

Figure 2.4-33. Distribution of Expected Annual Dose for the Drip Shield Early Failure Modeling Case for (a) 10,000 Years and (b) 1 Million Years after Repository Closure

Source: SNL 2008a, Figure 8.2-3[a].

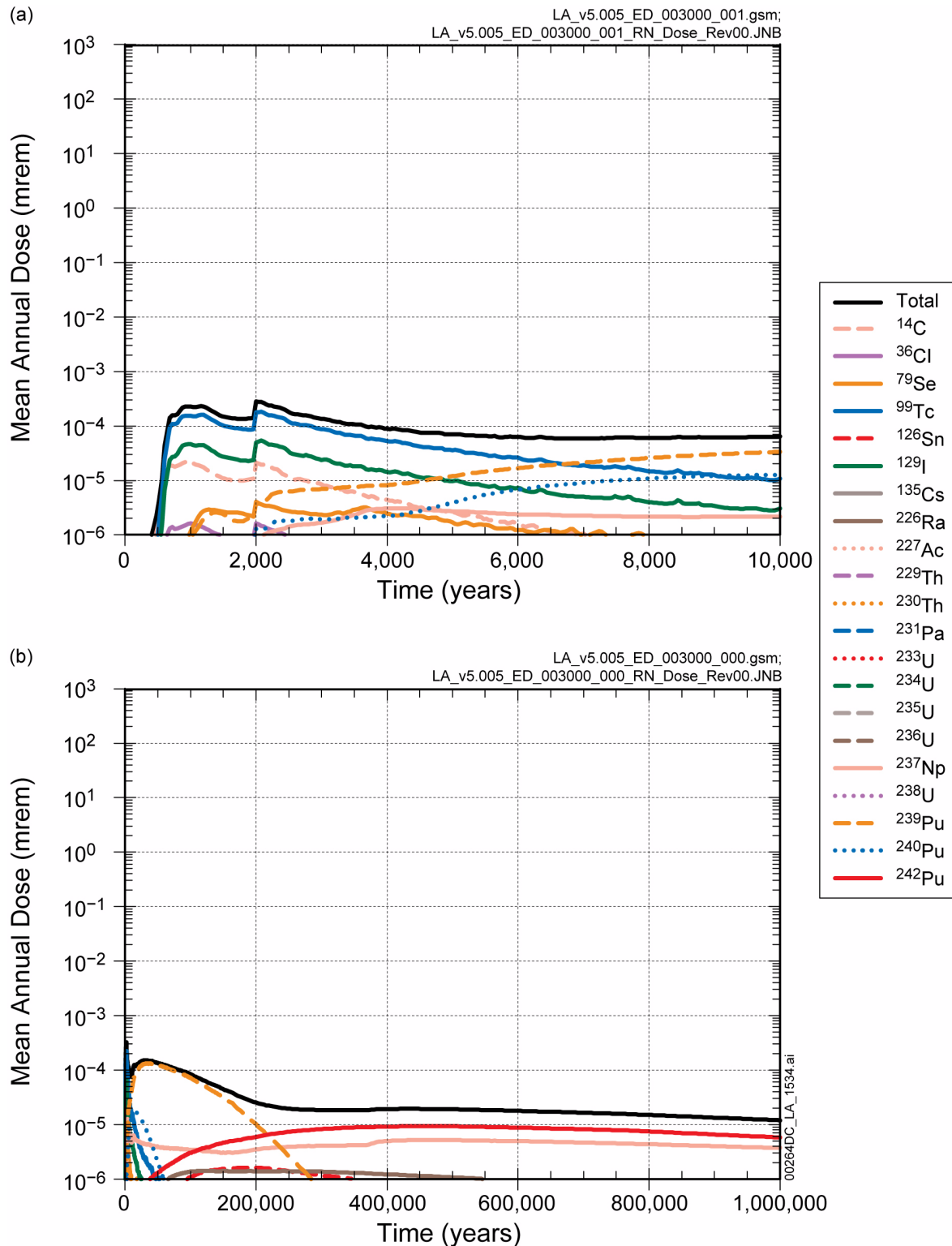


Figure 2.4-34. Contribution of Individual Radionuclides to Mean Annual Dose for the Drip Shield Early Failure Modeling Case for (a) 10,000 Years and (b) 1 Million Years after Repository Closure

Source: SNL 2008a, Figure 8.2-4[a].

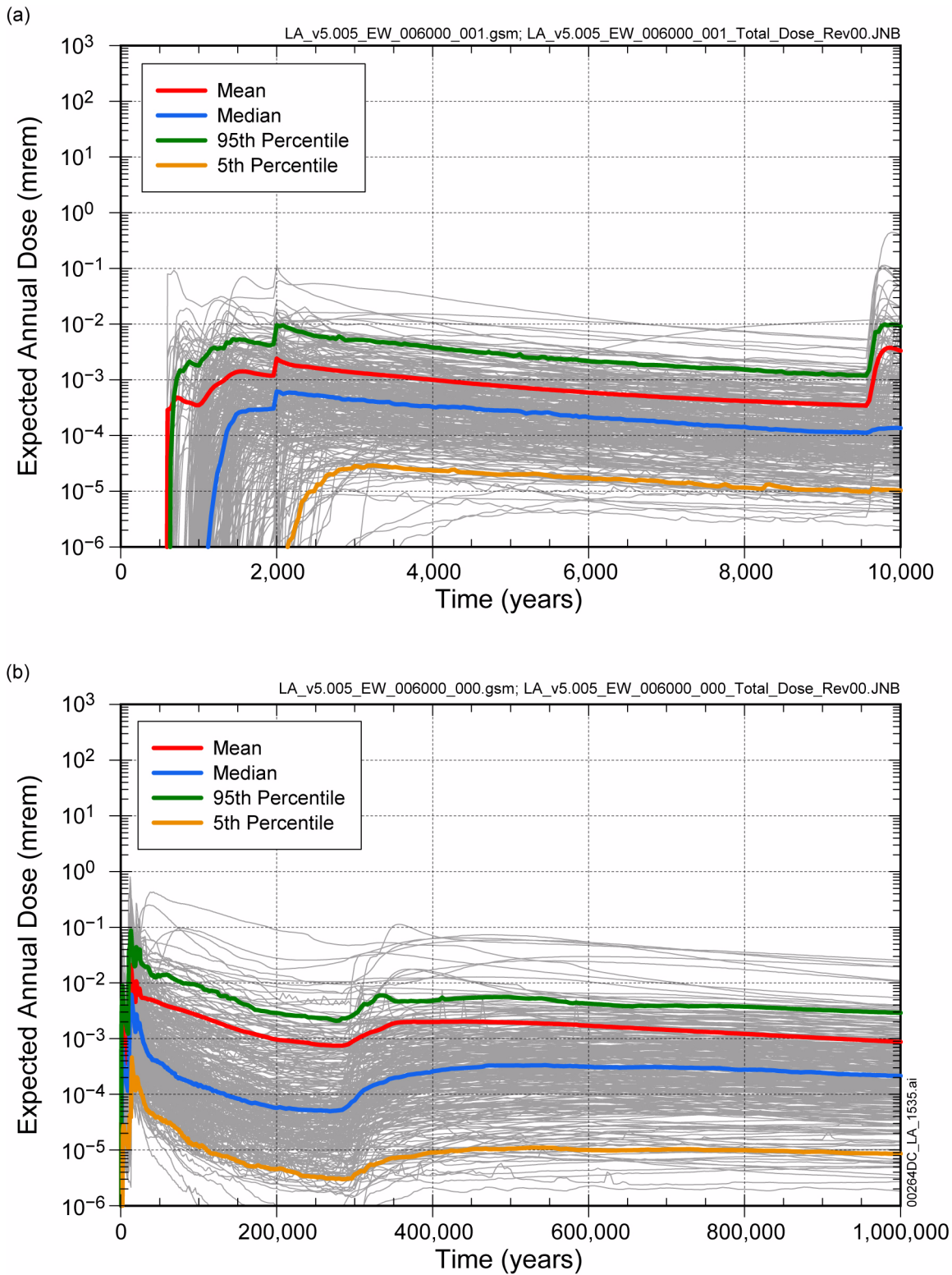


Figure 2.4-35. Distribution of Expected Annual Dose for the Waste Package Early Failure Modeling Case for (a) 10,000 Years and (b) 1 Million Years after Repository Closure

Source: SNL 2008a, Figure 8.2-5[a].

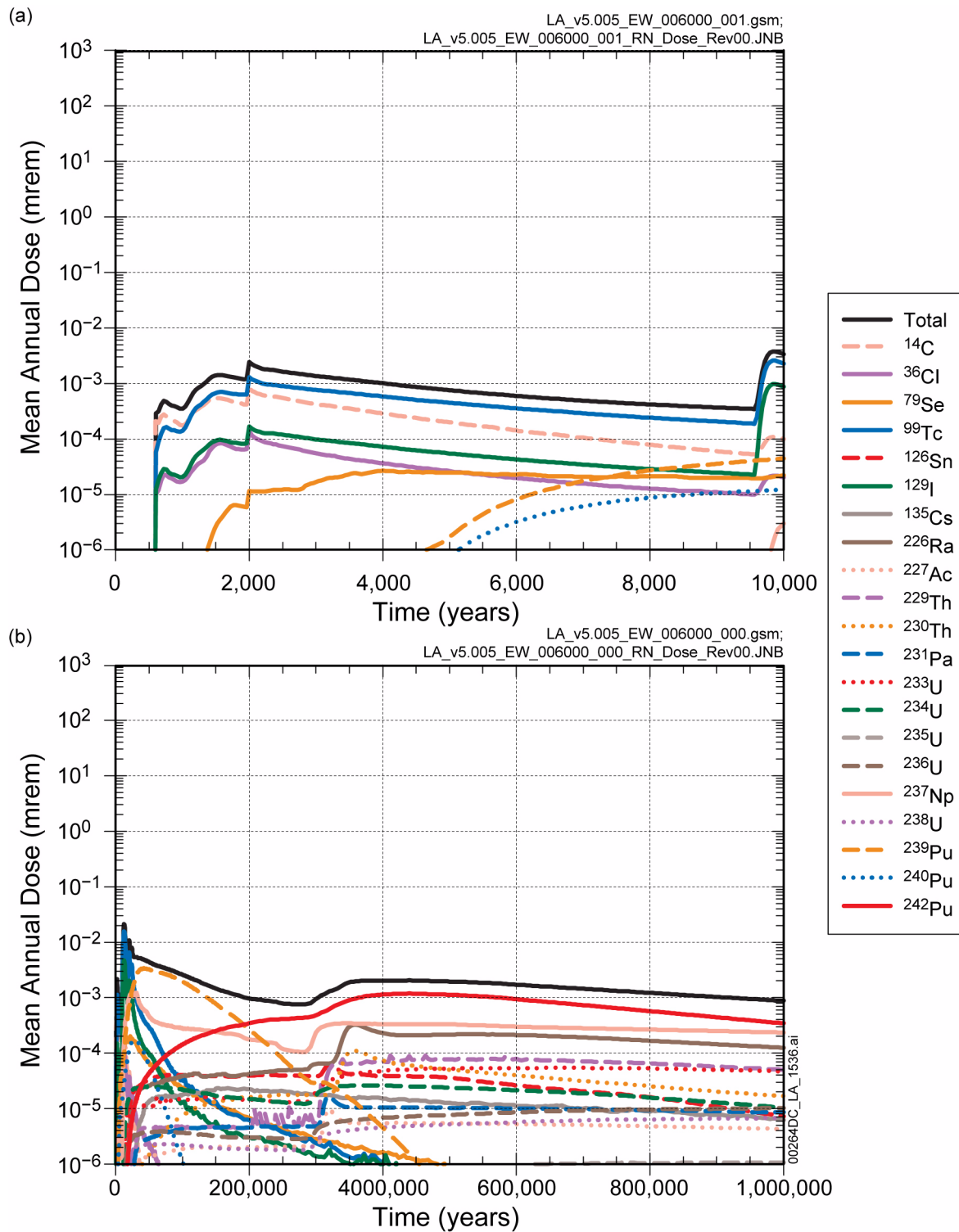


Figure 2.4-36. Contribution of Individual Radionuclides to Mean Annual Dose for the Waste Package Early Failure Modeling Case for (a) 10,000 Years and (b) 1 Million Years after Repository Closure

Source: SNL 2008a, Figure 8.2-6[a].

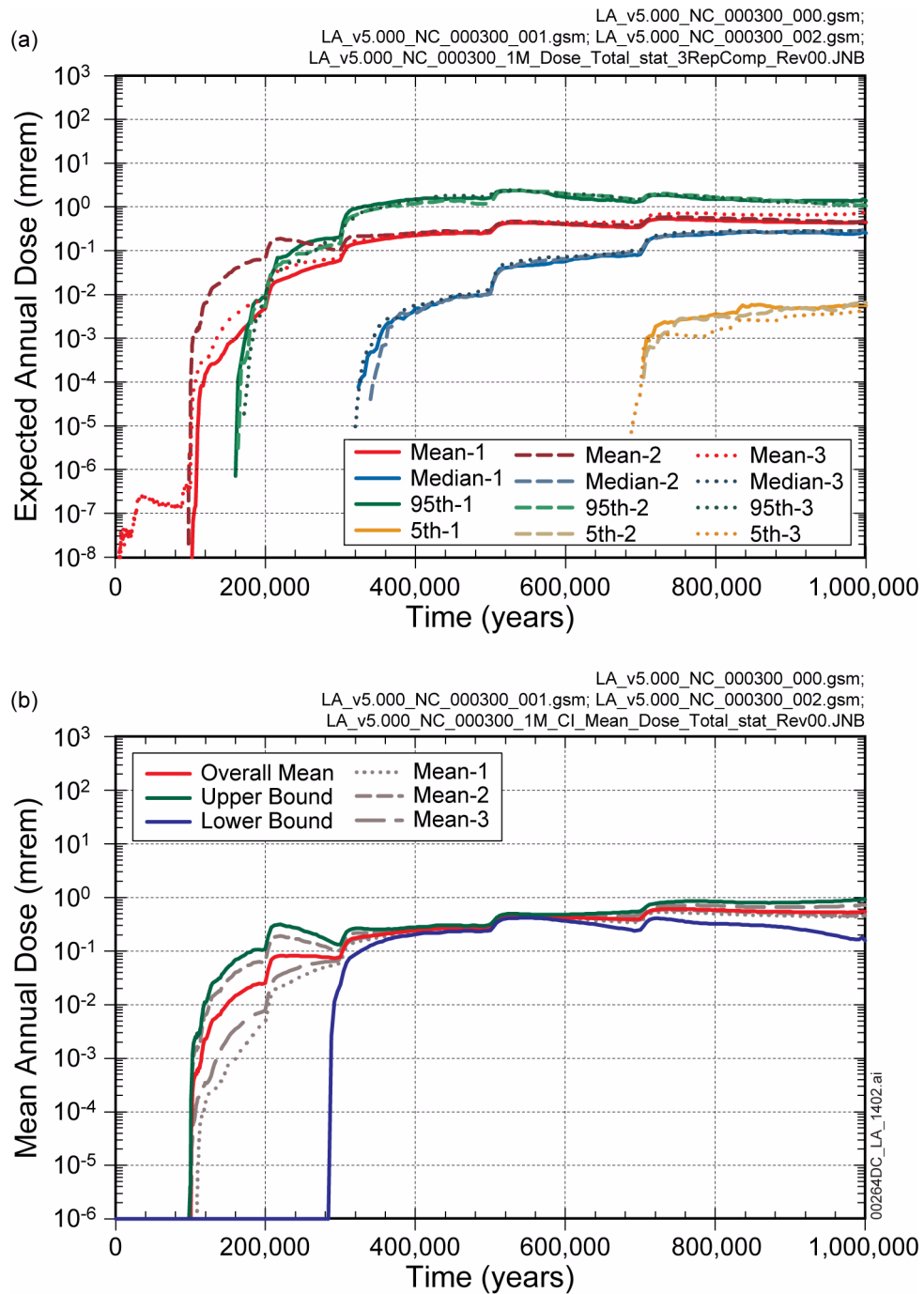


Figure 2.4-37. Stability of Nominal Modeling Case: (a) Comparison of Expected Annual Dose for Three Replicates and (b) Confidence Interval around Mean Annual Dose

Source: SNL 2008a, Figure 7.3.1-1.

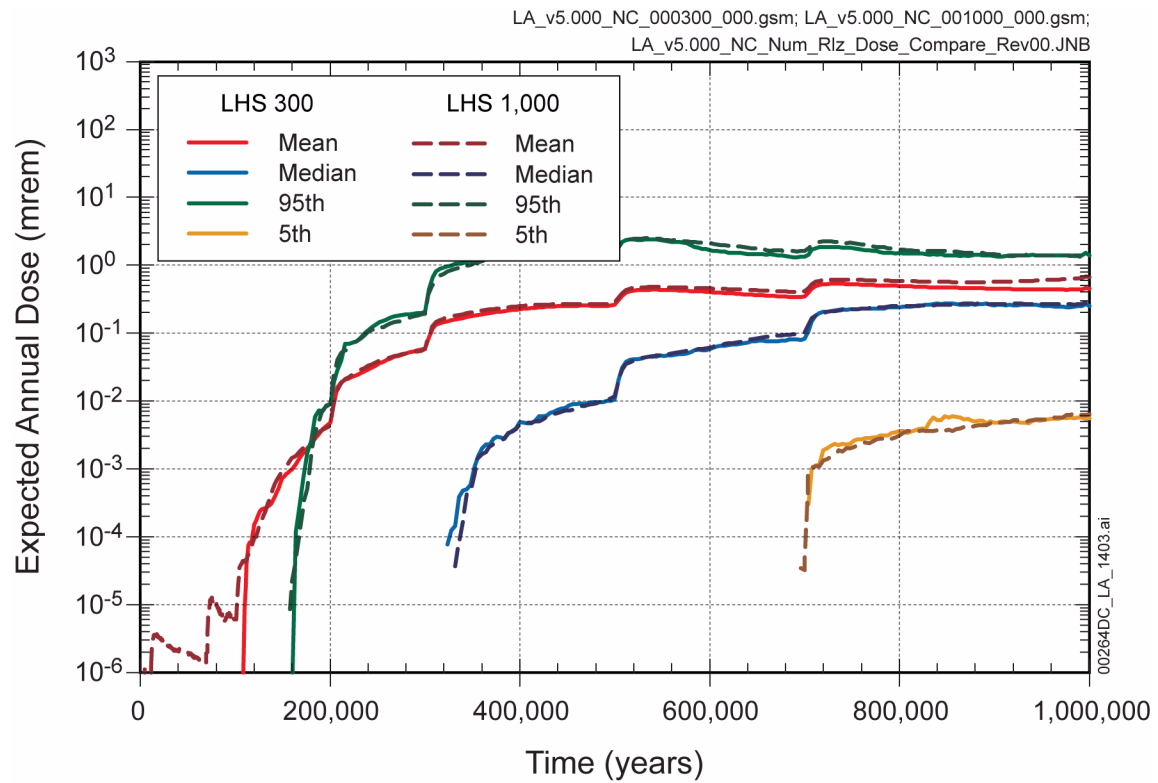


Figure 2.4-38. Uncertainty in Expected Annual Dose for the Nominal Modeling Case Using Latin Hypercube Sampling Sizes of 300 and 1,000

Source: SNL 2008a, Figure 7.3.2-2.

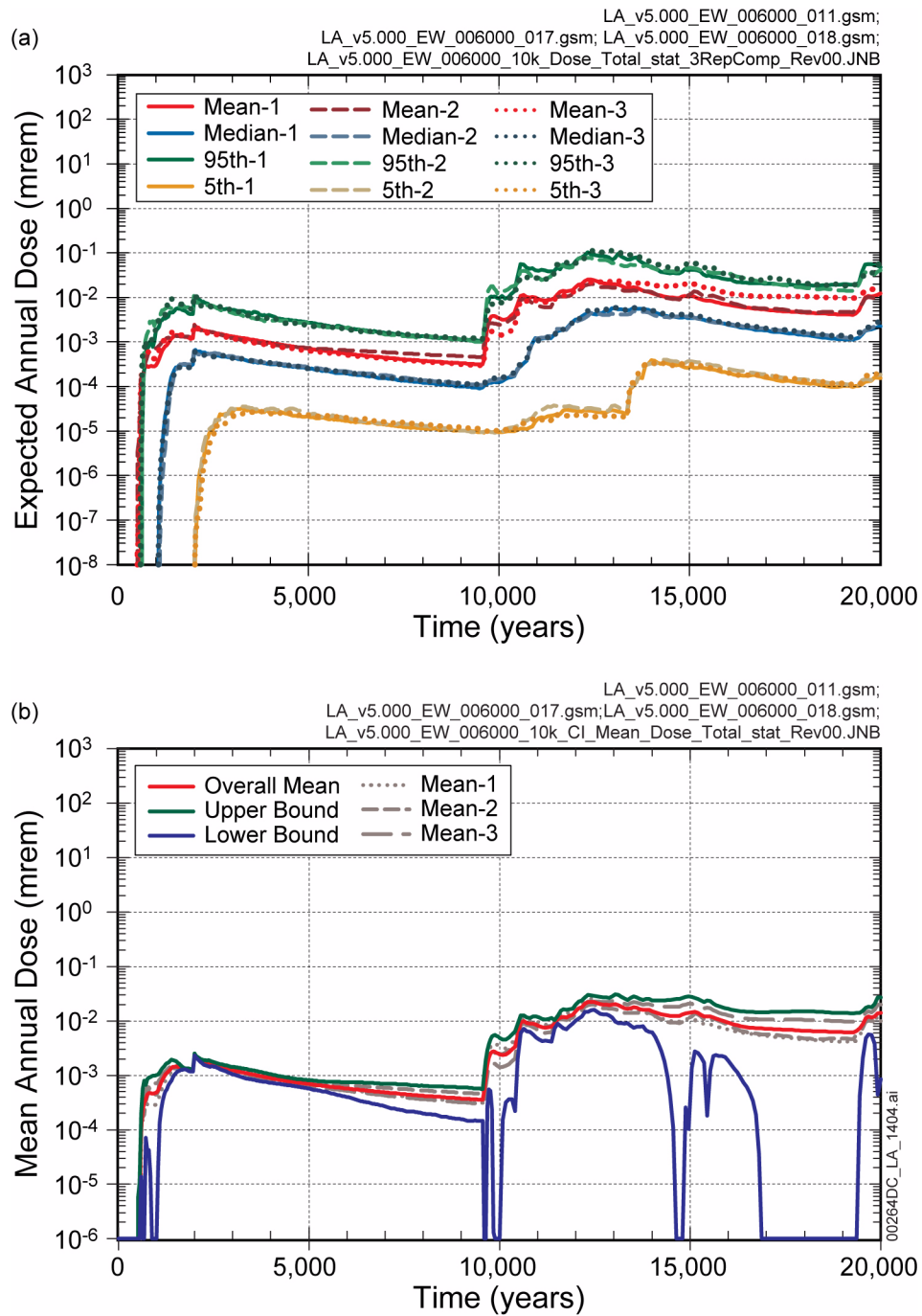


Figure 2.4-39. Stability of Waste Package Early Failure Modeling Case for 20,000 Years, (a) Comparison of Expected Annual Dose Statistics for Three Replicates and (b) Confidence Interval around Mean Annual Dose

Source: SNL 2008a, Figure 7.3.1-2.

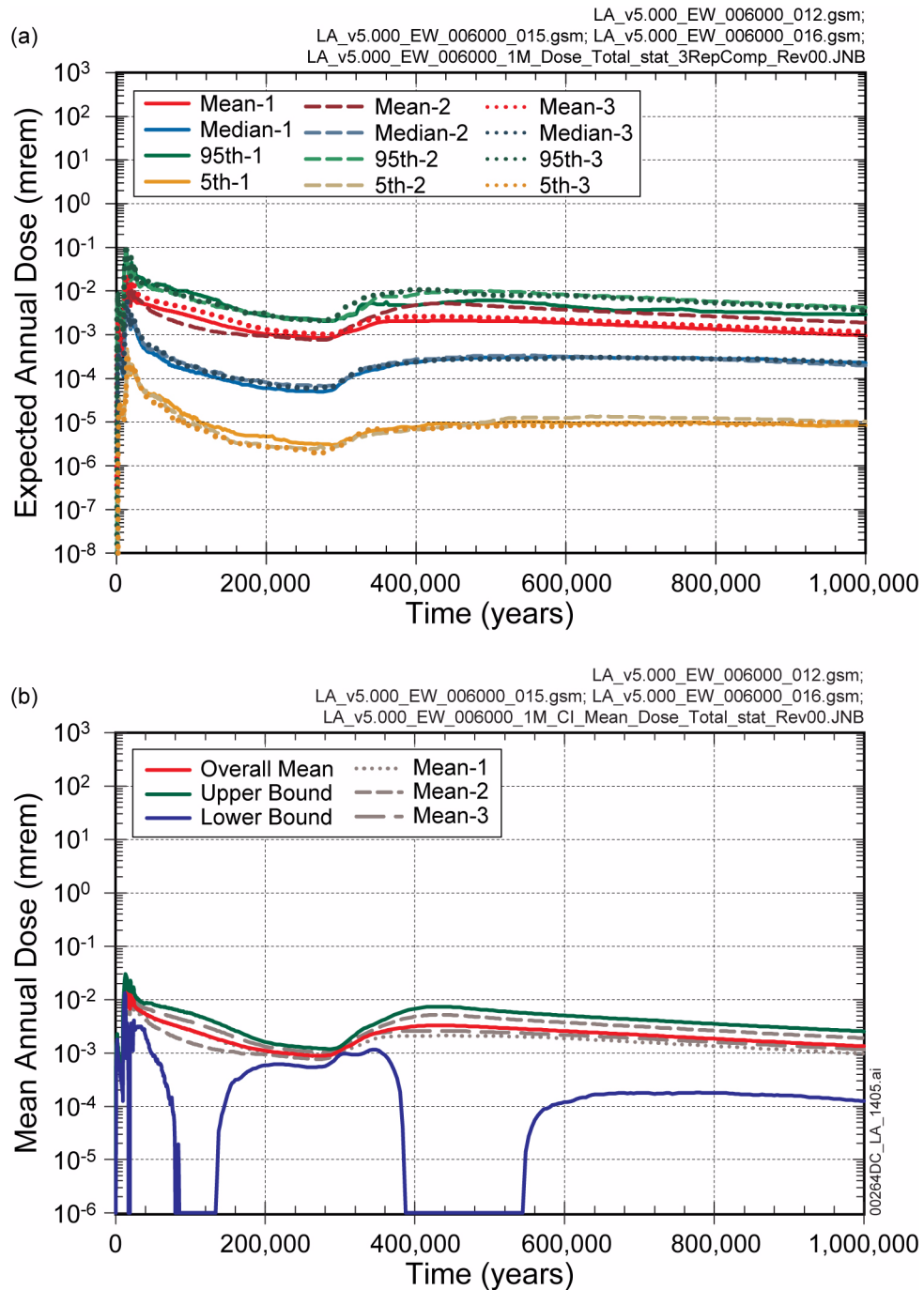


Figure 2.4-40. Stability of Waste Package Early Failure Modeling Case for 1 Million Years,
 (a) Comparison of Expected Annual Dose Statistics for Three Replicates and
 (b) Confidence Interval around Mean Annual Dose

Source: SNL 2008a, Figure 7.3.1-3.

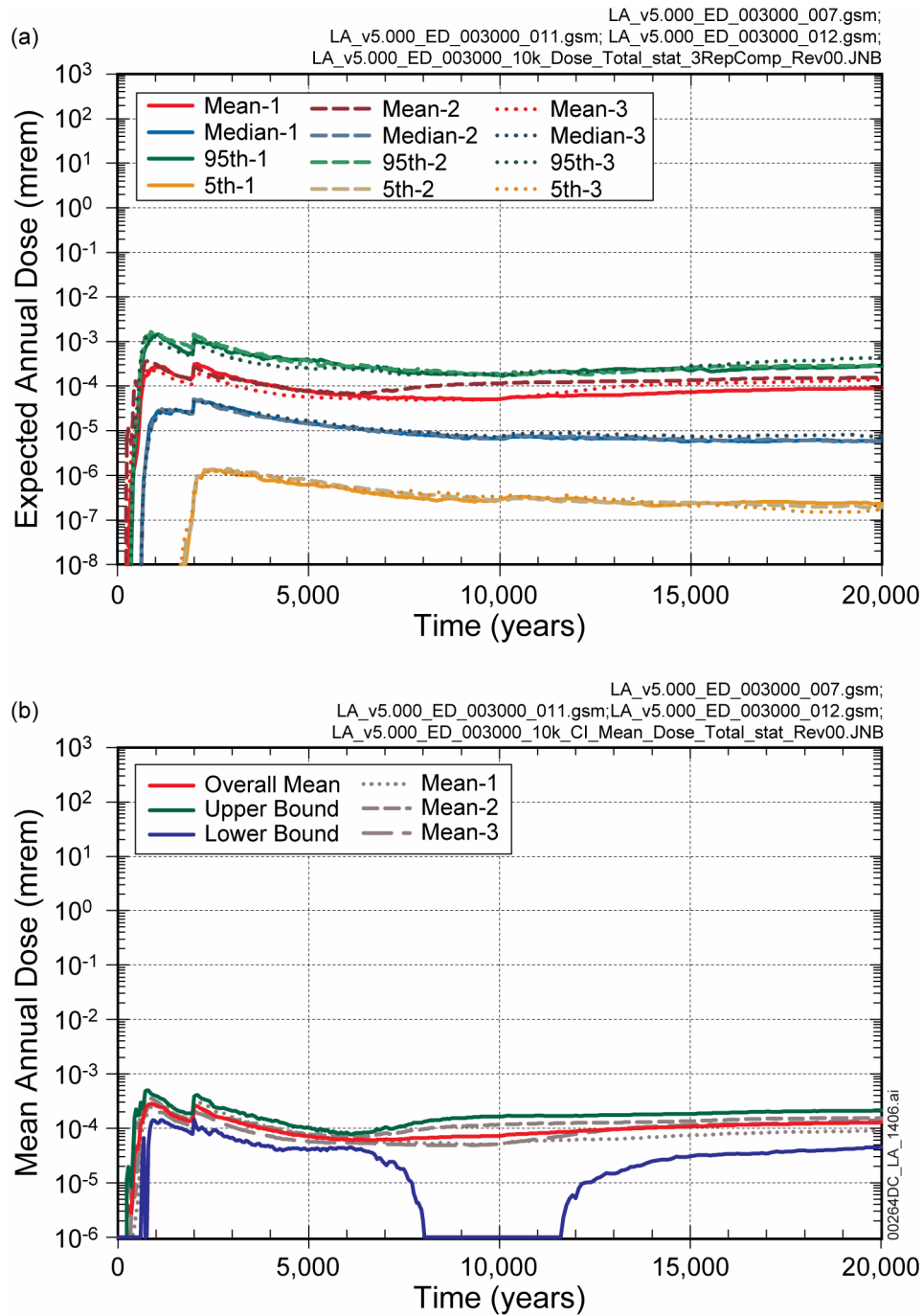


Figure 2.4-41. Stability of Drip Shield Early Failure Modeling Case for 20,000 Years, (a) Comparison of Expected Annual Dose Statistics for Three Replicates and (b) Confidence Interval around Mean Annual Dose

Source: SNL 2008a, Figure 7.3.1-4.

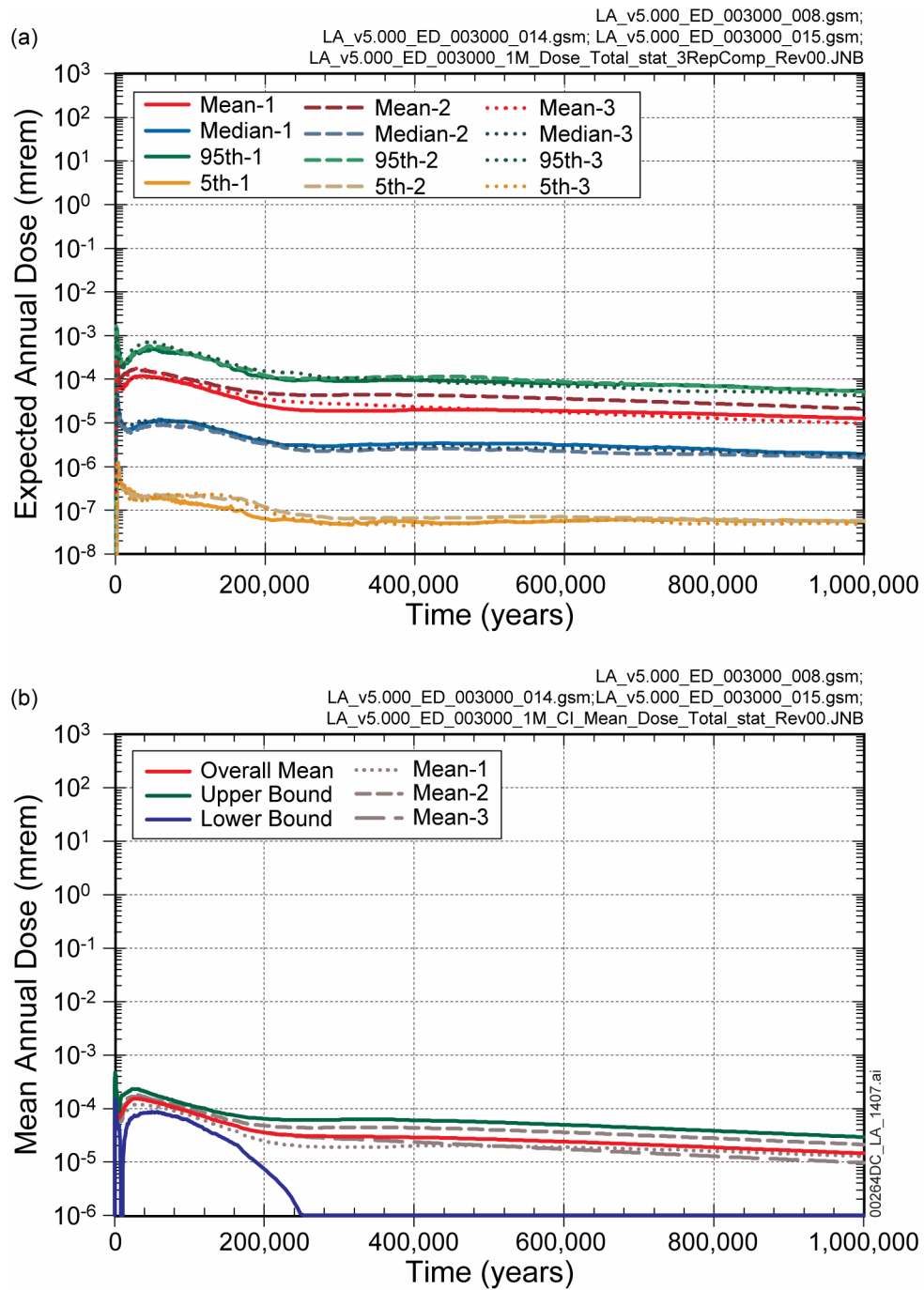


Figure 2.4-42. Stability of Drip Shield Early Failure Modeling Case for 1 Million Years: (a) Comparison of Expected Annual Dose for Three Replicates and (b) Confidence Interval around Mean Annual Dose

Source: SNL 2008a, Figure 7.3.1-5.

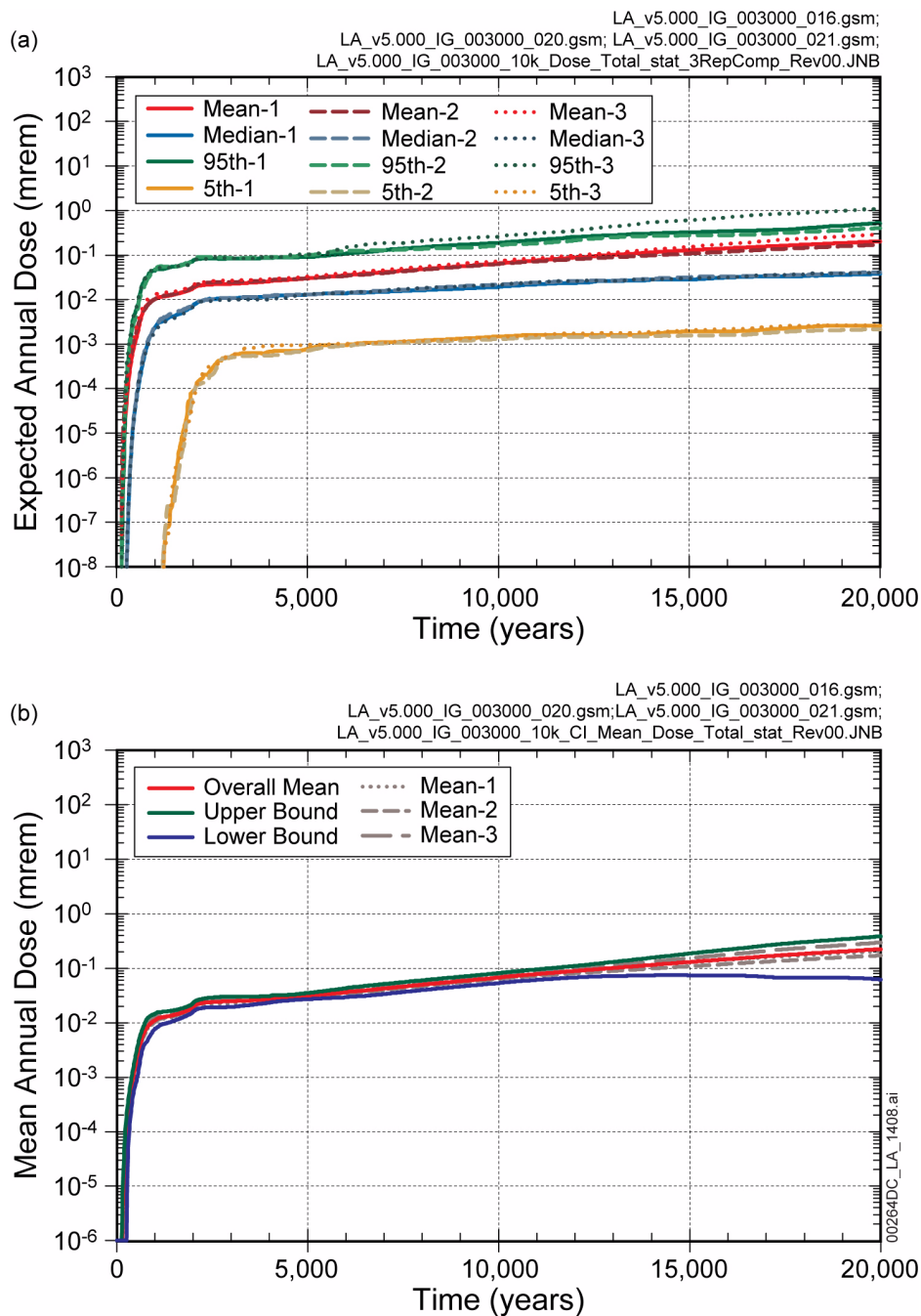


Figure 2.4-43. Stability of Igneous Intrusion Modeling Case for 20,000 Years: (a) Comparison of Expected Annual Dose for Three Replicates and (b) Confidence Interval around Mean Annual Dose

Source: SNL 2008a, Figure 7.3.1-6.

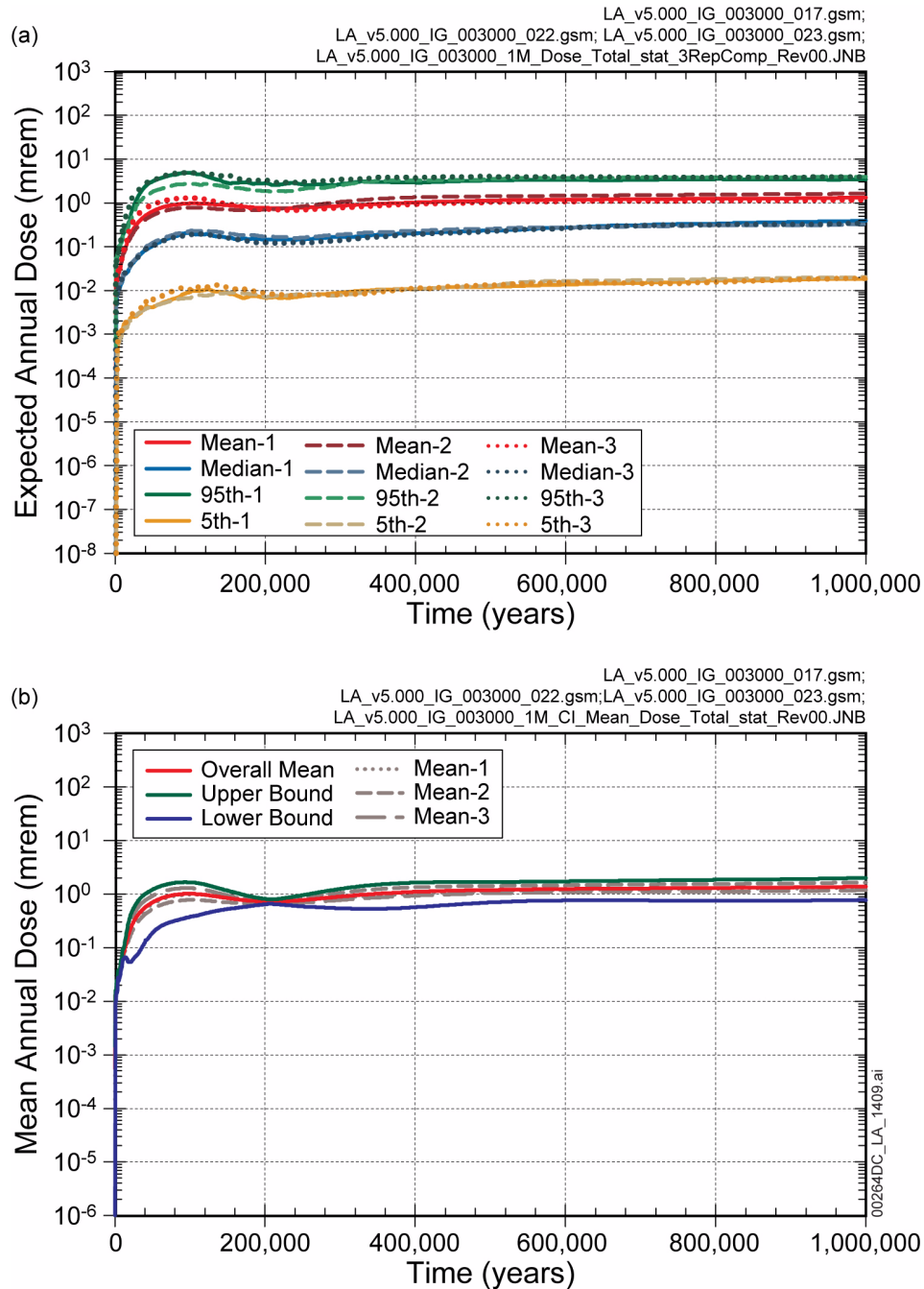


Figure 2.4-44. Stability of Igneous Intrusion Modeling Case for 1 Million Years: (a) Comparison of Expected Annual Dose for Three Replicates and (b) Confidence Interval around Mean Annual Dose

Source: SNL 2008a, Figure 7.3.1-7.

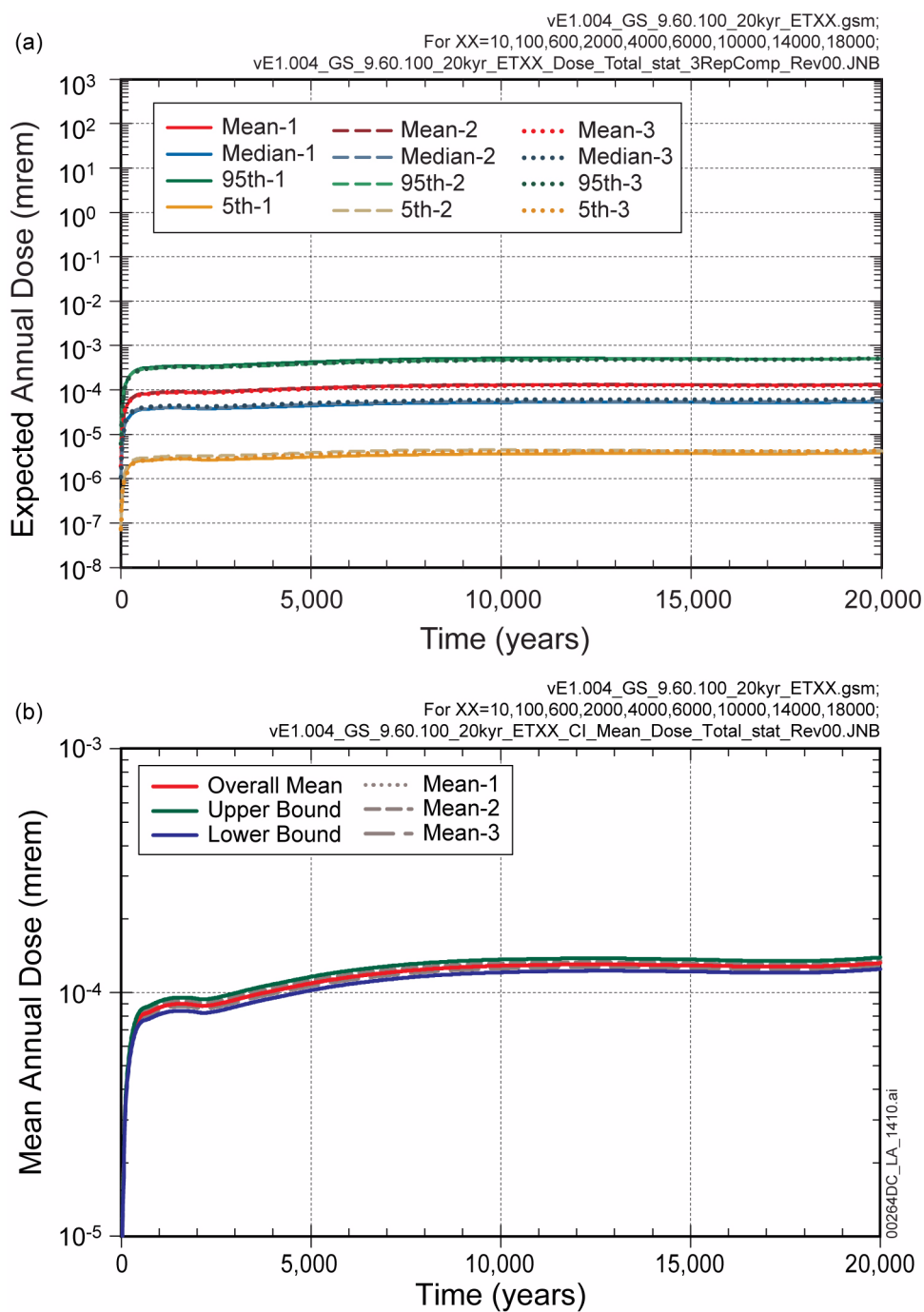


Figure 2.4-45. Stability of Volcanic Eruption Modeling Case for 20,000 Years: (a) Comparison of Expected Annual Dose for Three Replicates and (b) Confidence Interval around Mean Annual Dose

Source: SNL 2008a, Figure 7.3.1-8.

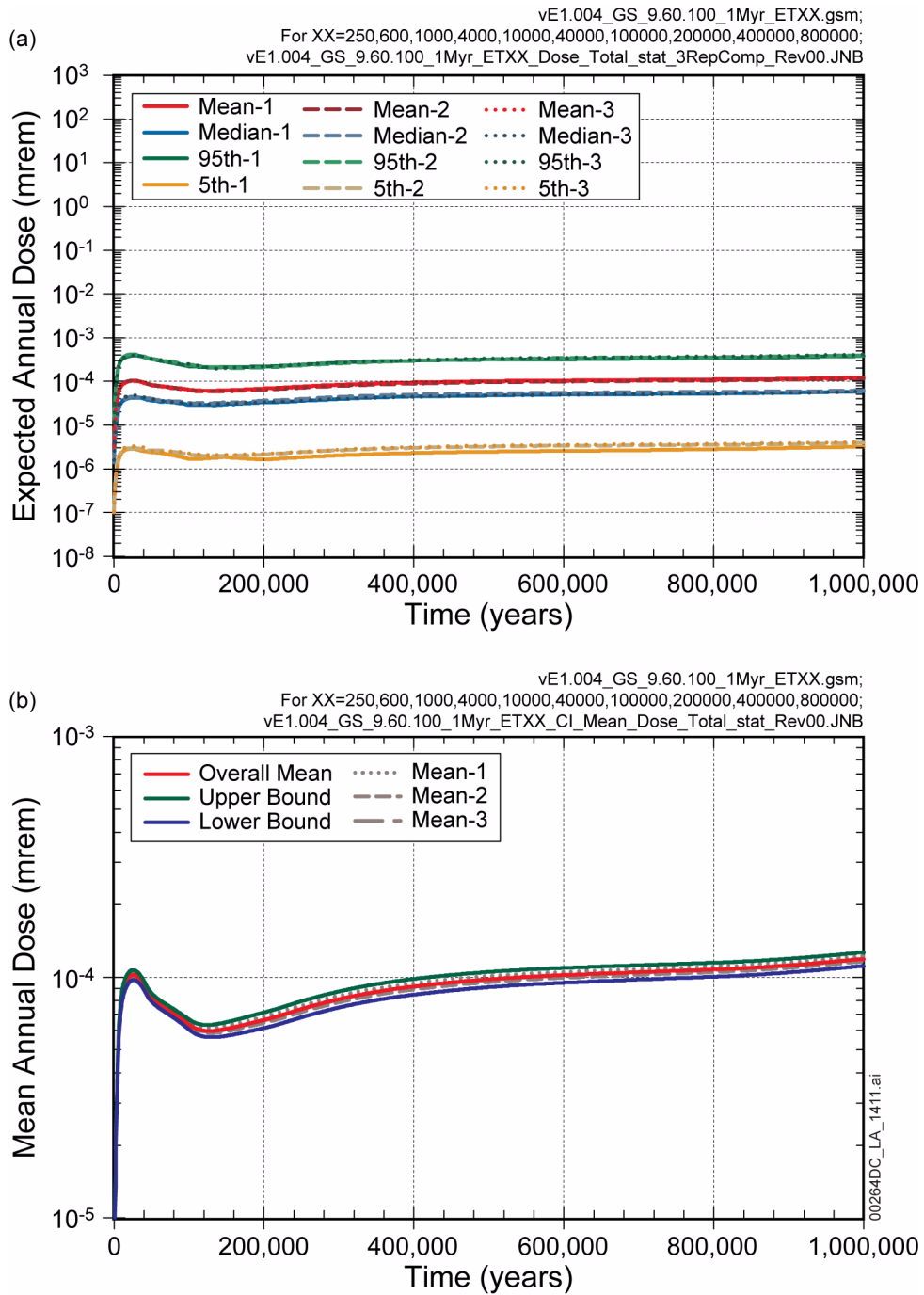


Figure 2.4-46. Stability of Volcanic Eruption Modeling Case for 1 Million Years: (a) Comparison of Expected Annual Dose for Three Replicates and (b) Confidence Interval around Mean Annual Dose

Source: SNL 2008a, Figure 7.3.1-9.

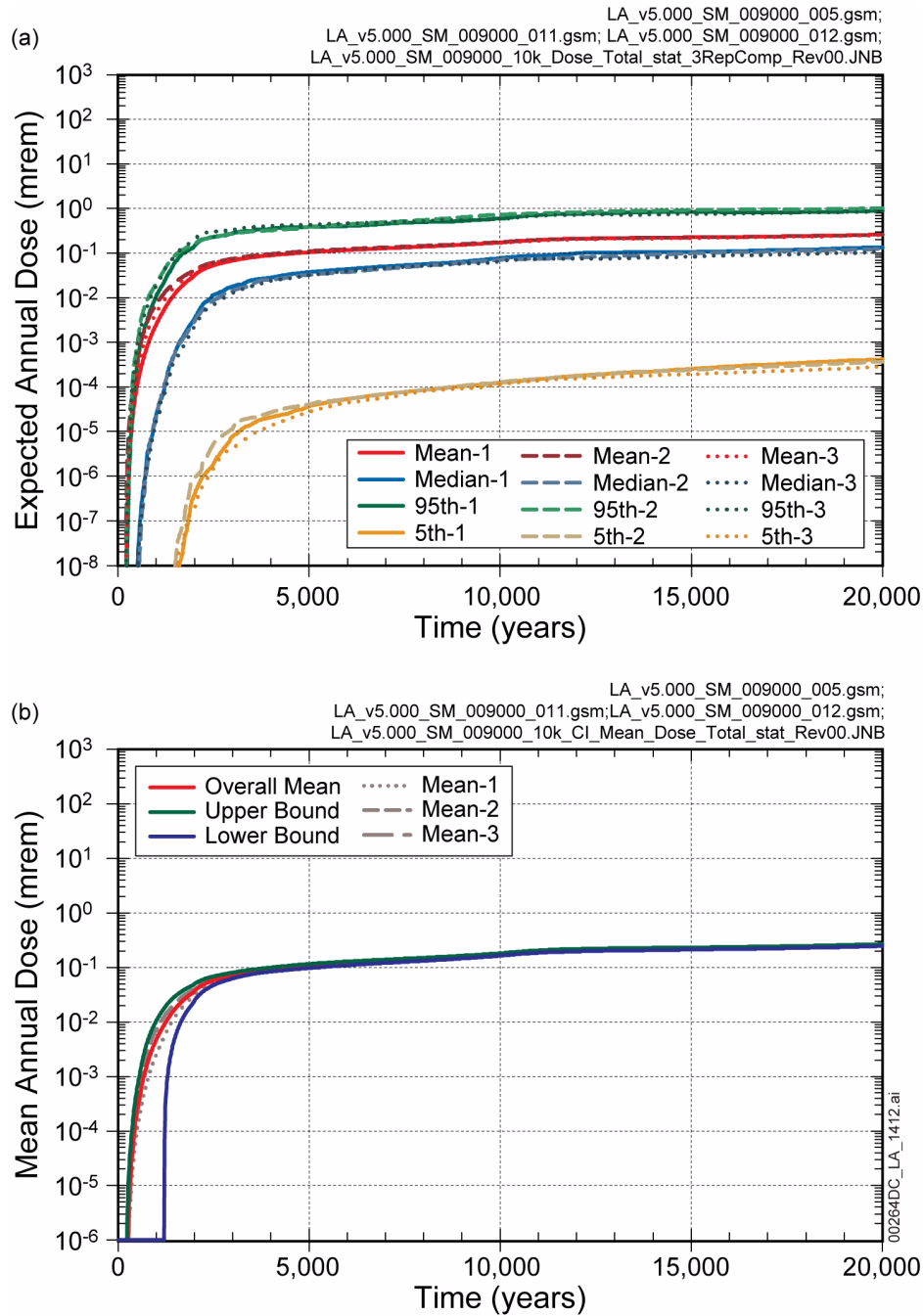


Figure 2.4-47. Stability of Seismic Ground Motion Modeling Case for 20,000 Years: (a) Comparison of Expected Annual Dose for Three Replicates and (b) Confidence Interval around Mean Annual Dose

Source: SNL 2008a, Figure 7.3.1-10.

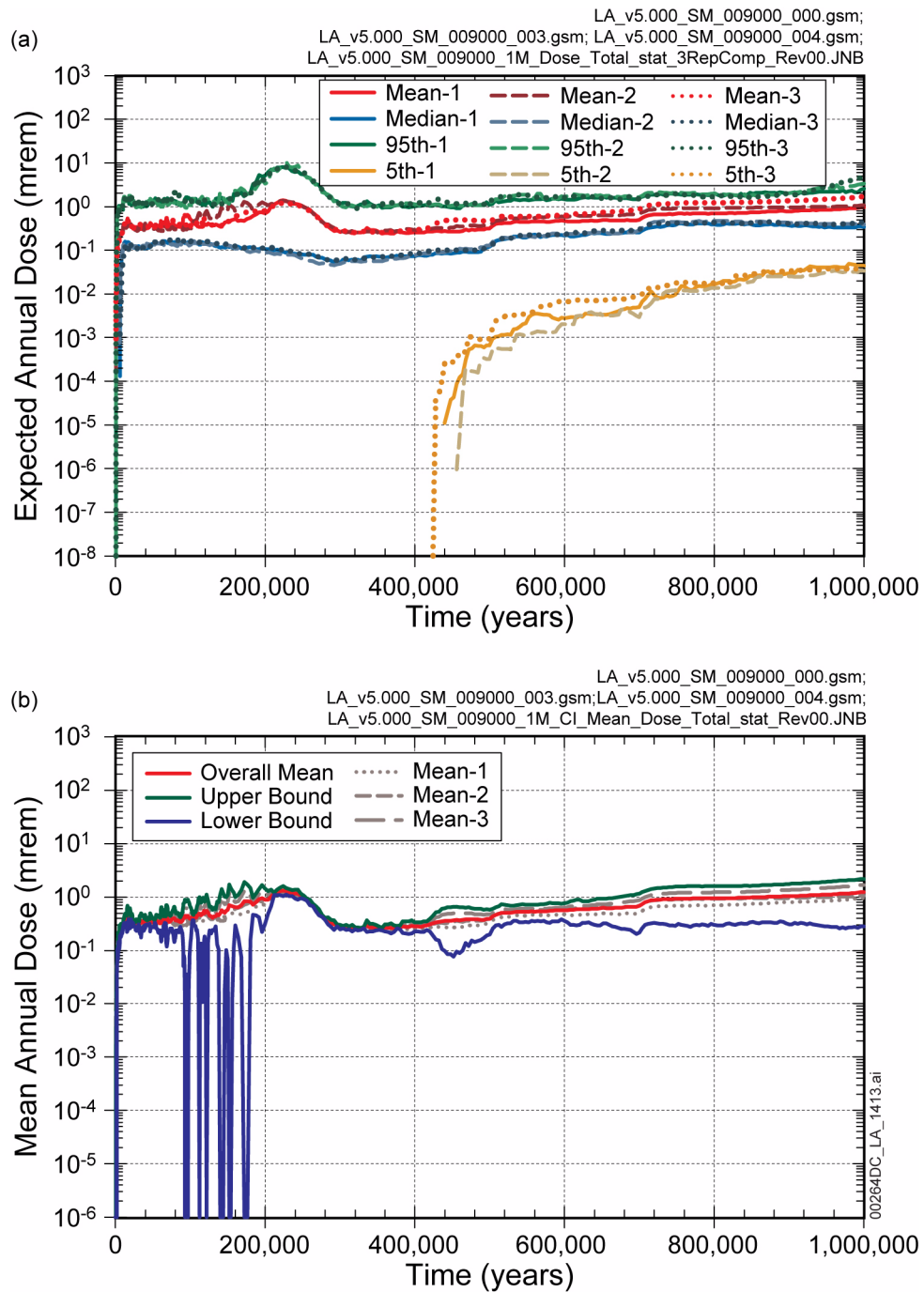


Figure 2.4-48. Stability of Seismic Ground Motion Modeling Case for 1 Million Years: (a) Comparison of Expected Annual Dose for Three Replicates and (b) Confidence Interval around Mean Annual Dose

Source: SNL 2008a, Figure 7.3.1-11.

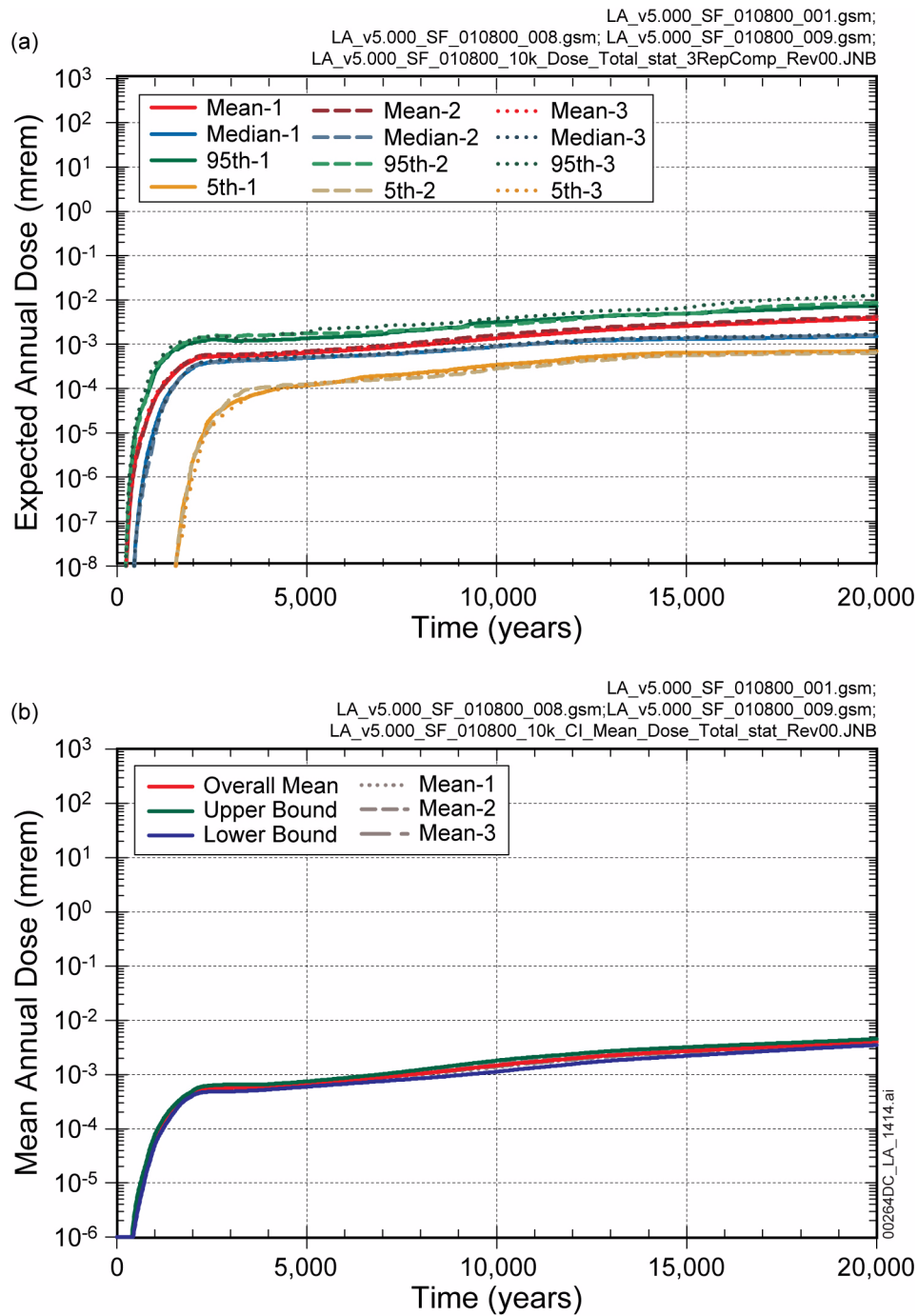


Figure 2.4-49. Stability of Seismic Fault Displacement Modeling Case for 20,000 Years: (a) Comparison of Expected Annual Dose for Three Replicates and (b) Confidence Interval around Mean Annual Dose

Source: SNL 2008a, Figure 7.3.1-12.

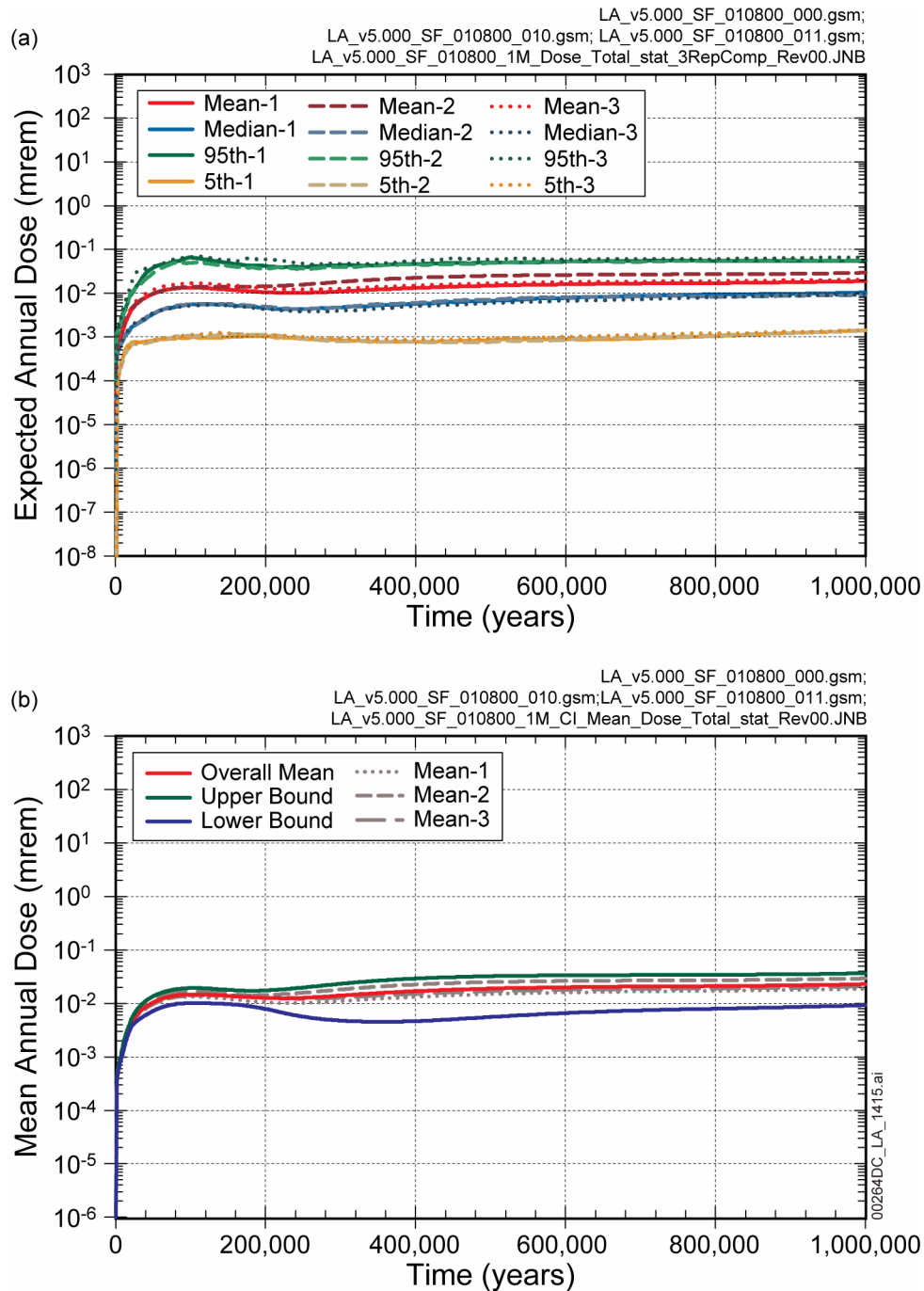


Figure 2.4-50. Stability of Seismic Fault Displacement Modeling Case for 1 Million Years: (a) Comparison of Expected Annual Dose for Three Replicates and (b) Confidence Interval around Mean Annual Dose

Source: SNL 2008a, Figure 7.3.1-13.

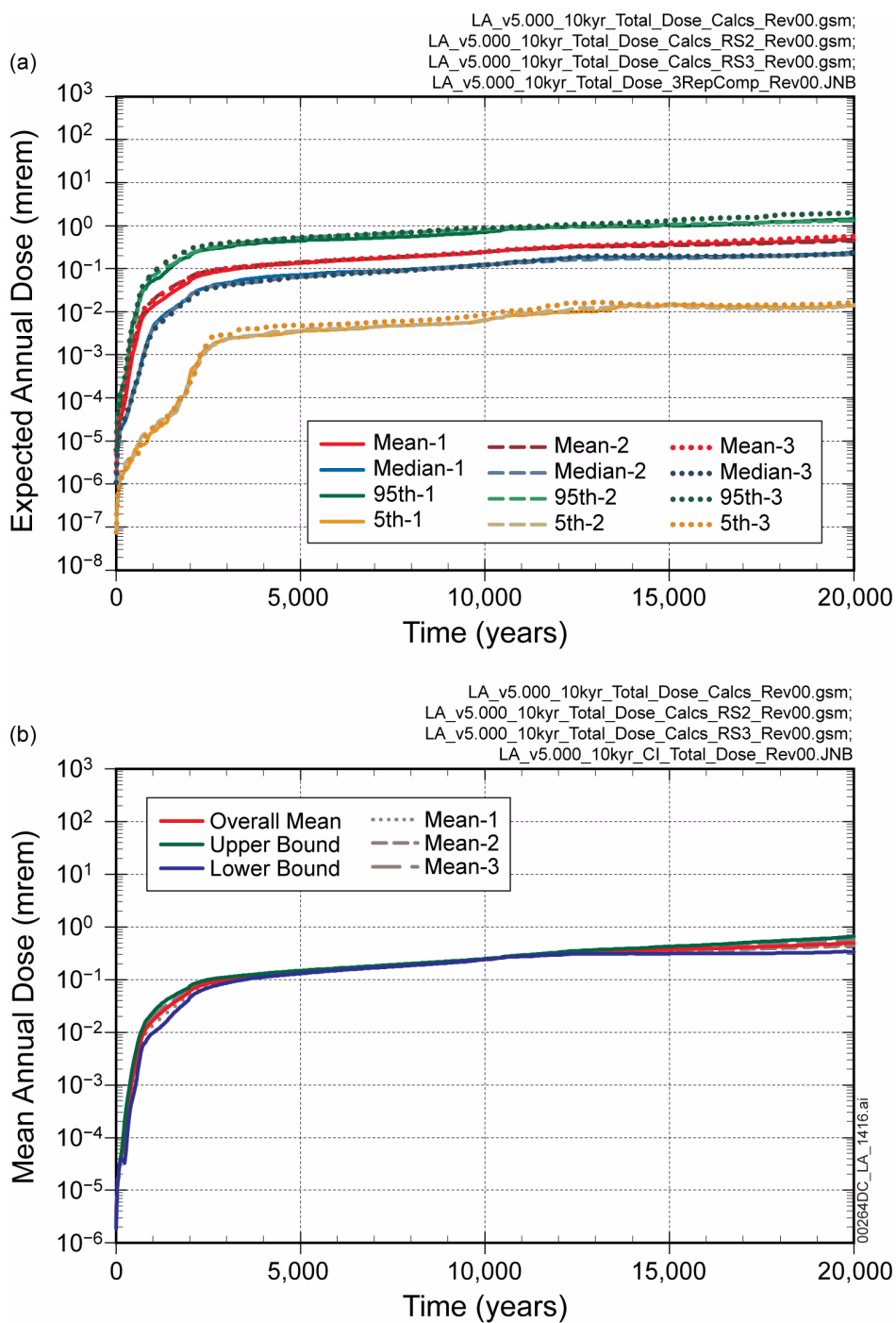


Figure 2.4-51. Stability of Total Mean Annual Dose 20,000 Years: (a) Comparison of Expected Annual Dose for Three Replicates and (b) Confidence Interval around Mean Annual Dose

Source: SNL 2008a, Figure 7.3.1-15.

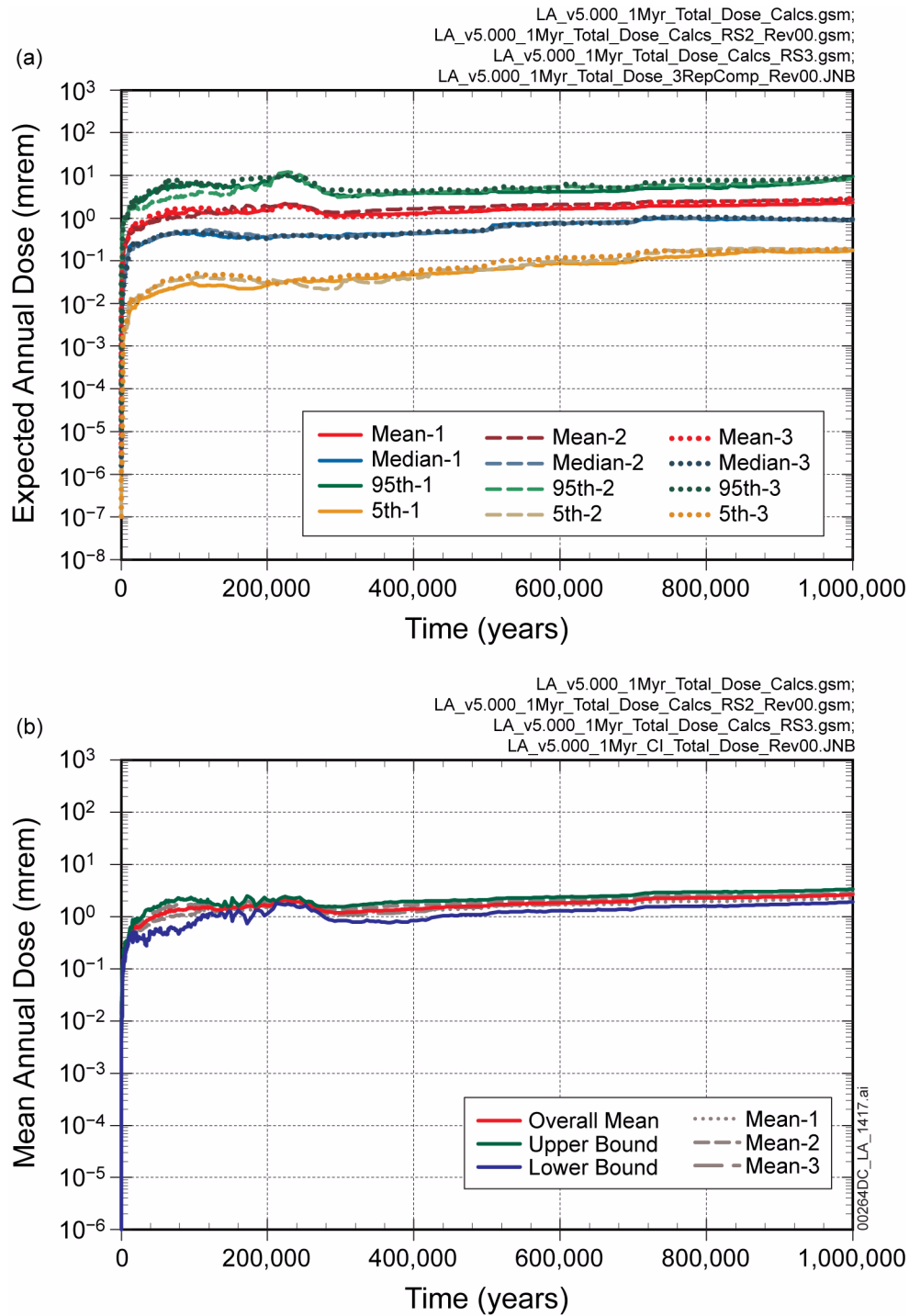


Figure 2.4-52. Stability of Total Mean Annual Dose for 1 Million Years: (a) Comparison of Expected Annual Dose for Three Replicates and (b) Confidence Interval around Mean Annual Dose

Source: SNL 2008a, Figure 7.3.1-16.

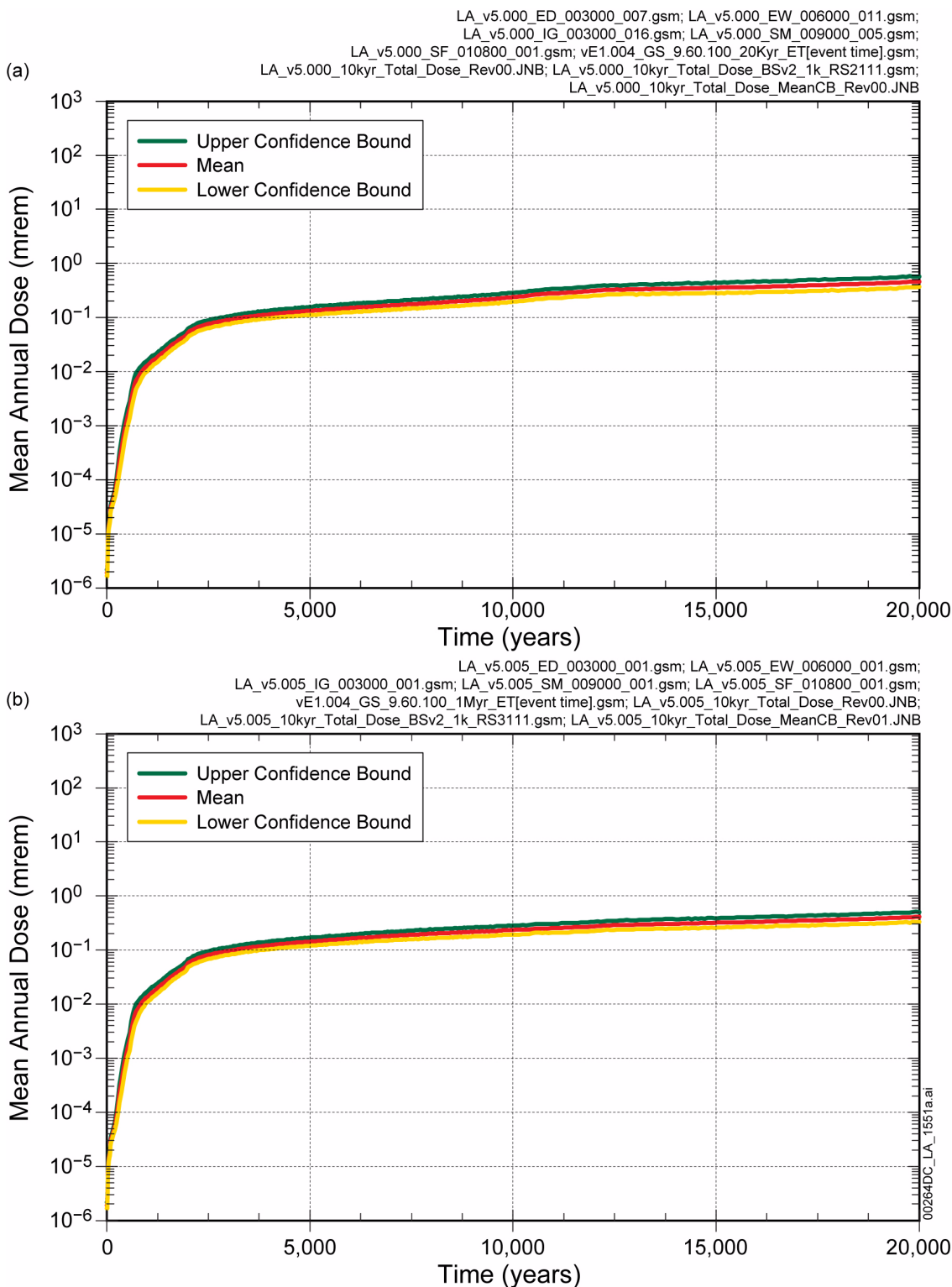


Figure 2.4-53. Stability of Total Mean Annual Dose for 20,000 Years, (a) Using Bootstrap Simulation for TSPA Model v5.000 and (b) Using Bootstrap Simulation for TSPA Model v5.005

Source: SNL 2008a, Figure 7.3.1-47a and (b).

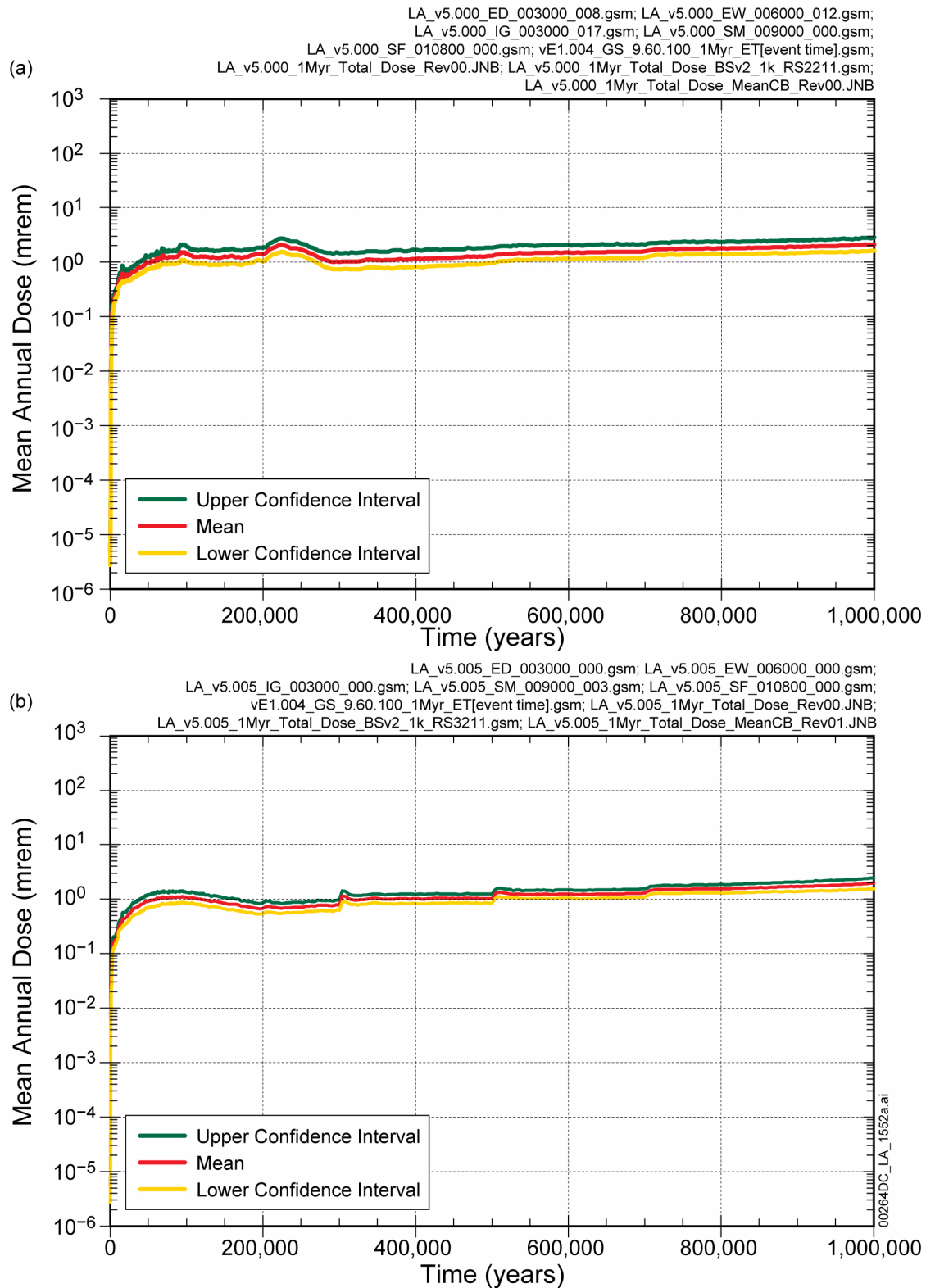


Figure 2.4-54. Stability of Total Mean Annual Dose for 1 Million Years, (a) Using Bootstrap Simulation for TSPA Model v5.000 and (b) Using Bootstrap Simulation for TSPA Model v5.005

Source: SNL 2008a, Figures 7.3.1-48a and (b).

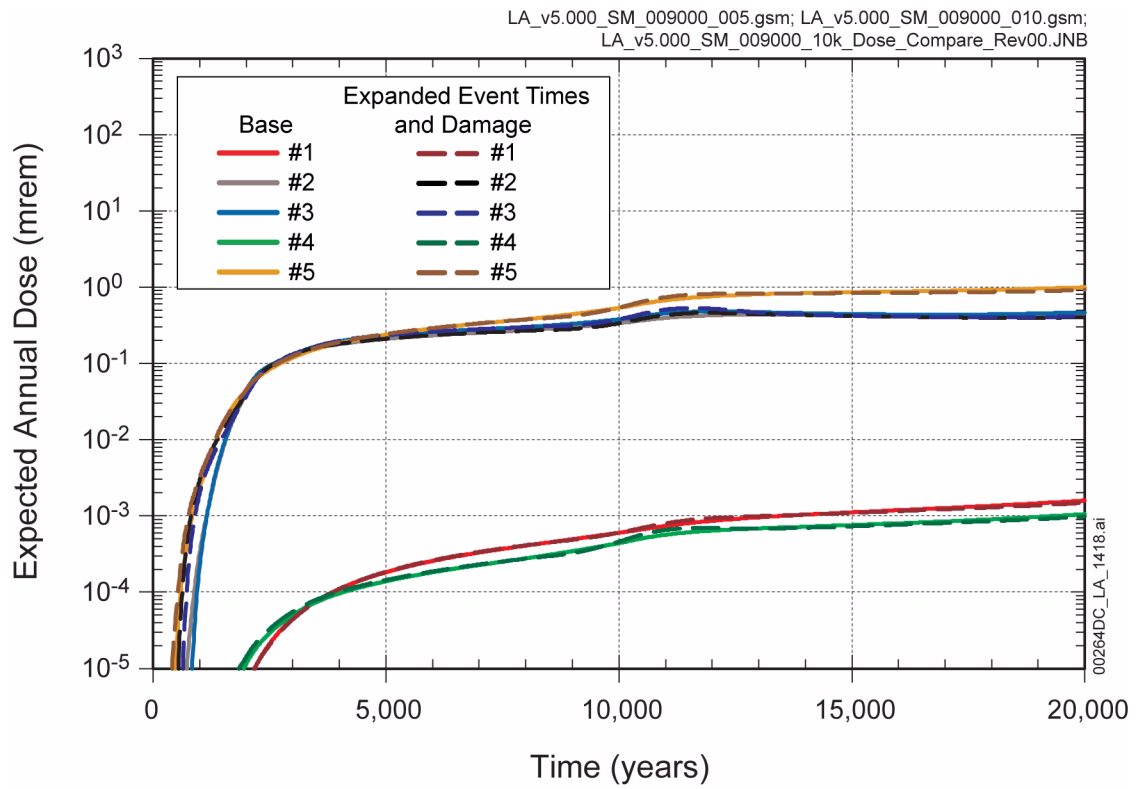


Figure 2.4-55. Expected Annual Dose over 20,000 Years for Seismic Ground Motion Modeling Case Considering Additional Specified Event Times and Damage Fractions

Source: SNL 2008a, Figures 7.3.2-11.

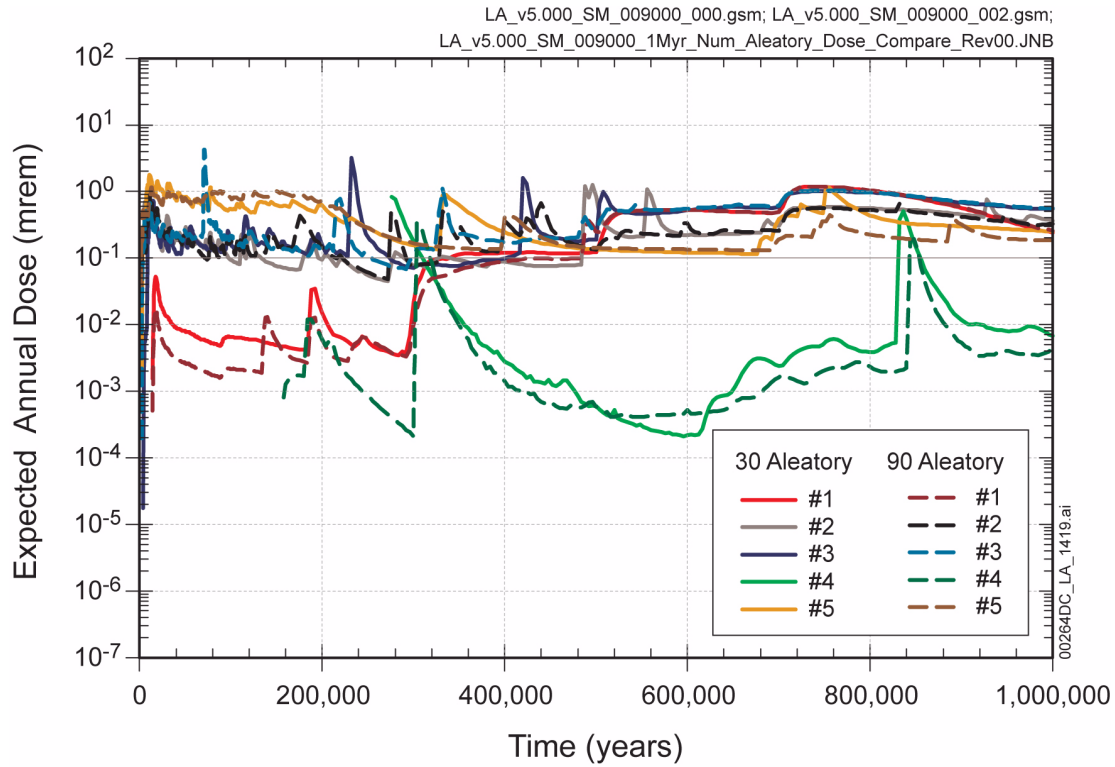


Figure 2.4-56. Expected Annual Dose for 1 Million Years from Seismic Ground Motion for Aleatory Sample Sizes of 30 and 90

Source: SNL 2008a, Figure 7.3.2-23.

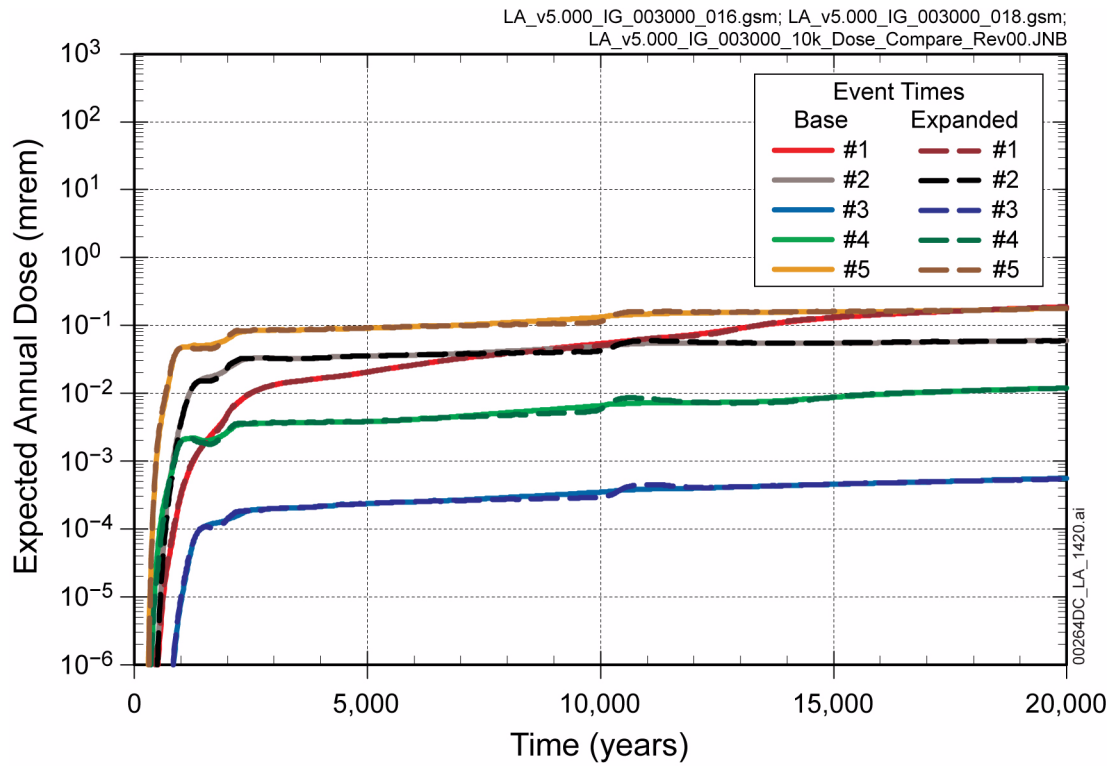


Figure 2.4-57. Expected Annual Dose over 20,000 Years for the Igneous Intrusion Modeling Case Considering Additional Specified Event Times

Source: SNL 2008a, Figure 7.3.2-4.

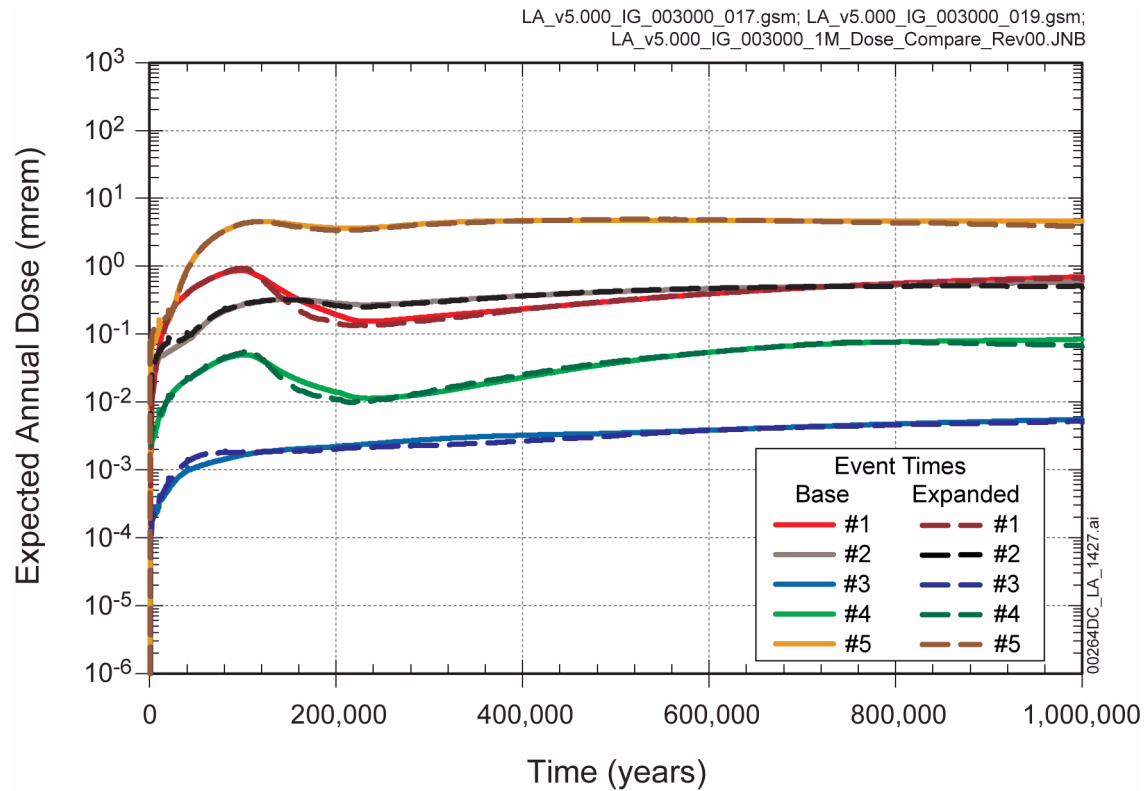


Figure 2.4-58. Expected Annual Dose over 1 Million Years for Igneous Intrusion Modeling Case Considering Additional Specified Event Times

Source: SNL 2008a, Figure 7.3.2-5.

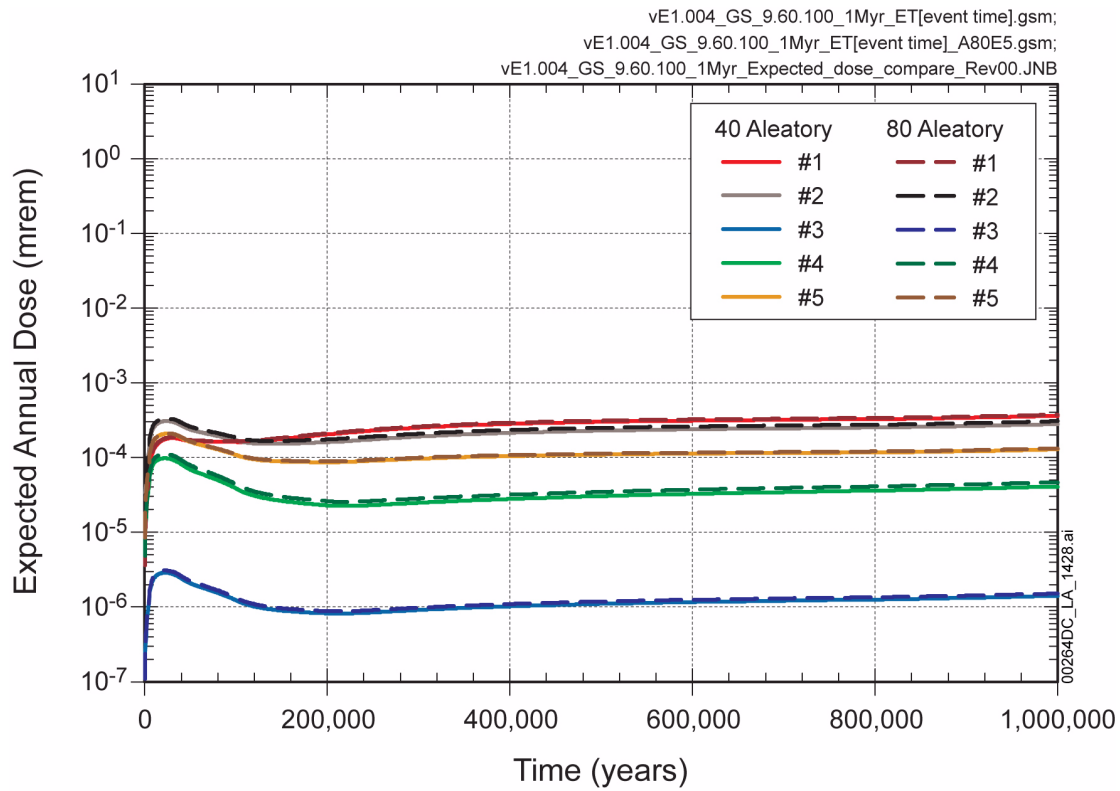


Figure 2.4-59. Expected Annual Dose over 1 Million Years for Volcanic Eruption Modeling Case Using Aleatory Latin Hypercube Sample Size of 40 and 80

Source: SNL 2008a, Figure 7.3.2-6.

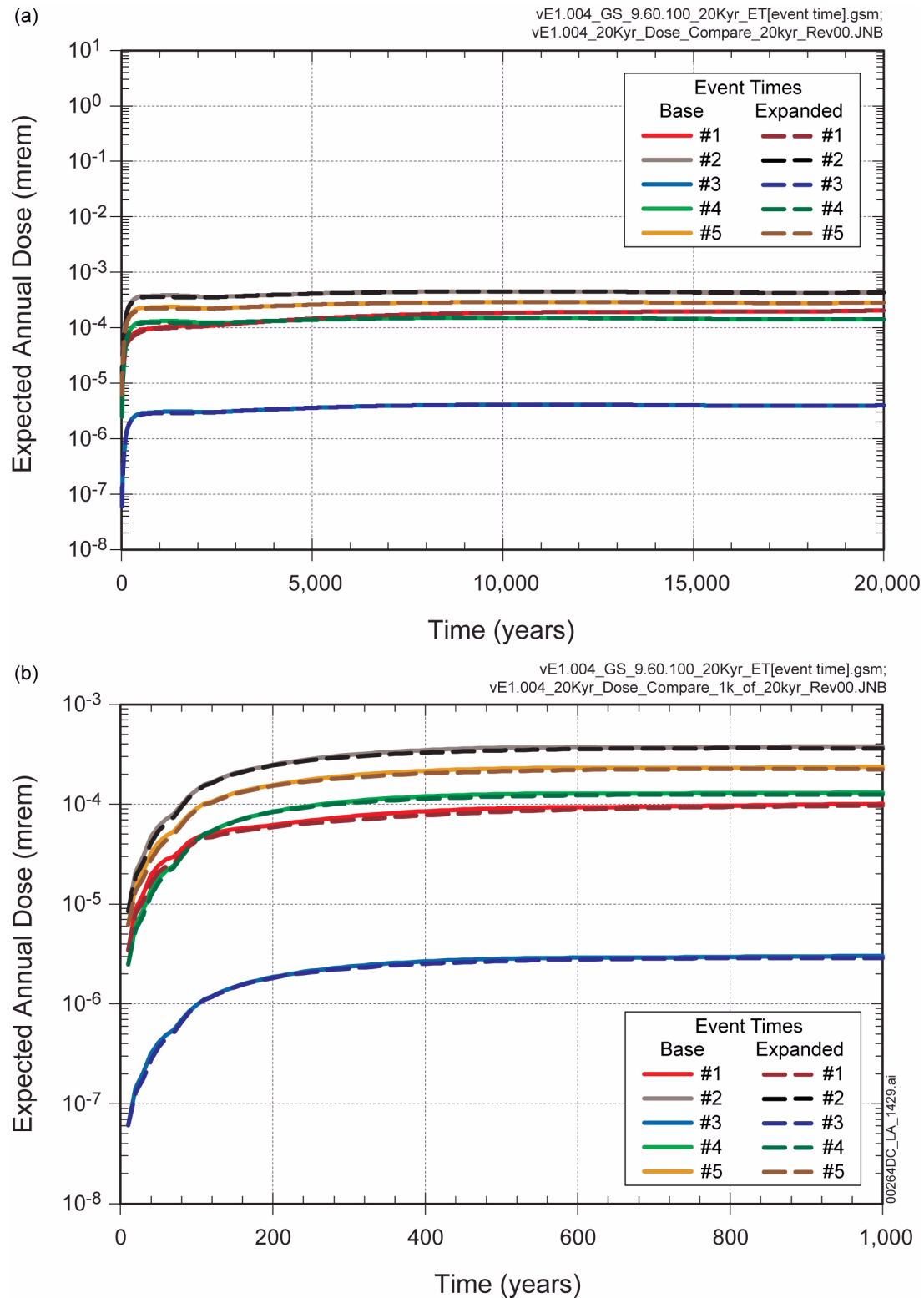


Figure 2.4-60. Expected Annual Dose for Volcanic Eruption Modeling Case Considering Additional Specified Event Times over (a) 20,000 Years and (b) 1,000 Years

Source: SNL 2008a, Figure 7.3.2-7.

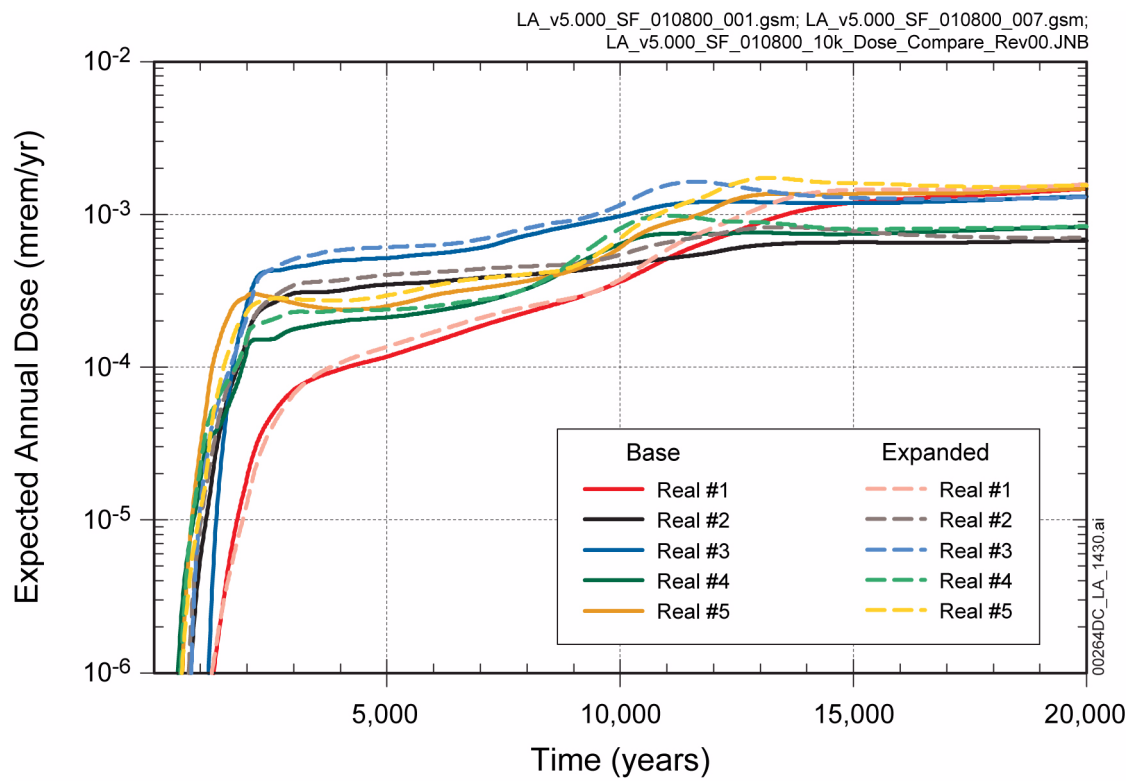


Figure 2.4-61. Expected Annual Dose over 20,000 Years for Seismic Fault Displacement Modeling Case Considering Additional Specified Event Times and Damage Areas

Source: SNL 2008a, Figure 7.3.2-26.

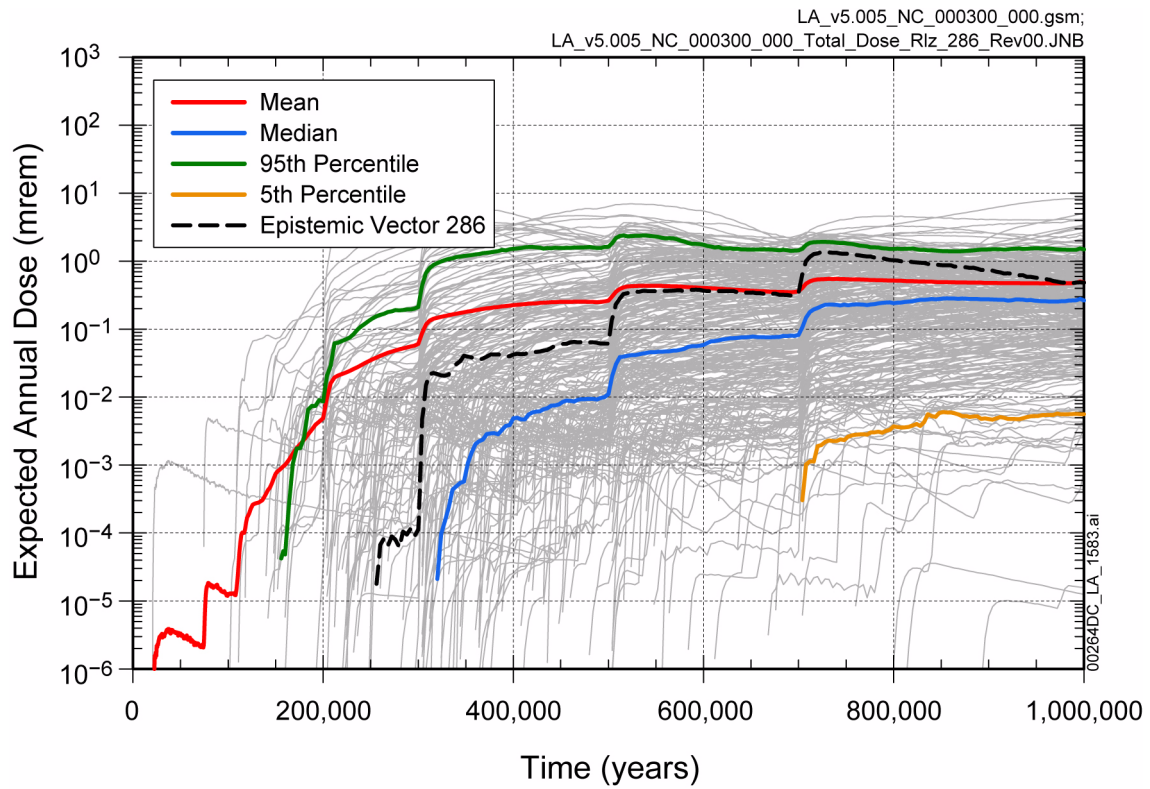


Figure 2.4-62. Expected Annual Dose from the 300 Epistemic Uncertainty Vectors along with Their Quantiles and Expected Dose from Epistemic Uncertainty Vector 286 for the Nominal Modeling Case for the 1-Million-Year Period after Repository Closure

Source: SNL 2008a, Figure 7.7.1-76[a].

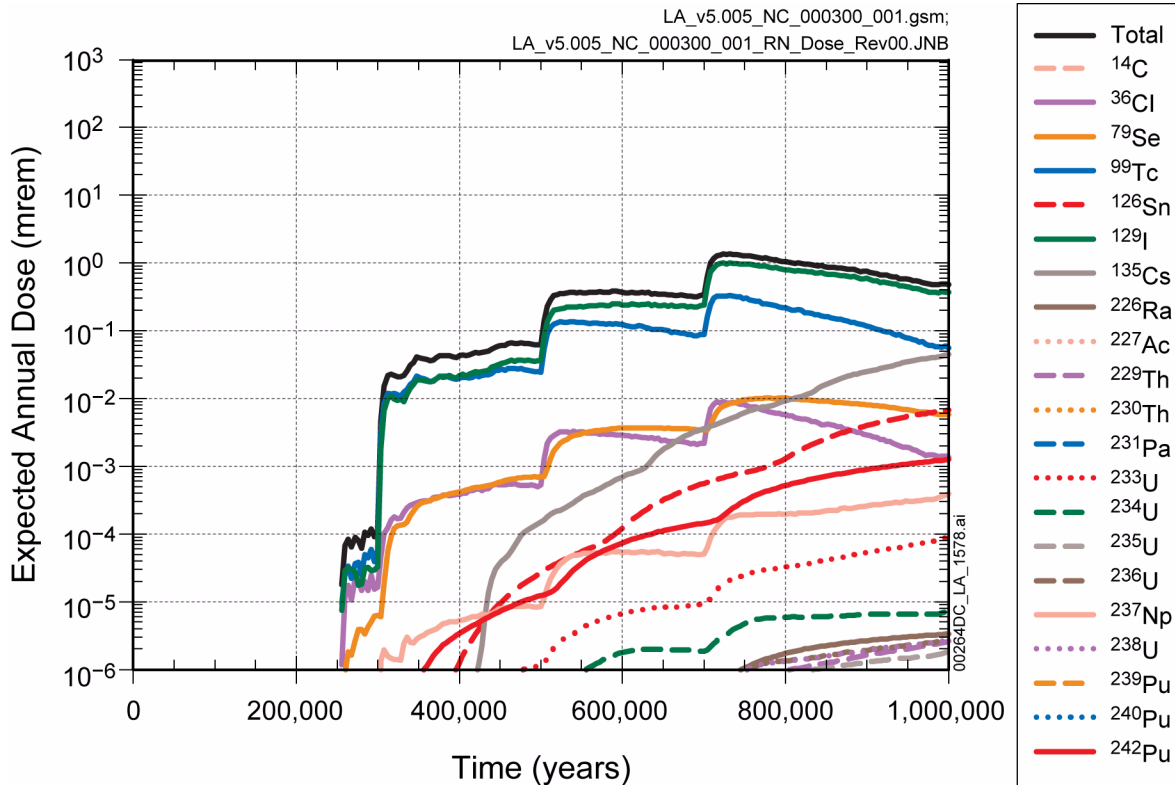


Figure 2.4-63. Contribution of Individual Radionuclides to Expected Annual Dose for Realization 286 of the Nominal Modeling Case for the 1-Million-Year Period after Repository Closure

Source: SNL 2008a, Figure 7.7.1-77[a].

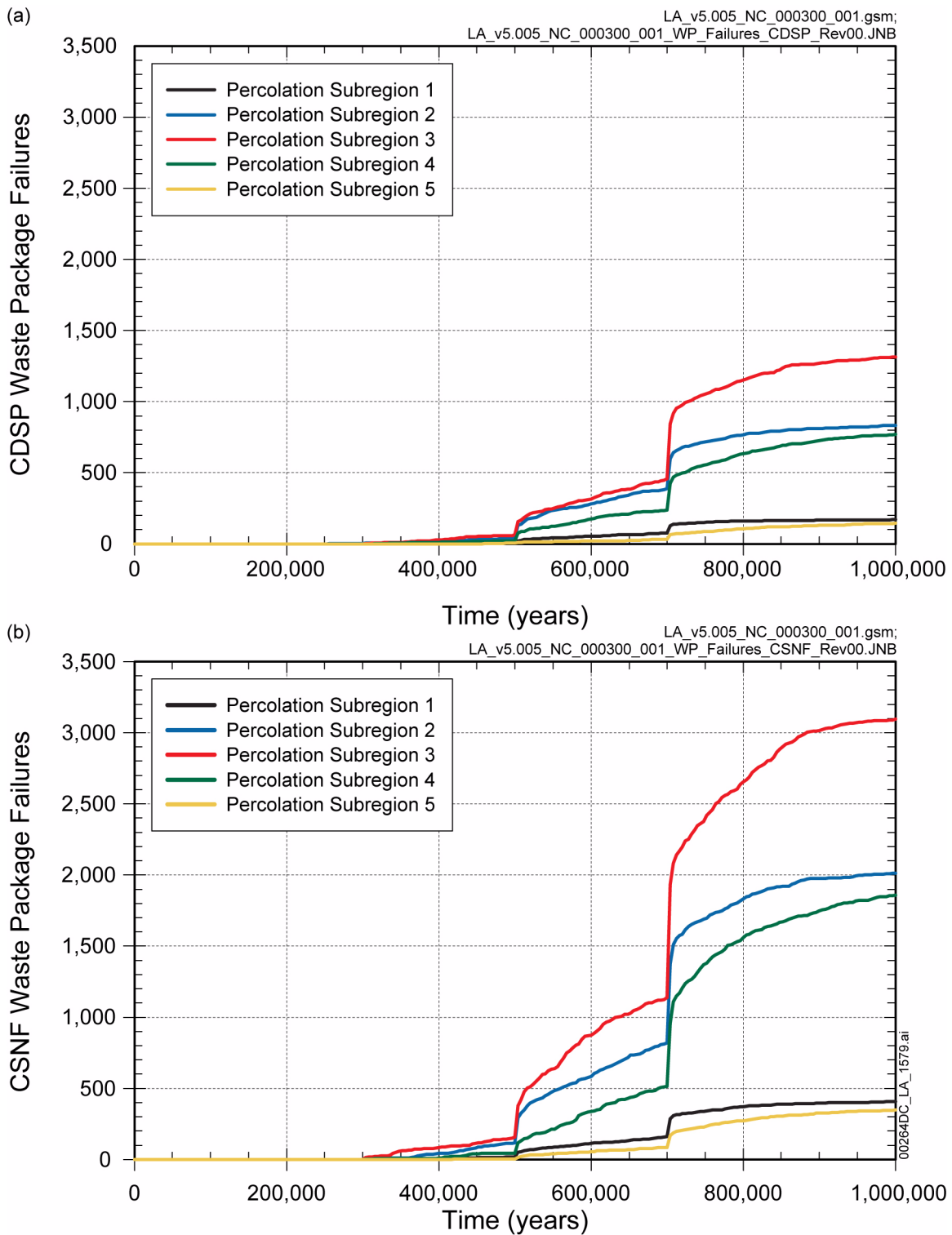


Figure 2.4-64. Number of (a) Codisposal Waste Package Failures and (b) Commercial SNF Waste Package Failures by Percolation Subregion for Realization 286 of the Nominal Modeling Case for the 1-Million-Year Period after Repository Closure

Source: SNL 2008a, Figure 7.7.1-78[a].

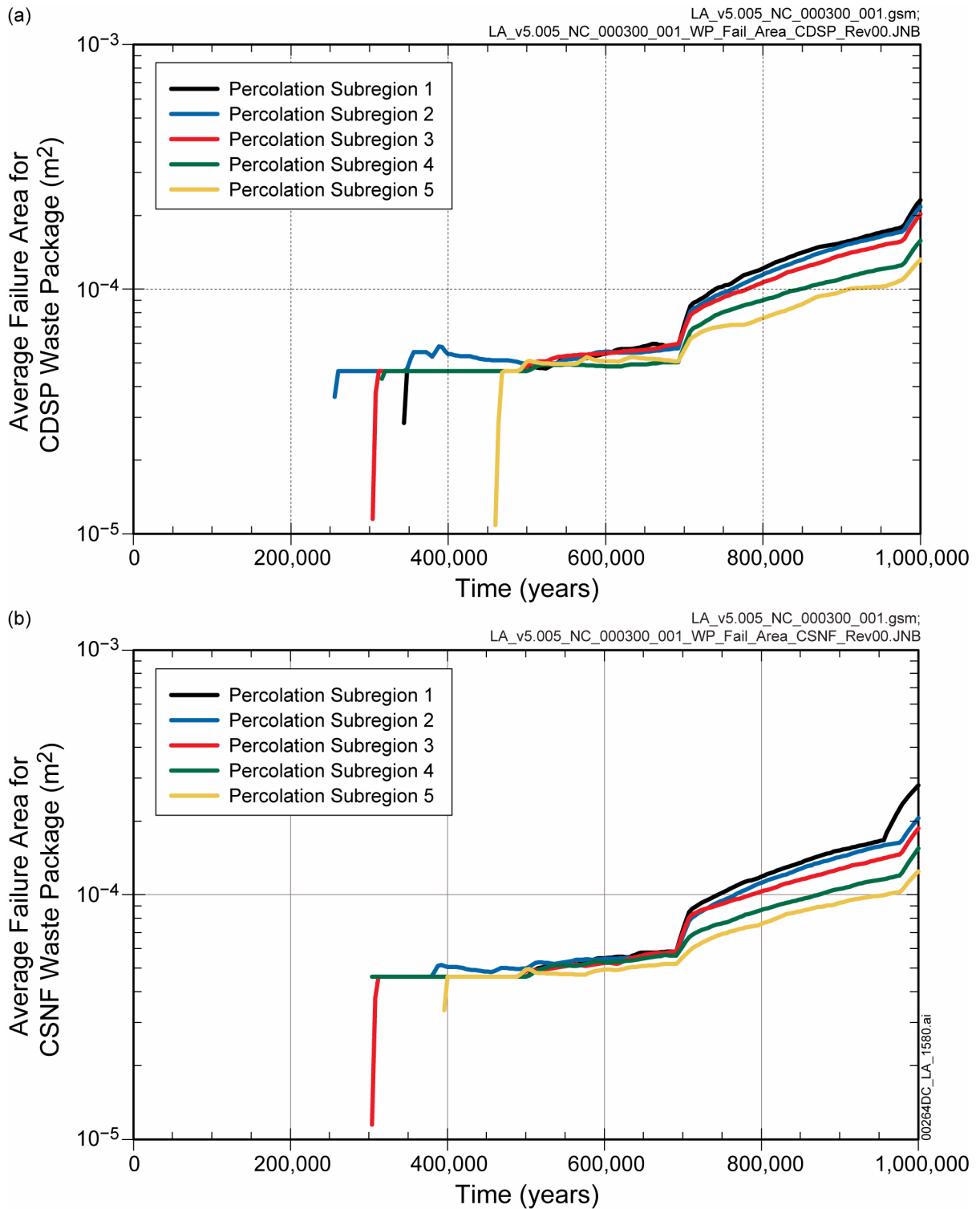


Figure 2.4-65. Average Failure Area Per Failed Waste Package for (a) Codisposal Waste Packages and (b) Commercial SNF Waste Packages by Percolation Subregion for Realization 286 of the Nominal Modeling Case for the 1-Million-Year Period after Repository Closure

Source: SNL 2008a, Figure 7.7.1-79[a].

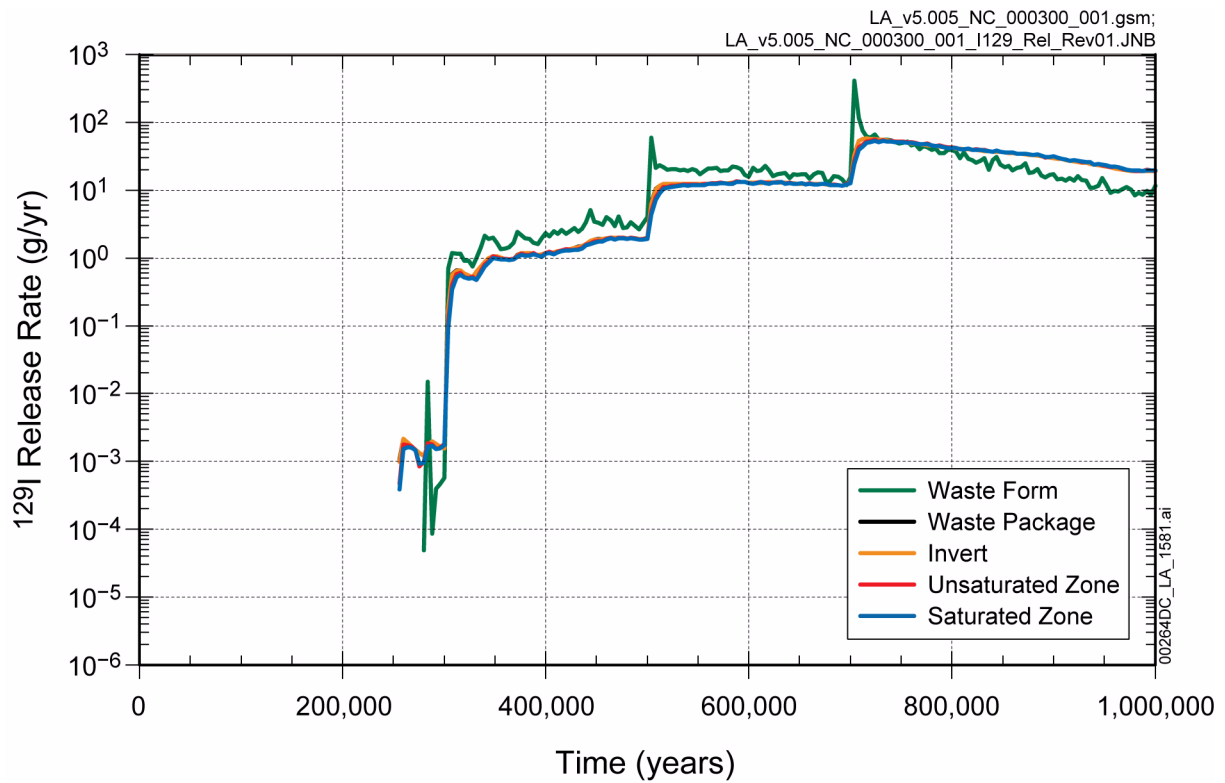


Figure 2.4-66. Release Rates of ^{129}I from the Waste Form, Engineered Barrier System, Unsaturated Zone, and Saturated Zone for Realization 286 of the Nominal Modeling Case for the 1-Million-Year Period after Repository Closure

Source: SNL 2008a, Figure 7.7.1-80[a].

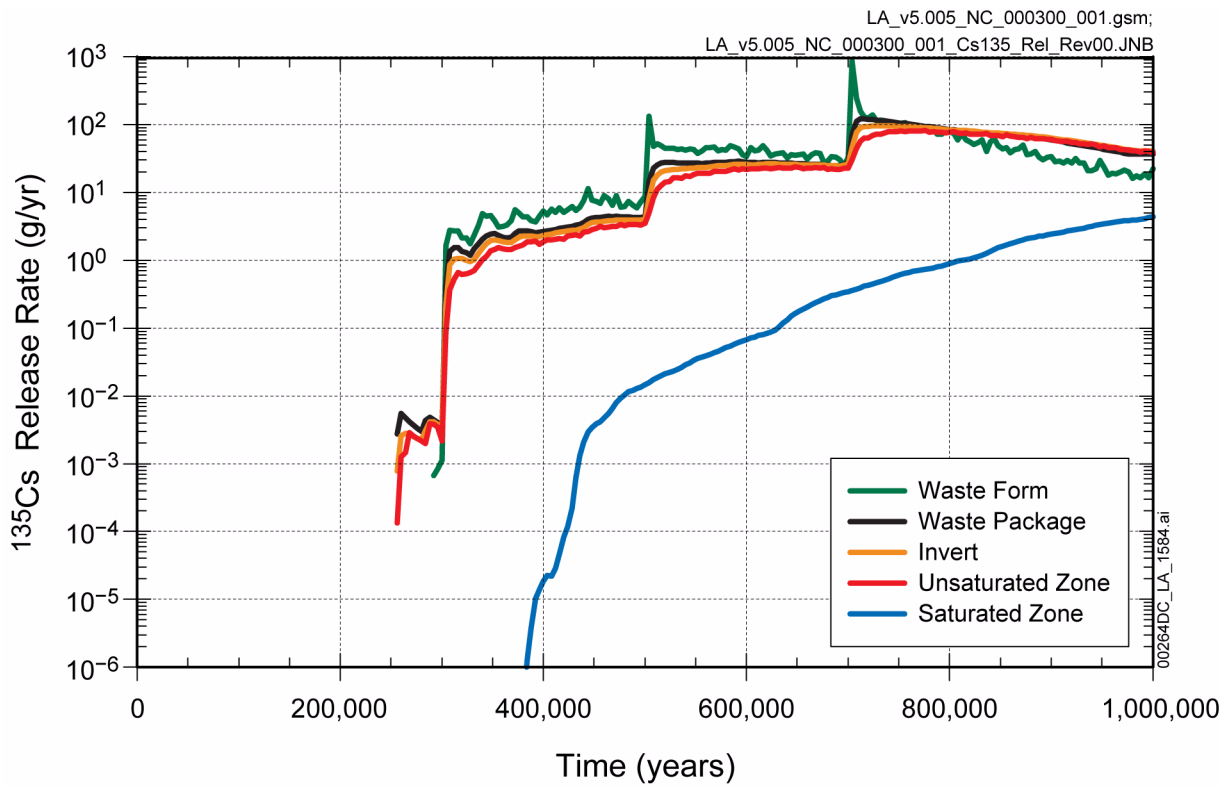


Figure 2.4-67. Release Rates of ¹³⁵Cs from the Waste Form, Engineered Barrier System, Unsaturated Zone, and Saturated Zone for Realization 286 of the Nominal Modeling Case for the 1-Million-Year Period after Repository Closure

Source: SNL 2008a, Figure 7.7.1-82[a]

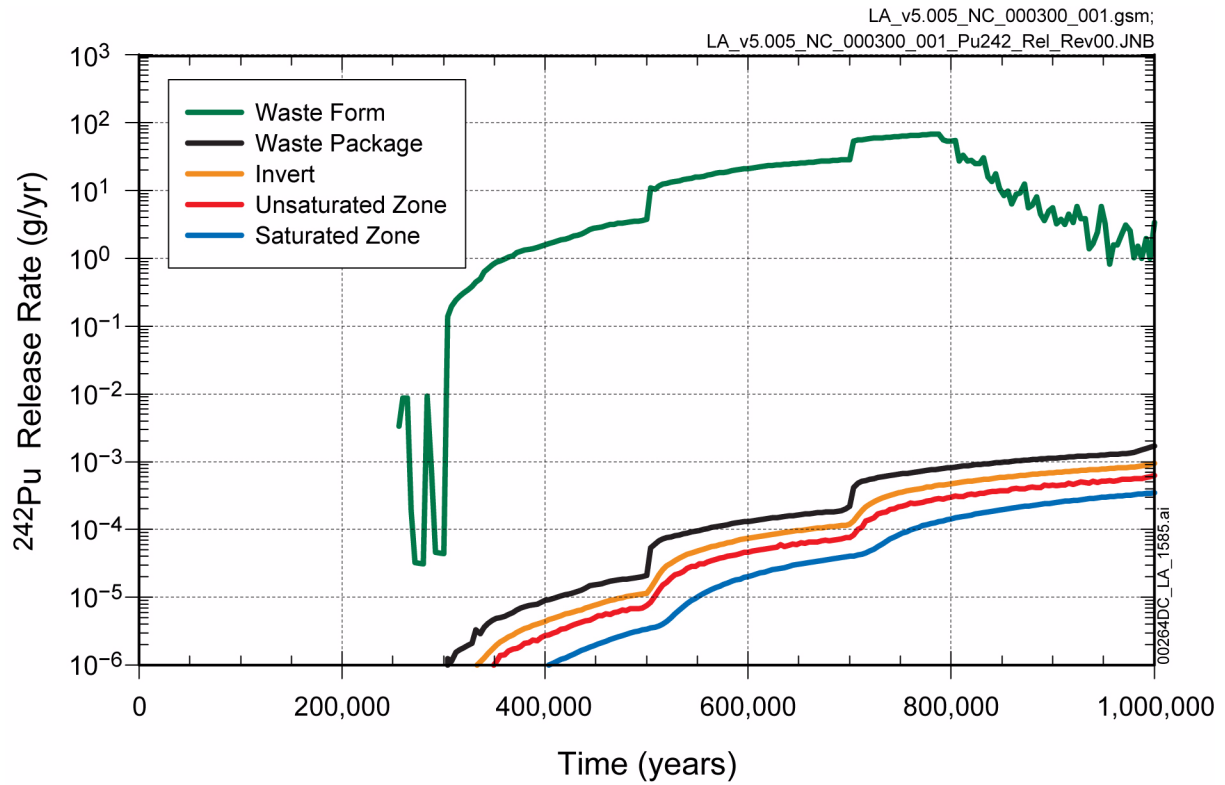


Figure 2.4-68. Release Rates of ^{242}Pu (Dissolved and Reversibly Associated with Colloids) from the Waste Form, Engineered Barrier System, Unsaturated Zone, and Saturated Zone for Realization 286 of the Nominal Modeling Case for the 1-Million-Year Period after Repository Closure

Source: SNL 2008a, Figure 7.7.1-83[a].

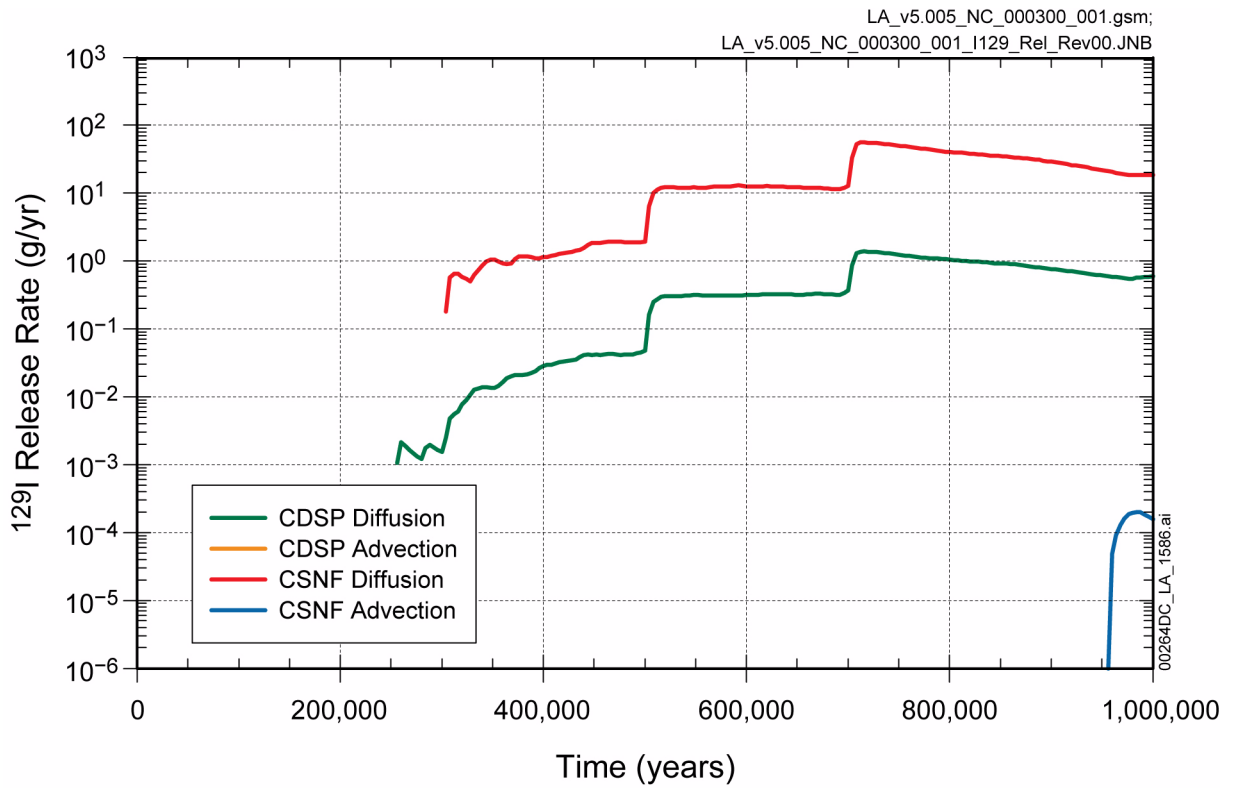


Figure 2.4-69. Diffusive and Advective Release Rates of ¹²⁹I from the Codisposal and Commercial SNF Waste Packages for Realization 286 of the Nominal Modeling Case for the 1-Million-Year Period after Repository Closure

Source: SNL 2008a, Figure 7.7.1-84[a].

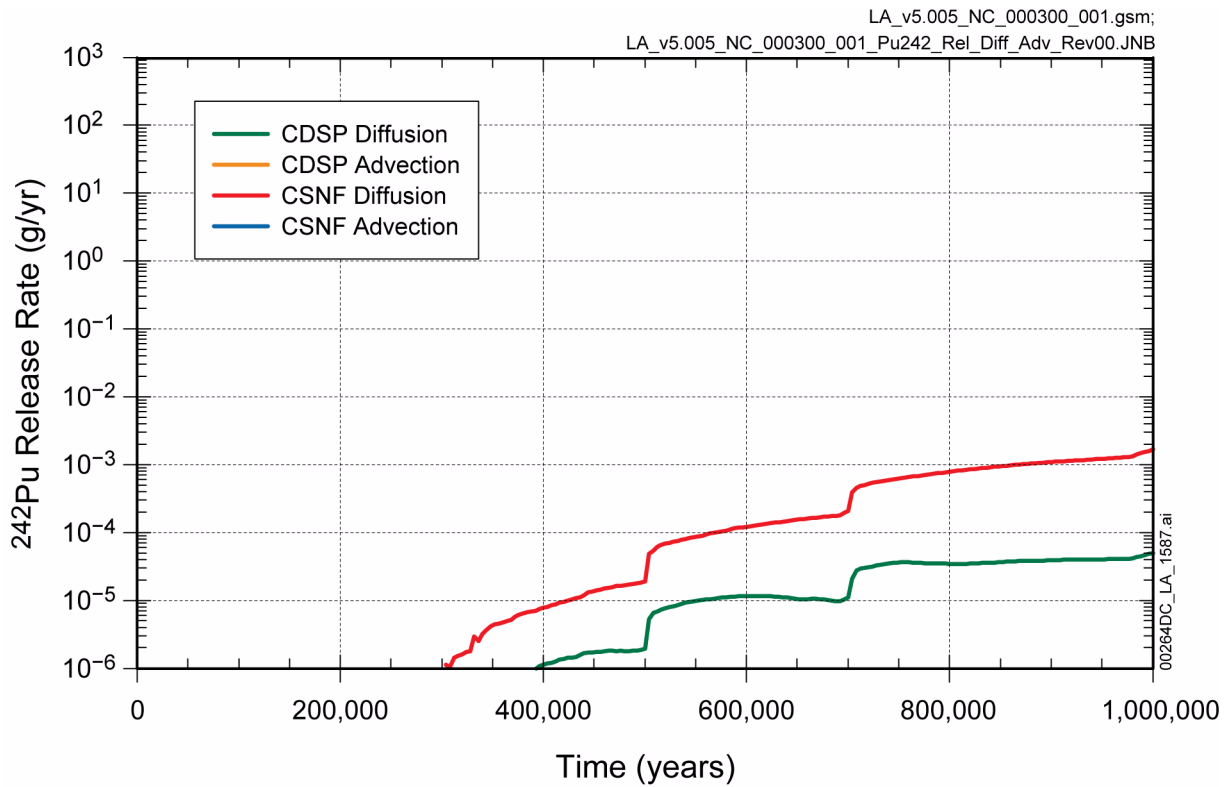


Figure 2.4-70. Diffusive and Advective Release Rates of ^{242}Pu (Dissolved and Reversibly Associated with Colloids) from the Codisposal and Commercial SNF Waste Packages for Realization 286 of the Nominal Modeling Case for the 1-Million-Year Period after Repository Closure

Source: SNL 2008a, Figure 7.7.1-85[a].

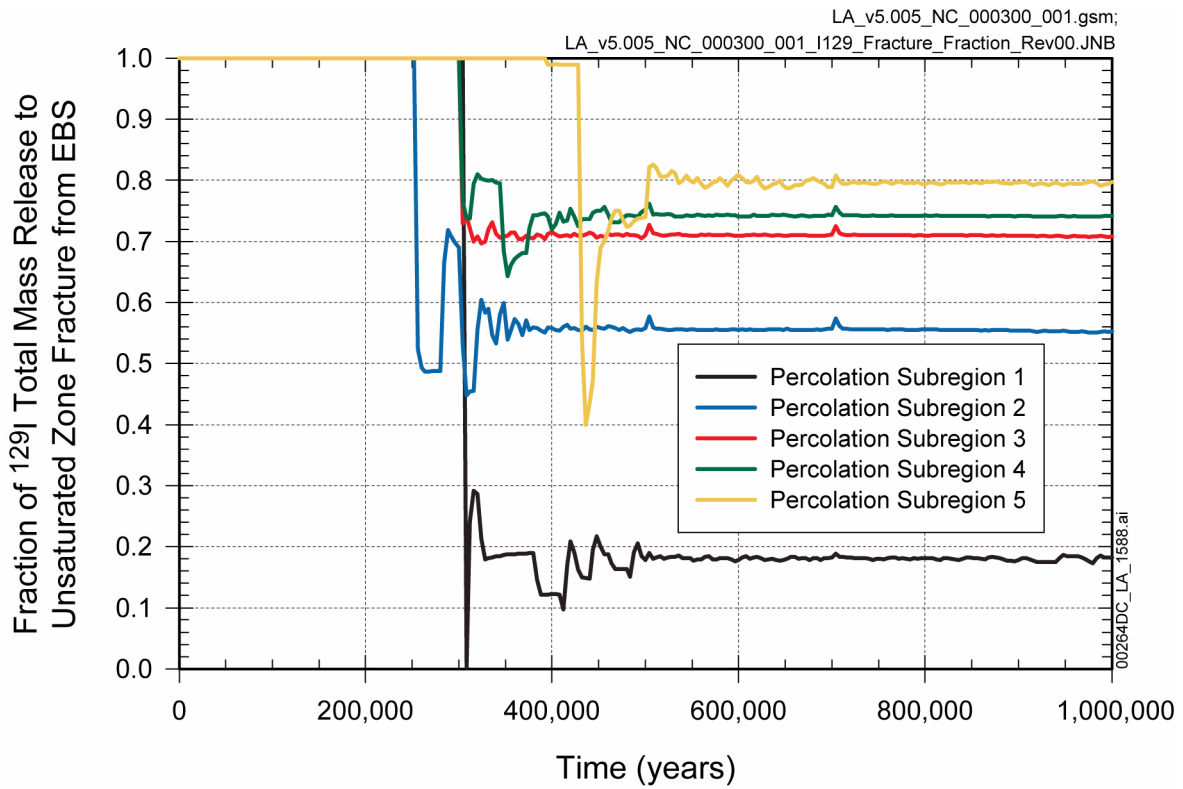


Figure 2.4-71. Fraction of ¹²⁹I Mass Going to Unsaturated Zone Fractures at the Repository Horizon for Realization 286 of the Nominal Modeling Case for the 1-Million-Year Period after Repository Closure

Source: SNL 2008a, Figure 7.7.1-86[a].

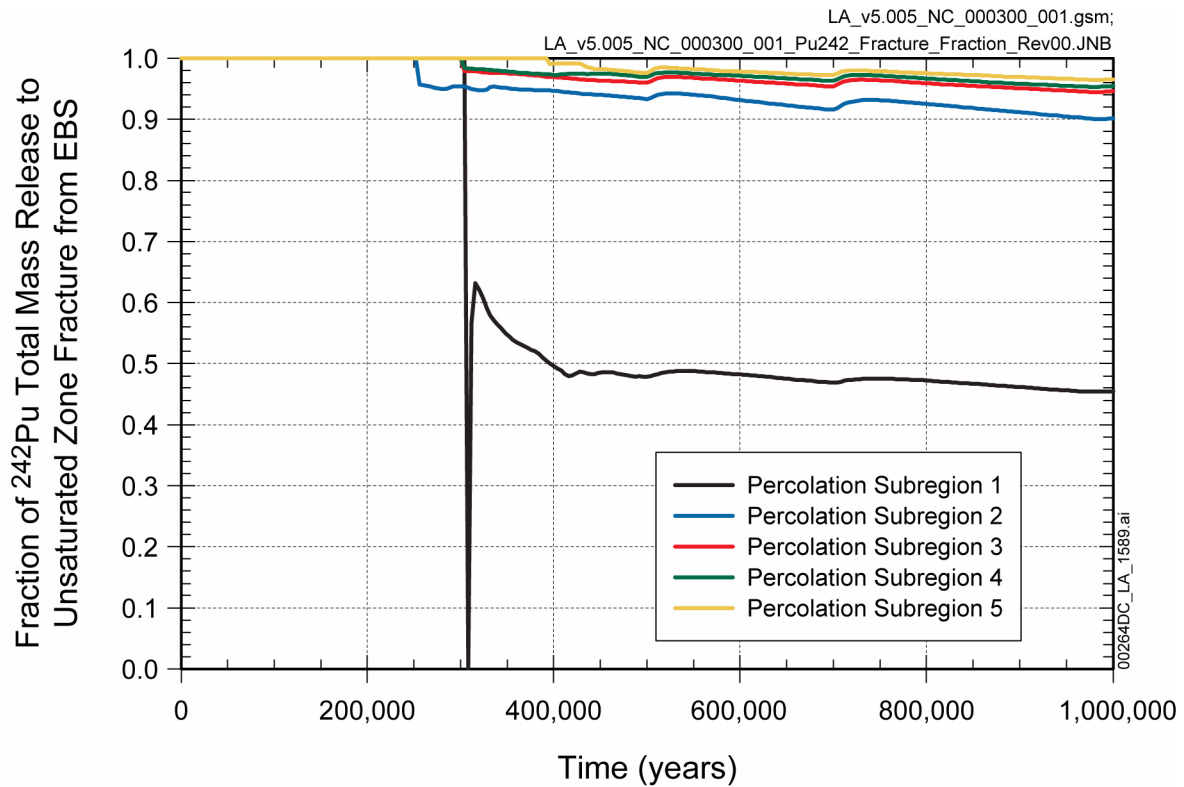


Figure 2.4-72. Fraction of ^{242}Pu (Dissolved and Reversibly Associated with Colloids) Mass Going to Unsaturated Zone Fractures at the Repository Horizon for Realization 286 of the Nominal Modeling Case for the 1-Million-Year Period after Repository Closure

Source: SNL 2008a, Figure 7.7.1-87[a]

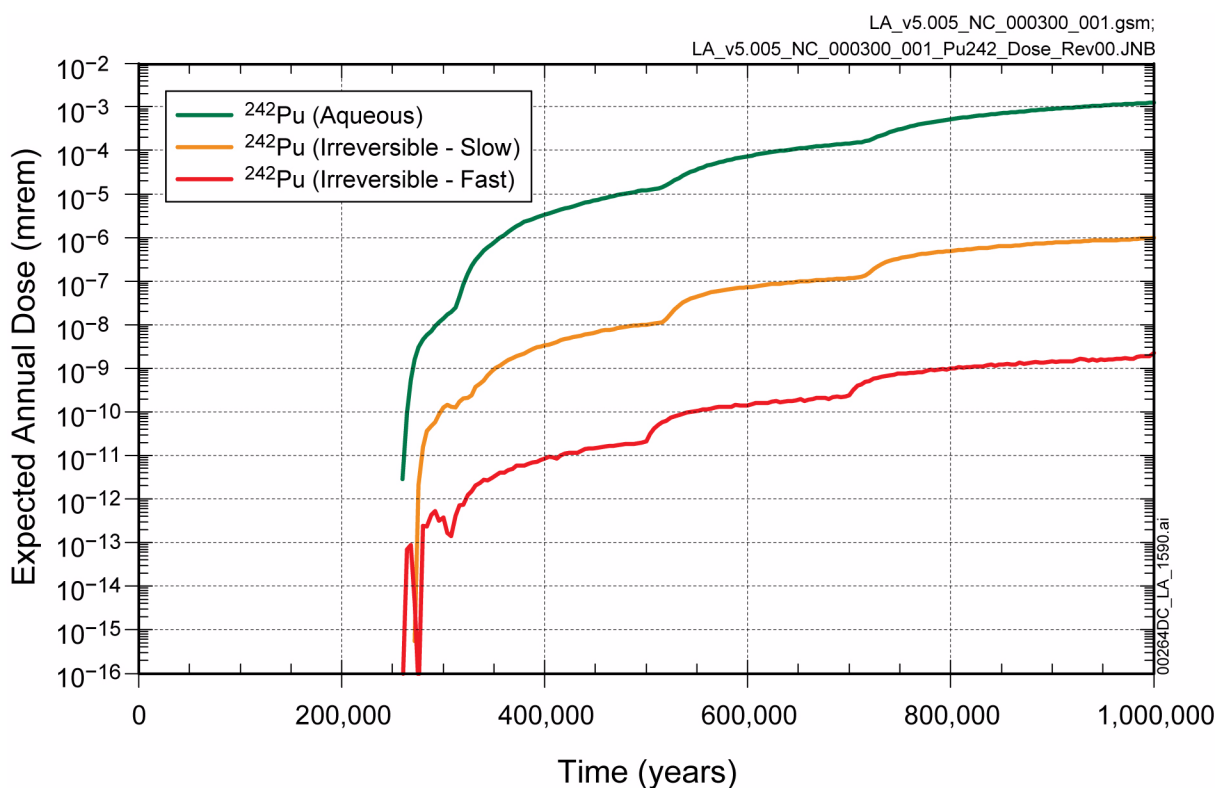


Figure 2.4-73. Mean Annual Dose for Aqueous ²⁴²Pu and Slow and Fast Fractions of Irreversibly Sorbed Colloidal ²⁴²Pu for Realization 286 of the Nominal Modeling Case for the 1-Million-Year Period after Repository Closure

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

Source: SNL 2008a, Figure 7.7.1-88[a].

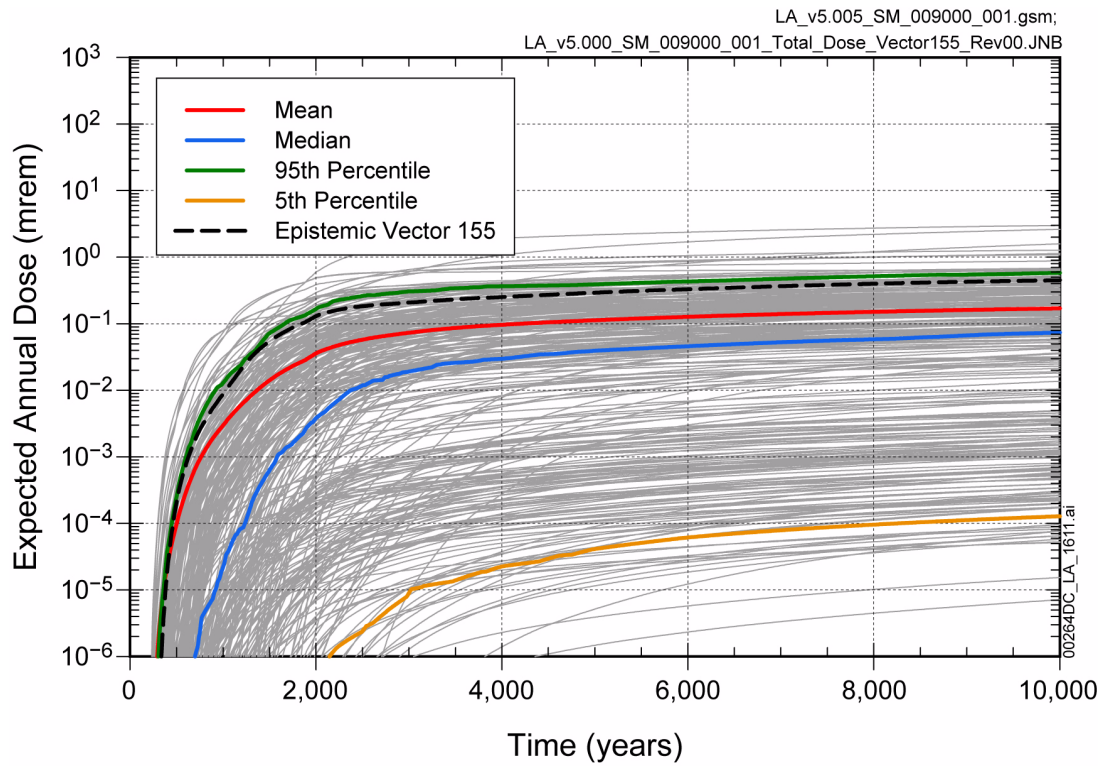


Figure 2.4-74. Expected Annual Dose from the 300 Epistemic Uncertainty Vectors Along With Their Quantiles and Expected Dose from Epistemic Uncertainty Vector 155 for the Seismic Ground Motion Modeling Case for the 10,000-Year Period after Repository Closure

Source: SNL 2008a, Figure 7.7.1-107[a].

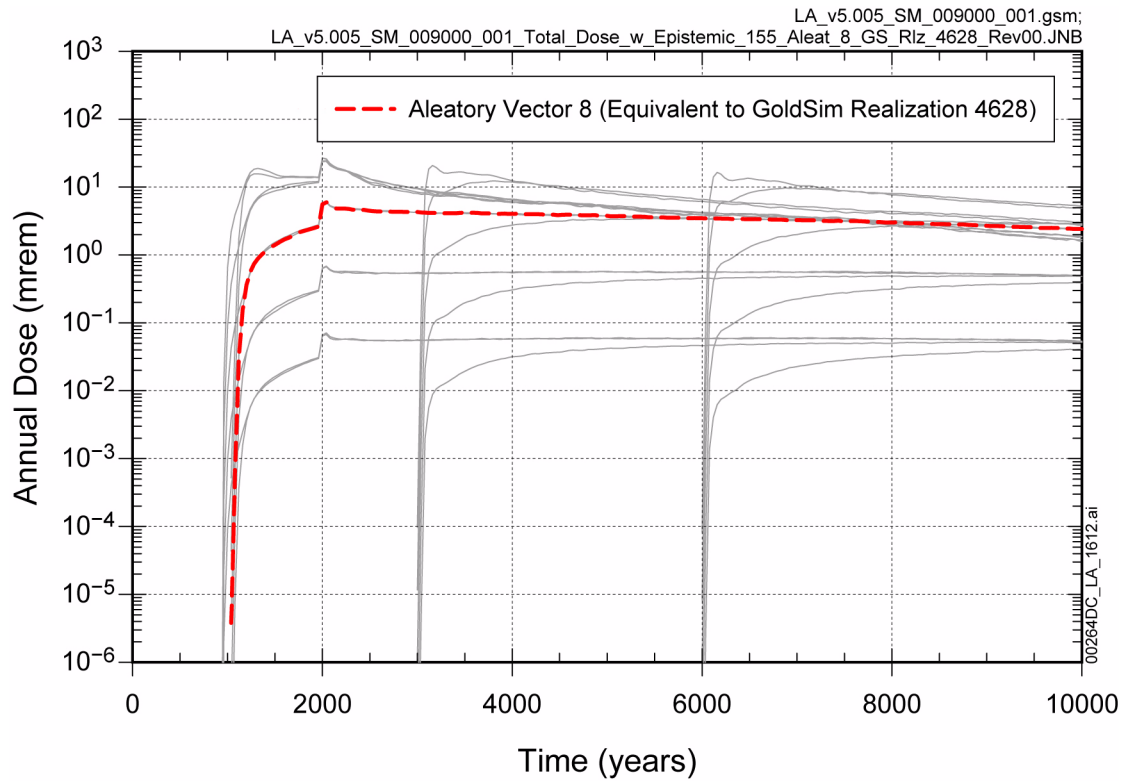


Figure 2.4-75. Annual Dose from the Set of Aleatory Vectors Associated with the Epistemic Vector 155 for the Seismic Ground Motion Modeling Case for the 10,000-Year Period after Repository Closure

Note: The dashed red line is the annual dose from aleatory vector 8, which is equivalent to GoldSim Realization 4,628.

Source: SNL 2008a, Figure 7.7.1-108[a].

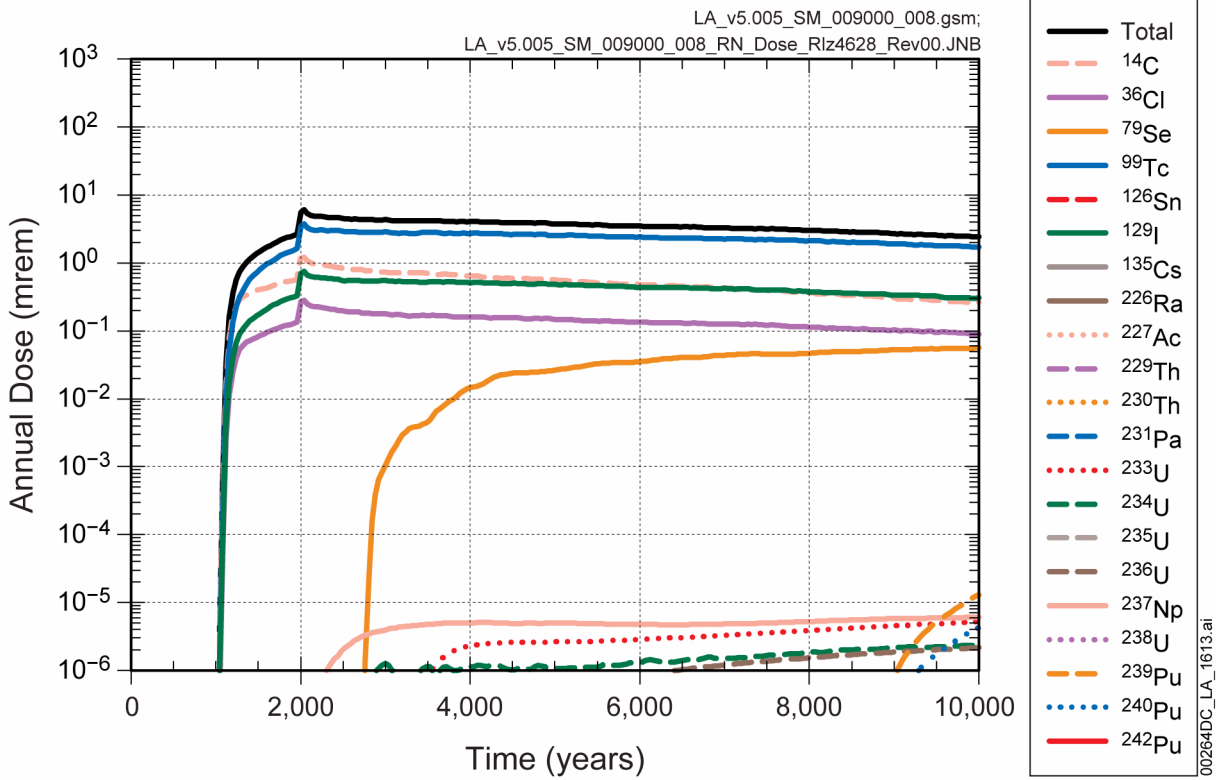


Figure 2.4-76. Annual Dose along with Major Radionuclide Dose Contributors for Realization 4,628 of the Seismic Ground Motion Modeling Case for the 10,000-Year Period after Repository Closure

Source: SNL 2008a, Figure 7.7.1-109[a].

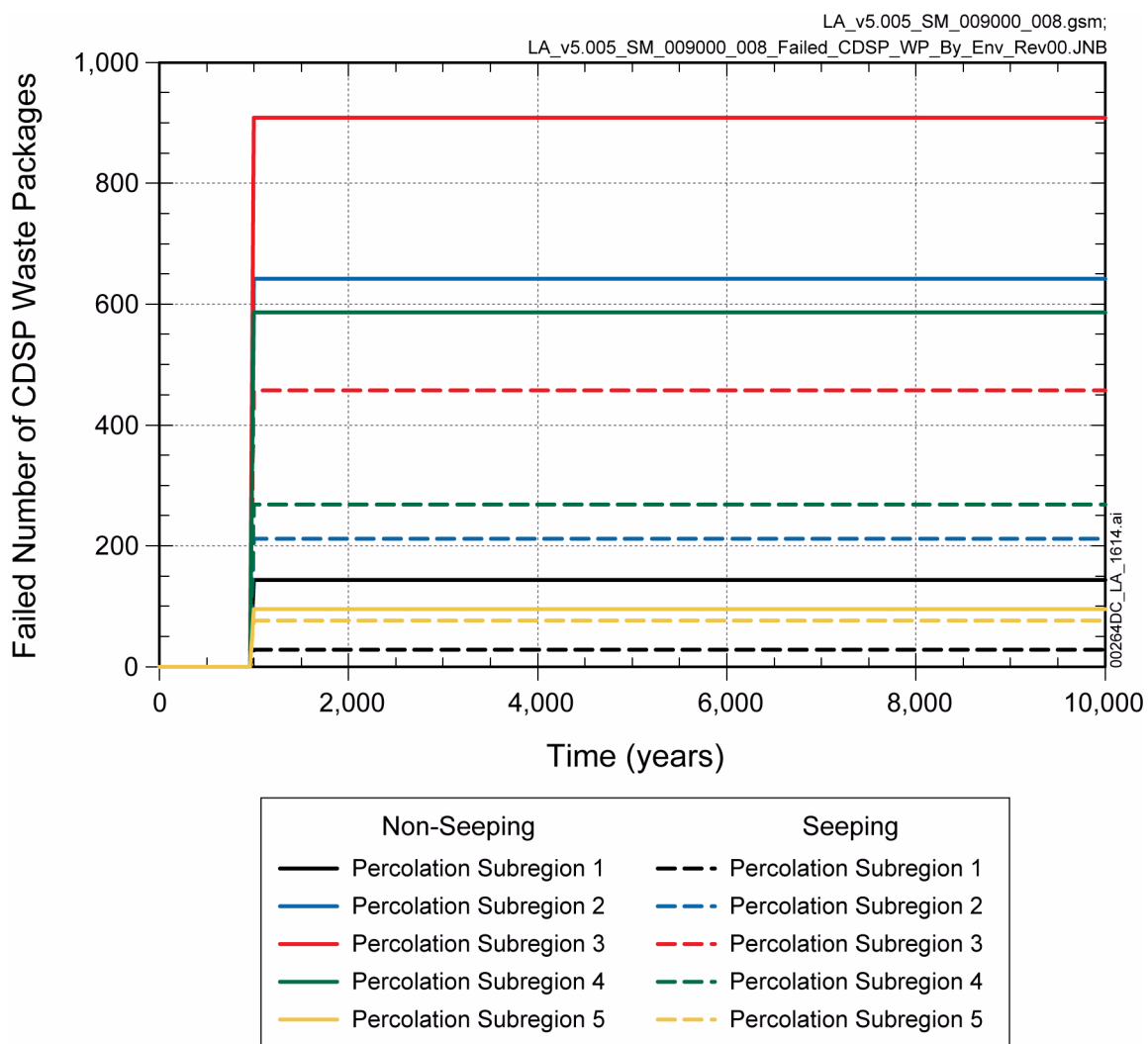


Figure 2.4-77. Codisposal Waste Package Failure History in all Five Percolation Subregions for Both Seeping and Nonseeping Environments for Realization 4,628 of the Seismic Ground Motion Modeling Case for the 10,000-Year Period after Repository Closure

Source: SNL 2008a, Figure 7.7.1-110[a].

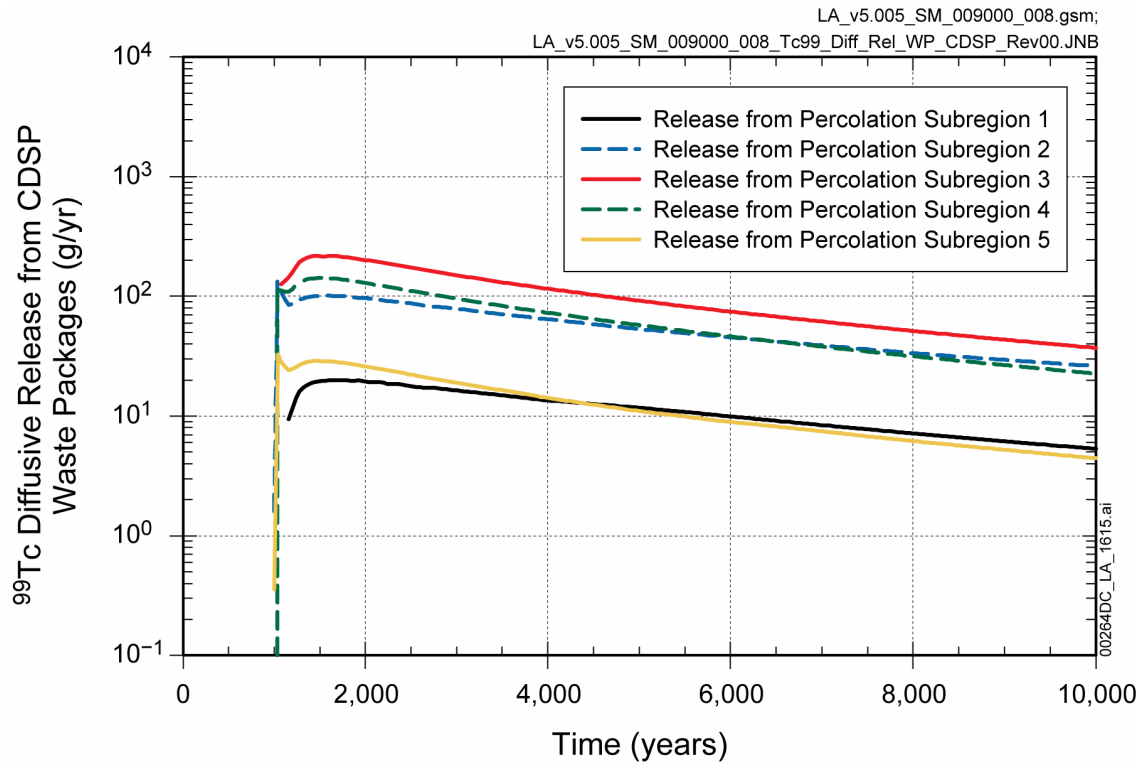


Figure 2.4-78. Diffusive Release Rates of ^{99}Tc from Codisposal Waste Packages from Each Percolation Subregion for Realization 4,628 of the Seismic Ground Motion Modeling Case for the 10,000-Year Period after Repository Closure

Source: SNL 2008a, Figure 7.7.1-111[a].

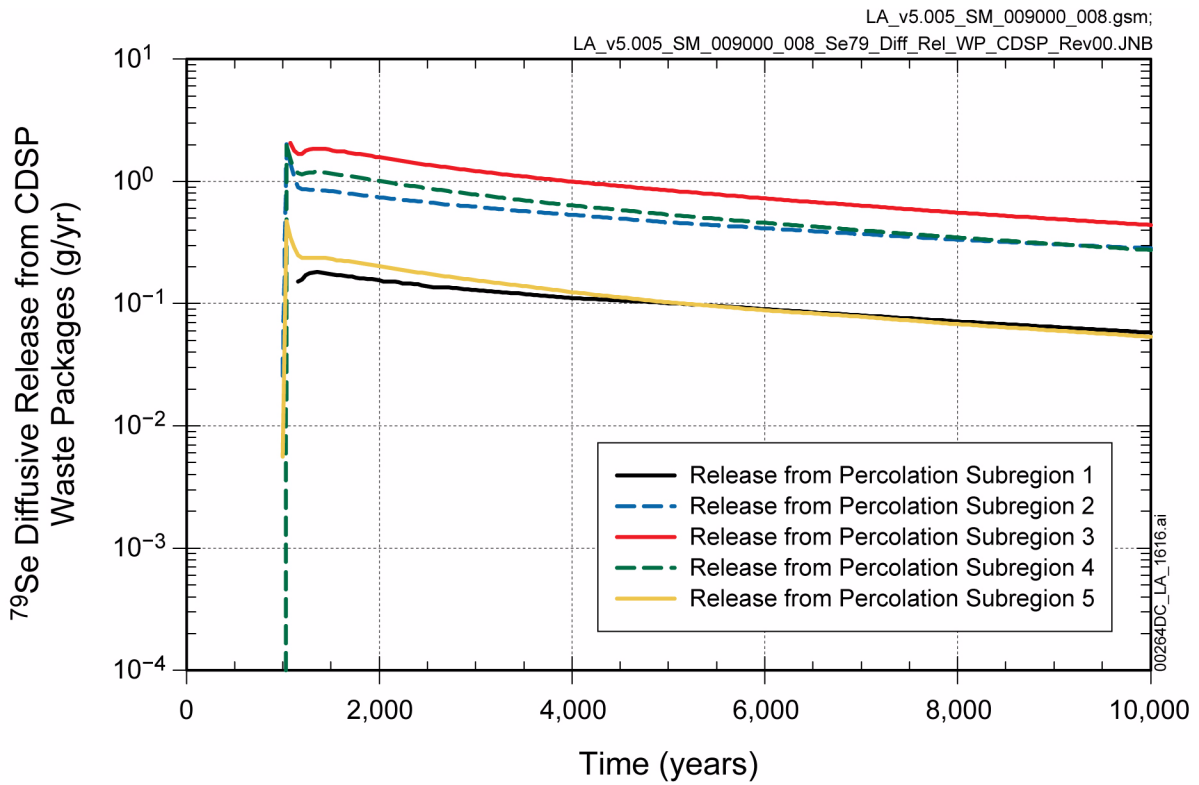


Figure 2.4-79. Diffusive Release Rates of: ⁷⁹Se from Codisposal Waste Packages from Each Percolation Subregion for Realization 4,628 of the Seismic Ground Motion Modeling Case for the 10,000-Year Period after Repository Closure

Source: SNL 2008a, Figure 7.7.1-112[a].

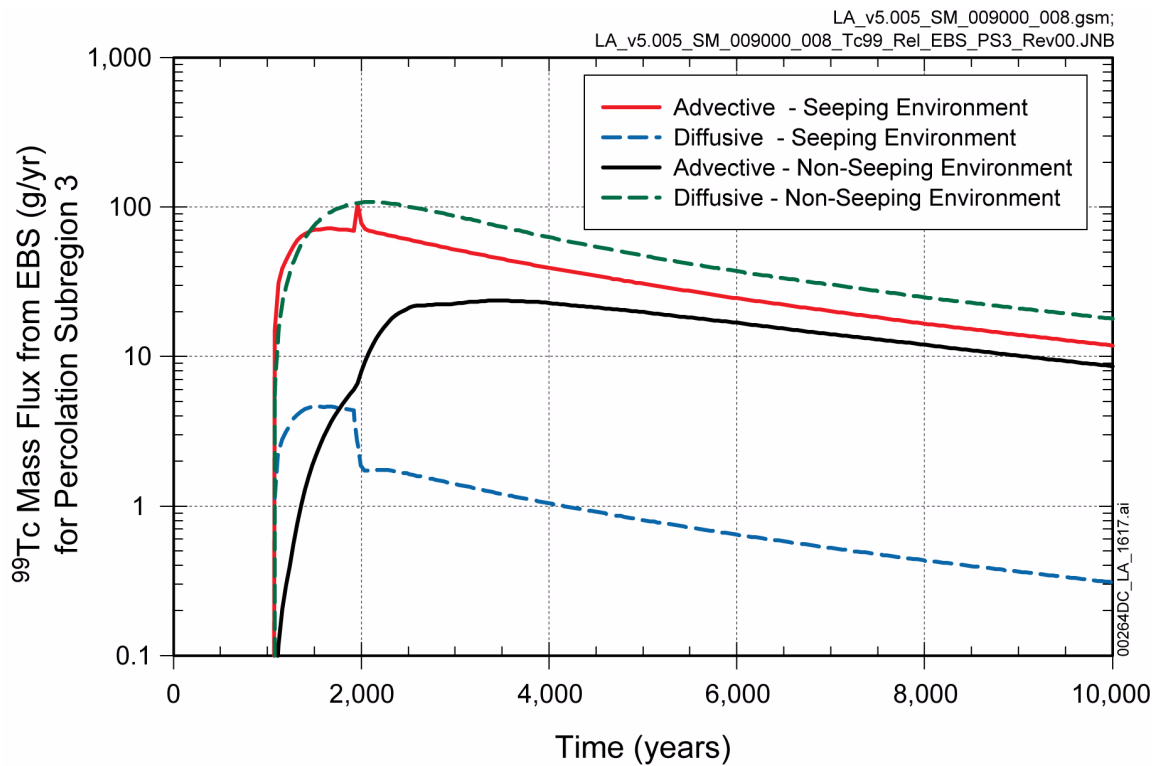


Figure 2.4-80. Mass flux of ^{99}Tc and from the EBS for Percolation Subregion 3 for both Seeping and Nonseeping Environments for Realization 4,628 of the Seismic Ground Motion Modeling Case for the 10,000-Year Period after Repository Closure

Source: SNL 2008a, Figure 7.7.1-113[a].

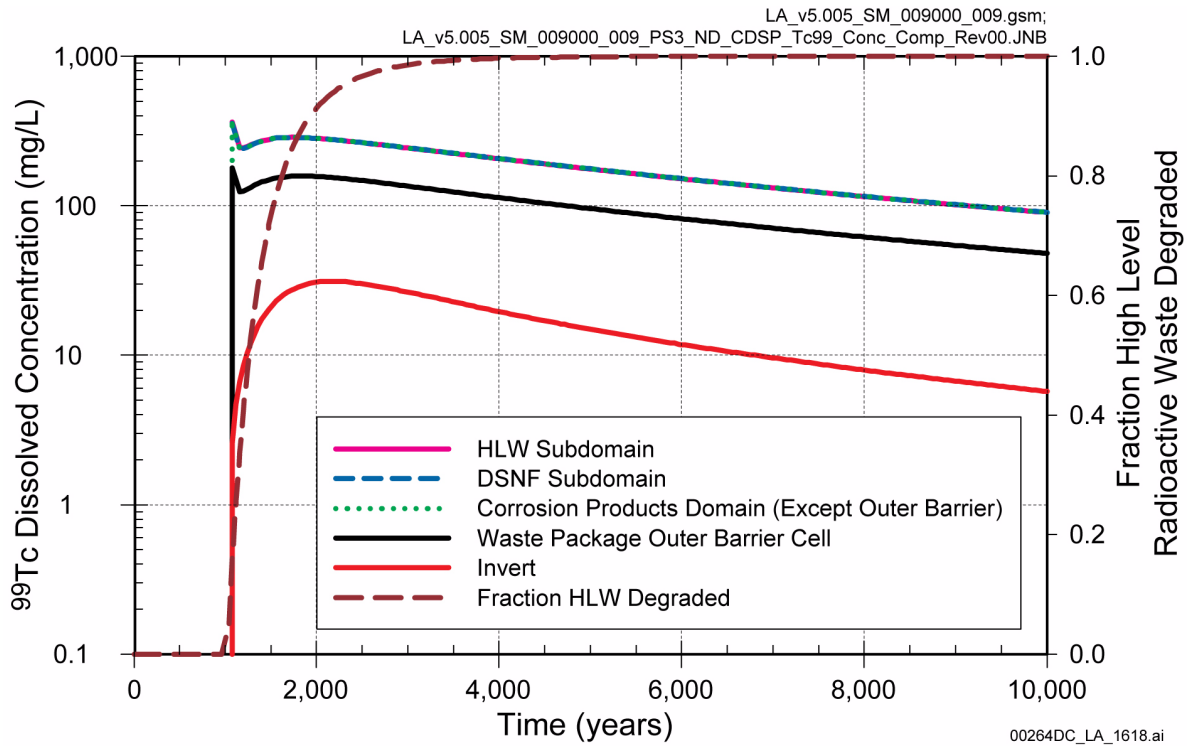


Figure 2.4-81. Comparison of Dissolved Concentration of ^{99}Tc from the Various Engineered Barrier System Transport Domains and Fraction of HLW Degraded for Codisposal Perculation Subregion 3, Nonseeping Environment for Realization 4,628 of the Seismic Ground Motion Modeling Case for the 10,000-Year Period after Repository Closure

Source: SNL 2008a, Figure 7.7.1-114[a].

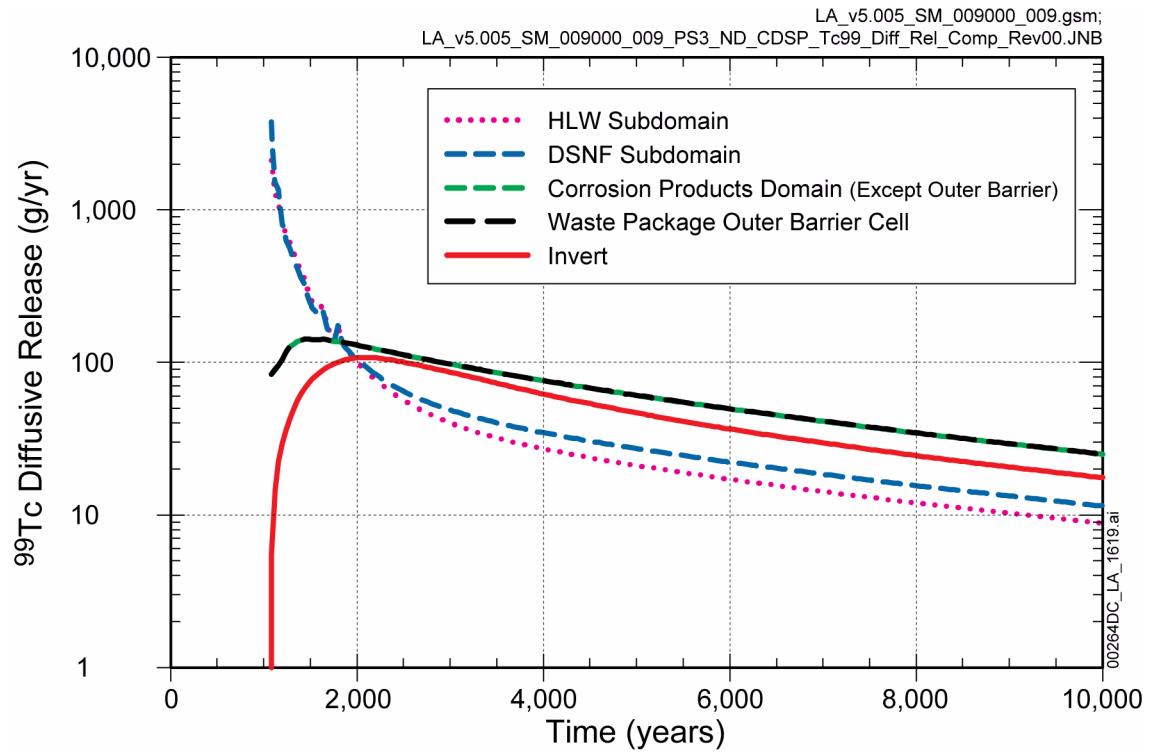


Figure 2.4-82. Comparison of Diffusive Releases of ^{99}Tc from the Various Engineered Barrier System Transport Domains for Codisposal Percolation Subregion 3, Nonseeping Environment for Realization 4,628 of the Seismic Ground Motion Modeling Case for the 10,000-Year Period after Repository Closure

Source: SNL 2008a, Figure 7.7.1-115[a].

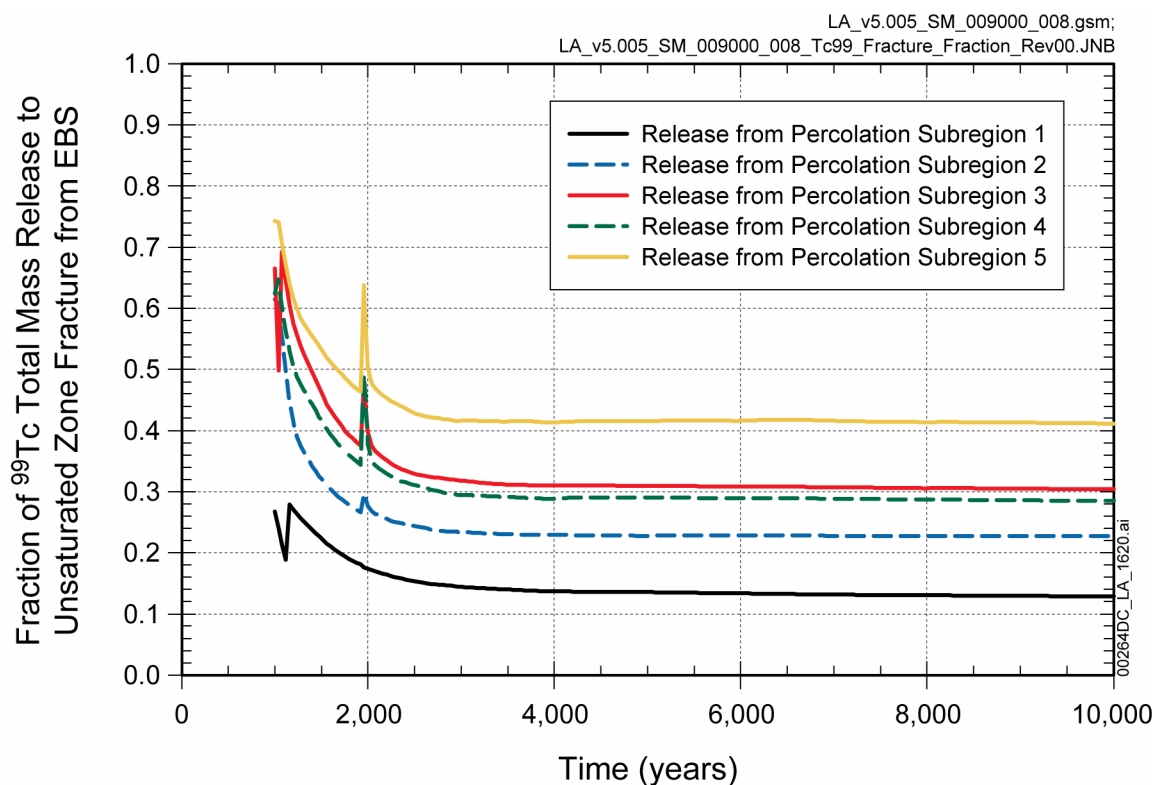


Figure 2.4-83. Fraction of ⁹⁹Tc Mass Going to Unsaturated Zone Fractures as Compared to the Unsaturated Zone Matrix at the Repository Horizon for Realization 4,628 of the Seismic Ground Motion Modeling Case for the 10,000-Year Period after Repository Closure

Source: Modified from SNL 2008a, Figure 7.7.1-116[a].

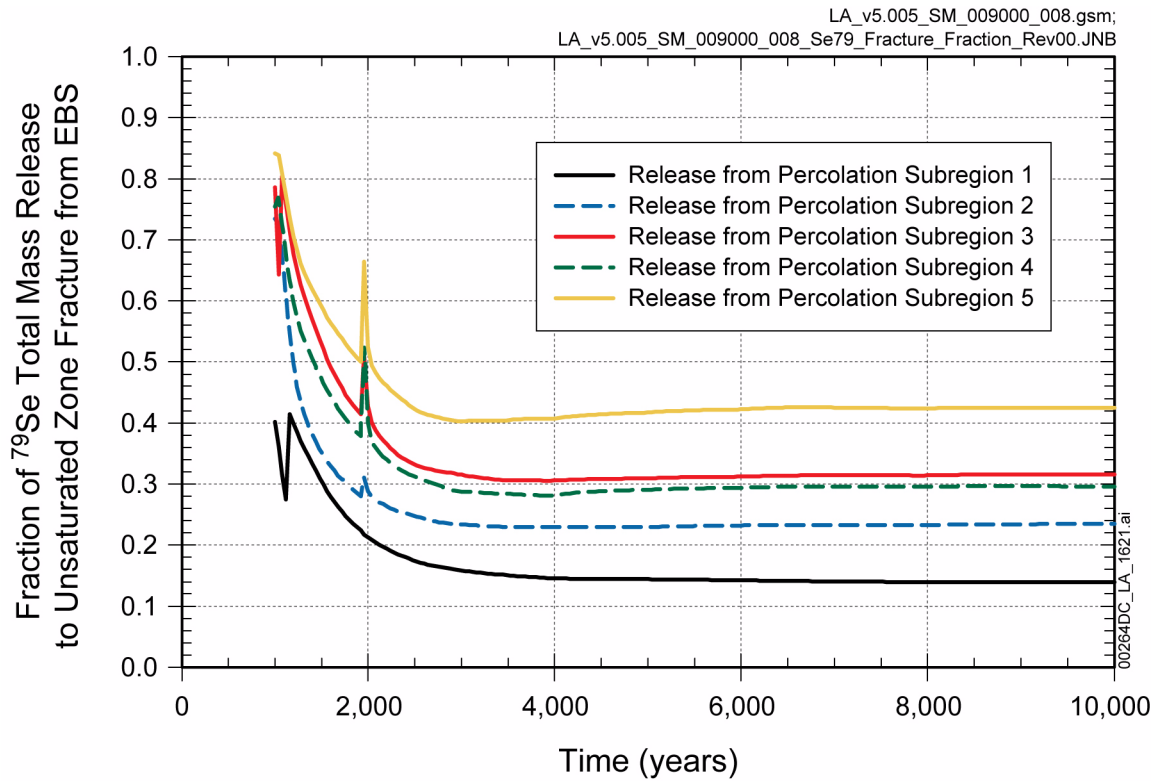


Figure 2.4-84. Fraction of ^{79}Se Mass Going to Unsaturated Zone Fractures as Compared to the Unsaturated Zone Matrix at the Repository Horizon for Realization 4,628 of the Seismic Ground Motion Modeling Case for the 10,000-Year Period after Repository Closure

Source: Modified from SNL 2008a, Figure 7.7.1-117[a].

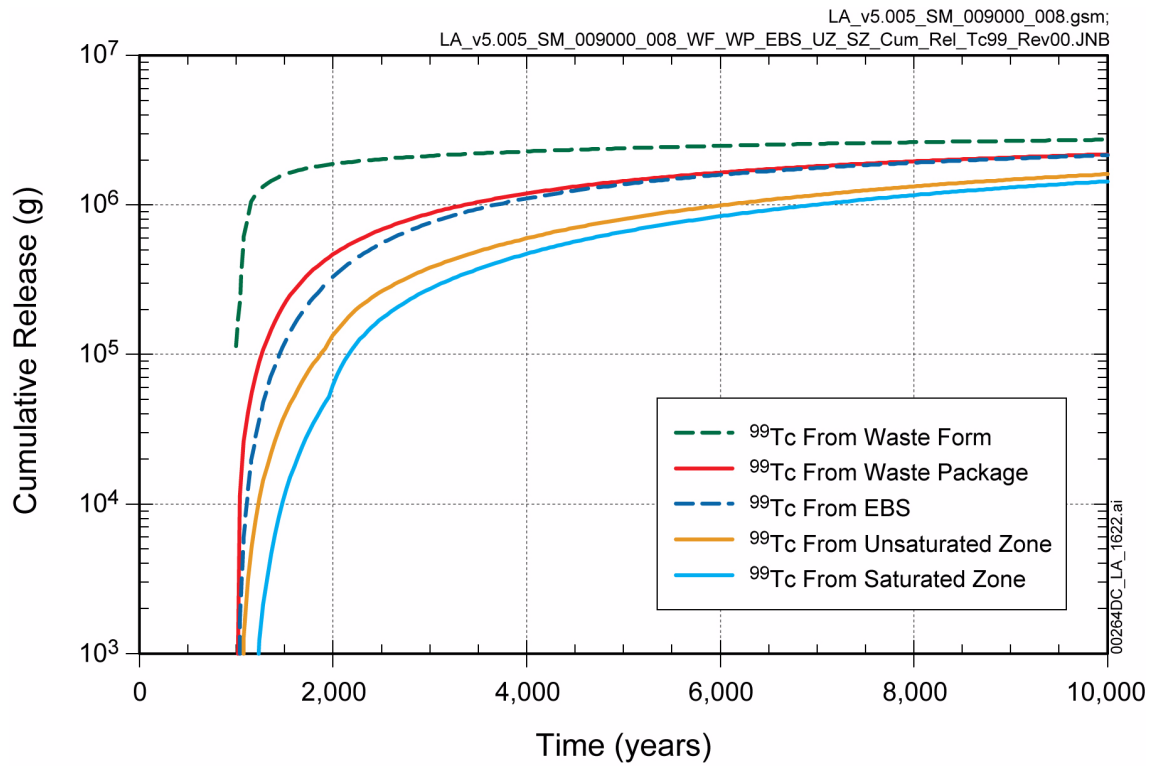


Figure 2.4-85. Cumulative Release of ⁹⁹Tc from Various Model Domains for Realization 4,628 of the Seismic Ground Motion Modeling Case for the 10,000-Year Period after Repository Closure

Source: SNL 2008a, Figure 7.7.1-118[a].

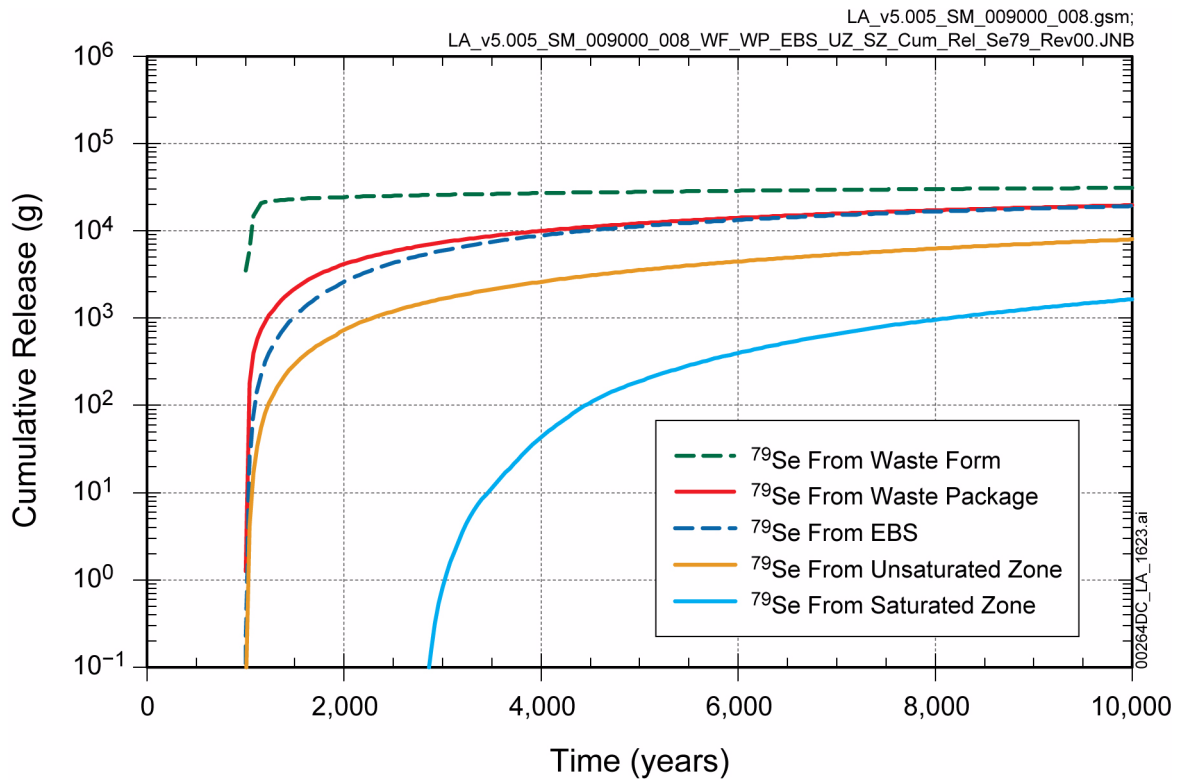


Figure 2.4-86. Cumulative Release of ⁷⁹Se from Various Model Domains for Realization 4,628 of the Seismic Ground Motion Modeling Case for the 10,000-Year Period after Repository Closure

Source: SNL 2008a, Figure 7.7.1-119[a].

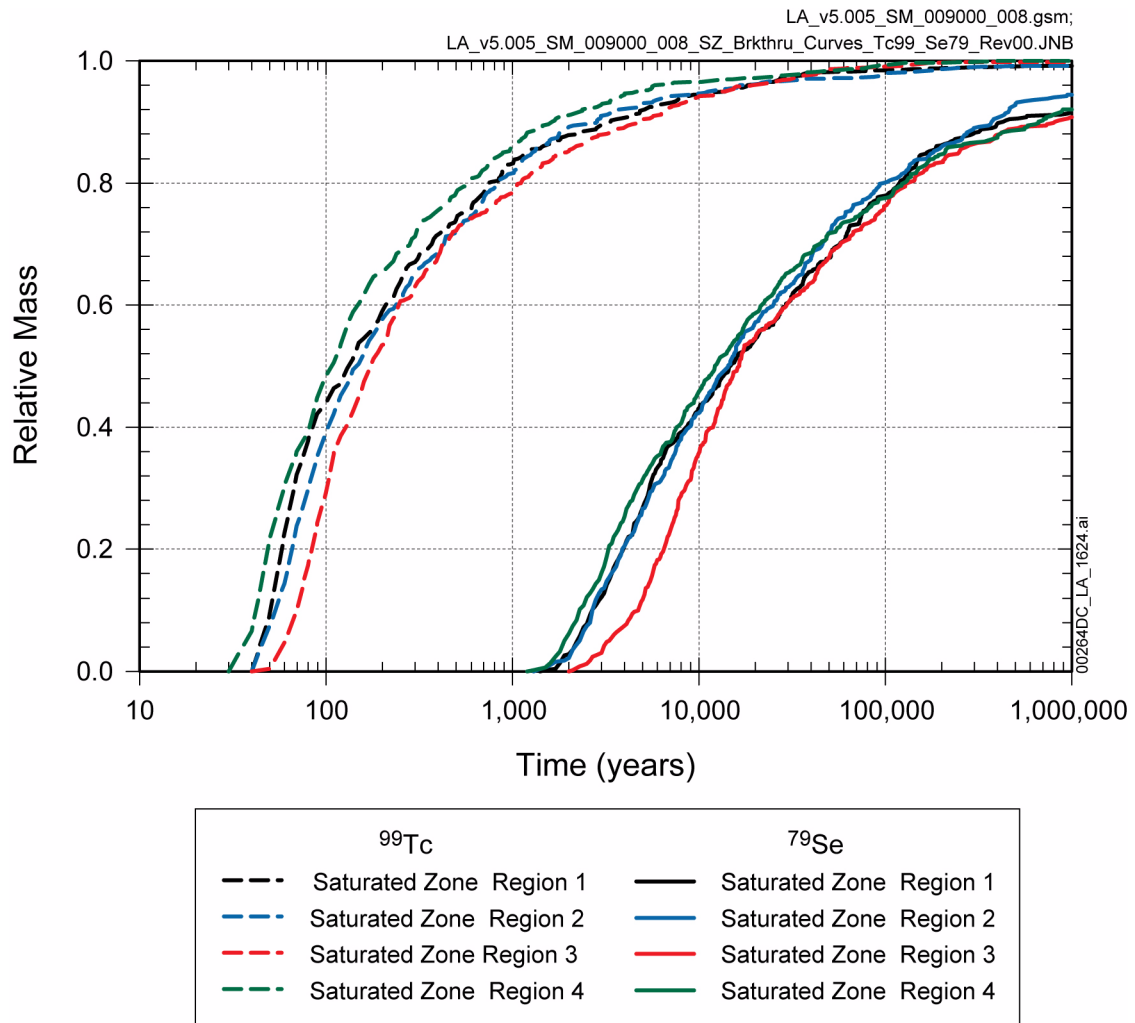


Figure 2.4-87. Comparison of Saturated Zone Breakthrough Curves for ⁹⁹Tc and ⁷⁹Se for All Four Saturated Zone Regions for Realization 4,628 of the Seismic Ground Motion Modeling Case for the 10,000-Year Period after Repository Closure

NOTE: The saturated zone breakthrough curve #122 is used in Realization 4,628.

Source: SNL 2008a, Figure 7.7.1-120[a].

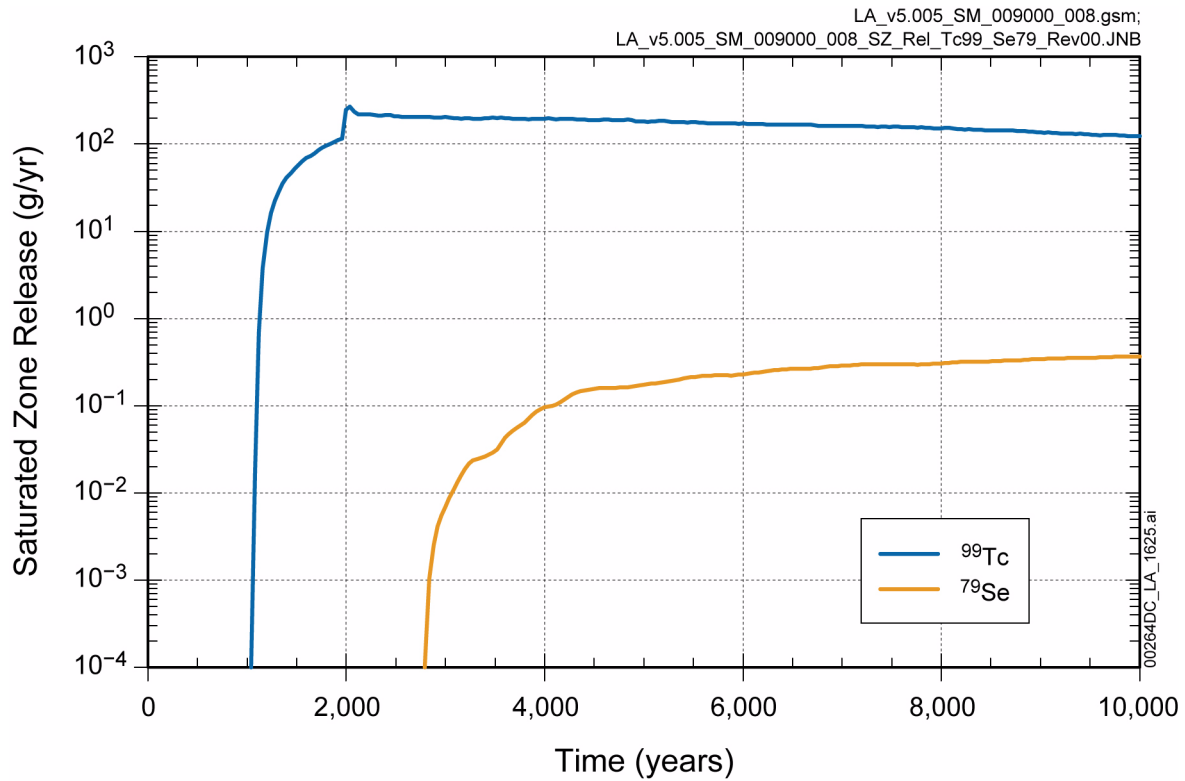


Figure 2.4-88. Saturated Zone Release to the Biosphere for ^{99}Tc and ^{79}Se for Realization 4,628 of the Seismic Ground Motion Modeling Case for the 10,000-Year Period after Repository Closure

Source: SNL 2008a, Figure 7.7.1-121[a].

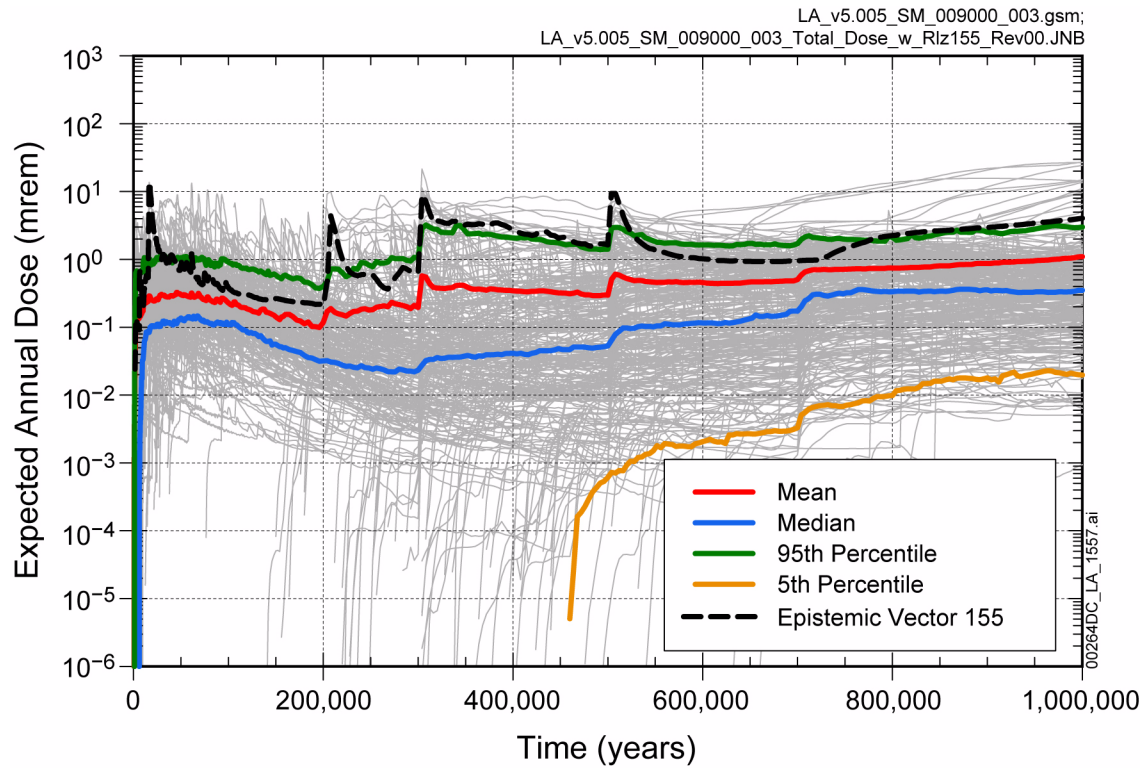


Figure 2.4-89. Expected Annual Dose from the 300 Epistemic Uncertainty Vectors Along with Their Quantiles, and Expected Dose from Epistemic Uncertainty Vector #155, for the Seismic Ground Motion Modeling Case for the 1-Million-Year Period after Repository Closure

Source: SNL 2008a, Figure 7.7.1-52[a].

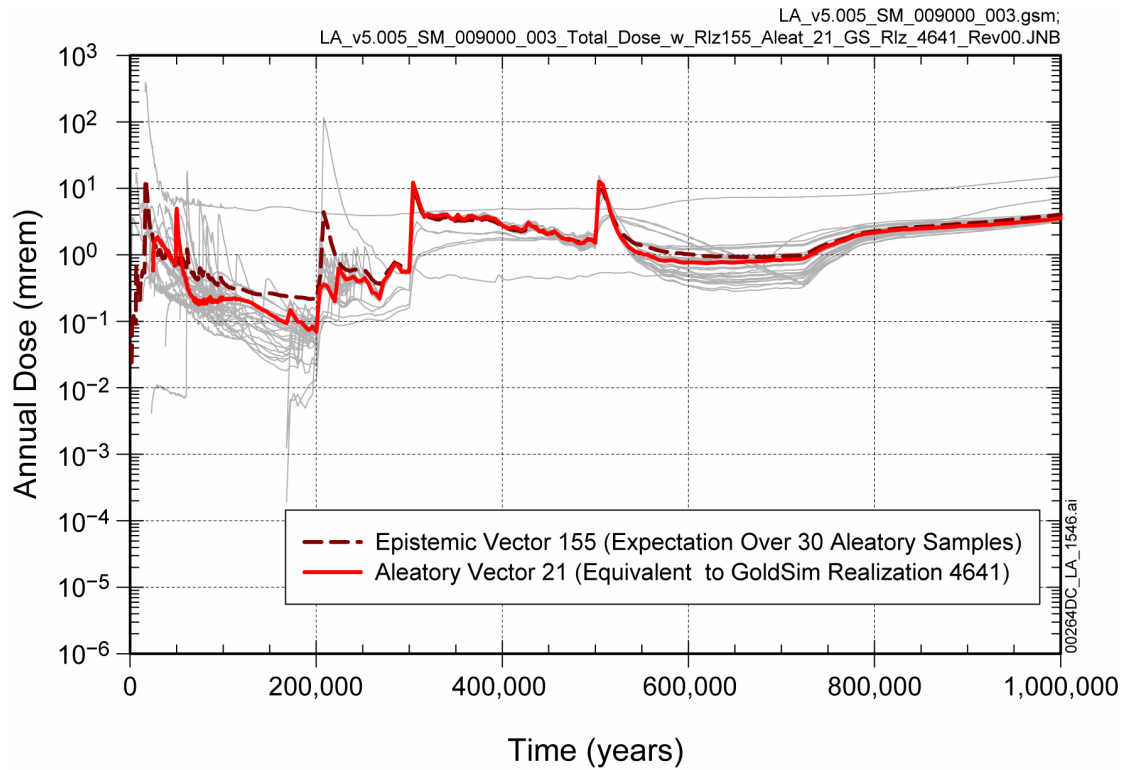


Figure 2.4-90. Annual Dose from the 30 Aleatory Vectors (Seismic Event Sequences) Associated with the Epistemic Uncertainty Vector 155 for the Seismic Ground Motion Modeling Case for the 1-Million-Year Period after Repository Closure

NOTE: 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 4,641.

Source: SNL 2008a, Figure 7.7.1-53[a].

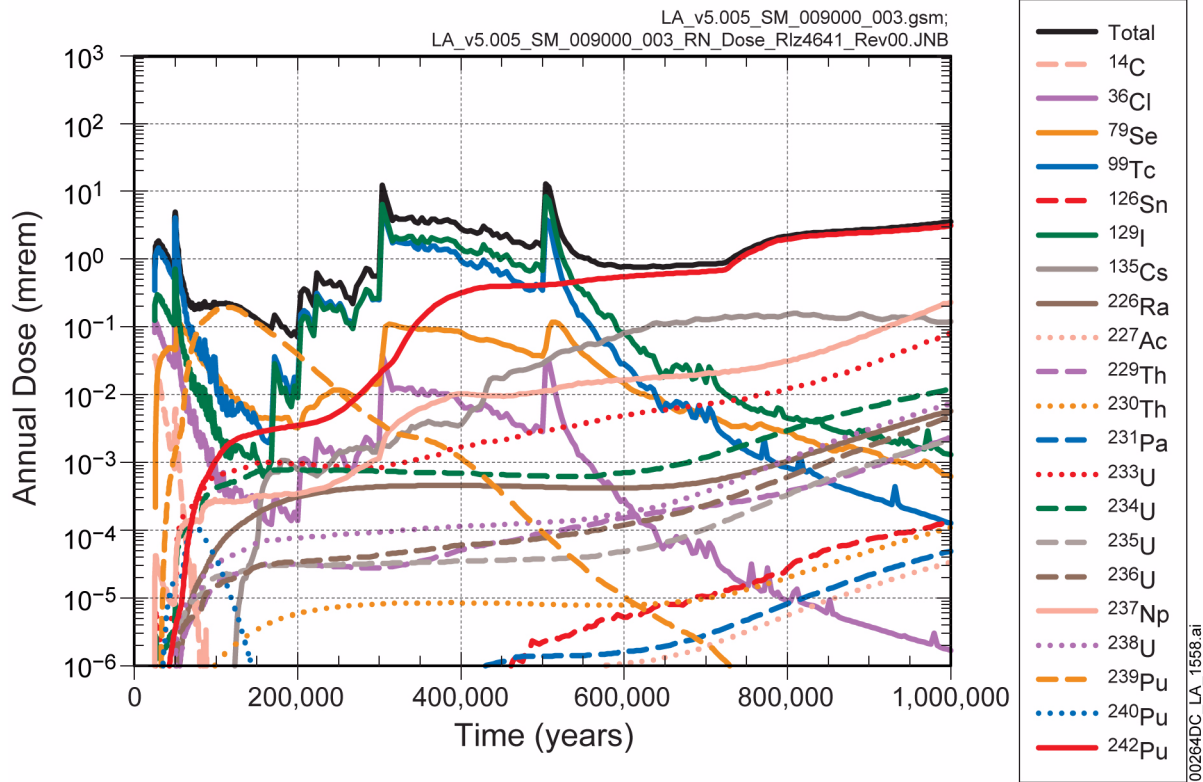


Figure 2.4-91. Total Annual Dose along with Major Radionuclide Dose Contributors for Realization 4,641 of the Seismic Ground Motion Modeling Case for the 1-Million-Year Period after Repository Closure

Source: SNL 2008a, Figure 7.7.1-54[a].

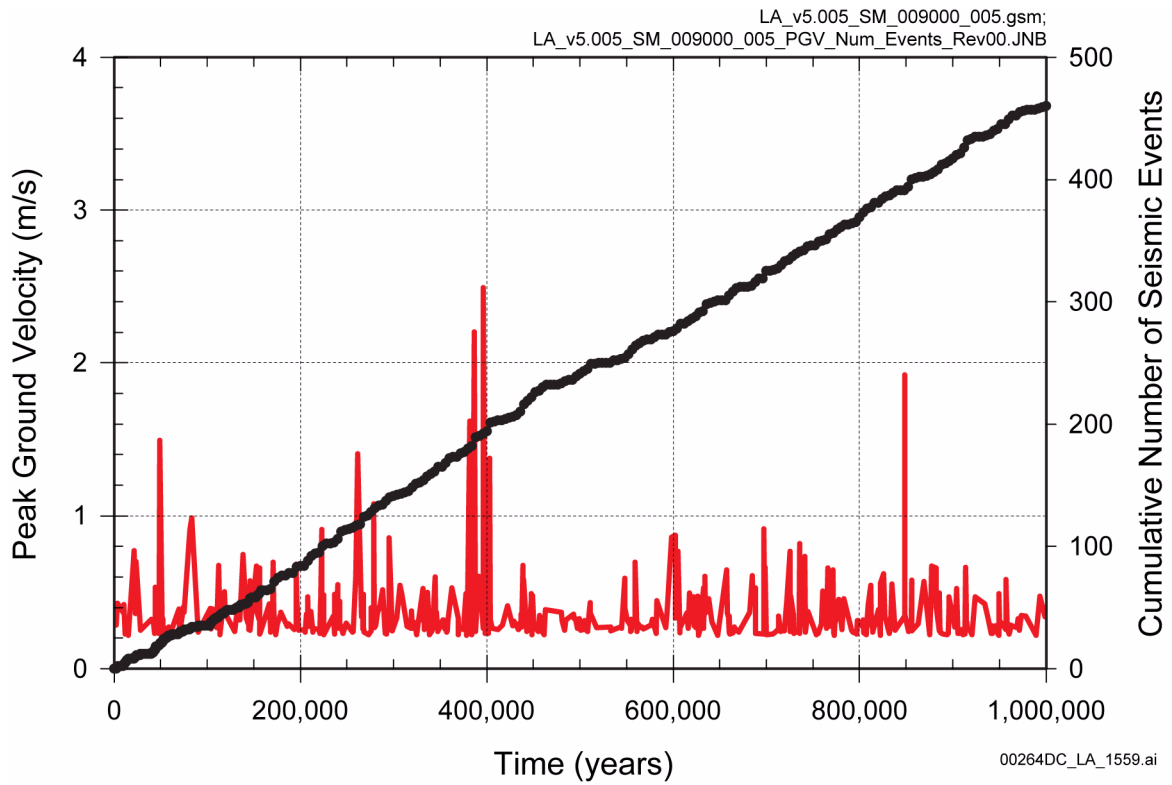


Figure 2.4-92. Number of Seismic Events and the Peak Ground Velocity Time History for Realization 4,641 of the Seismic Ground Motion Modeling Case for the 1-Million-Year Period after Repository Closure

Source: SNL 2008a, Figure 7.7.1-55[a].

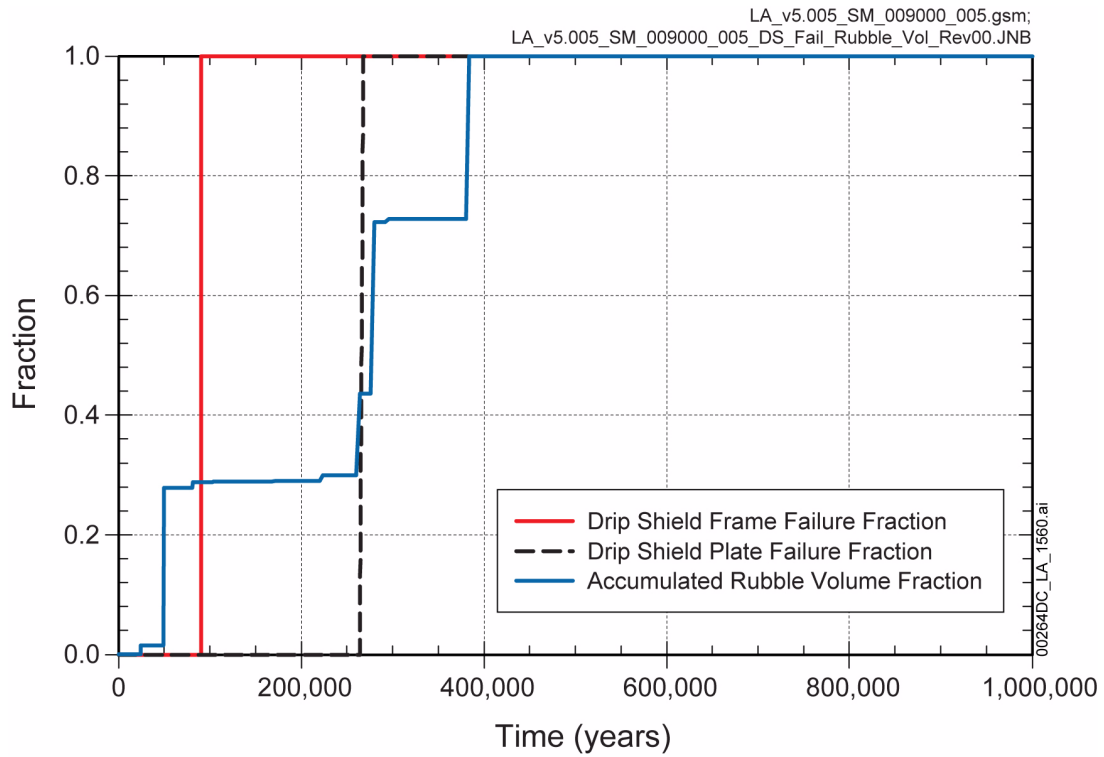


Figure 2.4-93. Failure Fraction for the Drip Shield Plate and Framework and the Fraction of the Collapsed Drift Filled with Rubble (Lithophysal Zone) for Realization 4,641 of the Seismic Ground Motion Modeling Case for the 1-Million-Year Period after Repository Closure

Source: SNL 2008a, Figure 7.7.1-56[a].

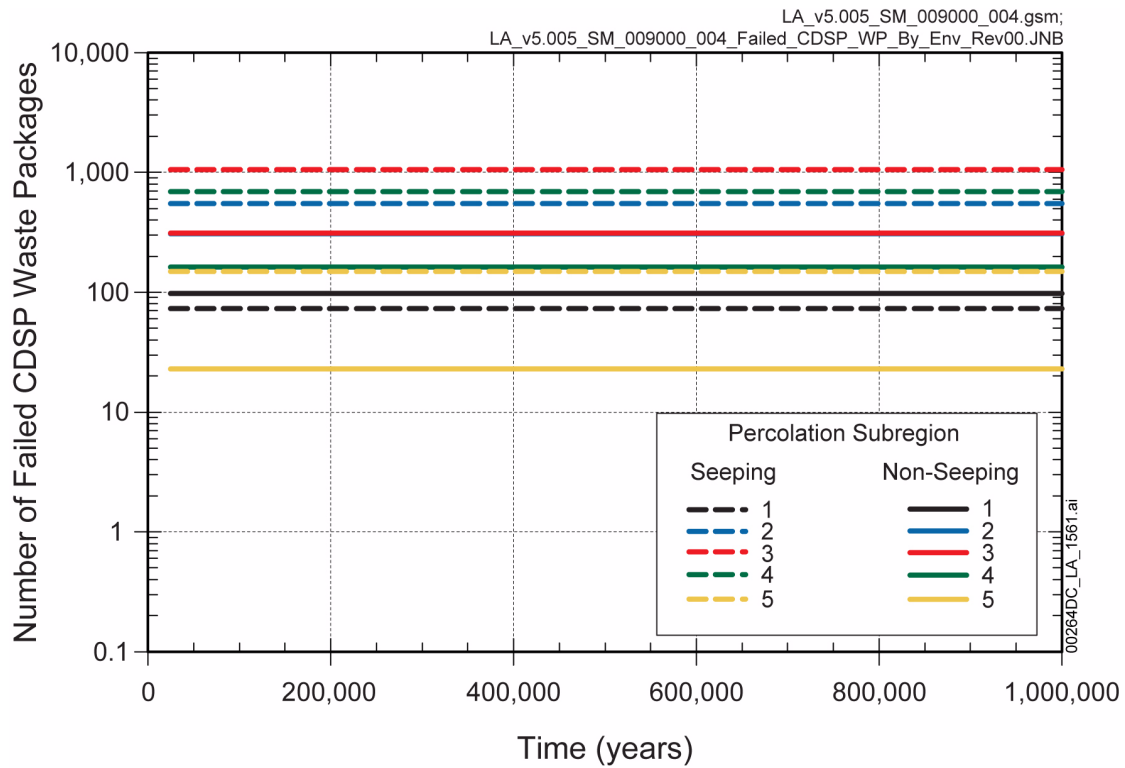


Figure 2.4-94. Codisposal Waste Package Failure for Each Percolation Subregions for Both Seeping and Nonseeping Environments for Realization 4,641 of the Seismic Ground Motion Modeling Case for the 1-Million-Year Period after Repository Closure

Source: SNL 2008a, Figure 7.7.1-57[a].

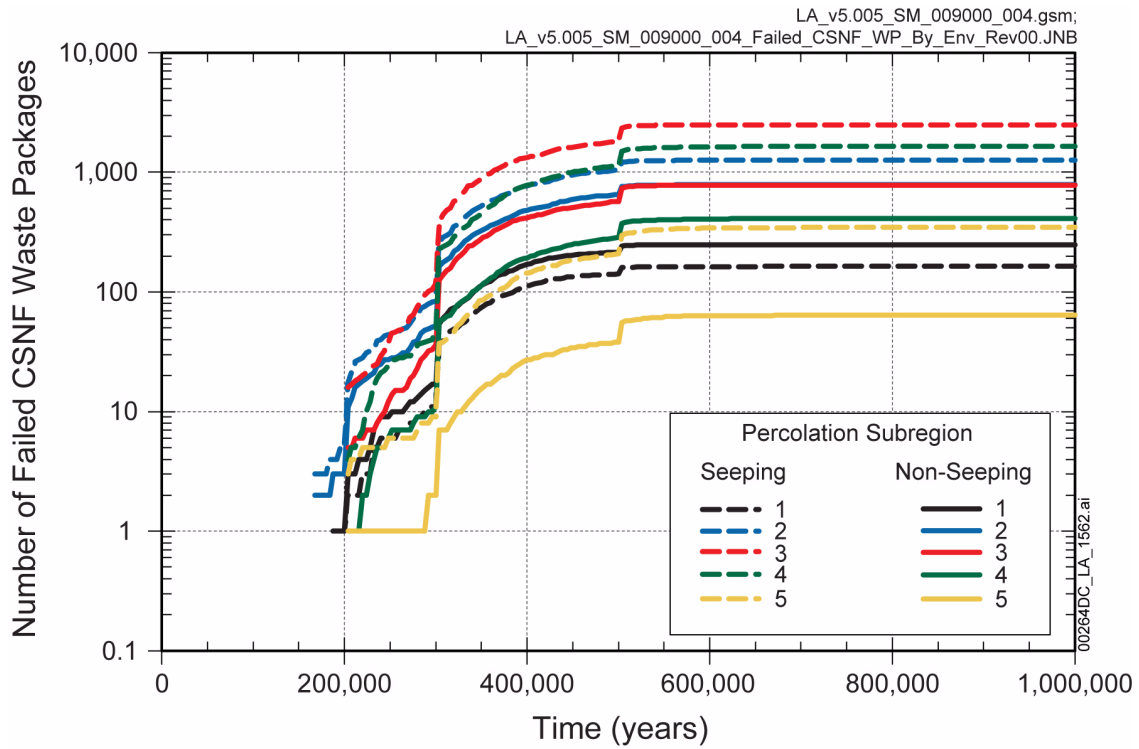


Figure 2.4-95. Commercial SNF Waste Package Failure for Each Percolation Subregion for Both Seeping and Nonseeping Environments for Realization 4,641 of the Seismic Ground Motion Modeling Case for the 1-Million-Year Period after Repository Closure

Source: SNL 2008a, Figure 7.7.1-58[a].

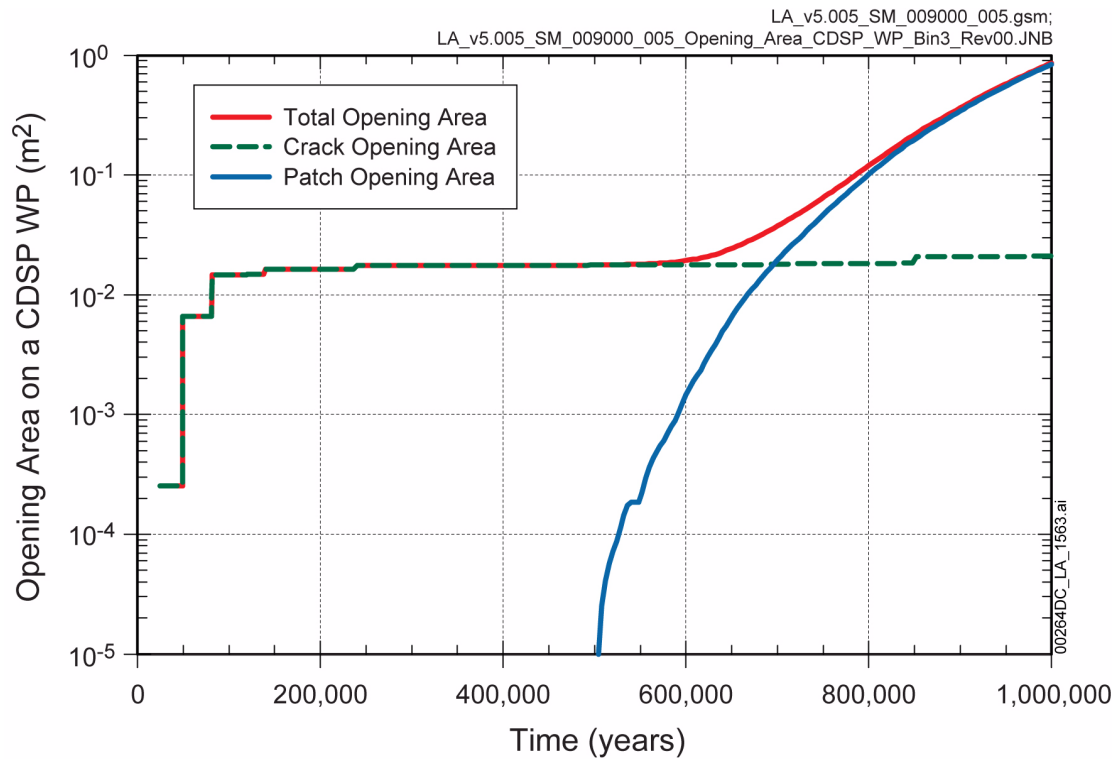


Figure 2.4-96. Codisposal Waste Package Opening Area after Failure from Cracks and Patches for Percolation Subregion 3 for Realization 4,641 of the Seismic Ground Motion Modeling Case for the 1-Million-Year Period after Repository Closure

Source: SNL 2008a, Figure 7.7.1-59[a].

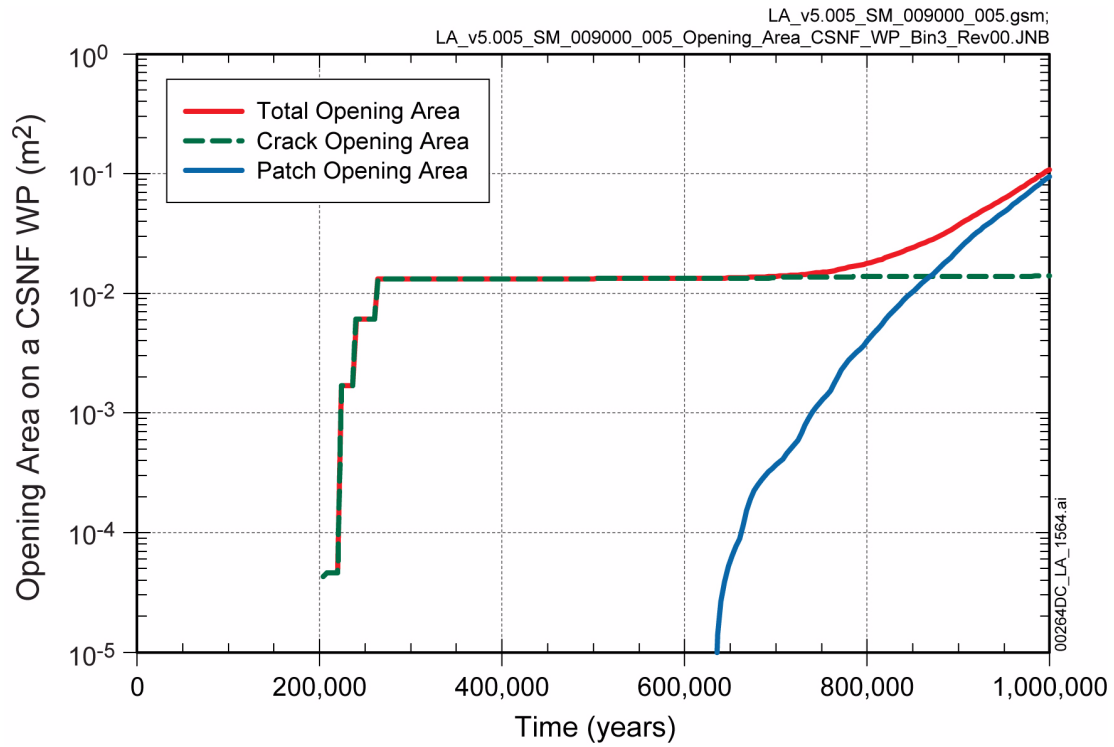


Figure 2.4-97. Commercial SNF Waste Package Opening Area after Failure from Cracks and Patches for Percolation Subregion 3 for Realization 4,641 of the Seismic Ground Motion Modeling Case for the 1-Million-Year Period after Repository Closure

Source: SNL 2008a, Figure 7.7.1-60[a].

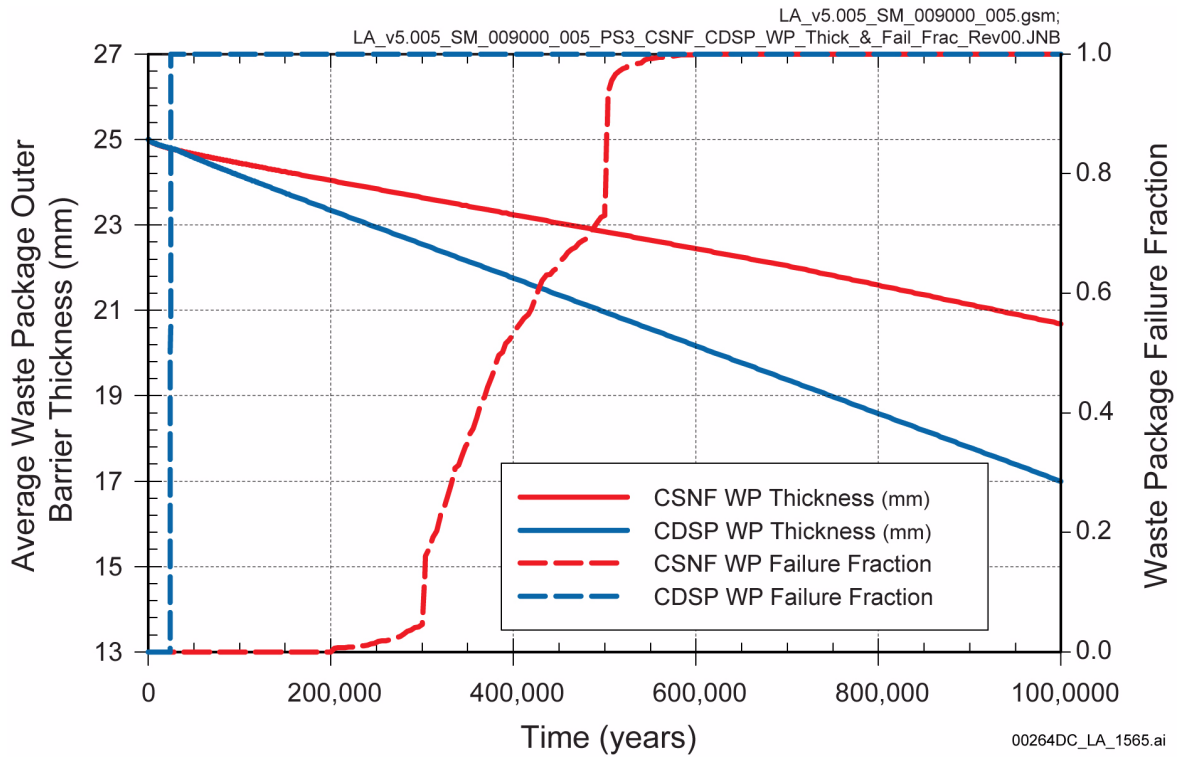


Figure 2.4-98. Mean Waste Package Outer Barrier Thicknesses and Waste Package Failure Fractions for Percolation Subregion 3 for Realization 4,641 of the Seismic Ground Motion Modeling Case for the 1-Million-Year Period after Repository Closure

Source: SNL 2008a, Figure 7.7.1-61[a].

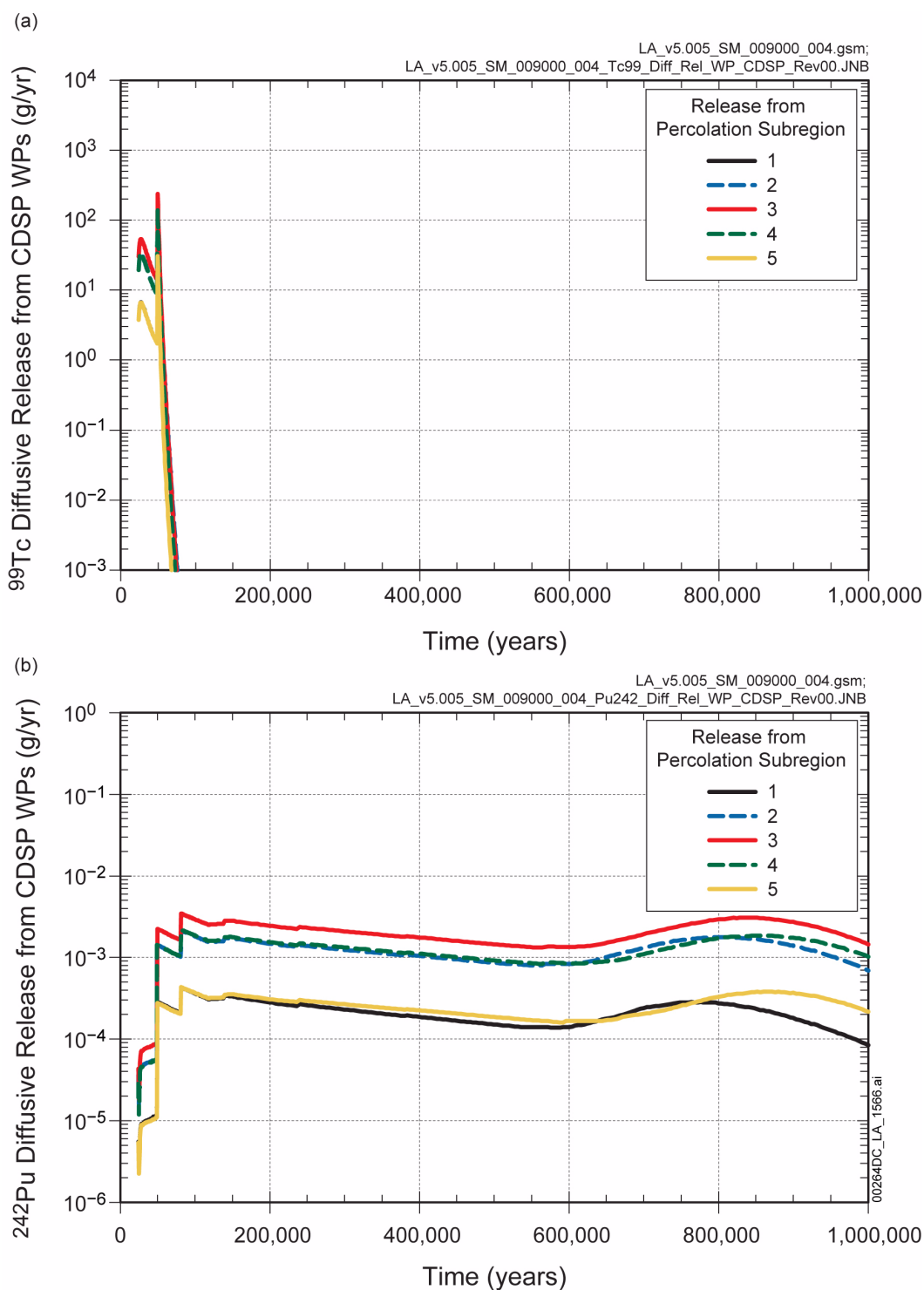


Figure 2.4-99. Diffusive Release Rates of: (a) ^{99}Tc and (b) ^{242}Pu (Dissolved and Reversibly Associated with Colloids) from Codisposal Waste Packages from each Percolation Subregion for Realization 4,641 of the Seismic Ground Motion Modeling Case for the 1-Million-Year Period after Repository Closure

Source: SNL 2008a, Figure 7.7.1-62[a].

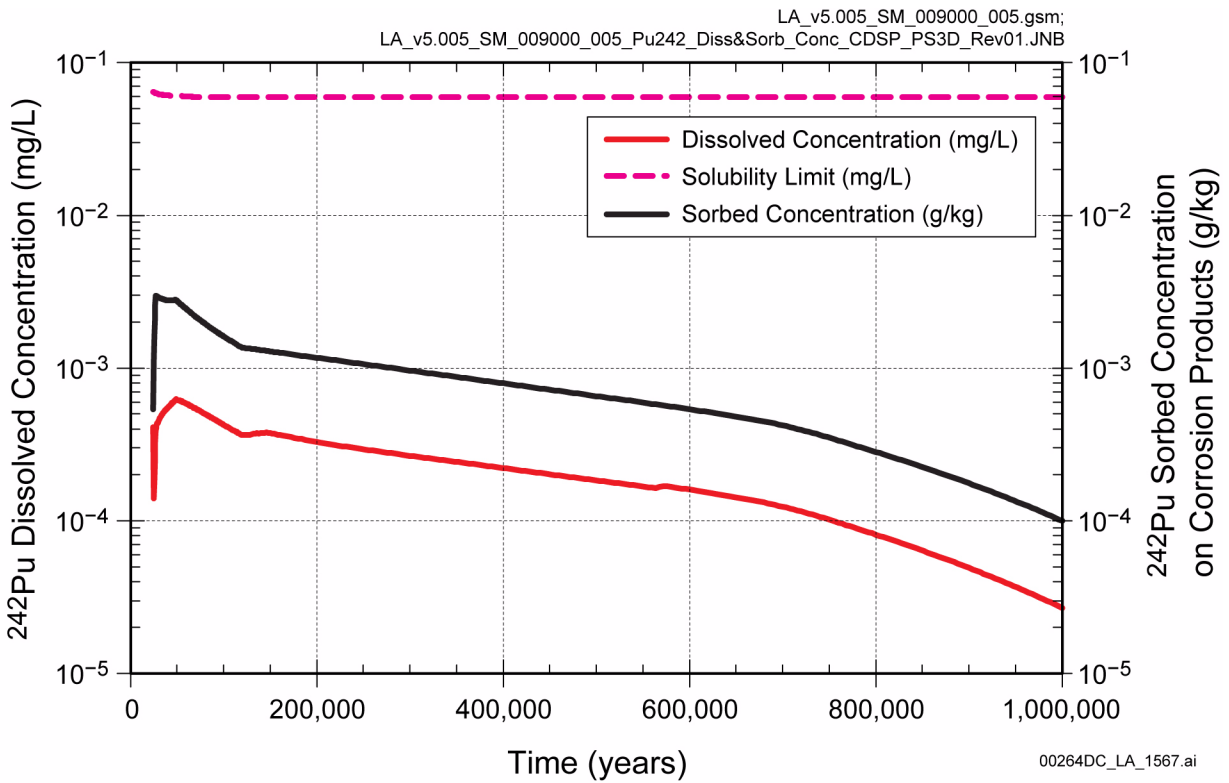


Figure 2.4-100. Dissolved Concentration of ^{242}Pu in the Corrosion Products Domain Compared to the Sorbed Concentration on Corrosion Products for Codisposal Waste Packages in Percolation Subregion 3 Seeping Environment for Realization 4,641 of the Seismic Ground Motion Modeling Case for the 1-Million-Year Period after Repository Closure

Source: SNL 2008a, Figure 7.7.1-63[a].

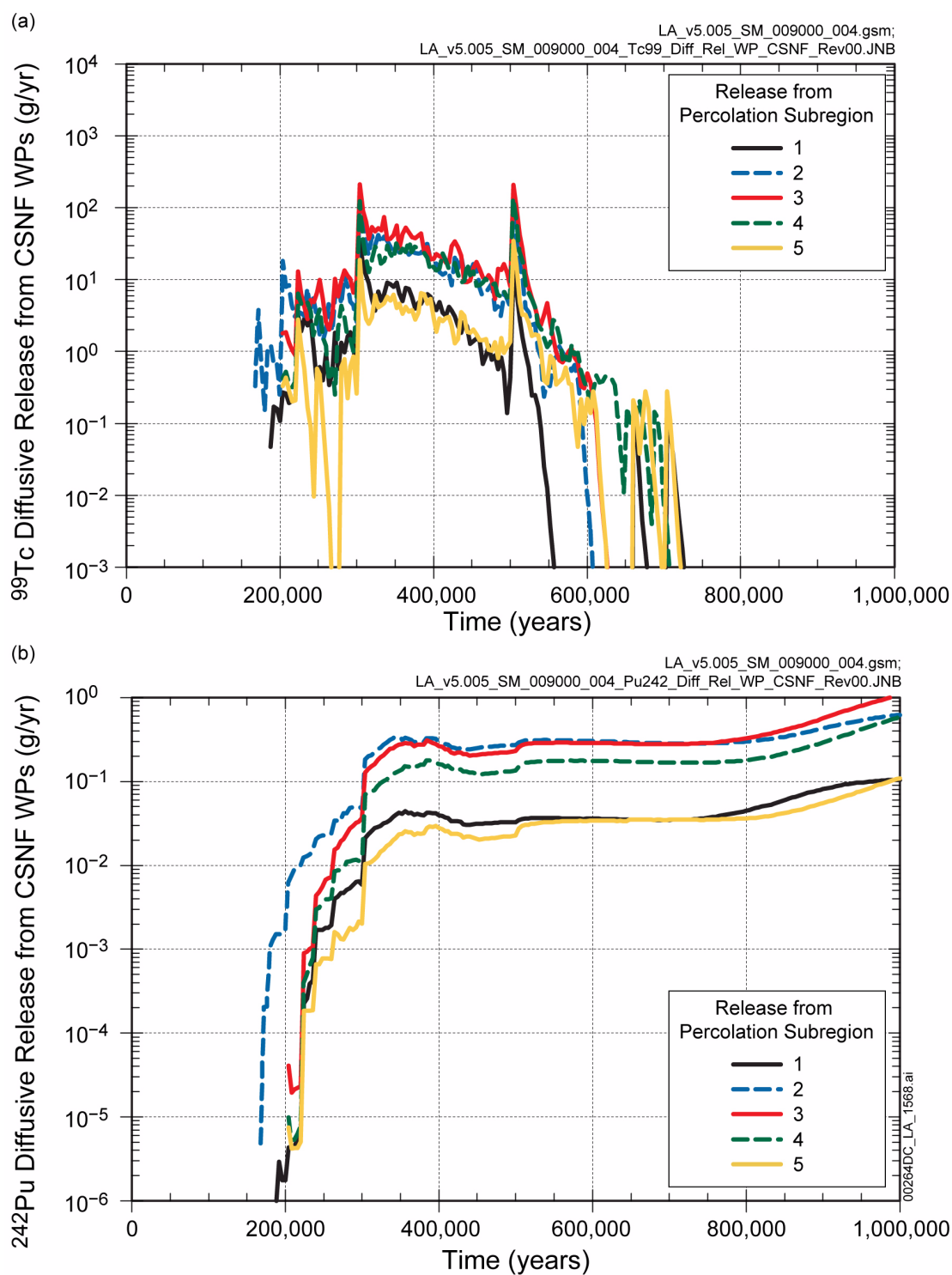


Figure 2.4-101. Diffusive Release Rates of: (a) ^{99}Tc and (b) ^{242}Pu (Dissolved and Reversibly Associated with Colloids) from Commercial SNF Waste Packages from Each Percolation Subregion for Realization 4,641 of the Seismic Ground Motion Modeling Case for the 1-Million-Year Period after Repository Closure

Source: SNL 2008a, Figure 7.7.1-64[a].

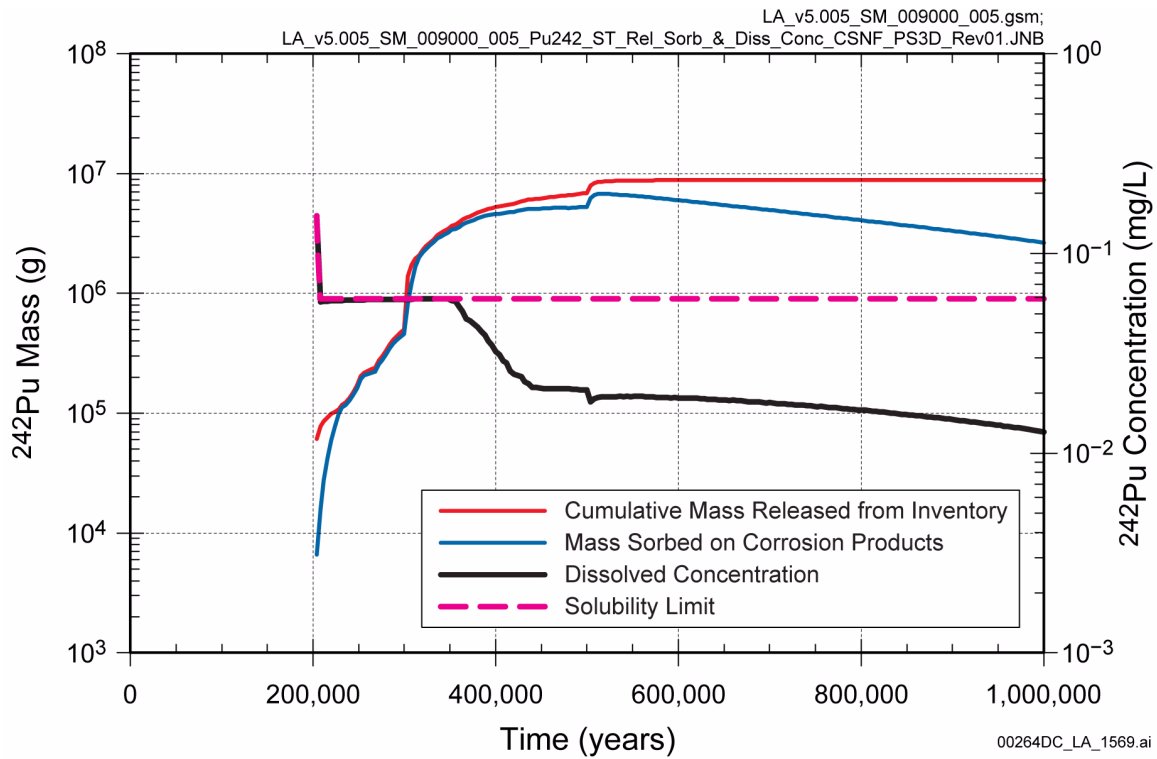


Figure 2.4-102. Comparison of ^{242}Pu Cumulative Mass Released from the Inventory, Mass Sorbed on Corrosion Products, and the Dissolved Concentration in the Corrosion Products Domain for Commercial SNF Waste Packages in Percolation Subregion 3 Seeping Environment for Realization 4,641 of the Seismic Ground Motion Modeling Case for the 1-Million-Year Period after Repository Closure

Source: SNL 2008a, Figure 7.7.1-65[a].

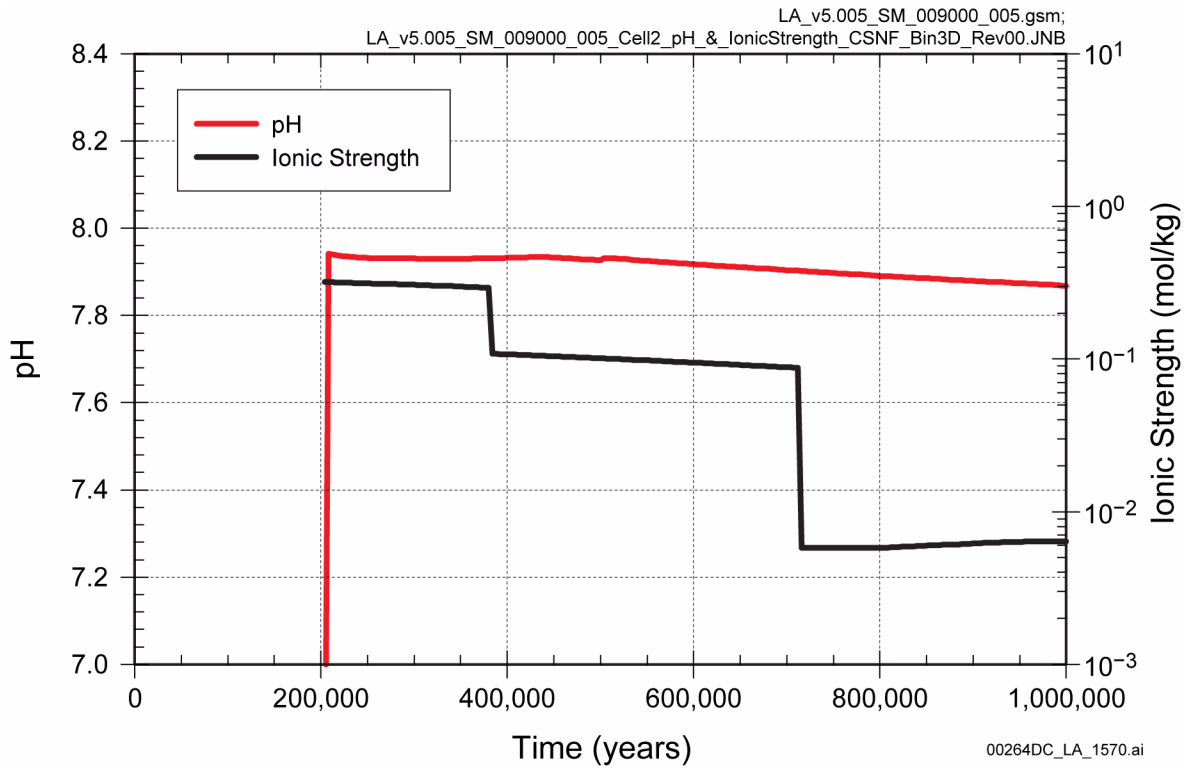


Figure 2.4-103. pH and Ionic Strength Profiles in the Corrosion Products Domain for Commercial SNF Waste Packages in Percolation Subregion 3 Seeping Environment for Realization 4,641 of the Seismic Ground Motion Modeling Case for the 1-Million-Year Period after Repository Closure

Source: SNL 2008a, Figure 7.7.1-66[a].

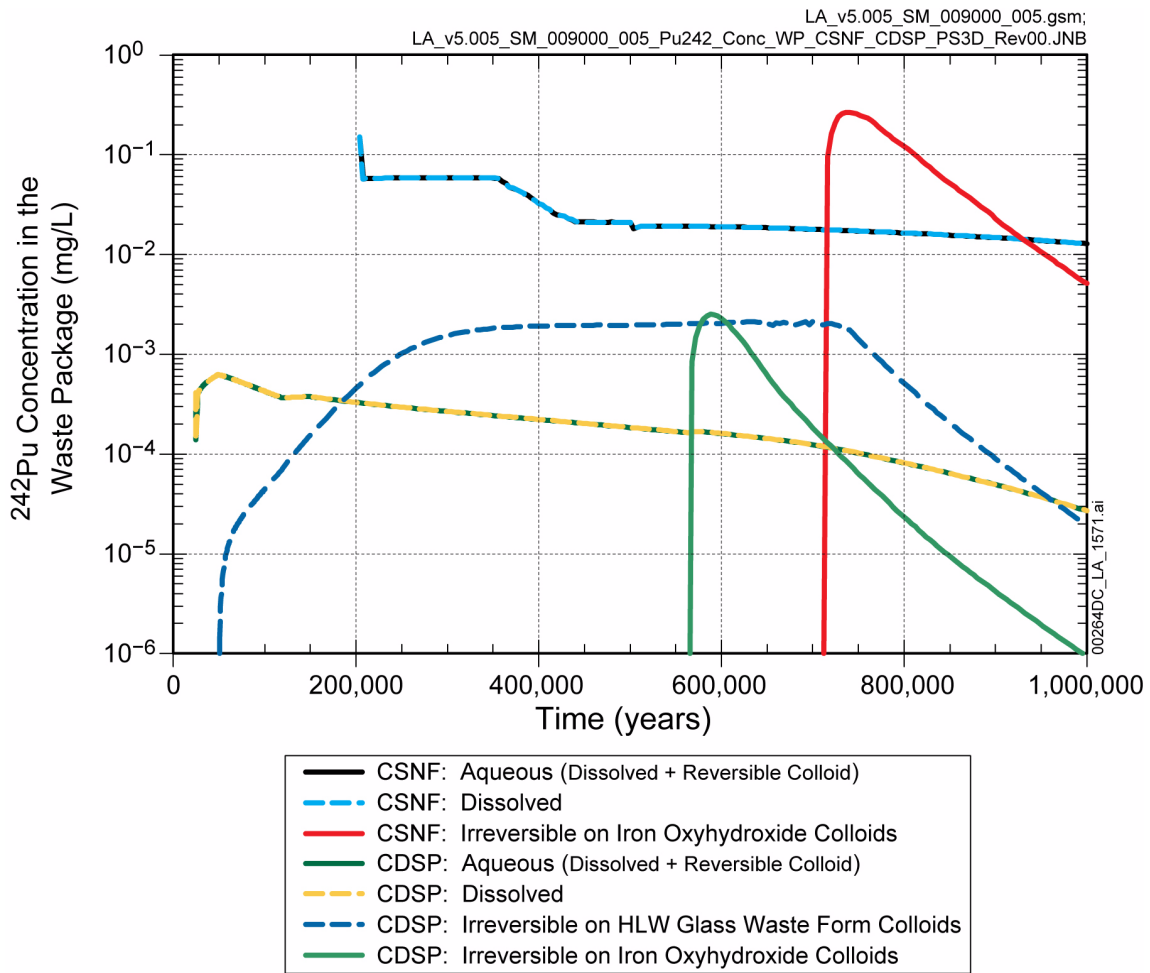


Figure 2.4-104. Concentration of ²⁴²Pu in the Corrosion Products Domain for Commercial SNF and Codisposal Waste Packages for Percolation Subregion 3, Seeping Environment for Realization 4,641 of the Seismic Ground Motion Modeling Case for the 1-Million-Year Period after Repository Closure

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

Source: SNL 2008a, Figure 7.7.1-67[a].

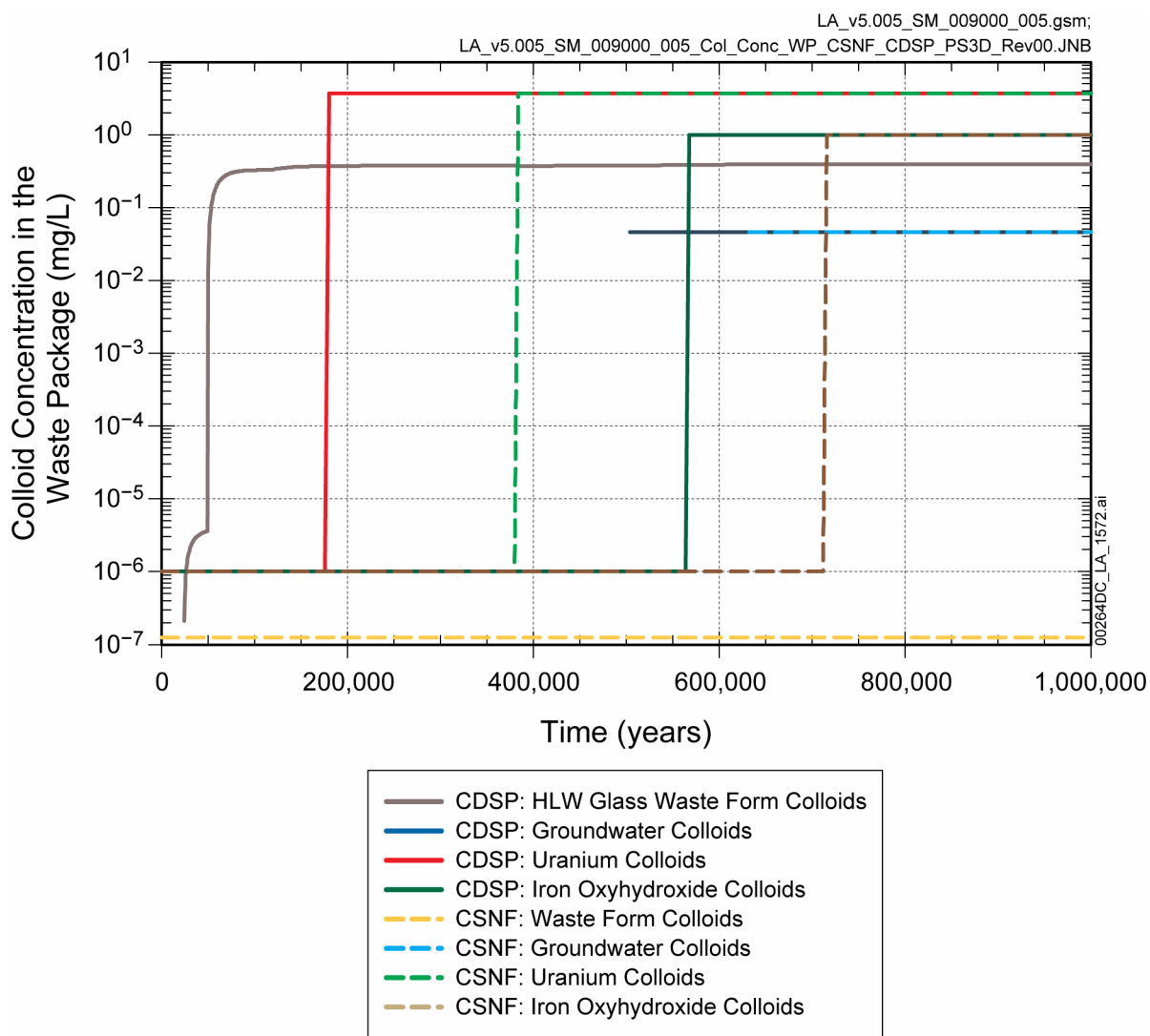


Figure 2.4-105. Concentration of Various Colloids in the Corrosion Products Domain for Commercial SNF and Codisposal Waste Packages for Percolation Subregion 3, Seeping Environment for Realization 4,641 of the Seismic Ground Motion Modeling Case for the 1-Million-Year Period after Repository Closure

Source: SNL 2008a, Figure 7.7.1-68[a].

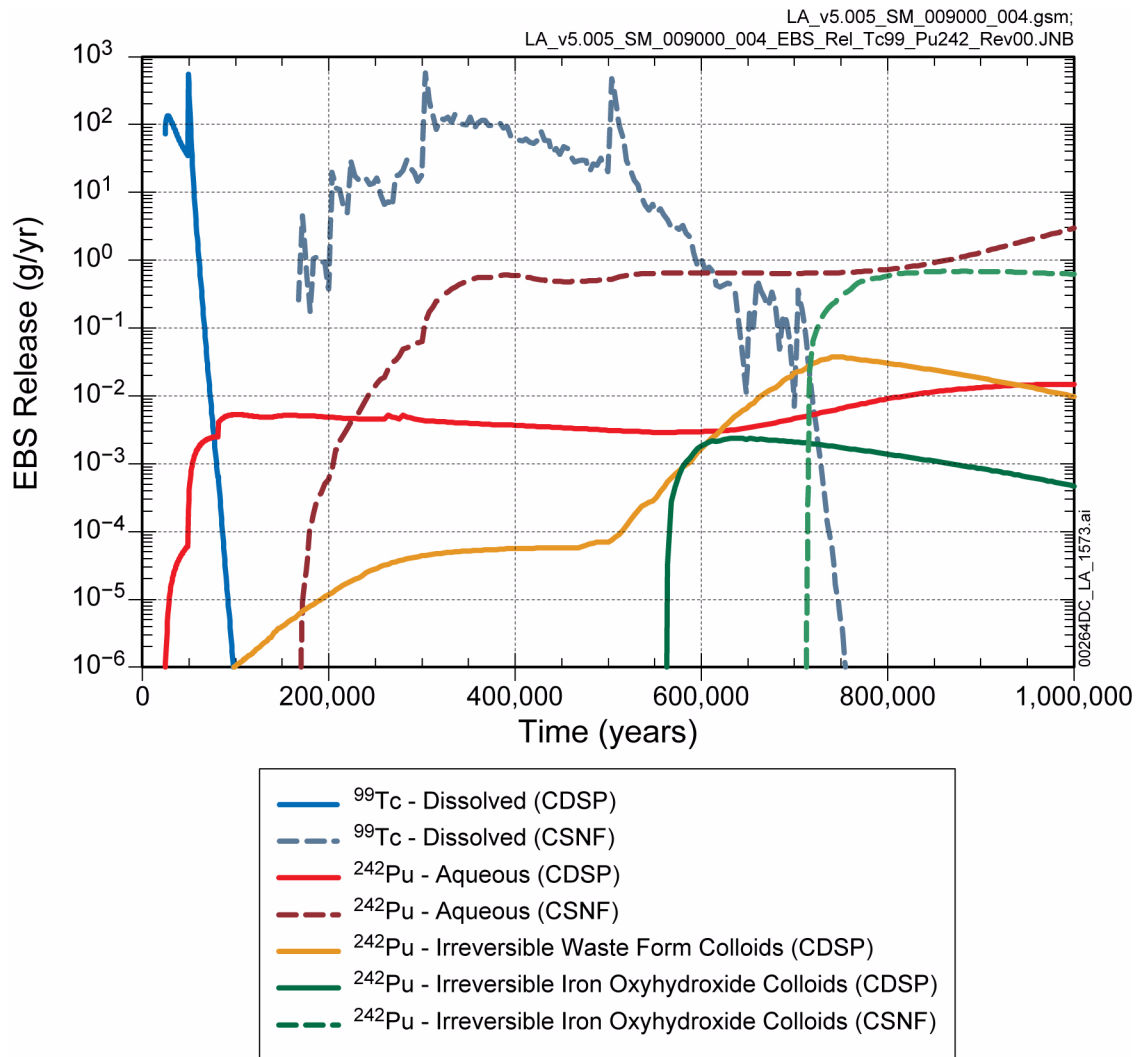


Figure 2.4-106. Engineered Barrier System Release Rates from Commercial SNF and Codisposal Waste Packages (All Percolation Subregions) for Realization 4,641 of the Seismic Ground Motion Modeling Case for the 1-Million-Year Period after Repository Closure

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

Source: SNL 2008a Figure 7.7.1-69[a].

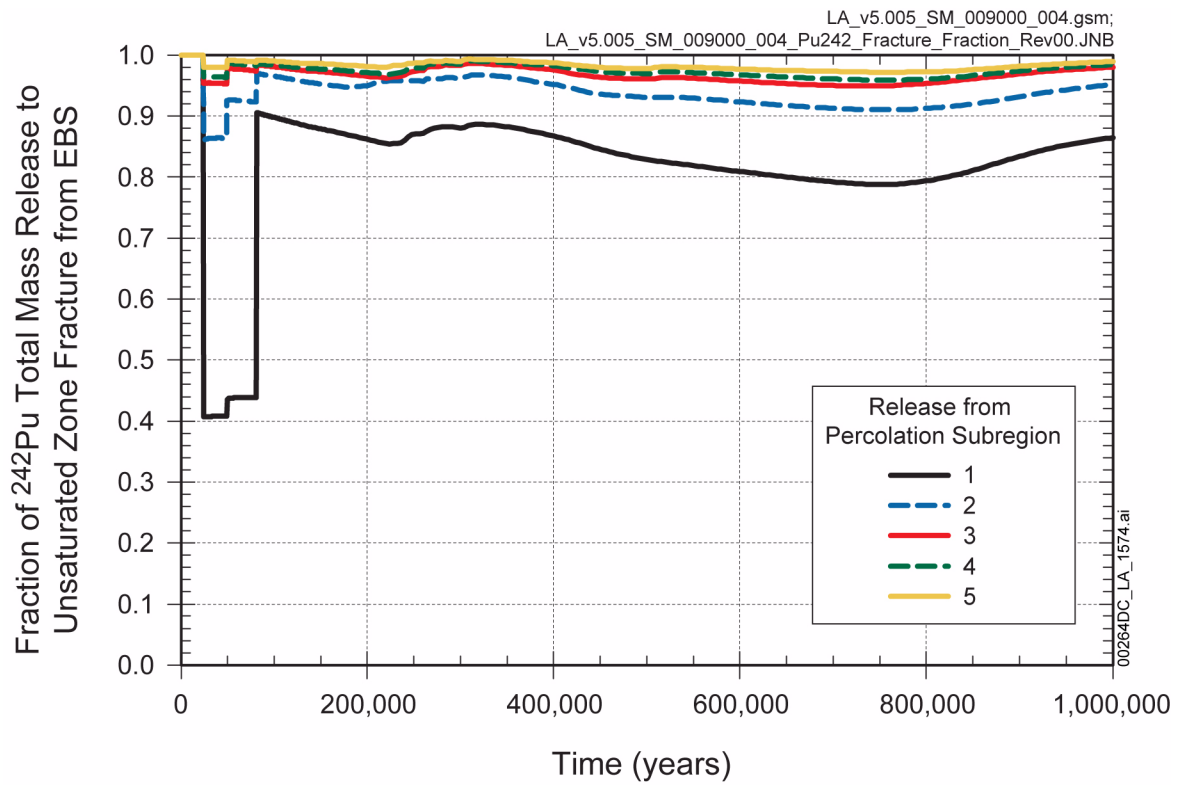


Figure 2.4-107. Fraction of ²⁴²Pu Mass Going into Unsaturated Zone Fractures at the Repository Horizon for Realization 4,641 of the Seismic Ground Motion Modeling Case for the 1-Million-Year Period after Repository Closure

Source: Modified from SNL 2008a, Figure 7.7.1-70[a].

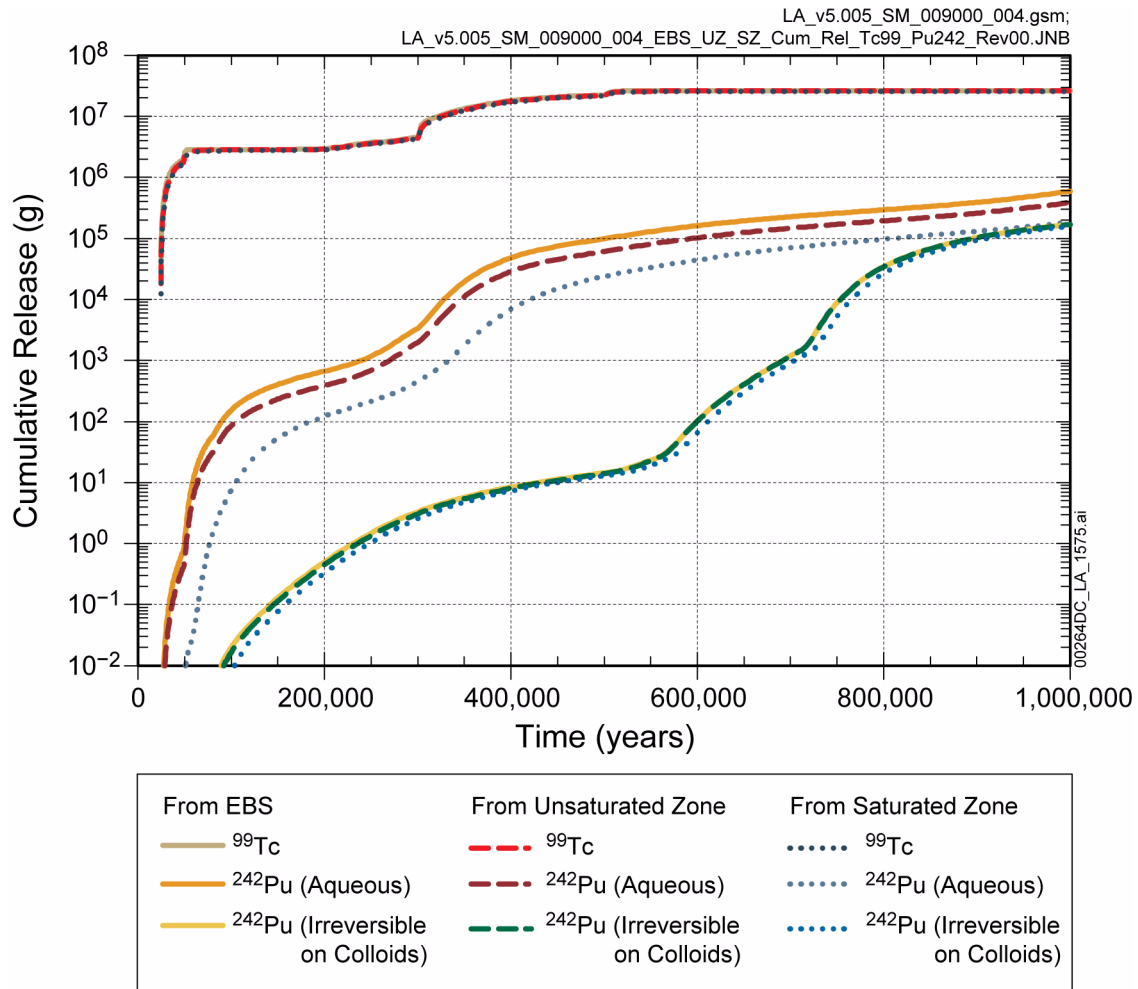


Figure 2.4-108. Cumulative Mass Release of ^{99}Tc and ^{242}Pu from the Engineered Barrier System, Unsaturated Zone, and Saturated Zone for Realization 4,641 of the Seismic Ground Motion Modeling Case for the 1-Million-Year Period after Repository Closure

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

Source: SNL 2008a, Figure 7.7.1-71[a].

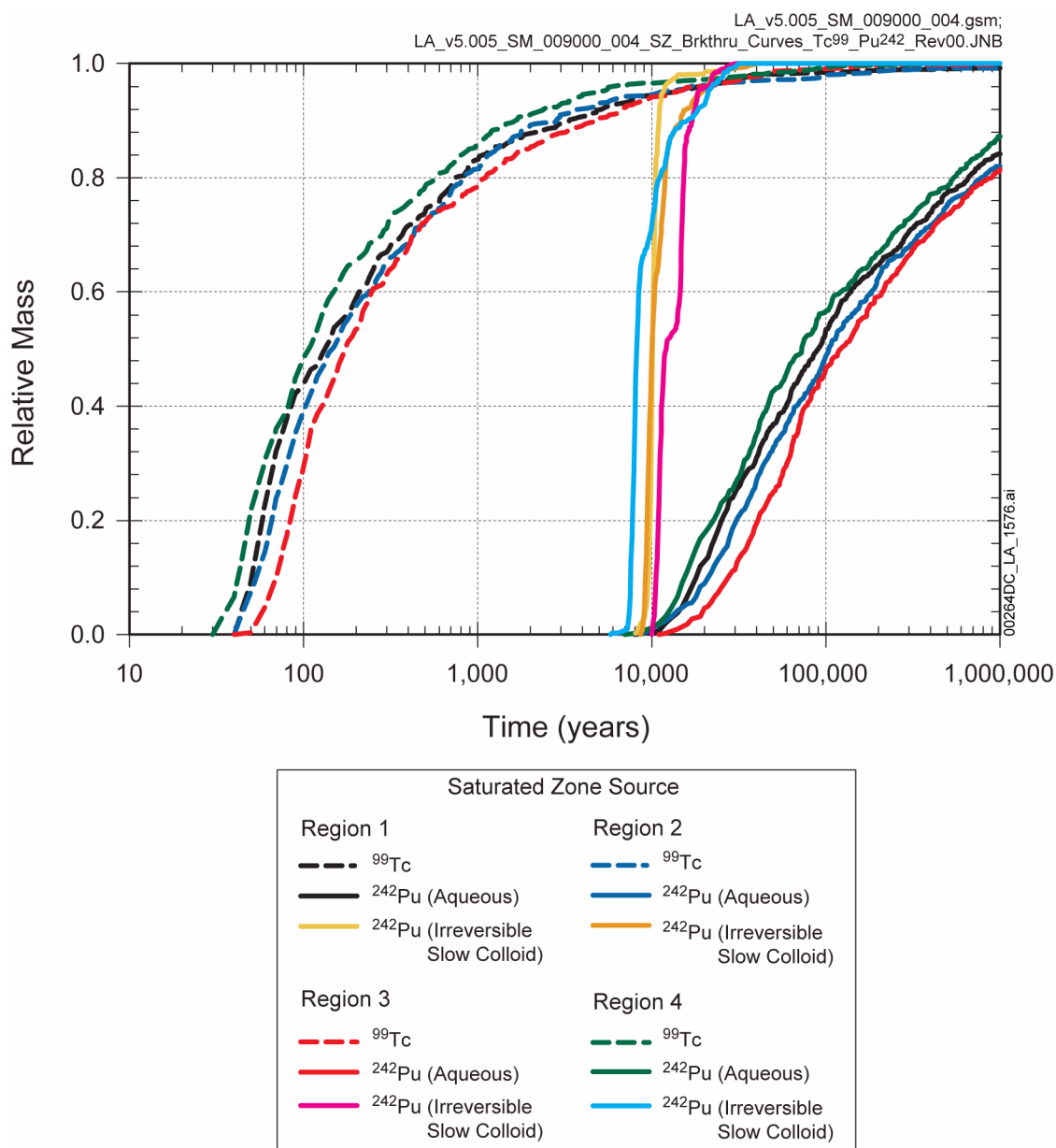


Figure 2.4-109. Comparison of Saturated Zone Breakthrough Curves for ⁹⁹Tc and ²⁴²Pu for All Four Saturated Zone Source Regions for Realization 4,641 of the Seismic Ground Motion Modeling Case for the 1-Million-Year Period after Repository Closure

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

Source: SNL 2008a, Figure 7.7.1-72[a].

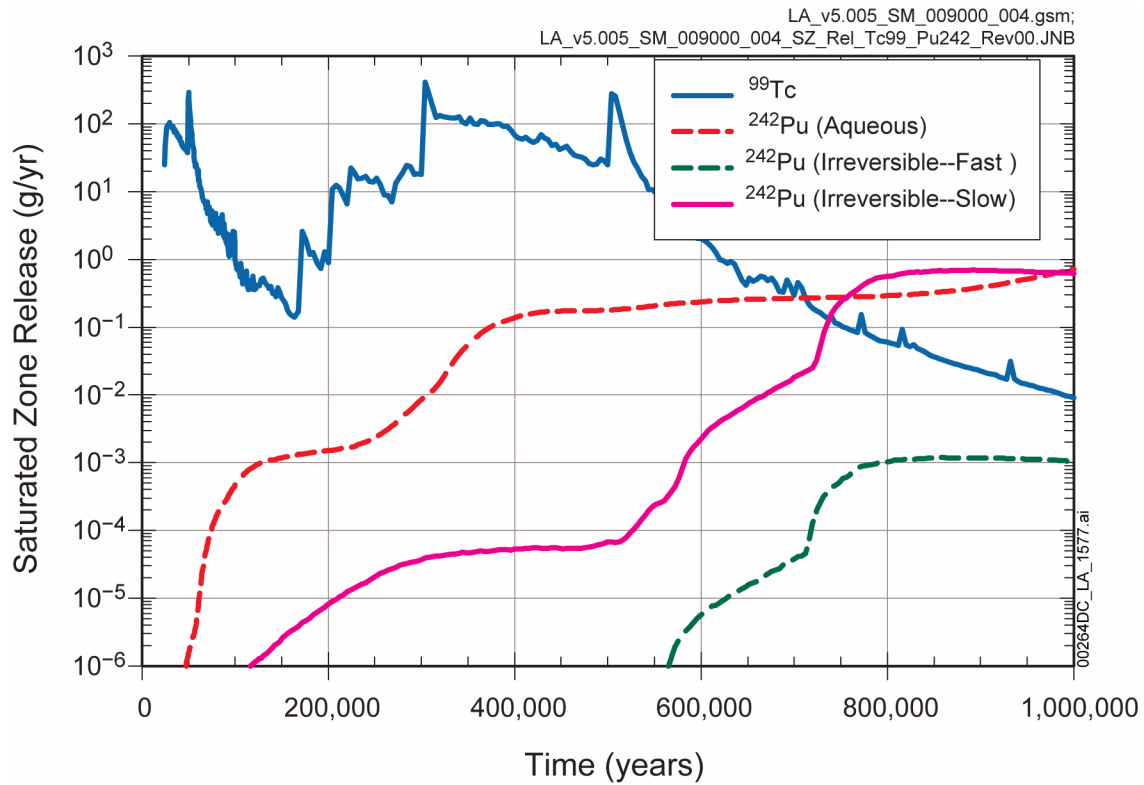


Figure 2.4-110. Saturated Zone Release to the Biosphere for ^{99}Tc and ^{242}Pu for Realization 4,641 of the Seismic Ground Motion Modeling Case for the 1-Million-Year Period after Repository Closure

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

Source: SNL 2008a, Figure 7.7.1-73[a].

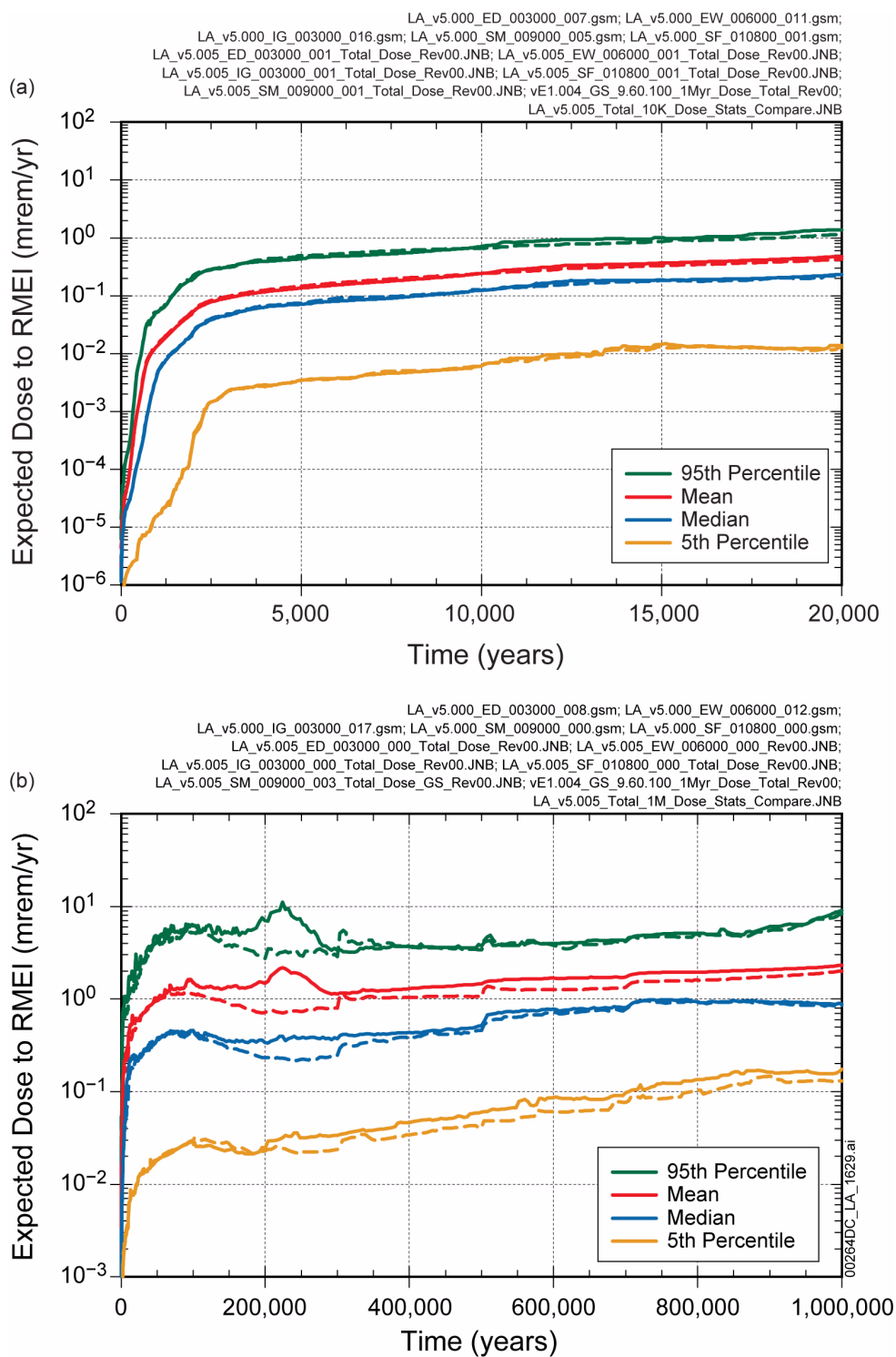


Figure 2.4-111. Comparison of Statistics for Total Expected Annual Dose over between TSPA Model v5.000 and TSPA Model v5.005 (a) 20,000 Years and (b) 1 Million Years after Repository Closure

NOTE: Solid lines indicate TSPA Model v5.000 and dashed lines indicated TSPA Model v5.005.

Source: SNL 2008a, Figures 7.3.1-42[a] and 7.3.1-45[a].

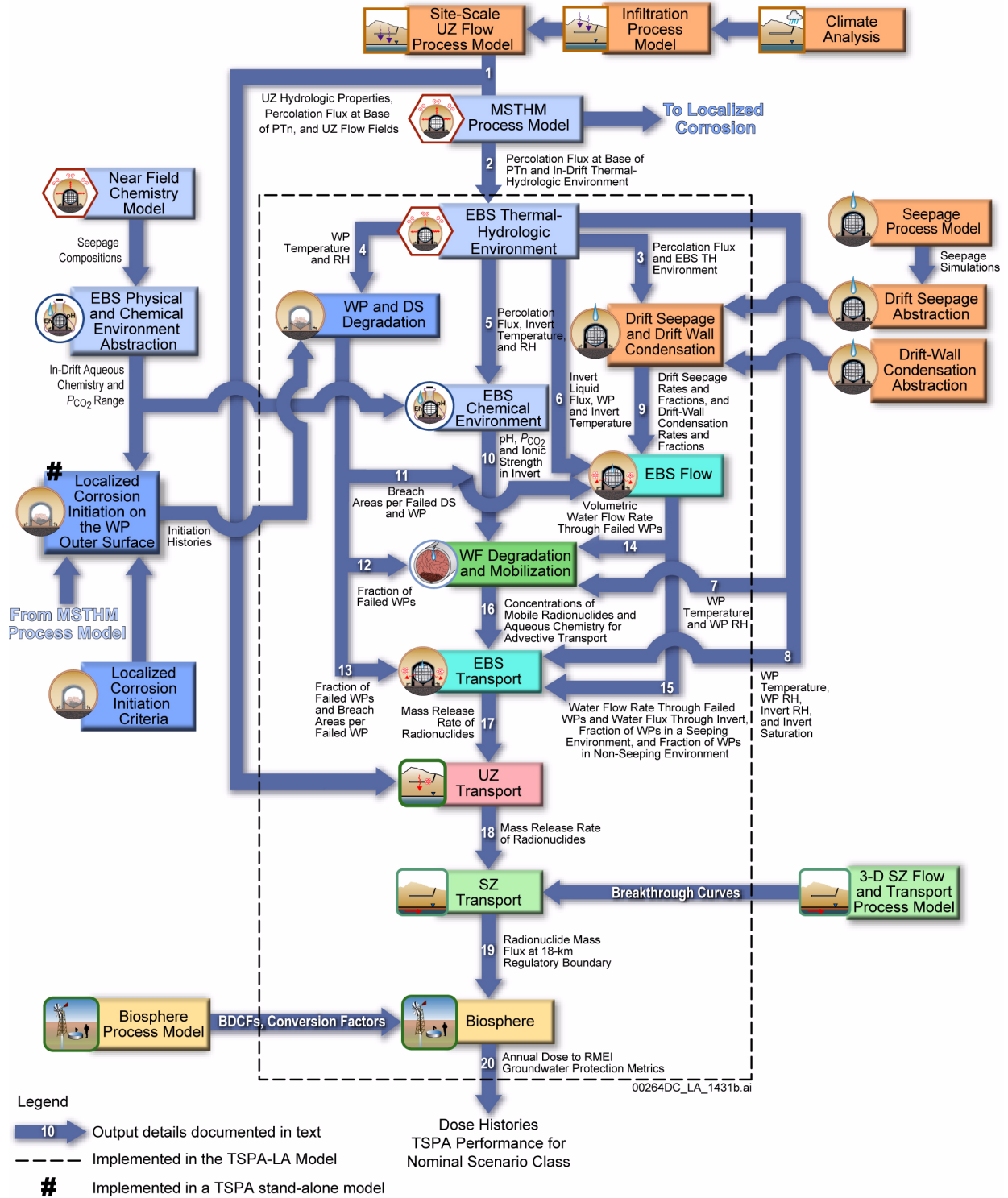


Figure 2.4-112. Information Transfer between Model Components and Submodels of the TSPA Nominal Scenario Class

Source: SNL 2008a, Figure 6.1.4-1.

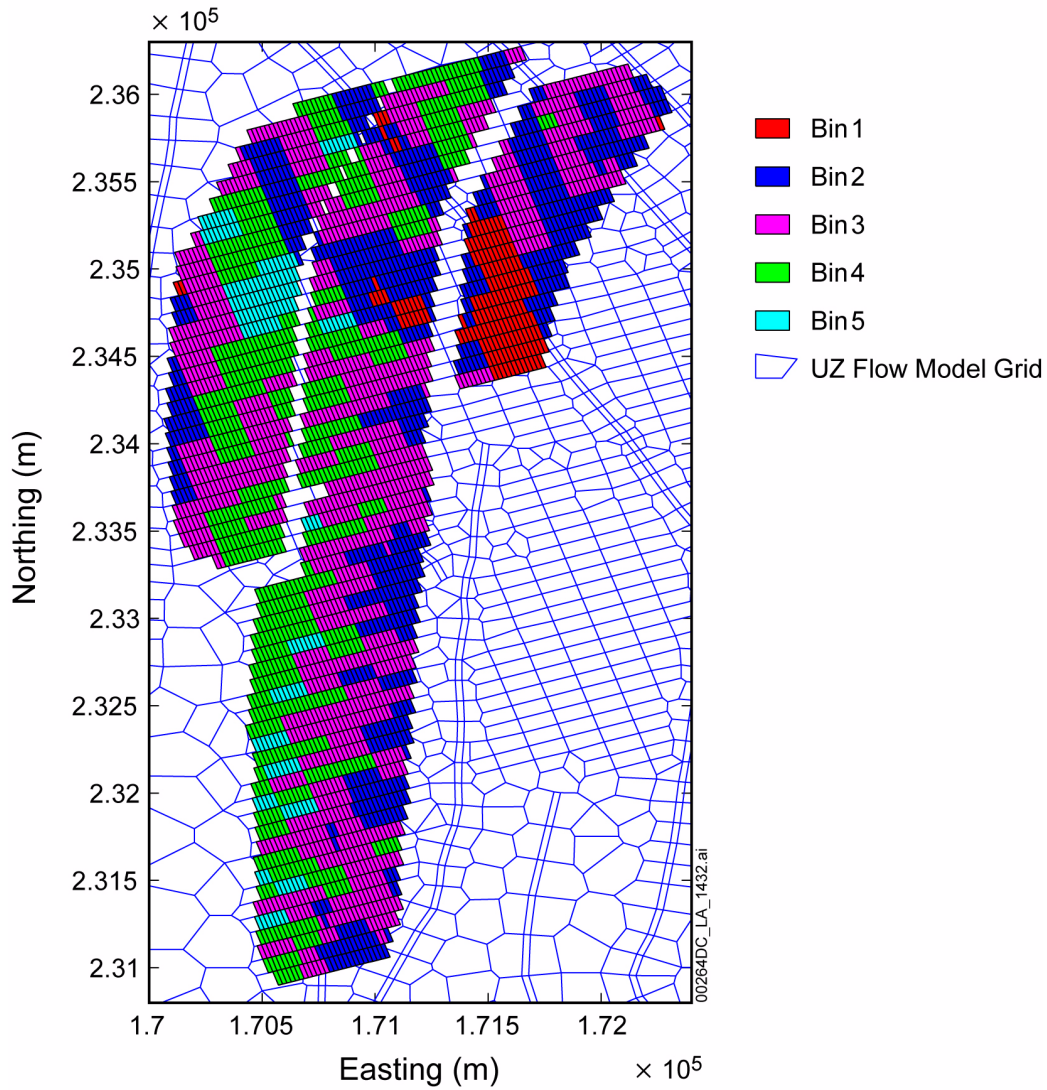


Figure 2.4-113. Repository Percolation Subregions Used in the TSPA Model (Based upon the 10th Percentile Percolation Flux Case, Glacial-Transition Climate)

Source: SNL 2008a, Figure 6.1.4-2.

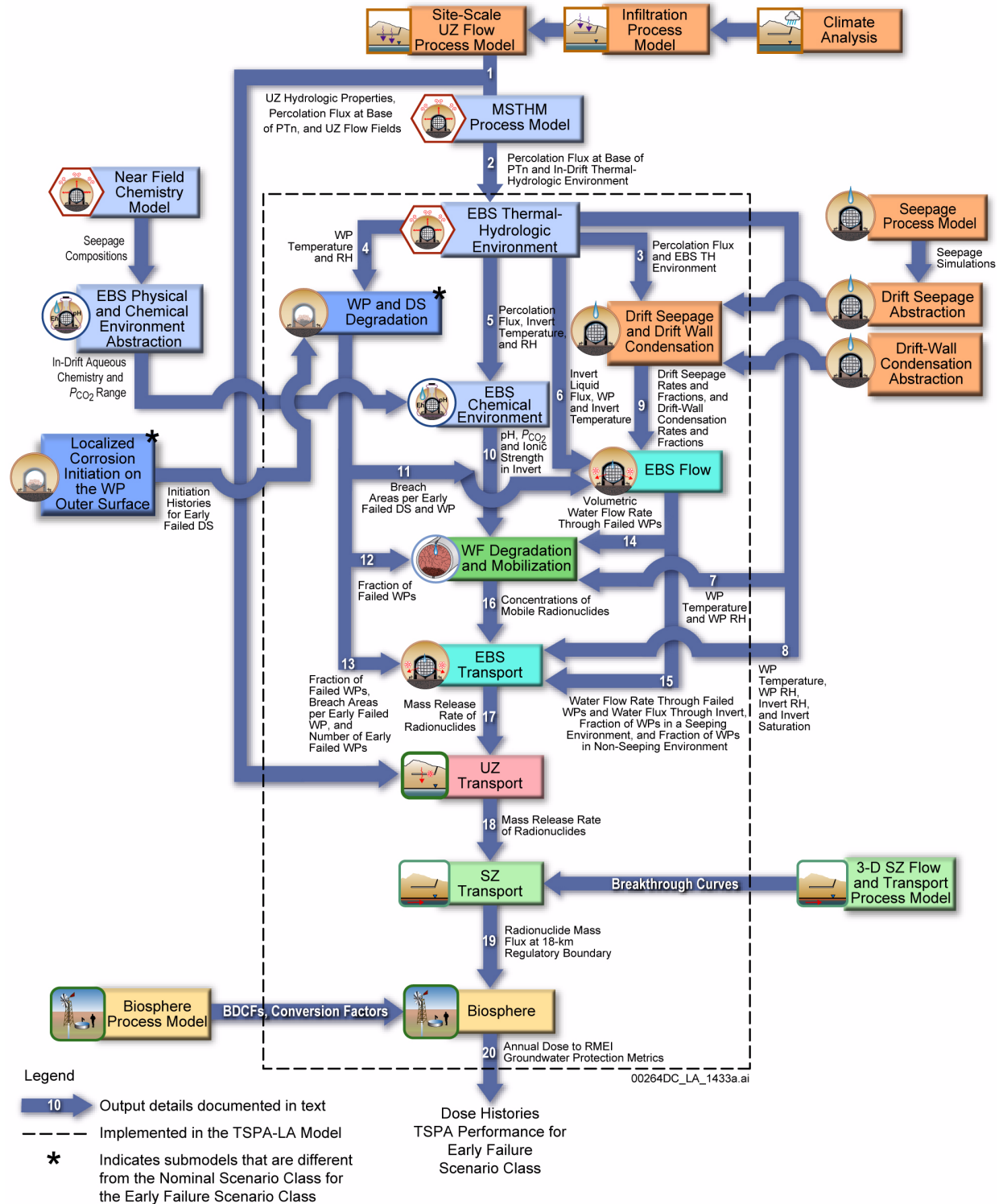


Figure 2.4-114. Information Transfer between the Model Components and Submodels of the TSPA Early Failure Scenario Class

Source: SNL 2008a, Figure 6.1.4-3.