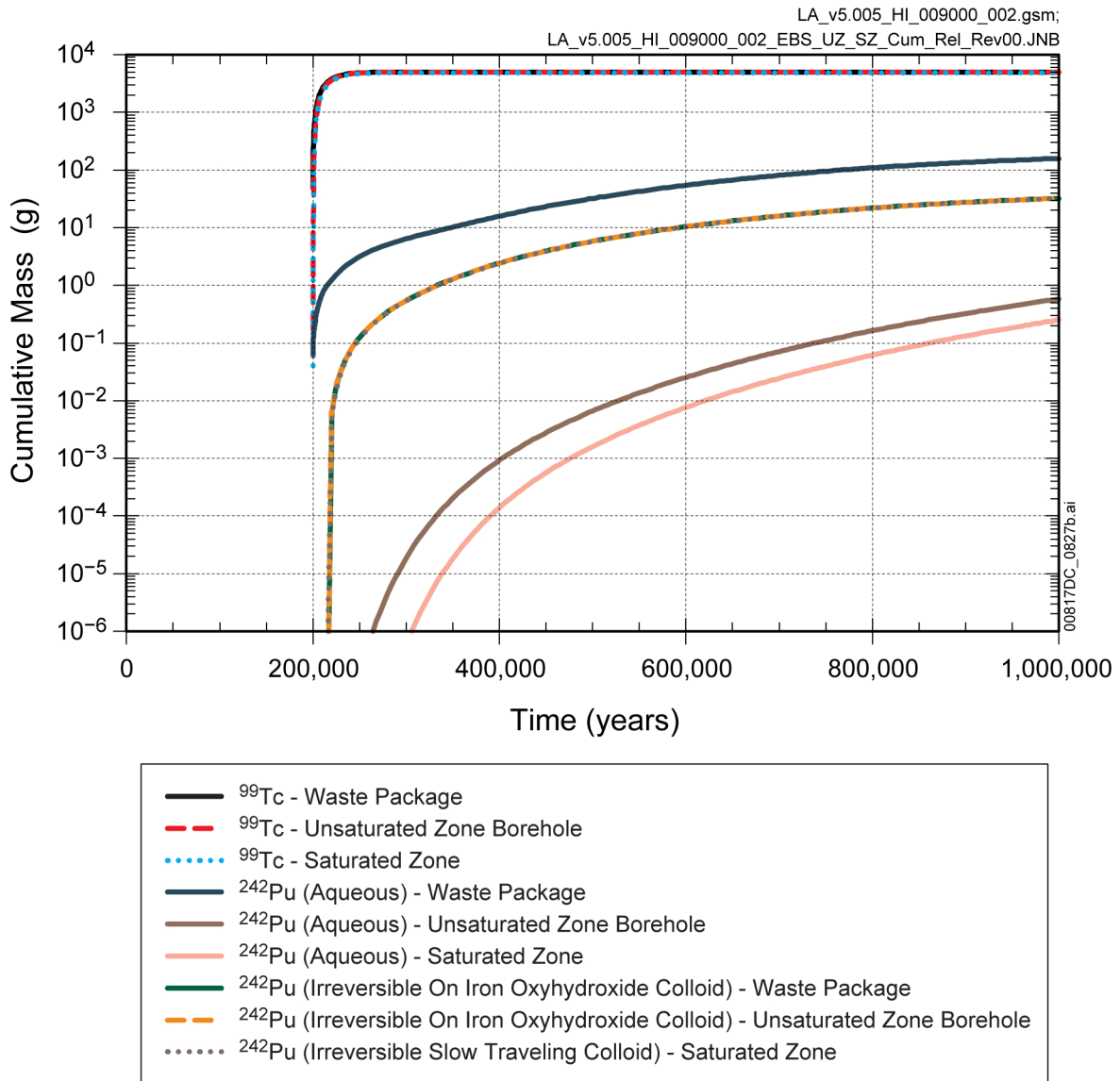
Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

Figure 7.7.1-99[a]. Comparison of ⁹⁹Tc Release from Waste Package, Unsaturated Zone Borehole, and Saturated Zone for Realization 8309 of the Human Intrusion Modeling Case for 1,000,000 Years after Repository Closure



Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

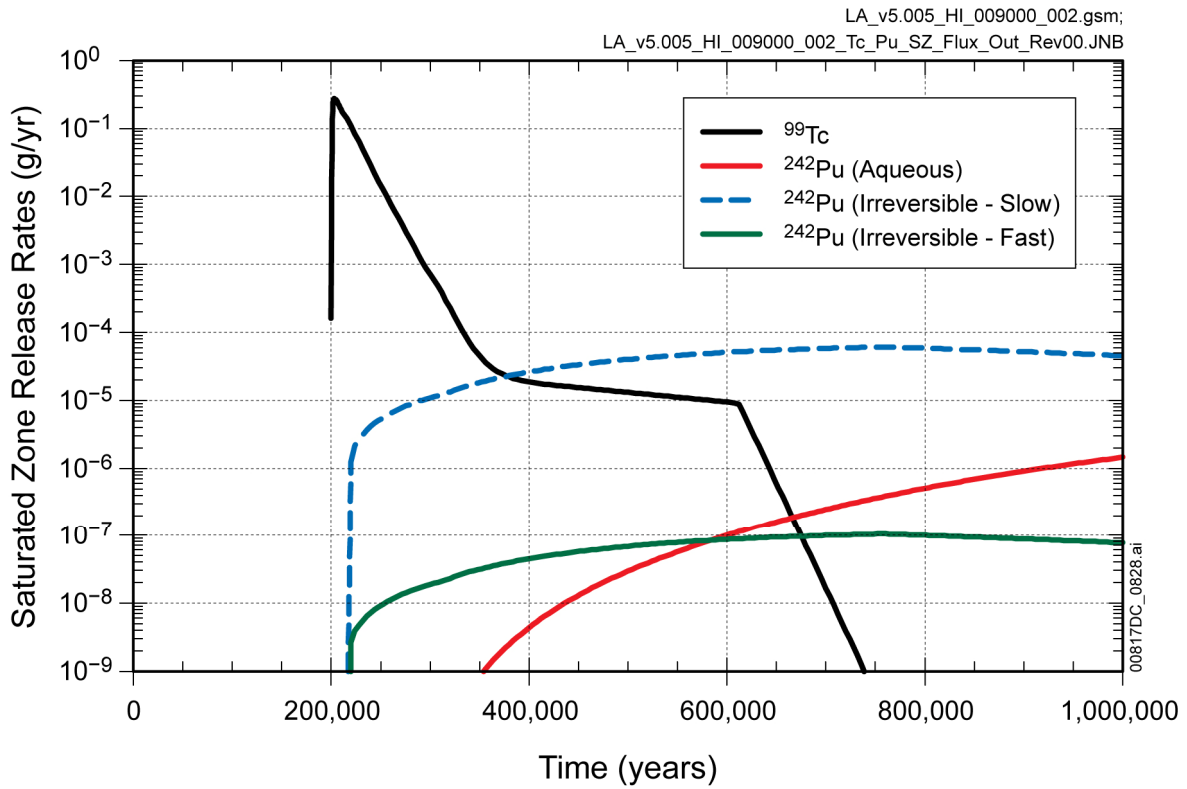
Figure 7.7.1-100[a]. Comparison of ²⁴²Pu (Dissolved and Reversibly Associated with Colloids) Release from Waste Package, Unsaturated Zone Borehole, and Saturated Zone for Realization 8309 of the Human Intrusion Modeling Case for 1,000,000 Years after Repository Closure



Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

NOTE: Plutonium dissolved and reversibly associated with colloids is denoted as aqueous.

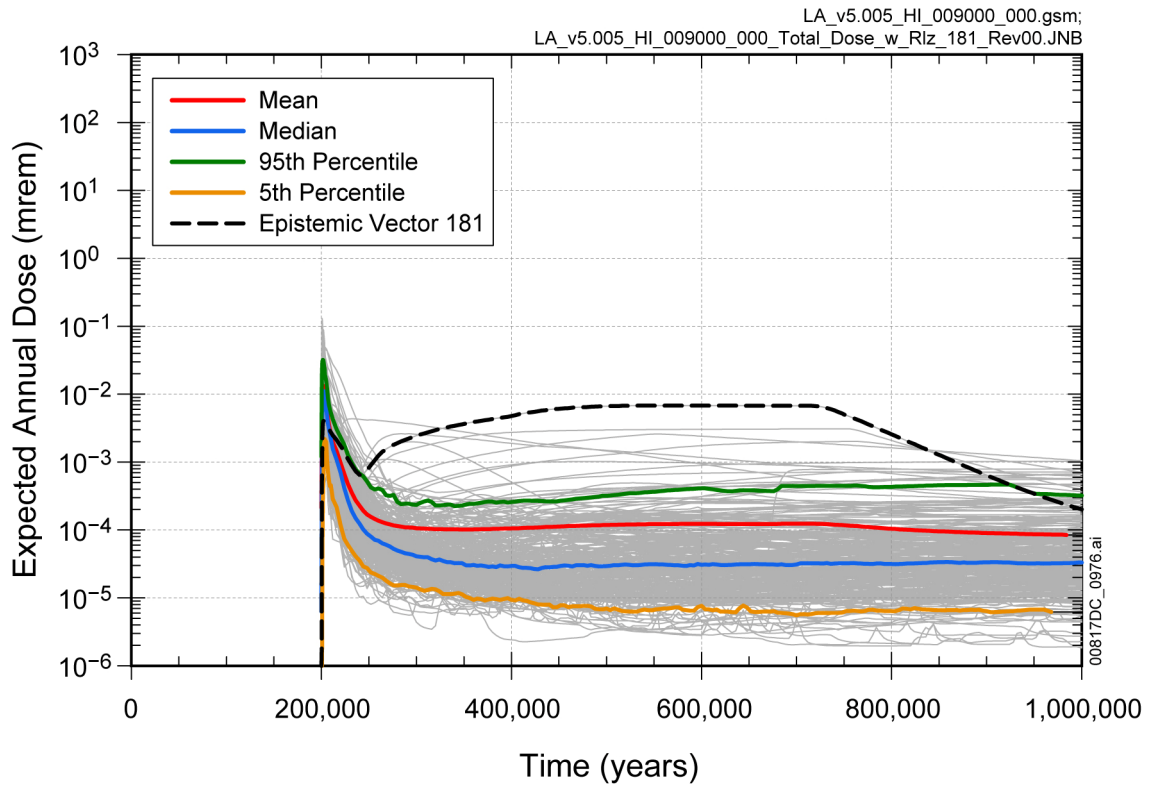
Figure 7.7.1-101[a]. Cumulative Release Comparison of ^{99}Tc , ^{242}Pu (Aqueous), and ^{242}Pu (Irreversibly Sorbed on Colloids) from Waste Package, Unsaturated Zone Borehole, and Saturated Zone for Realization 8309 of the Human Intrusion Modeling Case for 1,000,000 Years after Repository Closure



Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

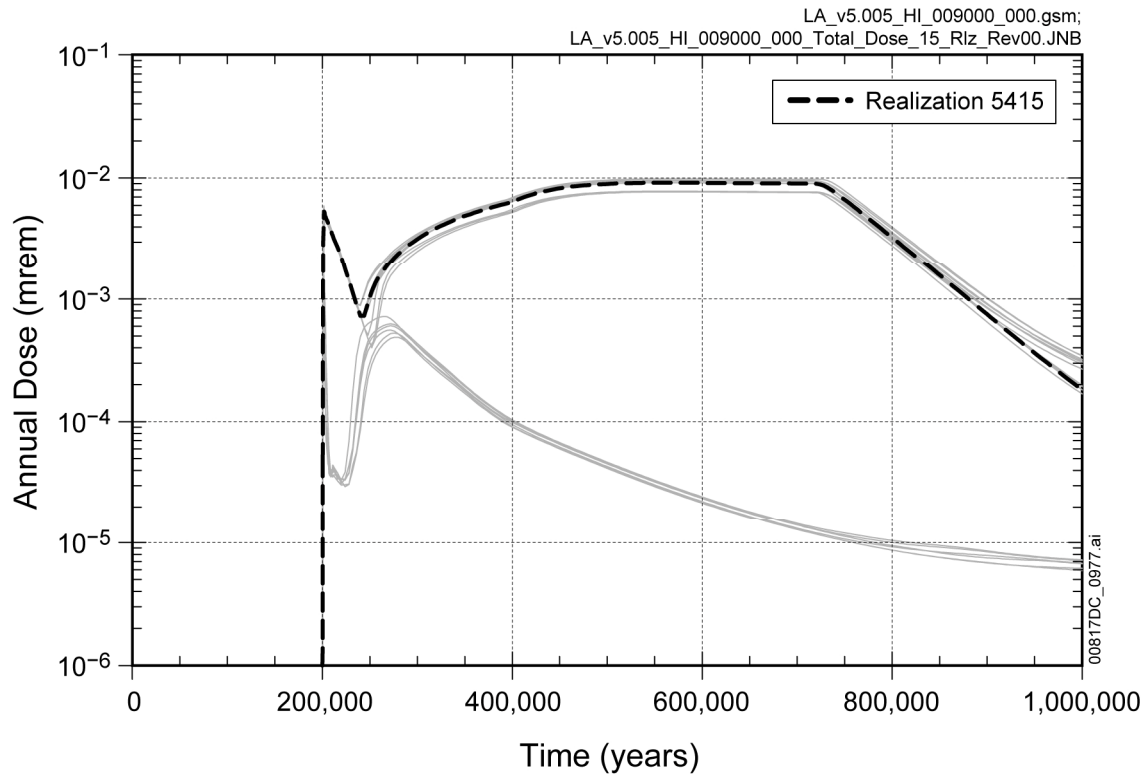
NOTE: Plutonium dissolved and reversibly associated with colloids is denoted as aqueous.

Figure 7.7.1-102[a]. Saturated Zone Release Rates to the Biosphere for ⁹⁹Tc, ²⁴²Pu (Aqueous), ²⁴²Pu (Irreversibly Sorbed on Colloids that Travel Slowly due to Retardation), and ²⁴²Pu (Irreversibly Sorbed on Colloids that Travel Fast due to no Retardation) for Realization 8309 of the Human Intrusion Modeling Case for 1,000,000 Years after Repository Closure



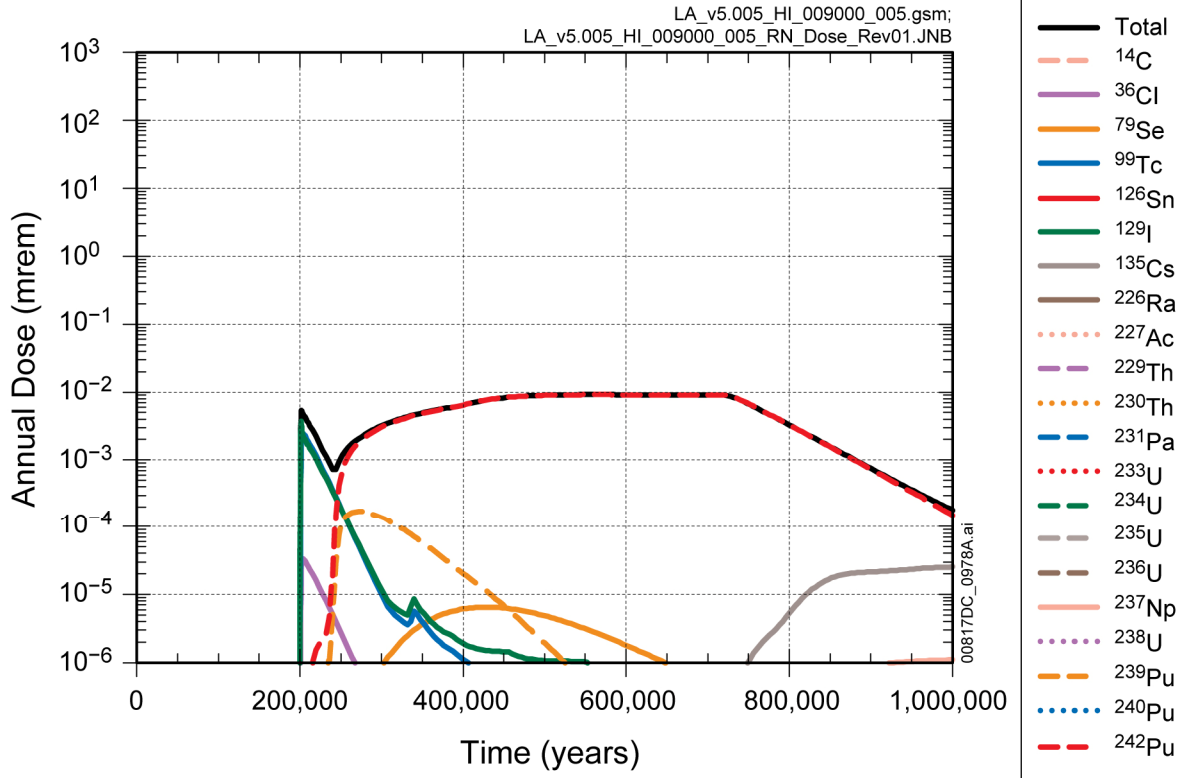
Source: Output DTN: MO0710ADTSPAWO.000 [DIRS 183752].

Figure 7.7.1-103[a]. Expected Annual Dose from the 300 Epistemic Uncertainty Vectors along with their Quantiles and Expected Dose from Epistemic Uncertainty Vector 181 for the Human Intrusion Modeling Case for 1,000,000 Years after Repository Closure



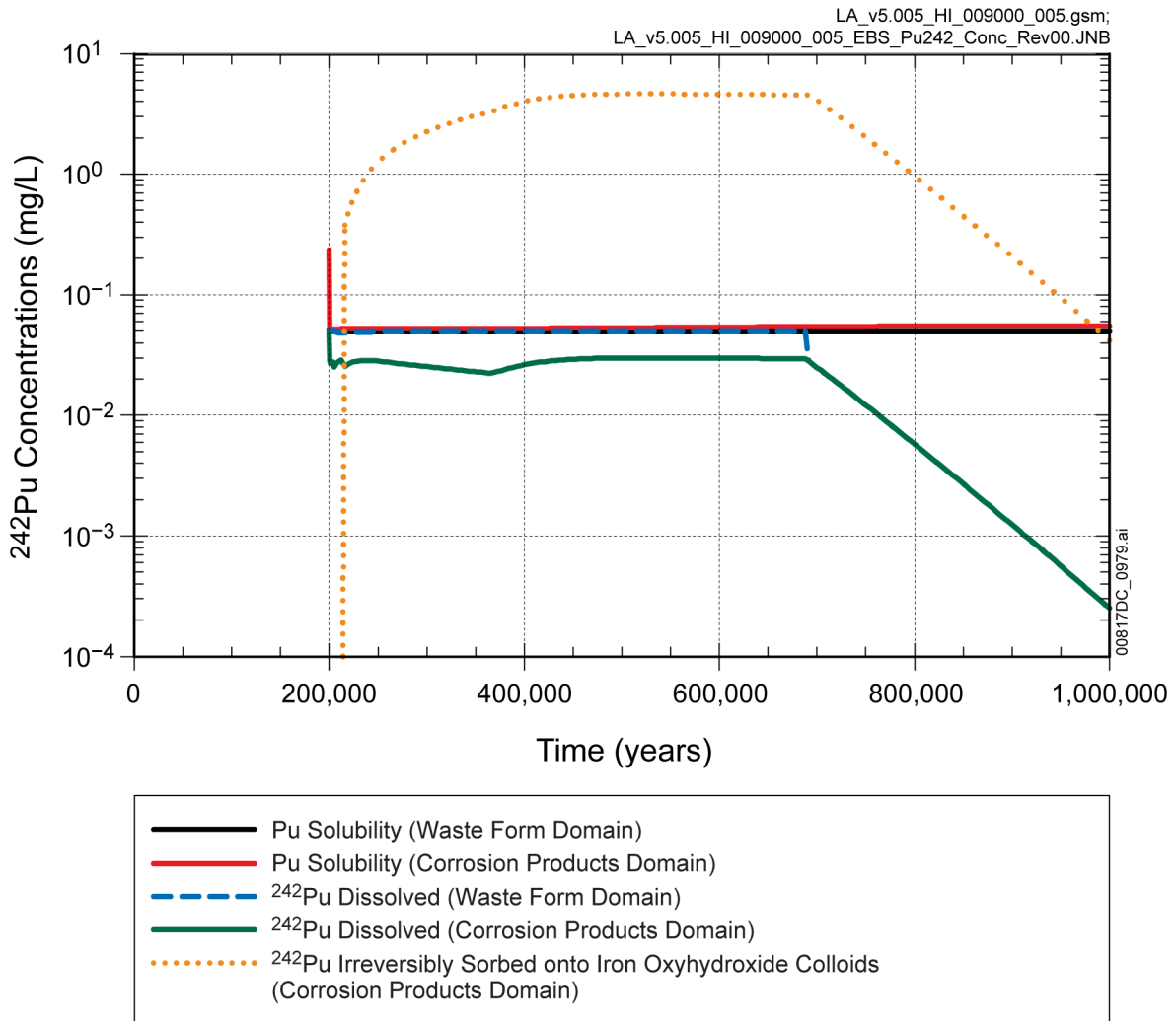
Source: Output DTN: MO0710ADTSPAWO.000 [DIRS 183752].

Figure 7.7.1-104[a]. Annual Dose from the Thirty Aleatory Vectors Associated with the Epistemic Uncertainty Vector 181 for the Human Intrusion Modeling Case for 1,000,000 Years after Repository Closure



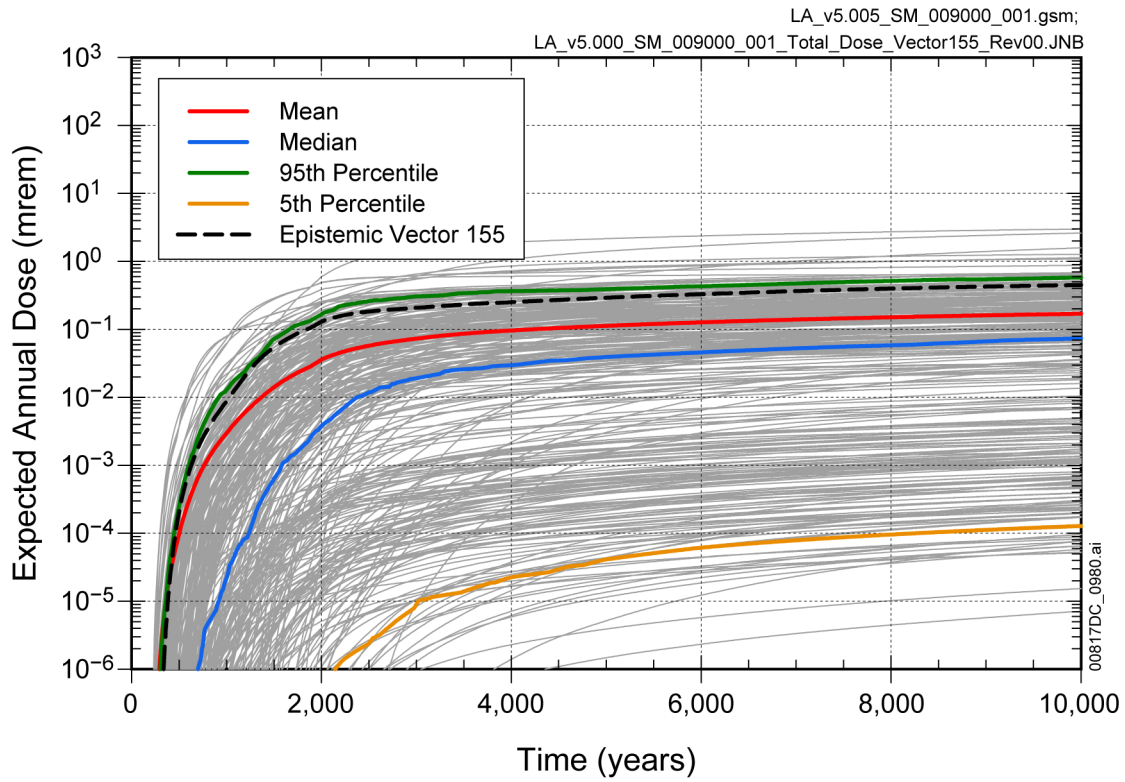
Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

Figure 7.7.1-105[a]. Annual Dose along with Major Radionuclide Dose Contributors for Realization 5415 of the Human Intrusion Modeling Case for 1,000,000 Years after Repository Closure



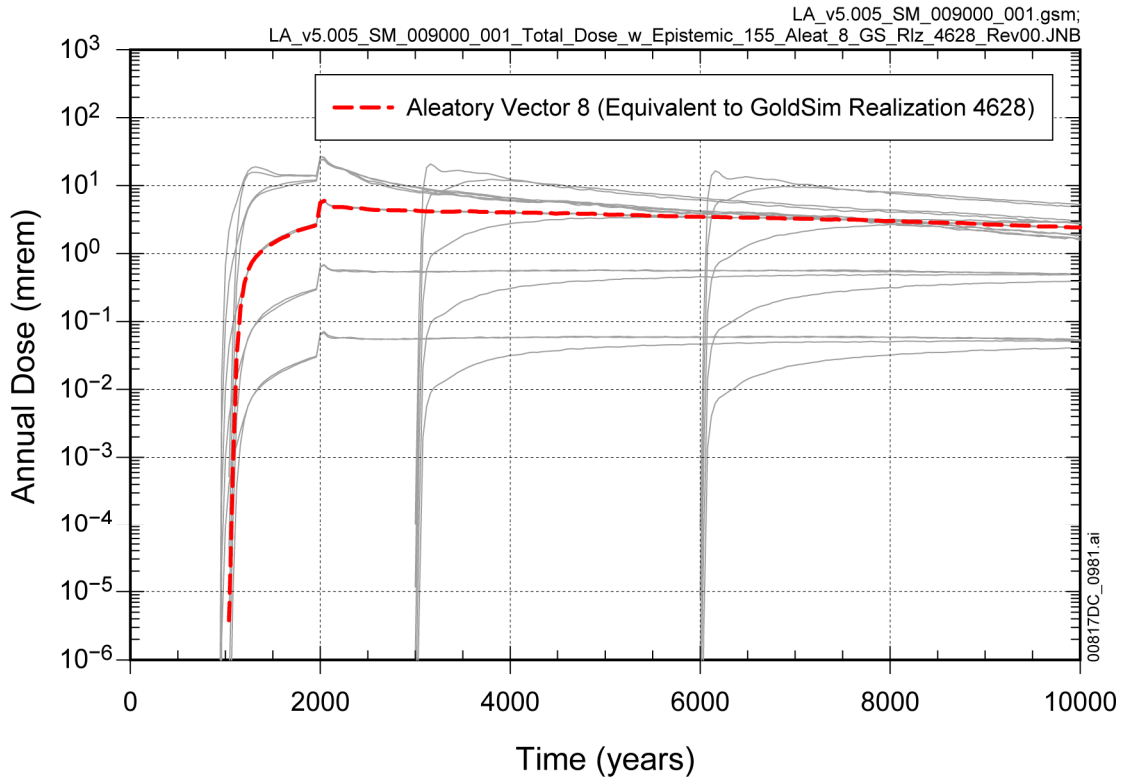
Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

Figure 7.7.1-106[a]. Dissolved Concentration of ²⁴²Pu in the Waste Form and Corrosion Products Domains, the Plutonium Solubility in Respective Domains, and Concentration of ²⁴²Pu Irreversibly Sorbed on Iron Oxyhydroxide Colloids for Realization 5415 of the Human Intrusion Modeling Case for 1,000,000 Years after Repository Closure



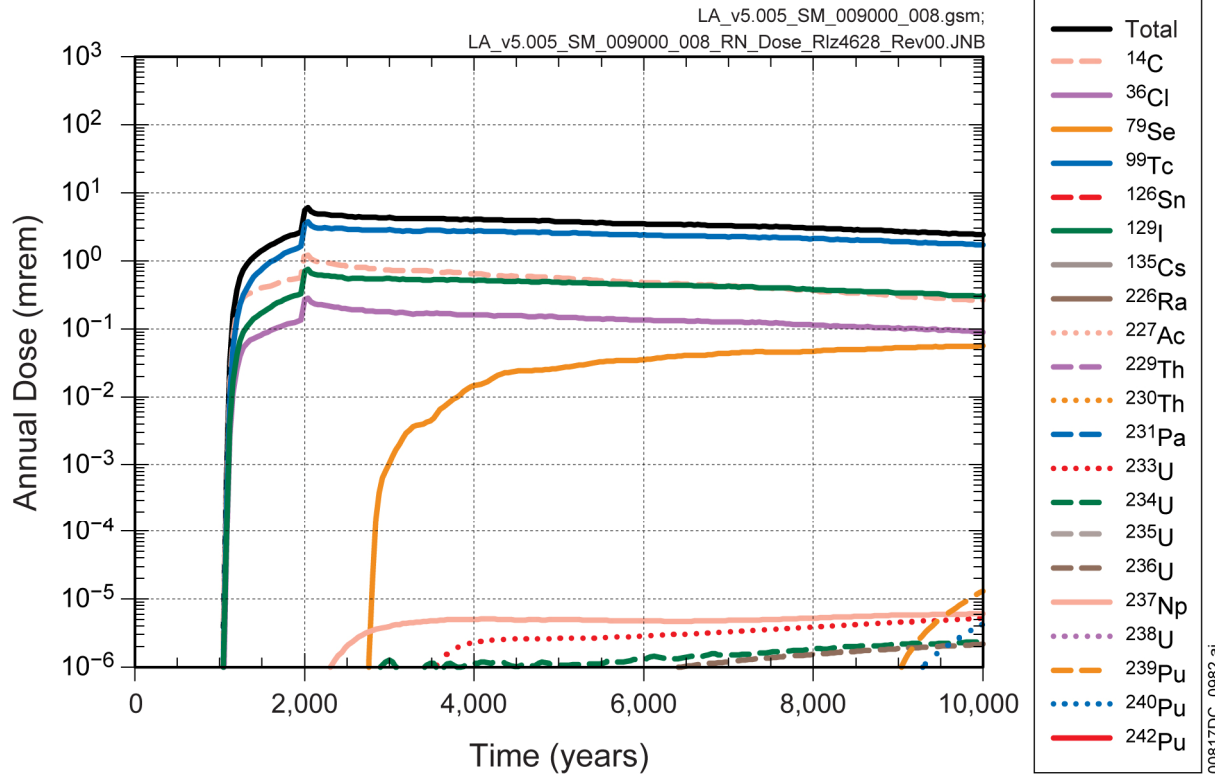
Source: Output DTN: MO0710ADTSPAWO.000 [DIRS 183752].

Figure 7.7.1-107[a]. Expected Annual Dose from the 300 Epistemic Uncertainty Vectors along with their Quantiles and Expected Dose from Epistemic Uncertainty Vector 155 for the Seismic Ground Motion Modeling Case for 10,000 Years after Repository Closure



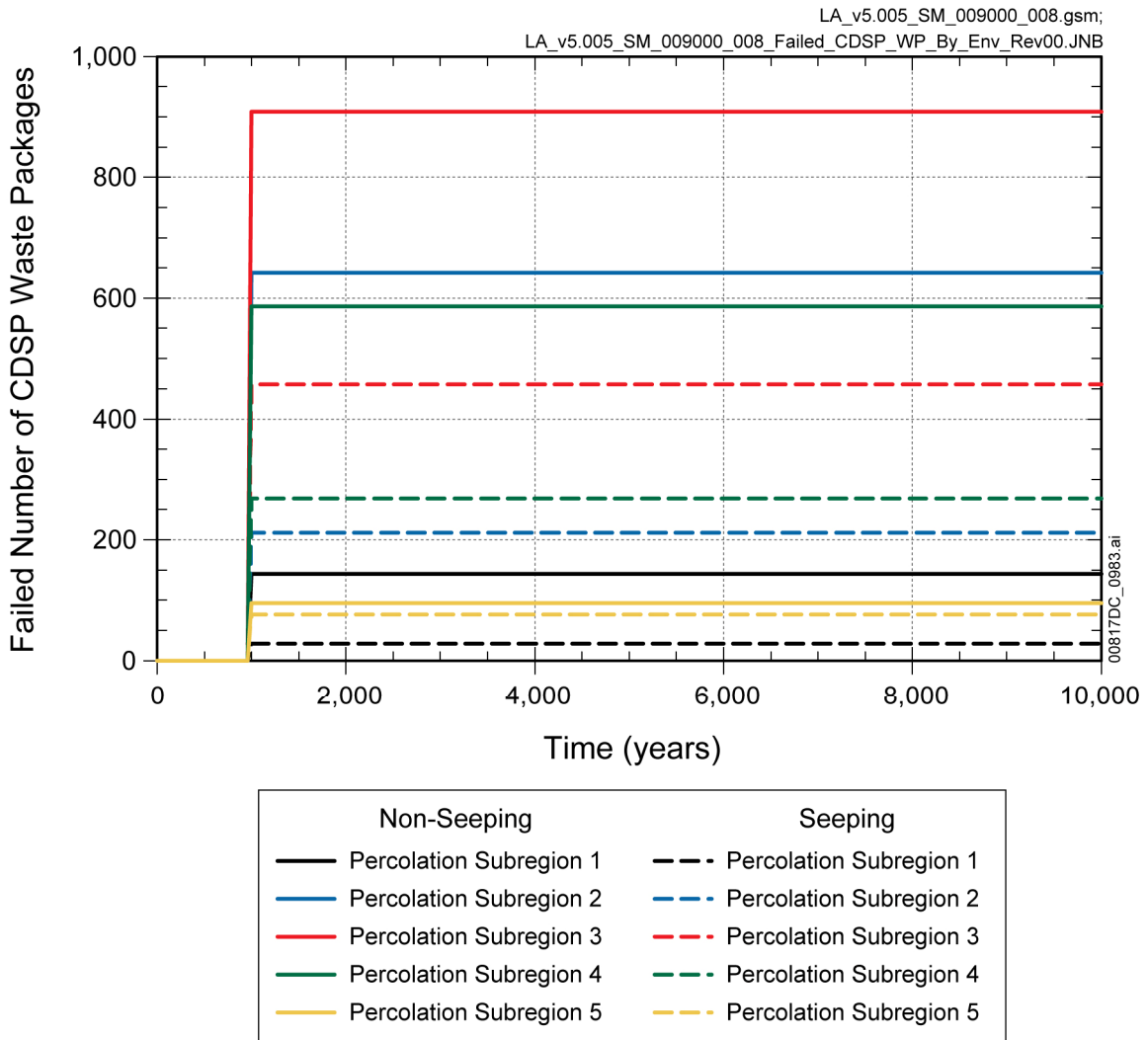
Source: Output DTN: MO0710ADTSPAWO.000 [DIRS 183752].

Figure 7.7.1-108[a]. Annual Dose from the Thirty Aleatory Vectors Associated with the Epistemic Uncertainty Vector 155 for the Seismic Ground Motion Modeling Case for 10,000 Years after Repository Closure



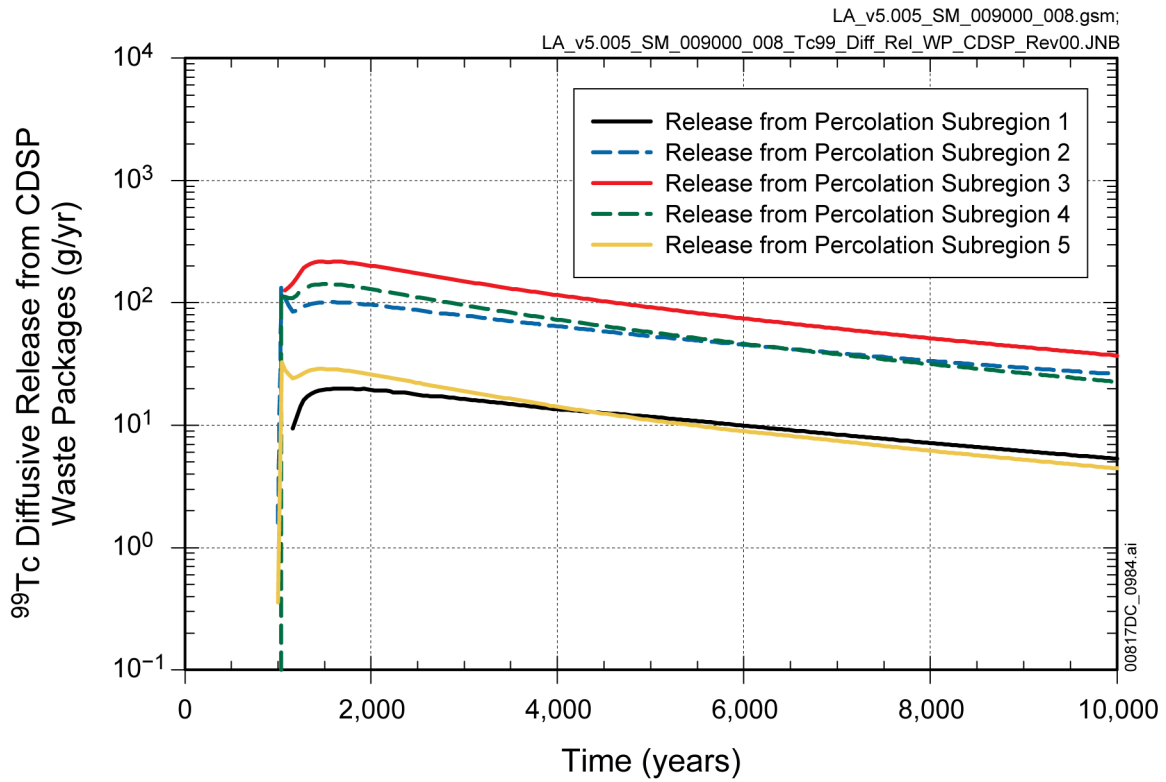
Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

Figure 7.7.1-109[a]. Annual Dose along with Major Radionuclide Dose Contributors for Realization 4628 of the Seismic Ground Motion Modeling Case for 10,000 Years after Repository Closure



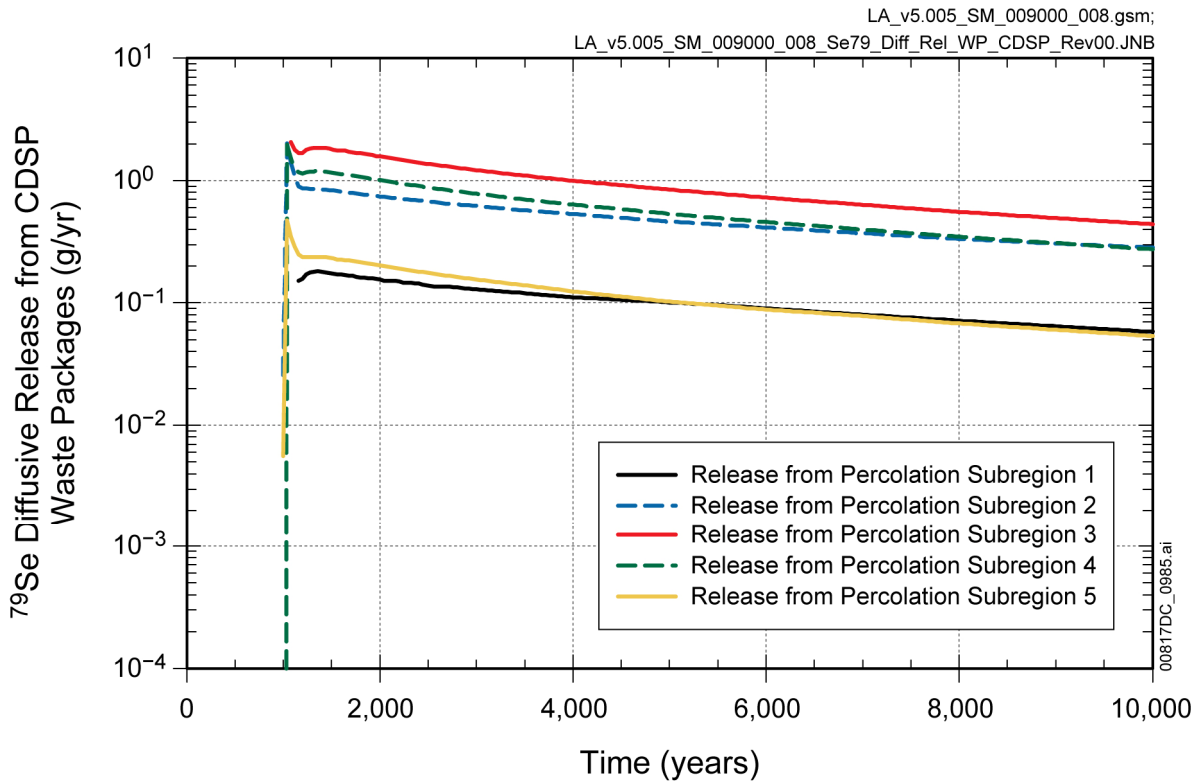
Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

Figure 7.7.1-110[a]. CDSP WP Failure History in all Five Percolation Subregions for Both Seeping and Non-Sleeping Environments for Realization 4628 of the Seismic Ground Motion Modeling Case for 10,000 Years after Repository Closure



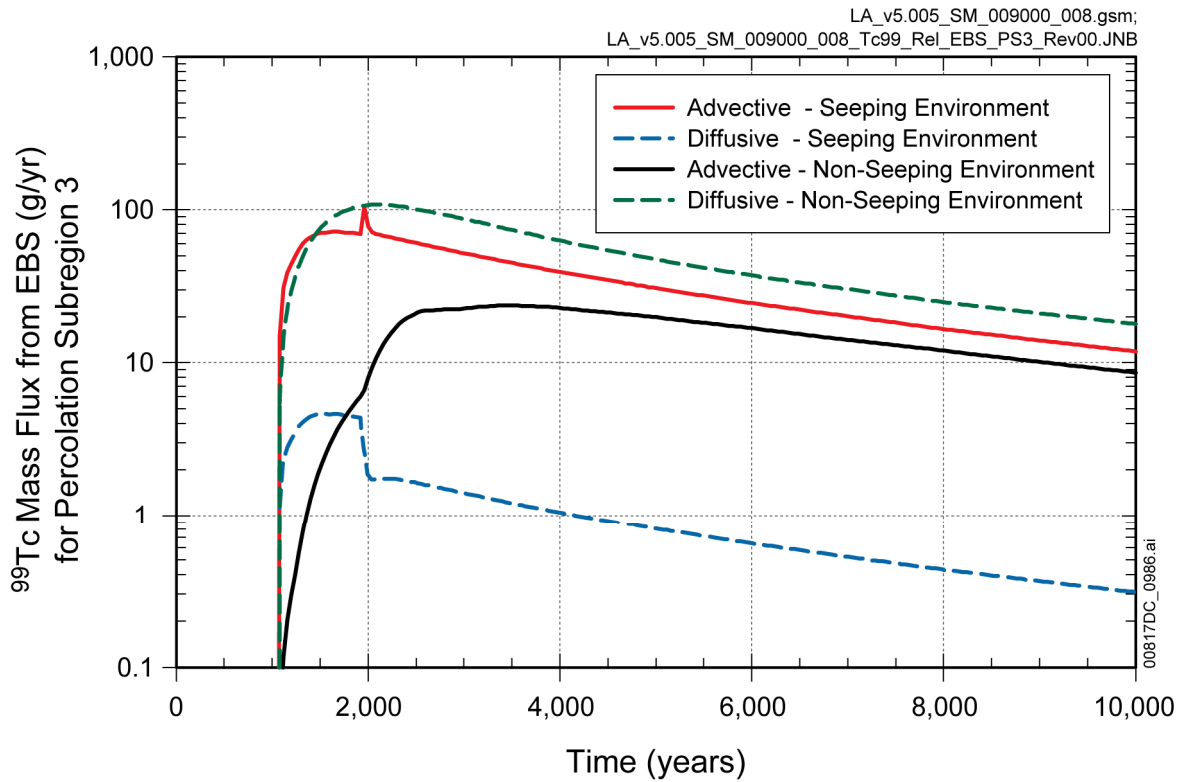
Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

Figure 7.7.1-111[a]. Diffusive Release Rates of ⁹⁹Tc from CDSP WPs from each Percolation Subregion for Realization 4628 of the Seismic Ground Motion Modeling Case for 10,000 Years after Repository Closure



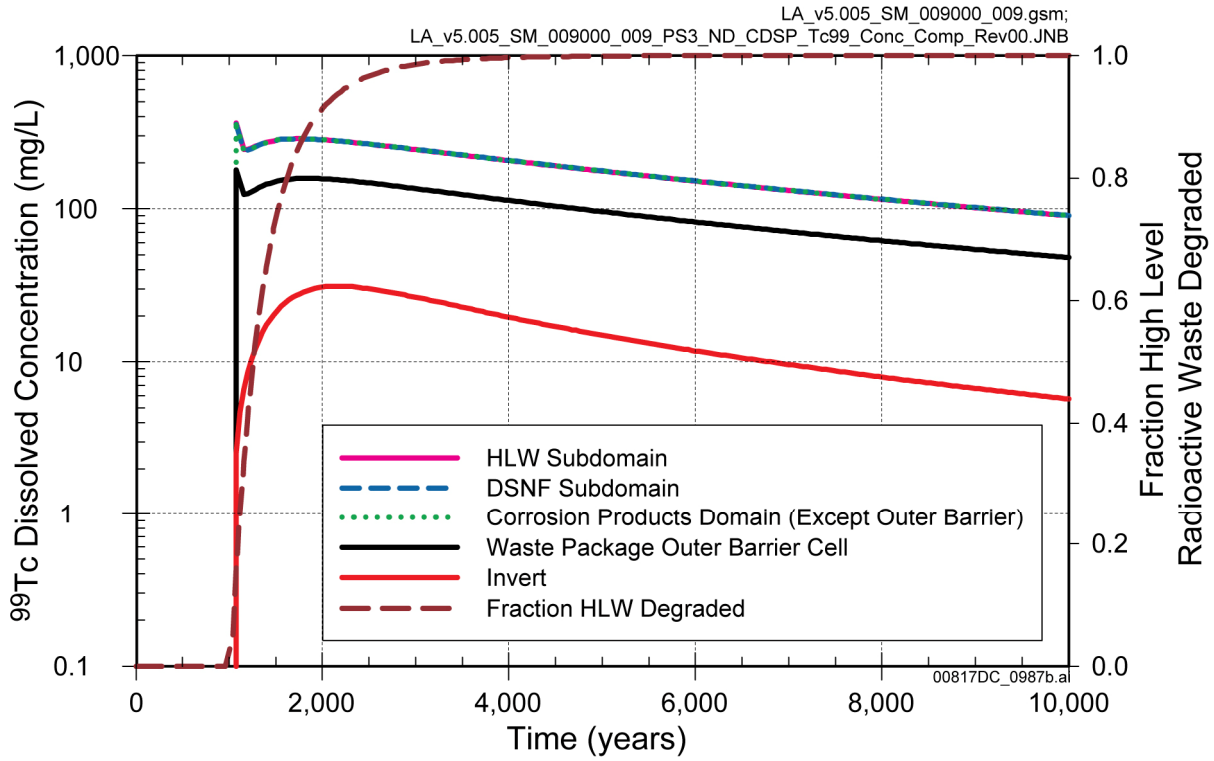
Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

Figure 7.7.1-112[a]. Diffusive Release Rates of ⁷⁹Se from CDSP WPs from each Percolation Subregion for Realization 4628 of the Seismic Ground Motion Modeling Case for 10,000 Years after Repository Closure



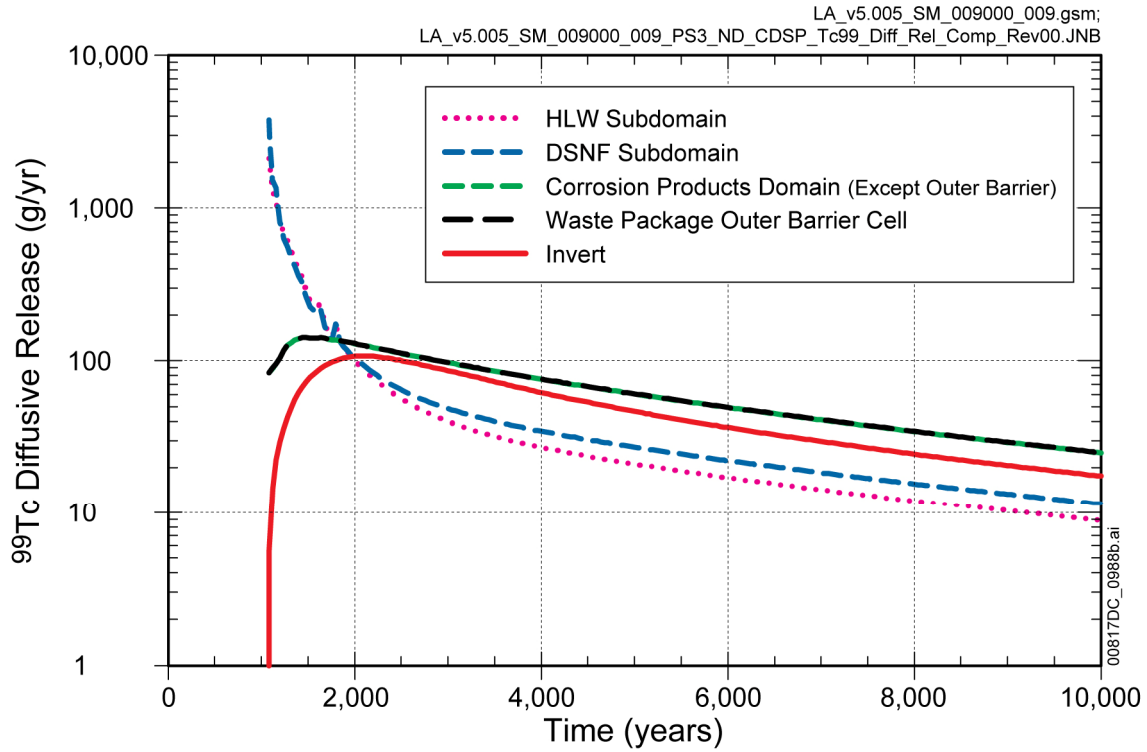
Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

Figure 7.7.1-113[a]. Mass Flux of ⁹⁹Tc from the EBS for Percolation Subregion 3 (Seeping and Non-Seeping Environments) for Realization 4628 of the Seismic Ground Motion Modeling Case for 10,000 Years after Repository Closure



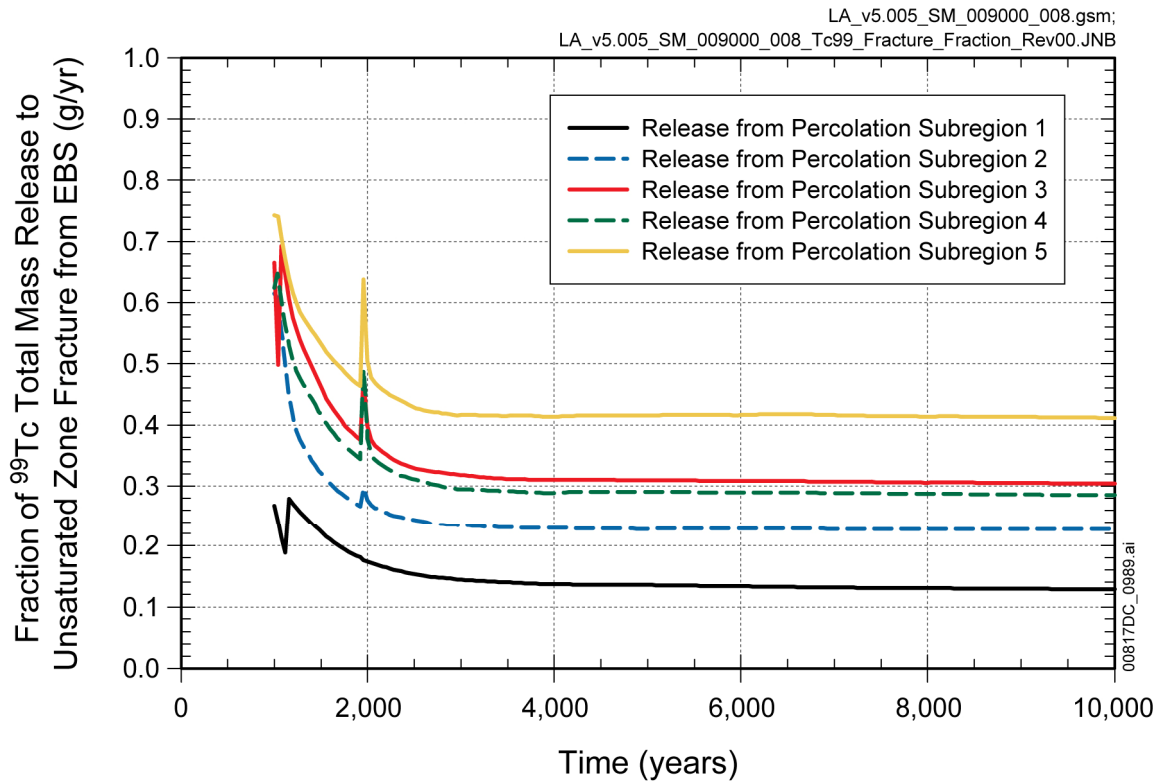
Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

Figure 7.7.1-114[a]. Comparison of Dissolved Concentration of ⁹⁹Tc from the Various EBS Transport Domains and Fraction of HLW Degraded for CDSP Percolation Subregion 3, Non-Sleeping Environment for Realization 4628 of the Seismic Ground Motion Modeling Case for 10,000 Years after Repository Closure



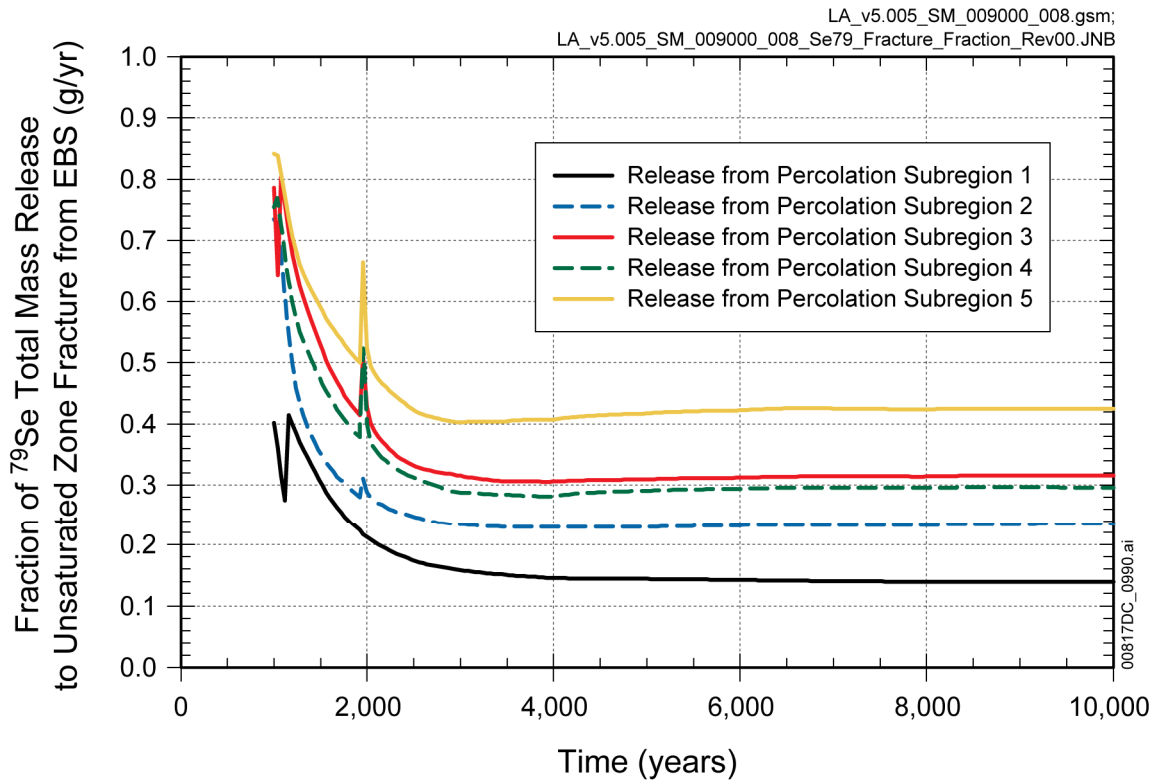
Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

Figure 7.7.1-115[a]. Comparison of Diffusive Releases of ⁹⁹Tc from the Various EBS Transport Domains for CDSP Percolation Subregion 3 Non-Sleeping Environment for Realization 4628 of the Seismic Ground Motion Modeling Case for 10,000 Years after Repository Closure



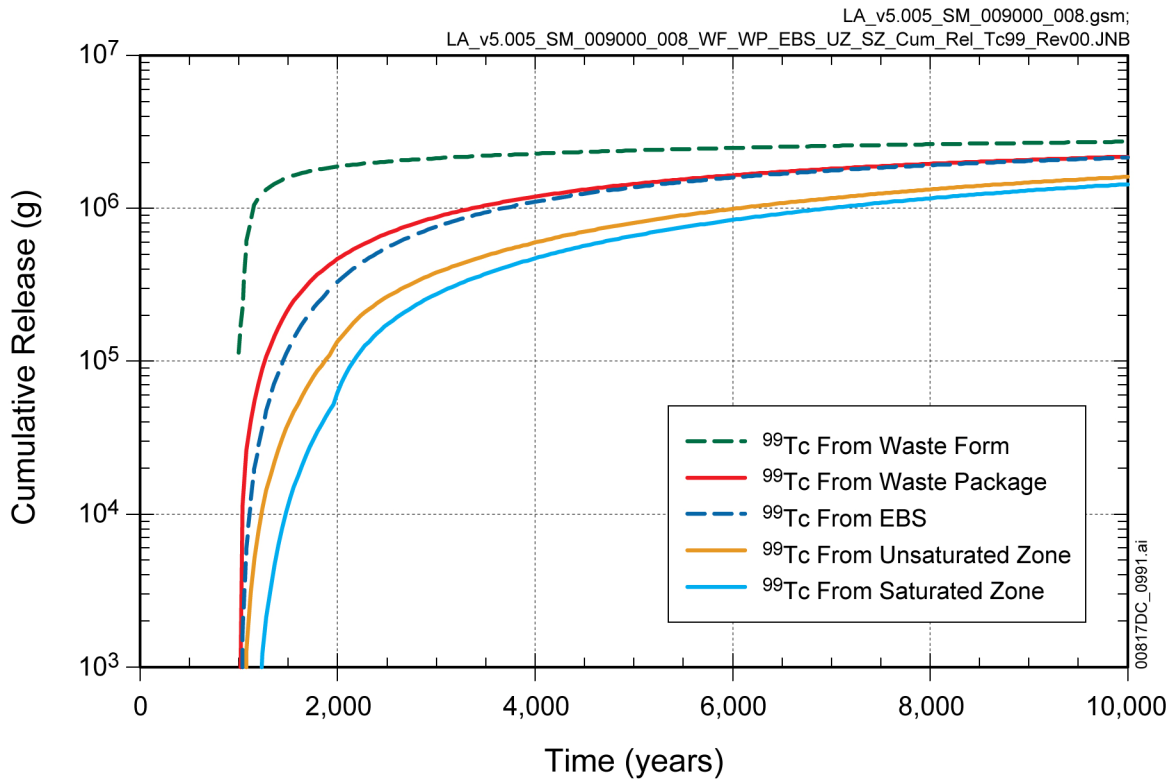
Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

Figure 7.7.1-116[a]. Fraction of ⁹⁹Tc Mass Going to Unsaturated Zone Fractures as Compared to the Unsaturated Zone Matrix at the Repository Horizon for Realization 4628 of the Seismic Ground Motion Modeling Case for 10,000 Years after Repository Closure



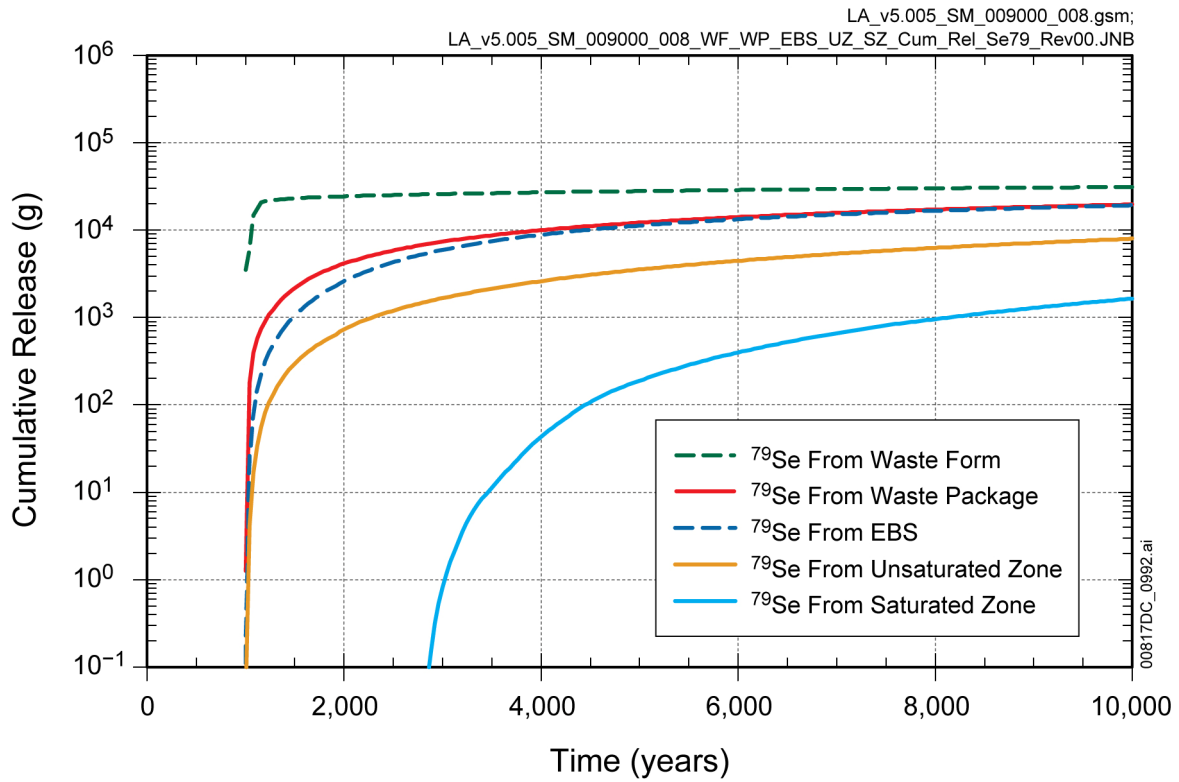
Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

Figure 7.7.1-117[a]. Fraction of ^{79}Se Mass Going to Unsaturated Zone Fractures as Compared to the Unsaturated Zone Matrix at the Repository Horizon for Realization 4628 of the Seismic Ground Motion Modeling Case for 10,000 Years after Repository Closure



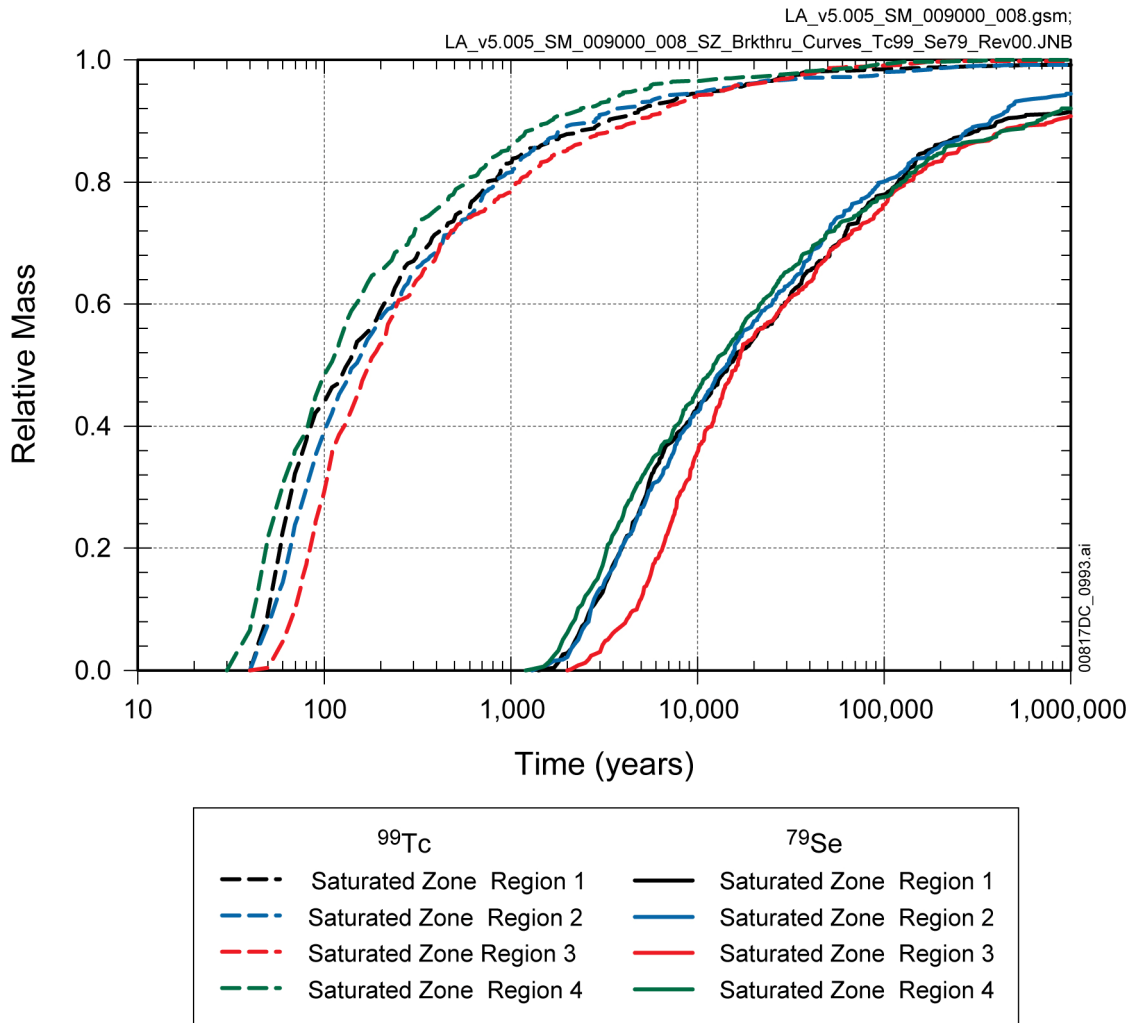
Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

Figure 7.7.1-118[a]. Cumulative Release of ⁹⁹Tc from Various Model Domains for Realization 4628 of the Seismic Ground Motion Modeling Case for 10,000 Years after Repository Closure



Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

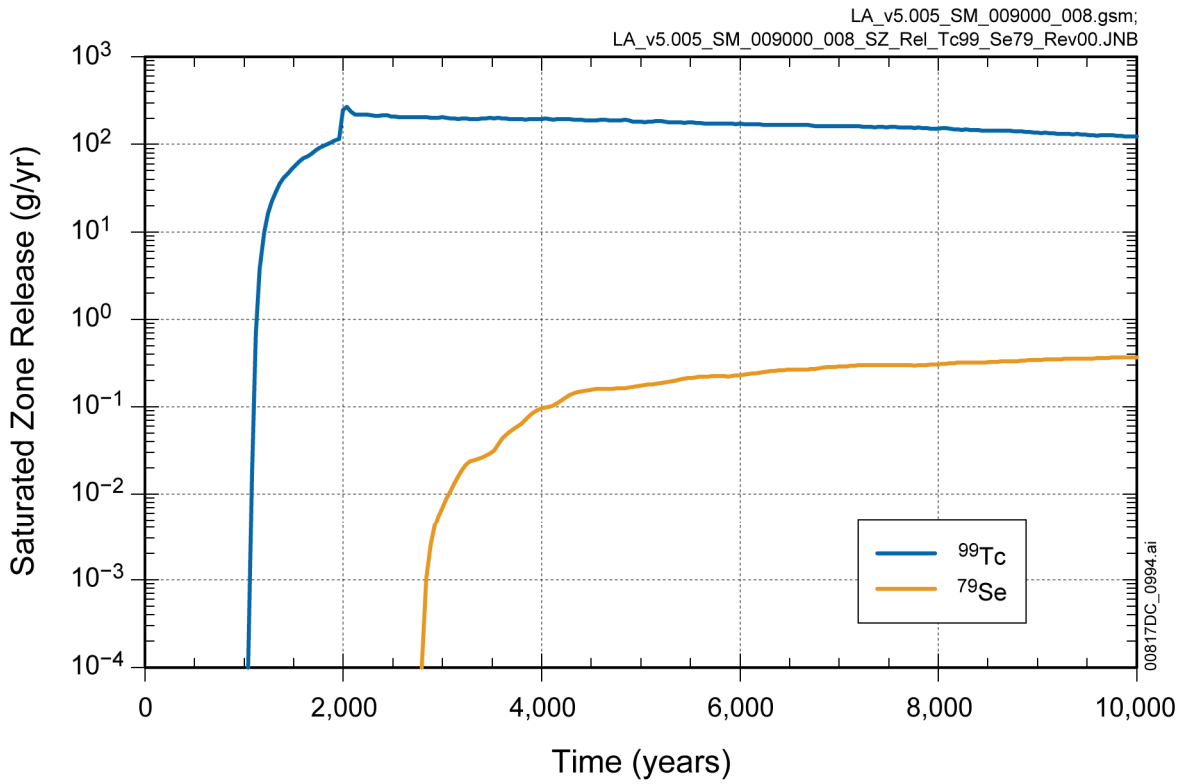
Figure 7.7.1-119[a]. Cumulative Release of ⁷⁹Se from Various Model Domains for Realization 4628 of the Seismic Ground Motion Modeling Case for 10,000 Years after Repository Closure



Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

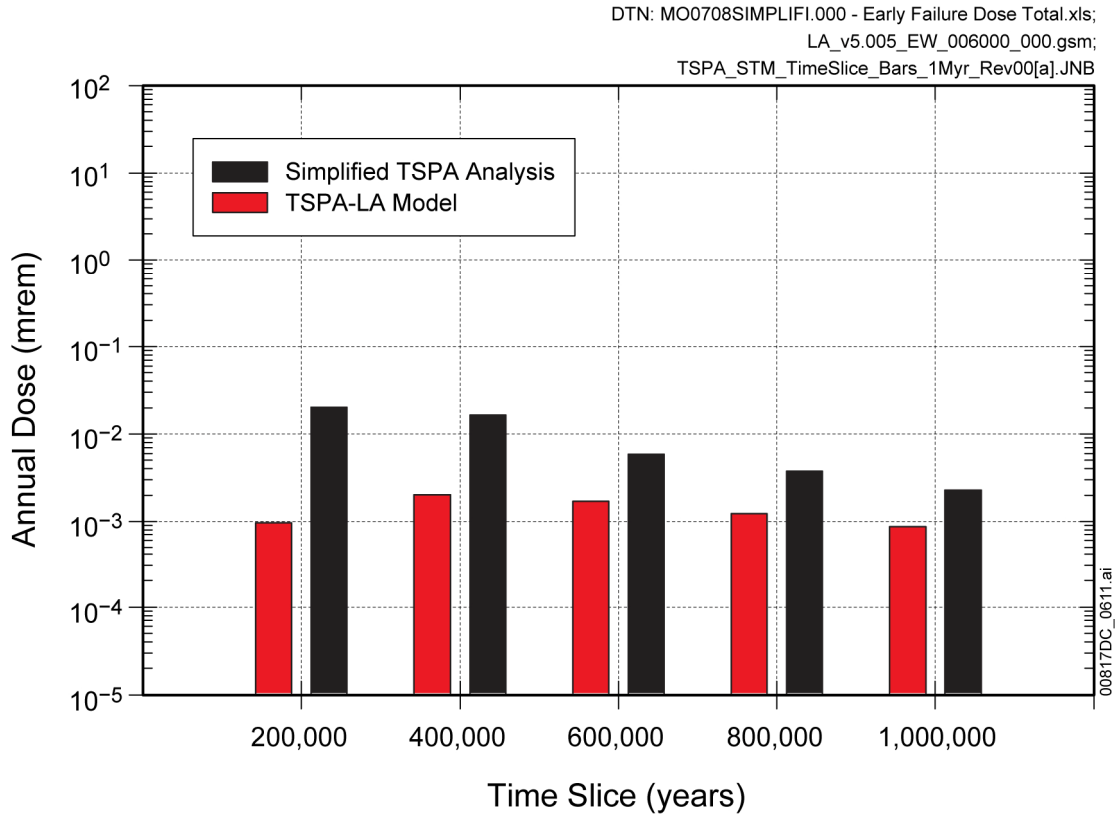
NOTES: The SZ Breakthrough Curve #122 is used in realization 4628.

Figure 7.7.1-120[a]. Comparison of Saturated Zone Breakthrough Curves for ⁹⁹Tc and ⁷⁹Se for All Four Saturated Zone Regions for Realization 4628 of the Seismic Ground Motion Modeling Case for 10,000 Years after Repository Closure



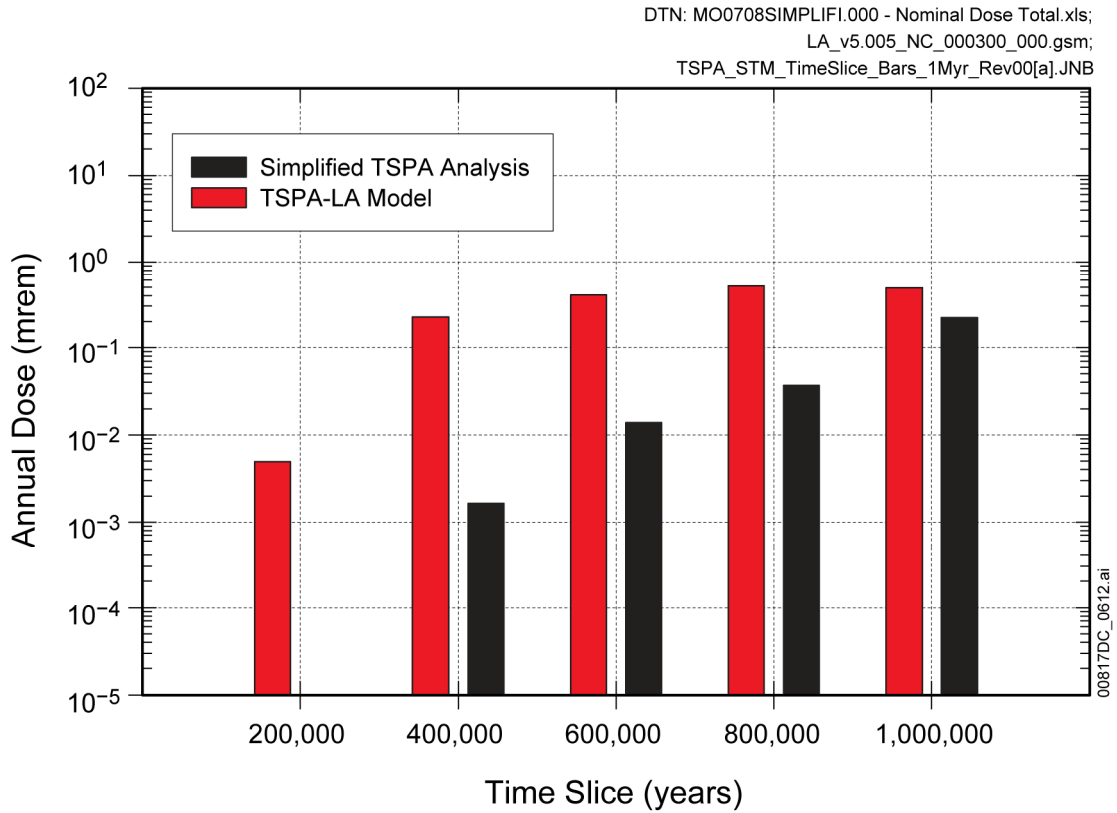
Source: Output DTN: MO0801TSPAMVAC.000 [DIRS 185080].

Figure 7.7.1-121[a]. Saturated Zone Release to the Biosphere for ⁹⁹Tc and ⁷⁹Se for Realization 4628 of the Seismic Ground Motion Modeling Case for 10,000 Years after Repository Closure



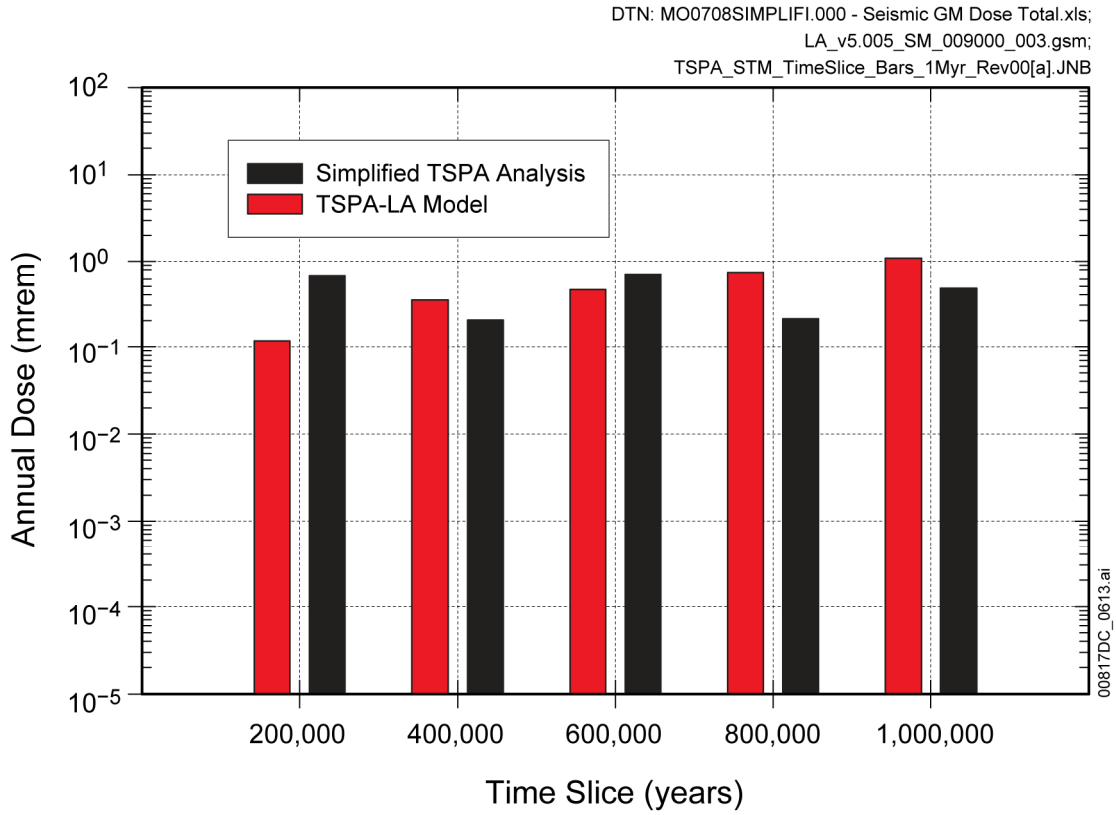
Source: Output DTN: MO0710ADTSPAWO.000 [DIRS 183752]; and Corroborative DTN: MO0708SIMPLIFI.000 [DIRS 182980].

Figure 7.7.2-3[a]. Time-Slice Comparison of the Simplified TSPA Analysis Results against the TSPA-LA Model Results for the Waste Package Early Failure Modeling Case



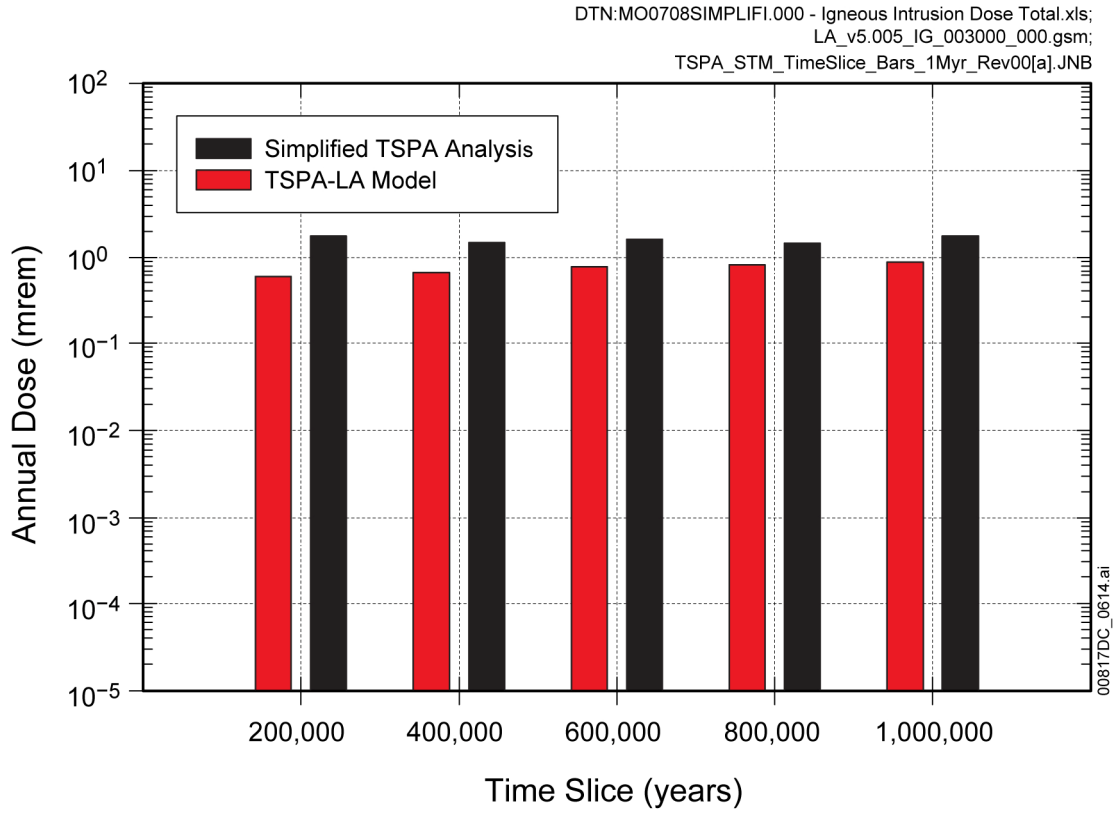
Source: Output DTN: MO0710ADTSPAWO.000 [DIRS 183752]; and Corroborative DTN: MO0708SIMPLIFI.000 [DIRS 182980].

Figure 7.7.2-6[a]. Time-Slice Comparison of the Simplified TSPA Analysis Results against the TSPA-LA Model Results for the Nominal Modeling Case



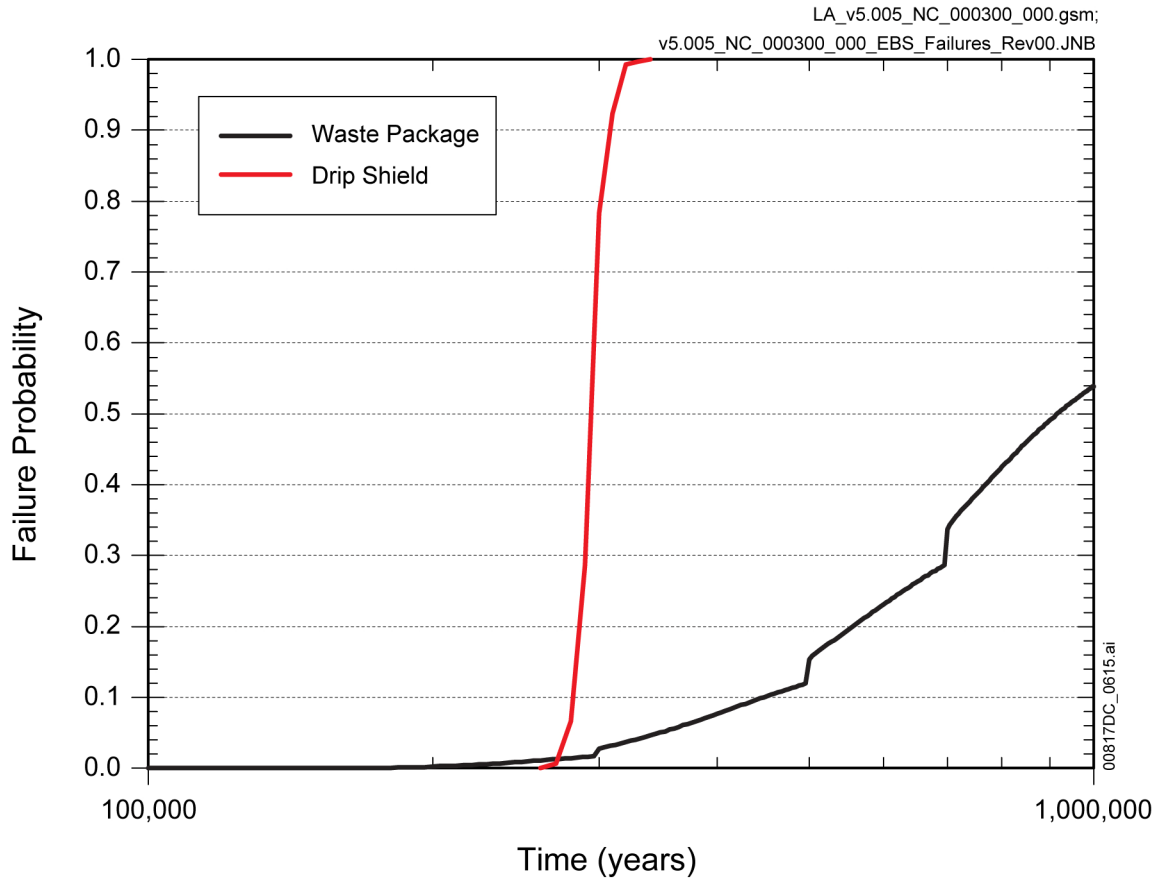
Source: Output DTN: MO0710ADTSPAWO.000 [DIRS 183752]; and Corroborative DTN: MO0708SIMPLIFI.000 [DIRS 182980].

Figure 7.7.2-9[a]. Time-Slice Comparison of the Simplified TSPA Analysis Results against the TSPA-LA Model Results for the Seismic Ground Motion Modeling Case



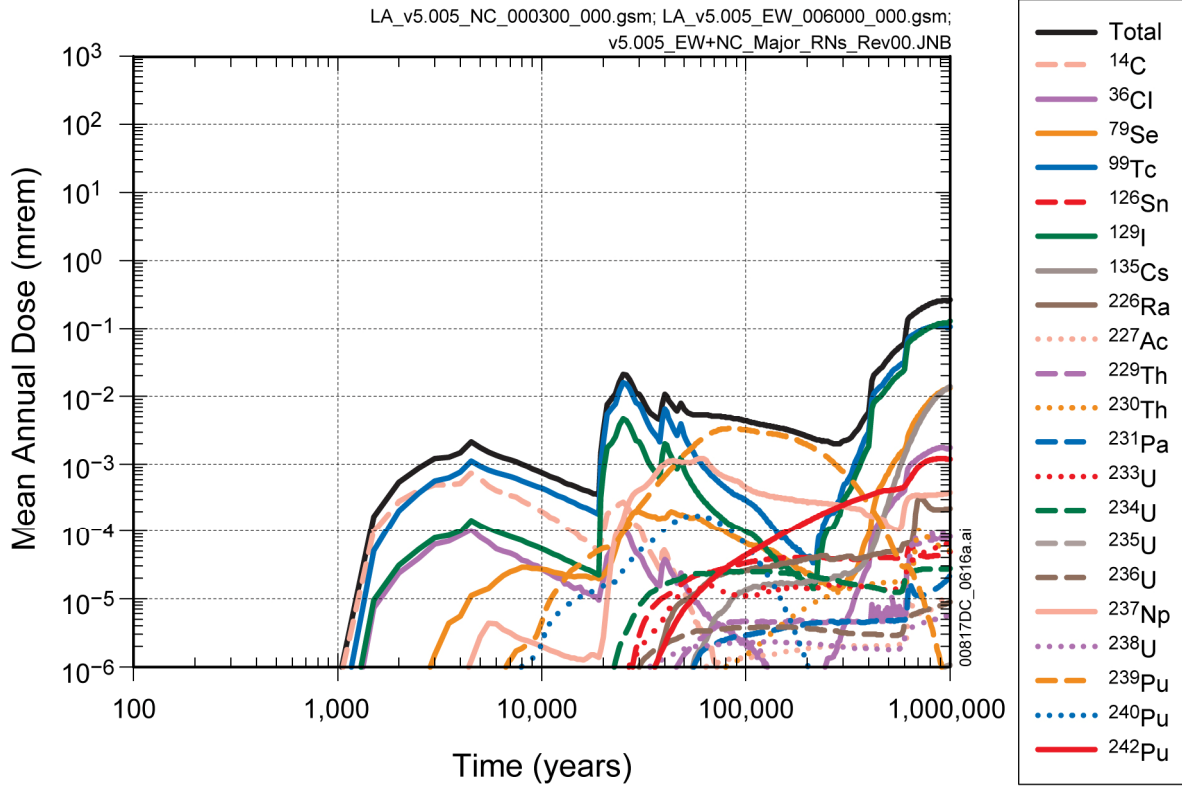
Source: Output DTN: MO0710ADTSPAWO.000 [DIRS 183752]; and Corroborative DTN: MO0708SIMPLIFI.000 [DIRS 182980].

Figure 7.7.2-12[a]. Time-Slice Comparison of the Simplified TSPA Analysis Results against the TSPA-LA Model Results for the Igneous Intrusion Modeling Case



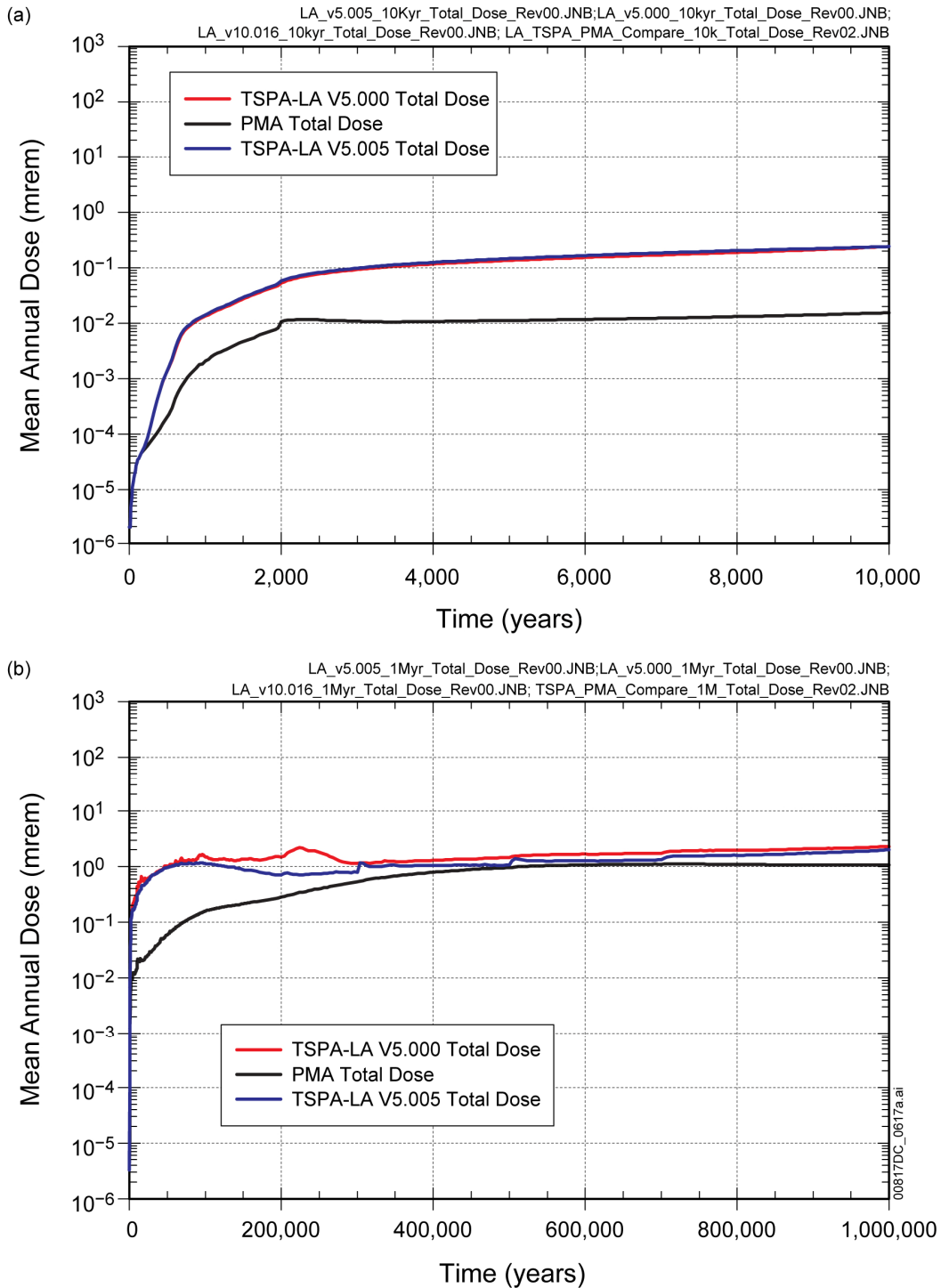
Source: Output DTN: MO0710ADTSPAWO.000 [DIRS 183752].

Figure 7.7.3-2[a]. TSPA-LA Nominal Scenario Class Mean Failure Curves for the Drip Shield and Waste Package



Source: Output DTN: MO0710ADTSPA00.000 [DIRS 183752].

Figure 7.7.3-3[a]. TSPA-LA Mean Annual Dose for Major Radionuclides for the Combined Early Failure and Nominal Scenario Classes



Source: Output DTN: MO0710PLOTSFIG.000 [DIRS 185207]; and Corroborative DTN: MO0709MARGANAL.000 [DIRS 182978].

Figure 7.7.4-7[a]. Comparison of Total Mean Annual Dose for TSPA-LA Model Version 5.000, Version 5.005, and the Performance Margin Analysis for: (a) 10,000 Years and (b) 1,000,000 Years after Repository Closure

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