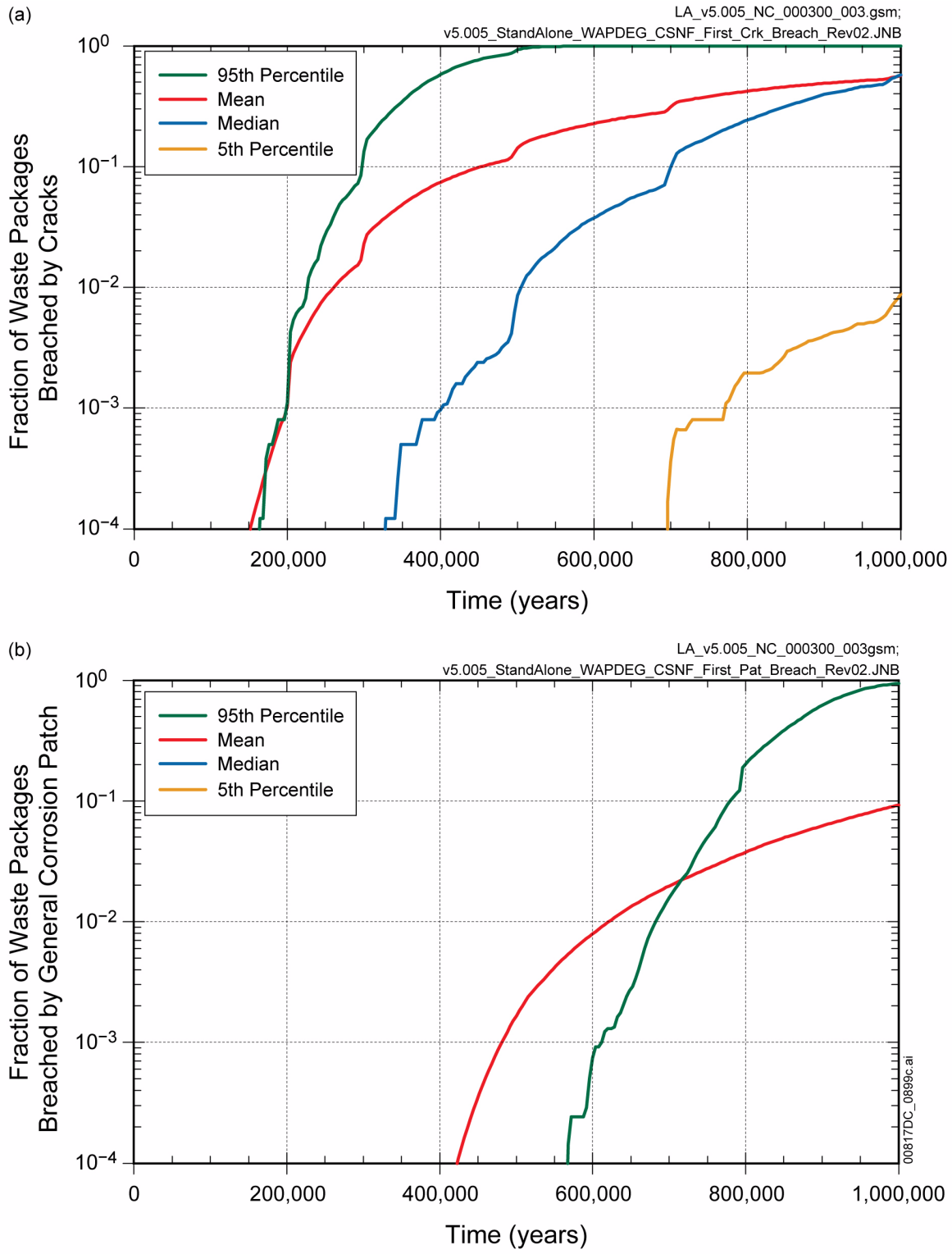

Figure 2.1-10. Summary Statistics for Fraction of Commercial SNF Waste Packages (a) Breached by Stress Corrosion Cracking and (b) Breached by General Corrosion Patches for the Nominal Modeling Case as a Function of Time

Source: SNL 2008d, Figure 8.3-6[a].

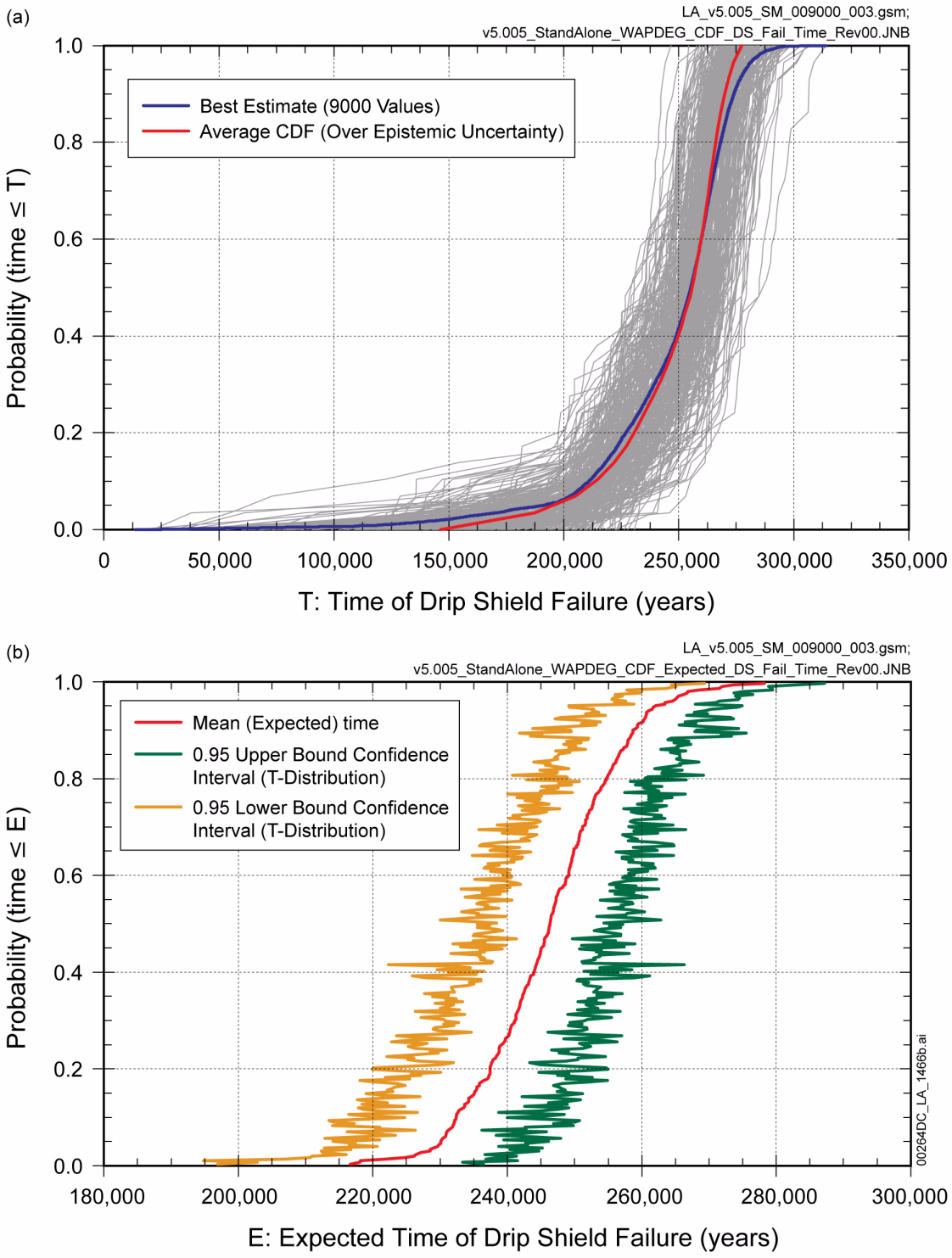

Figure 2.1-11. Cumulative Distribution Function of Drip Shield Failure Time for (a) Distributions of Failure Time for 300 Epistemic Sample Elements and (b) Distribution of Expected (over Aleatory) Failure Time with Confidence Interval for the Seismic Ground Motion Modeling Case

NOTE: UCB = upper confidence bound; LCB = lower confidence bound.

Source: Modified from SNL 2008d, Figure 8.3-7[a].

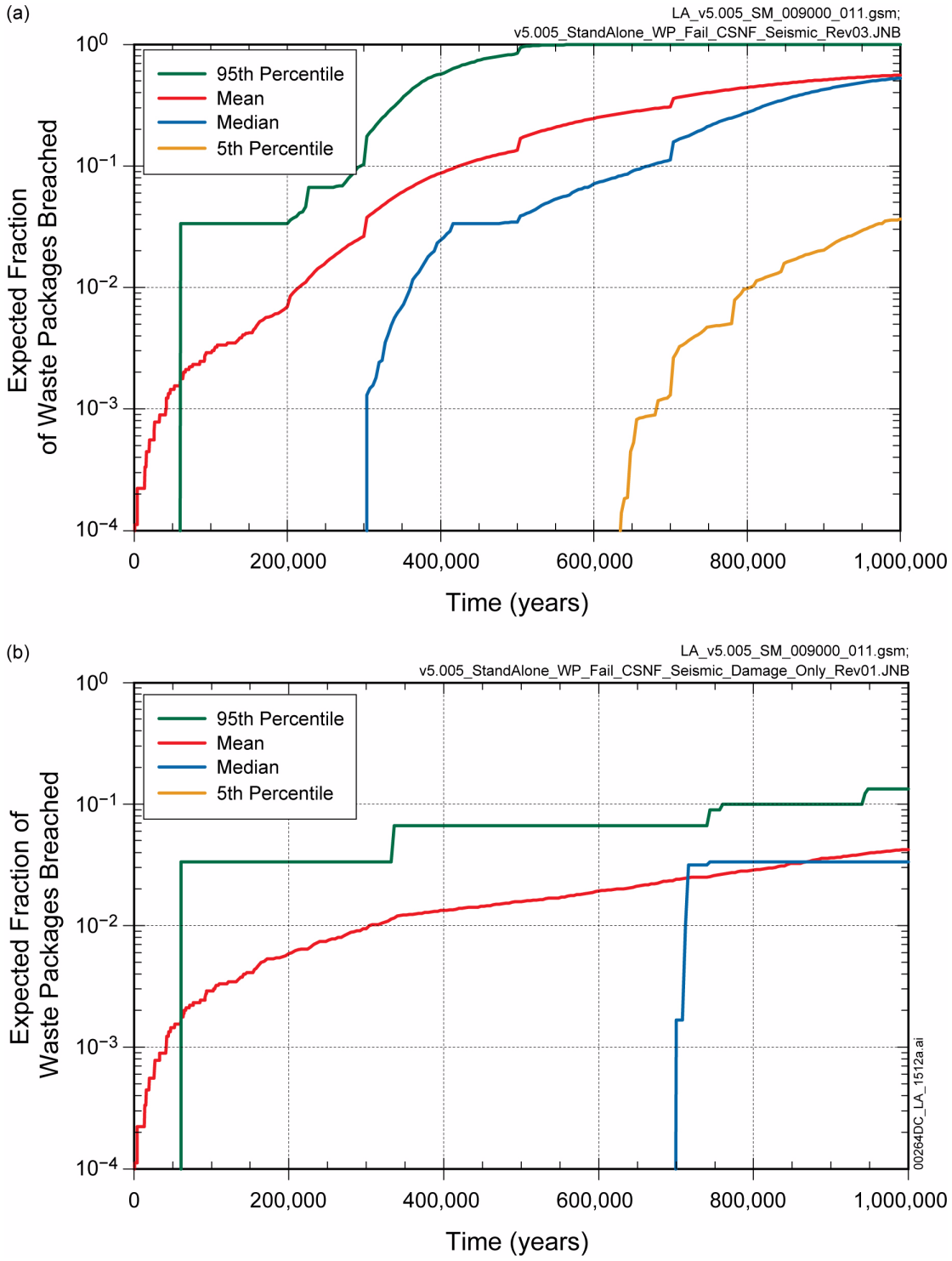

Figure 2.1-12. Summary Statistics for Expected Fraction of Commercial SNF Waste Packages Breached by (a) Seismic and Nominal Processes and (b) Seismic-Induced Processes only; Codisposal Waste Packages Breached by (c) Seismic and Nominal Processes and (d) Seismic Events Only for the Seismic Ground Motion Modeling Case as a Function of Time (Page 1 of 2)

Source: SNL 2008d, Figure 8.3-8[a].

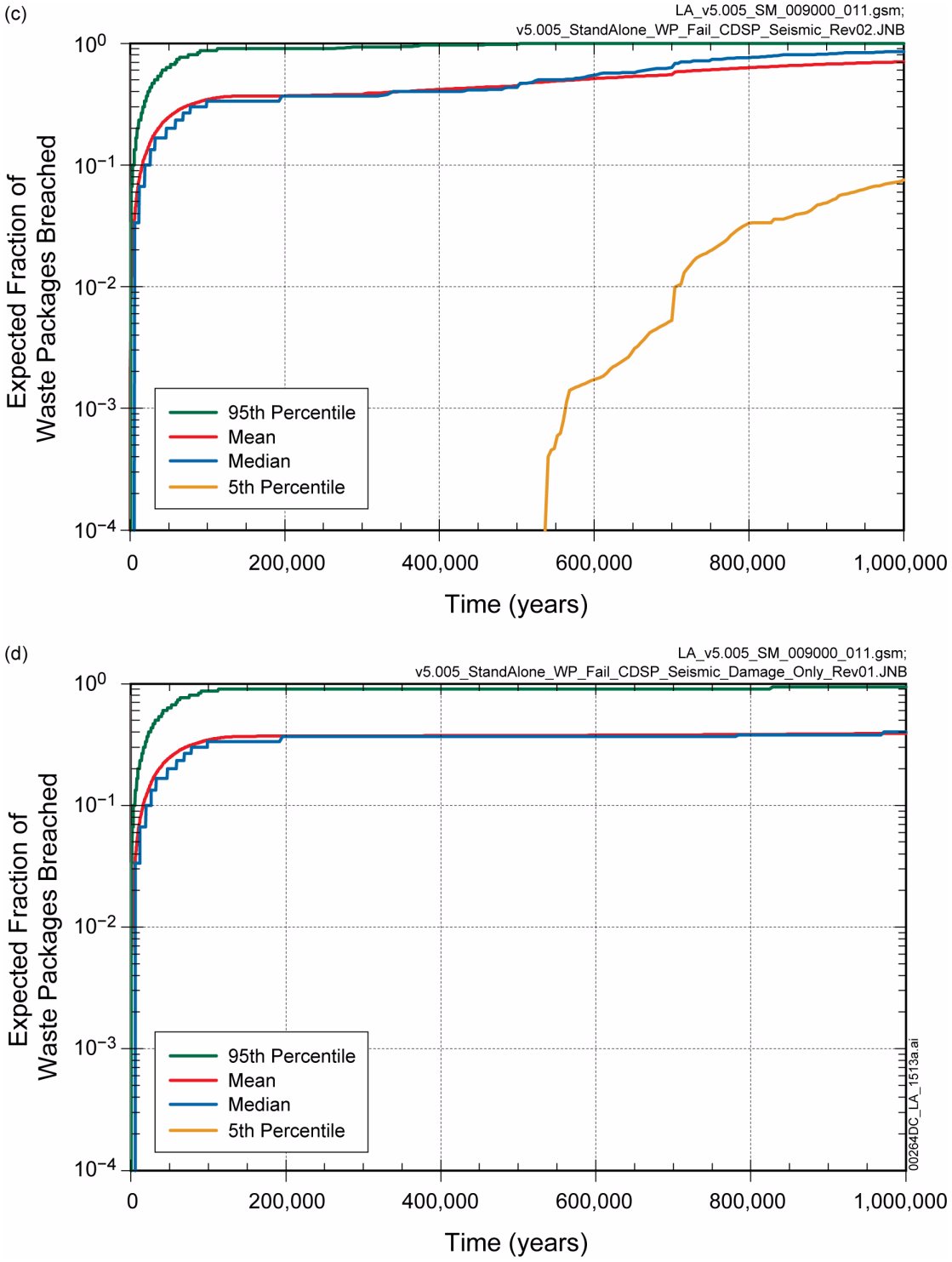

Figure 2.1-12. Summary Statistics for Expected Fraction of Commercial SNF Waste Packages Breached by (a) Seismic and Nominal Processes and (b) Seismic-Induced Processes only; Codisposal Waste Packages Breached by (c) Seismic and Nominal Processes and (d) Seismic Events Only for the Seismic Ground Motion Modeling Case as a Function of Time (Page 2 of 2)

Source: SNL 2008d, Figure 8.3-8[a].

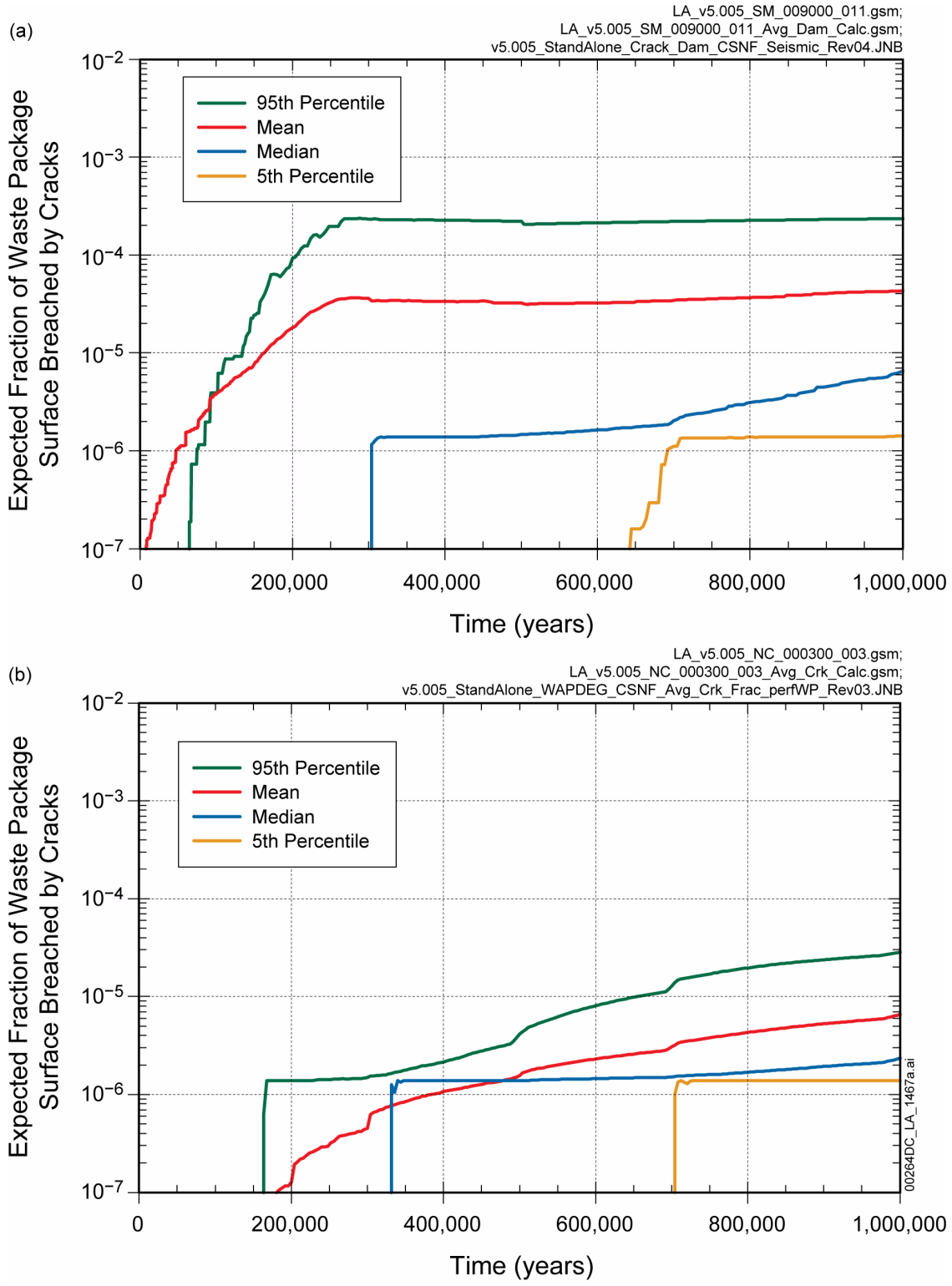

Figure 2.1-13. Summary Statistics for Average Fraction of Commercial SNF Waste Package Surface Breached by Cracks per Breached Waste Package for (a) the Seismic Ground Motion Modeling Case and (b) the Nominal Modeling Case, as a Function of Time

Source: SNL 2008d, Figure 8.3-9[a].

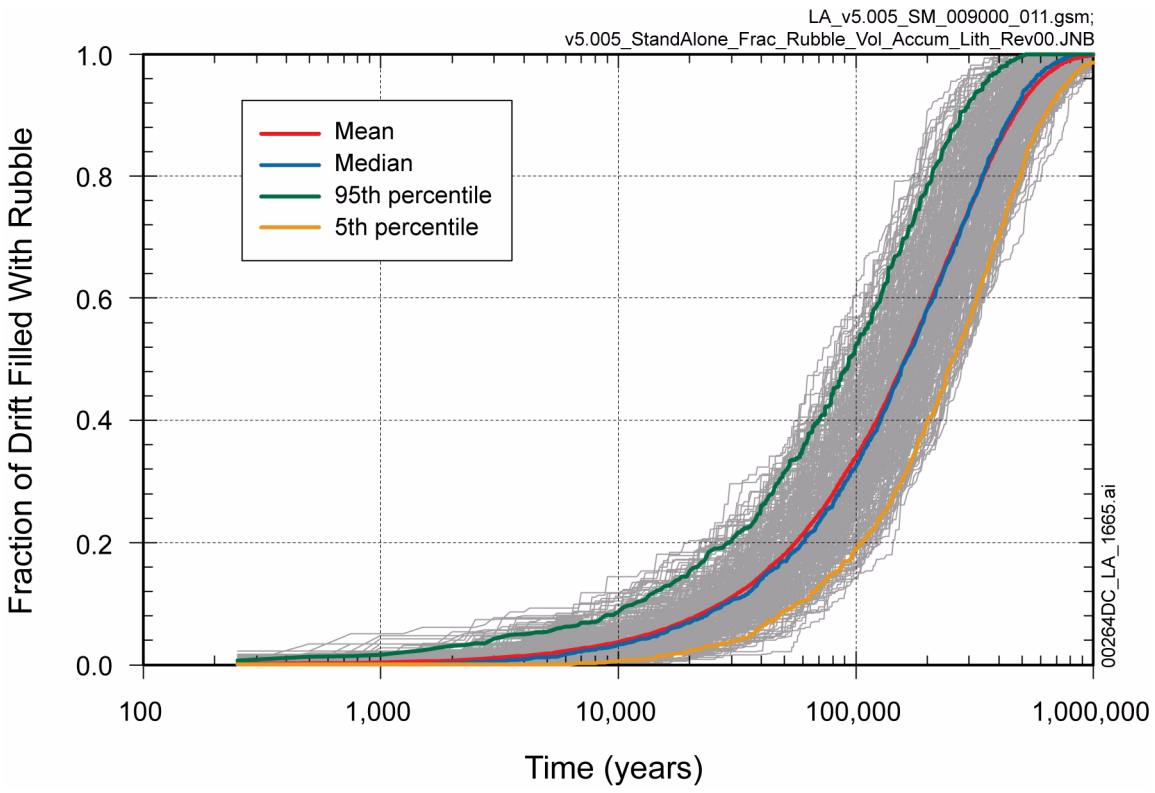

Figure 2.1-14. Fraction of Drift Filled with Rubble

NOTE: Volume of rubble per meter of drift that is required to fill the drift is sampled for each epistemic realization and ranges uniformly between 30 m^3/m to 120 m^3/m.

Source: DTN MO0803TSPAPSAR.000.

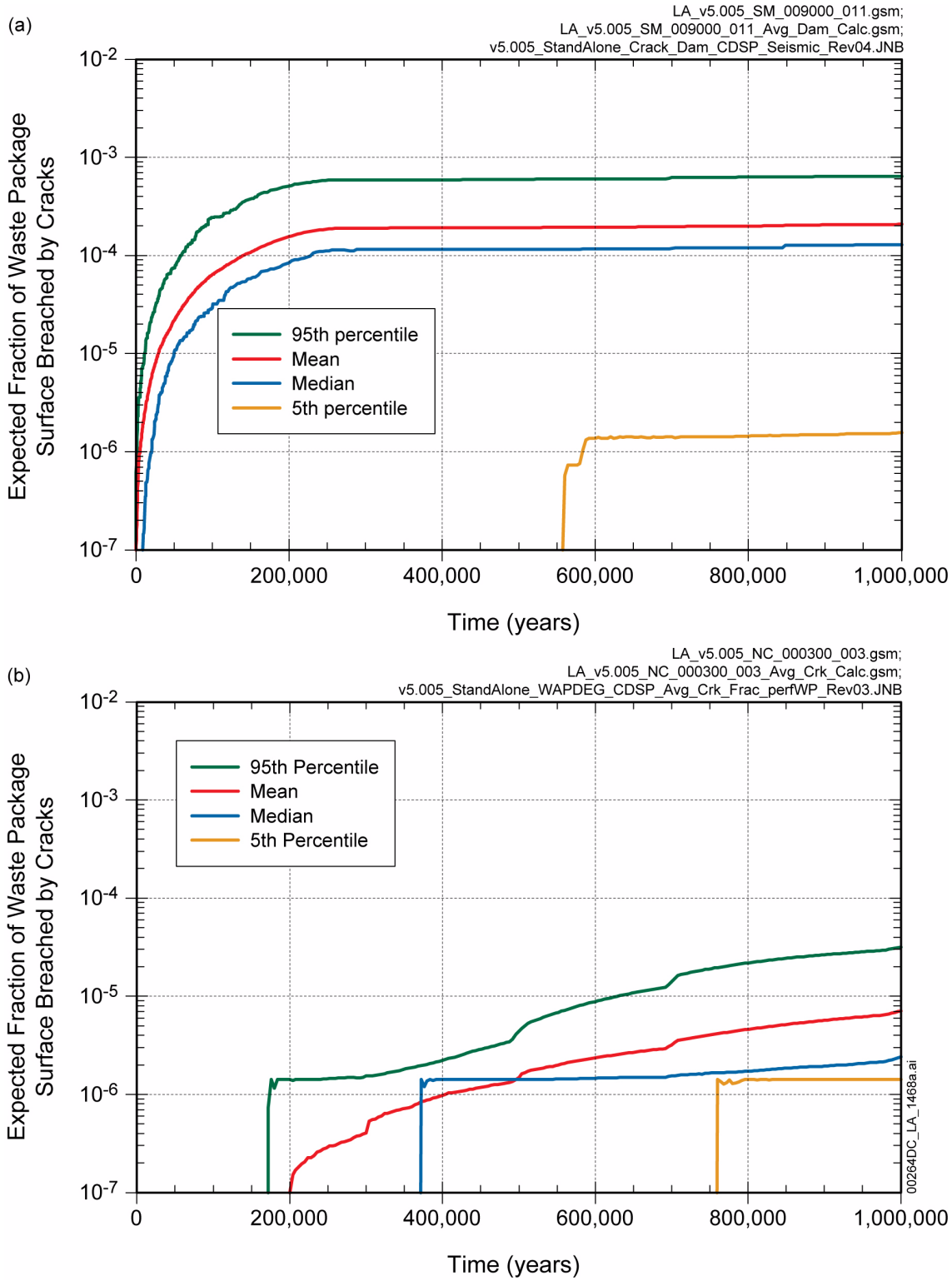

Figure 2.1-15. Summary Statistics for Fraction of Codisposal Waste Package Surface Breached by Cracks per Breached Waste Package for (a) the Seismic Ground Motion Modeling Case and (b) the Nominal Modeling Case, as a Function of Time

Source: SNL 2008d, Figure 8.3-10[a].

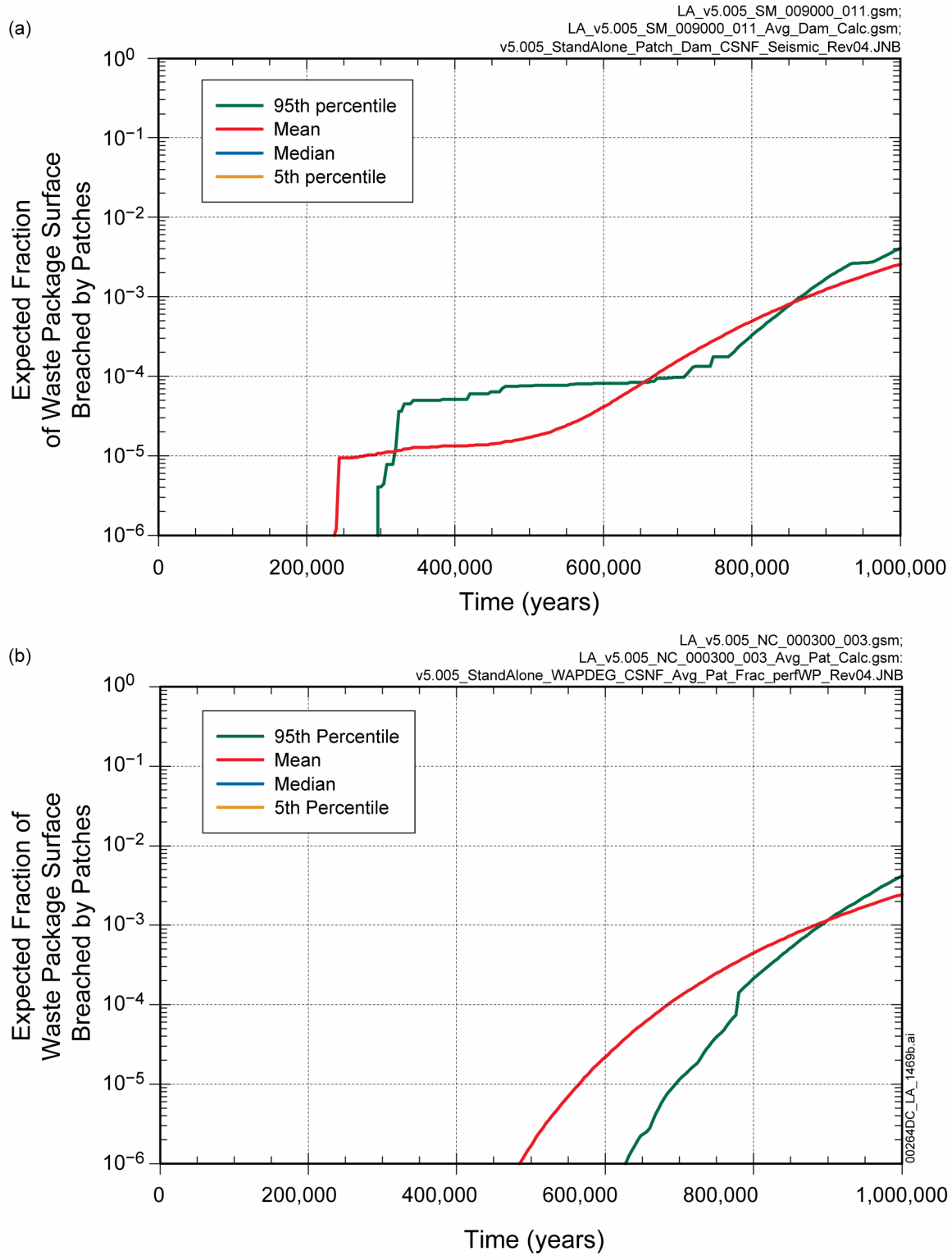

Figure 2.1-16. Summary Statistics for Fraction of Commercial SNF Waste Package Surface Breached by Patches per Breached Waste Package for (a) the Seismic Ground Motion Modeling Case and (b) the Nominal Modeling Case, as a Function of Time

Source: SNL 2008d, Figure 8.3-11[a].

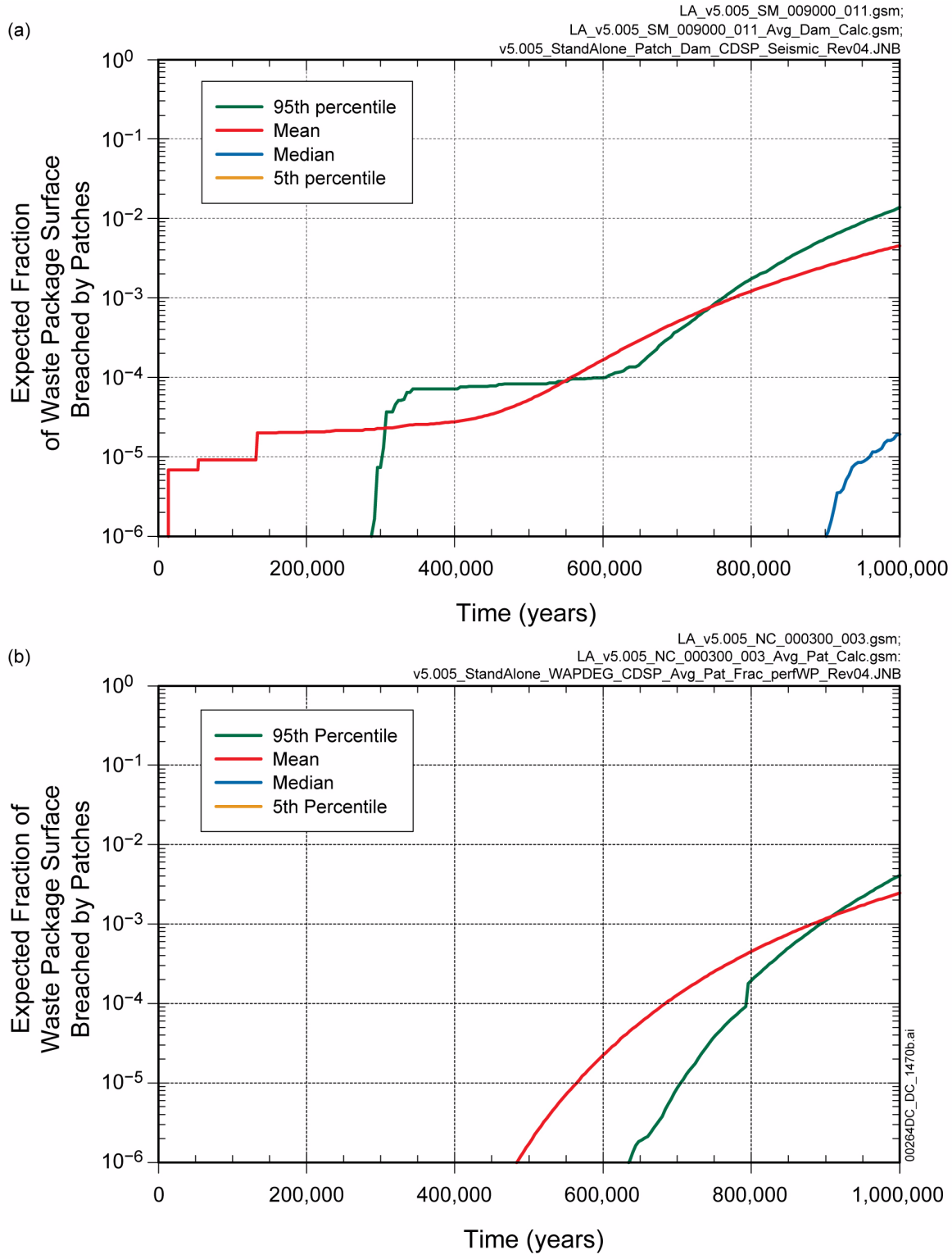

Figure 2.1-17. Summary Statistics for Expected Fraction of Codisposal Waste Package Surface Breached by Patches per Breached Waste Package for (a) the Seismic Ground Motion Modeling Case and (b) the Nominal Modeling Case, as a Function of Time

Source: SNL 2008d, Figure 8.3-12[a].

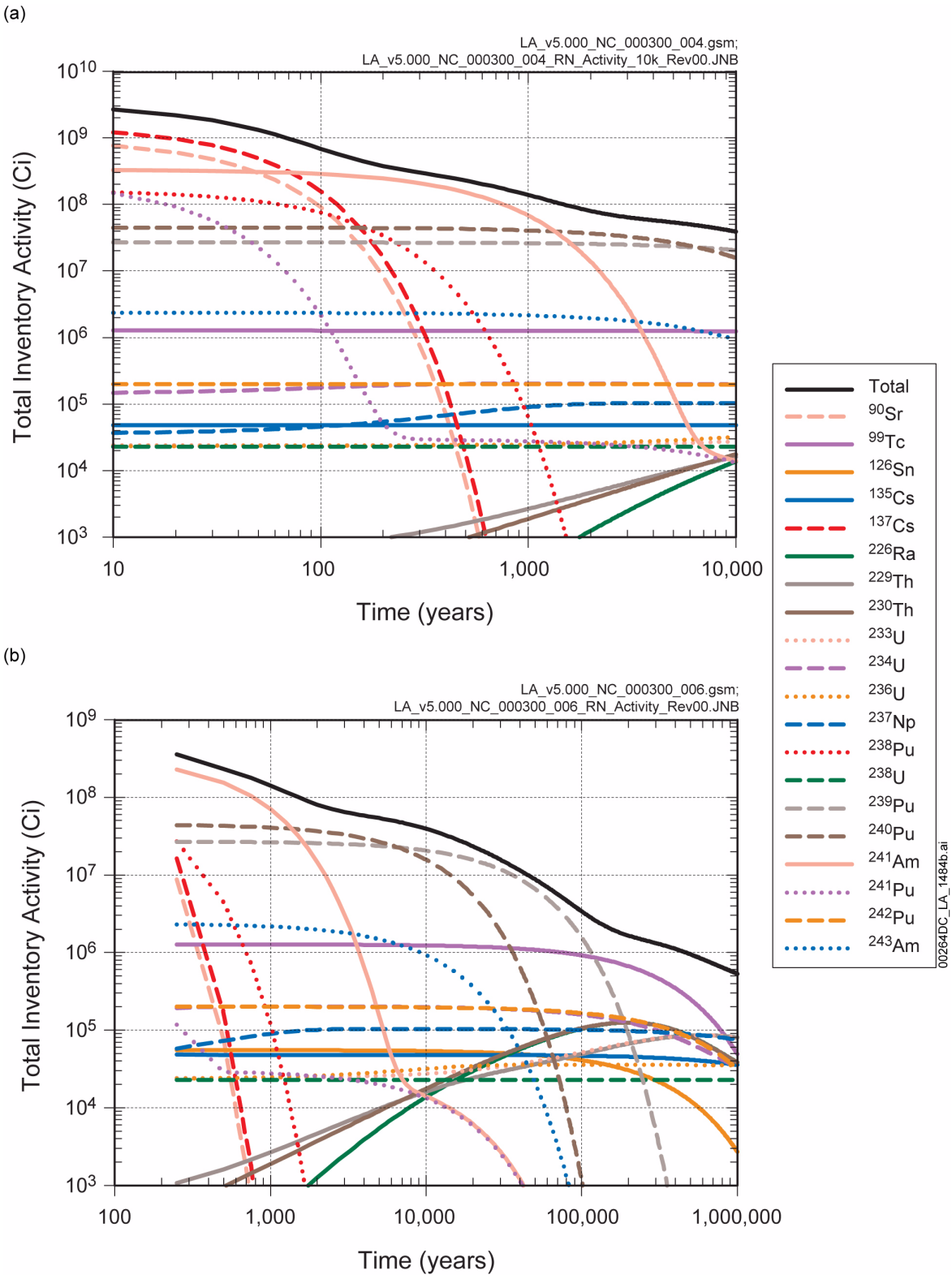

Figure 2.1-18. Mean Radionuclide Activities in the Nuclear Waste as a Function of Time for (a) 10,000 Years and (b) 1,000,000 Years after Repository Closure

Source: SNL 2008d, Figure 8.3-1.

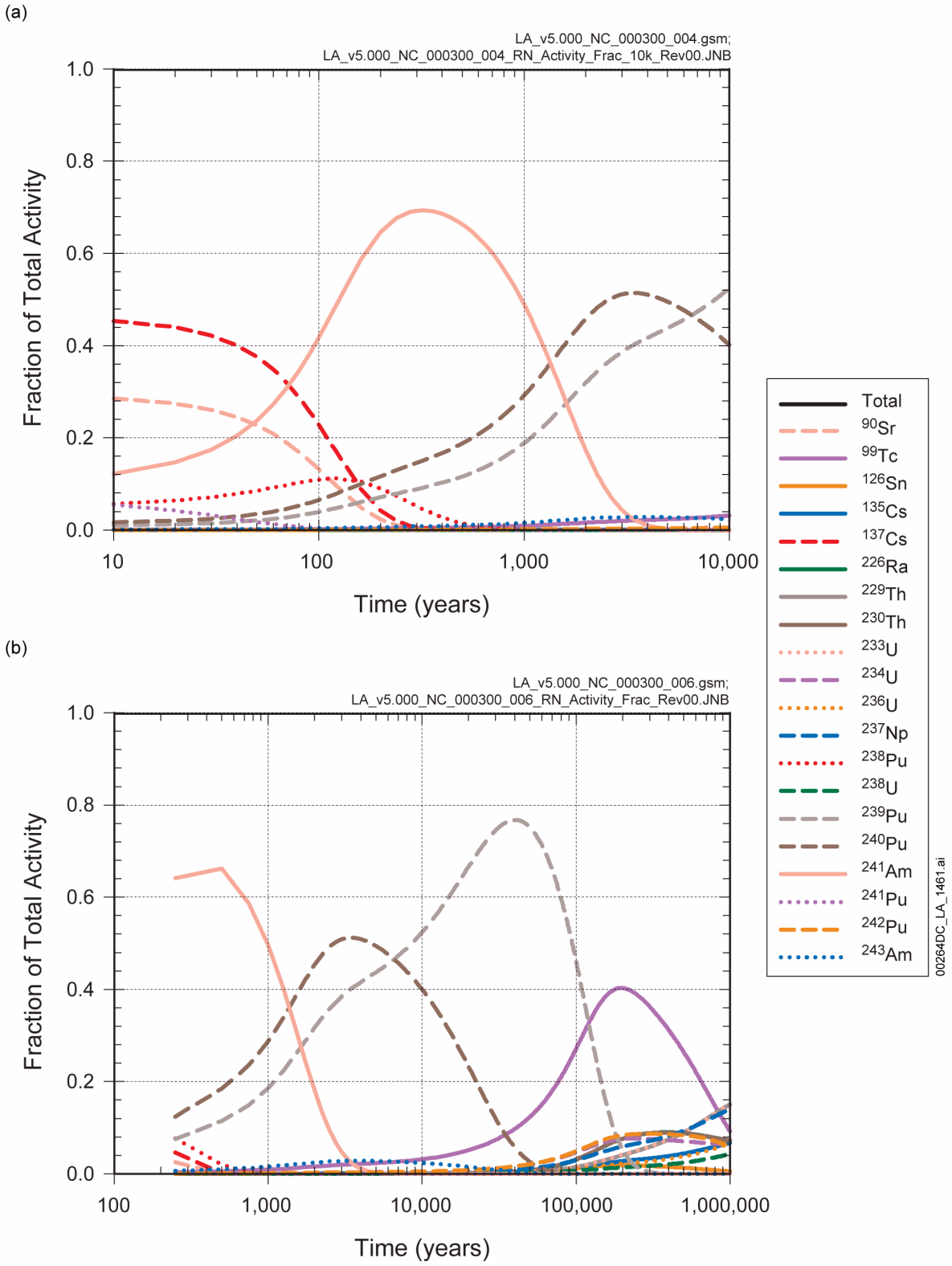

Figure 2.1-19. Mean Radionuclide Contributions to Total Inventory as a Function of Time for (a) 10,000 Years and (b) 1,000,000 Years after Repository Closure

Source: SNL 2008d, Figure 8.3-2.

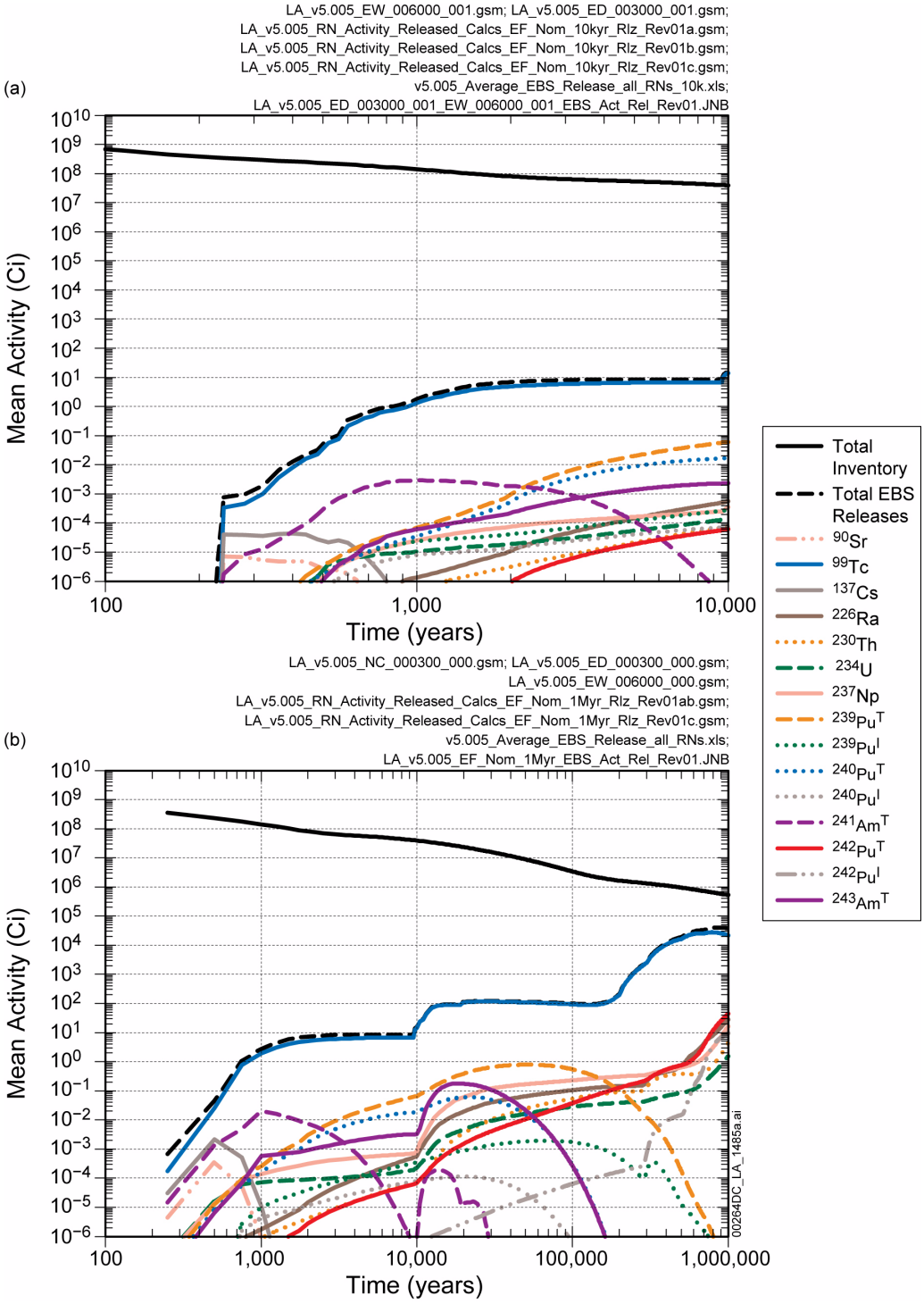

Figure 2.1-20. Mean Activity Released from the Engineered Barrier System, for the Combined Nominal/Early Failure Modeling Case: (a) 10,000 Years after Repository Closure and (b) Post-10,000 Years after Repository Closure

NOTE: Radionuclide activities in figures account for decay and ingrowth occurring after radionuclide transport from the EBS to the unsaturated zone.

Source: SNL 2008d, Figure 8.3-13[a].

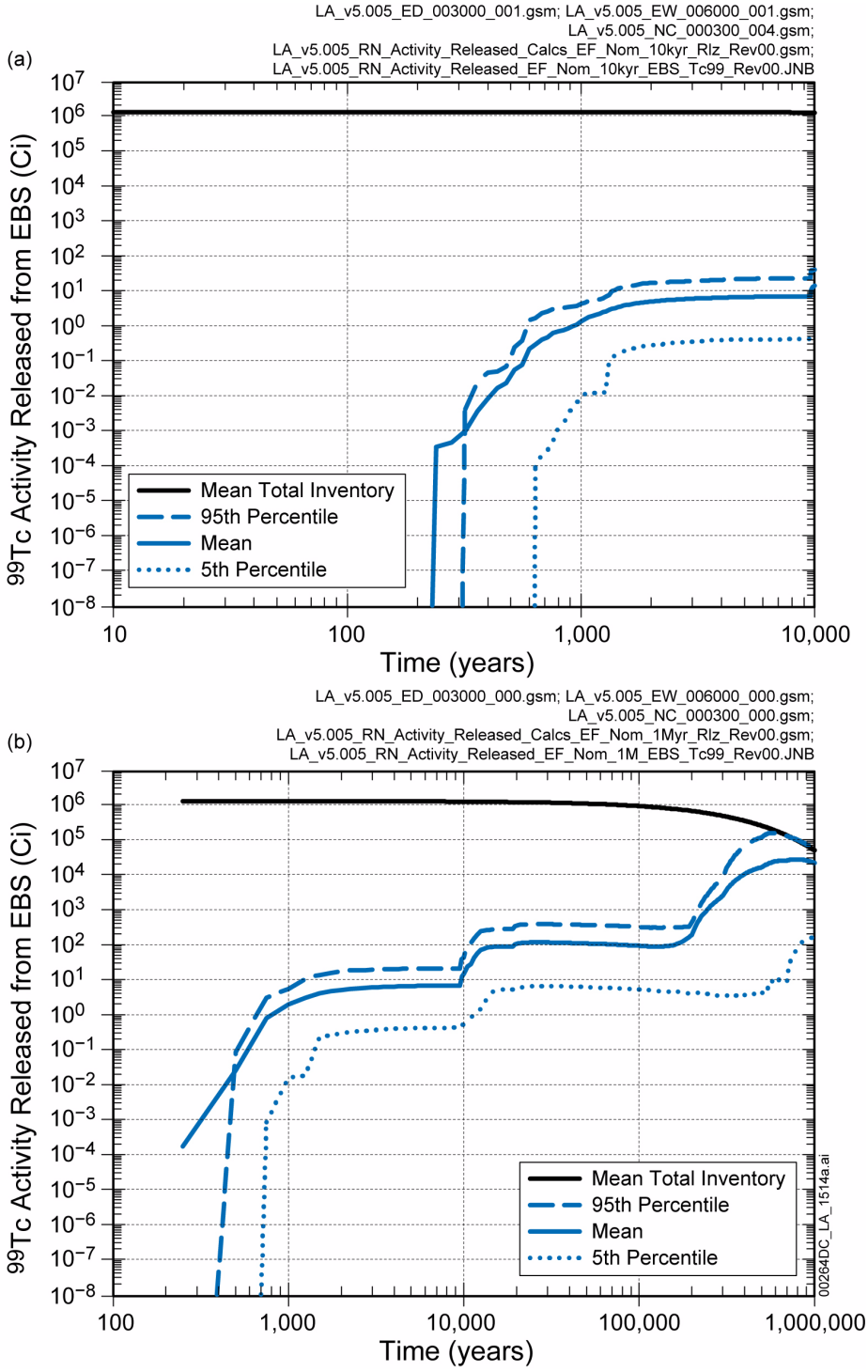

Figure 2.1-21. Uncertainty in Expected Activity of ^{99}Tc Released from the Engineered Barrier System for the Combined Nominal/Early Failure Modeling Case for (a) 10,000 Years and (b) 1,000,000 Years after Repository Closure

NOTE: Radionuclide activities in figures account for decay and ingrowth occurring after radionuclide transport from the EBS to the unsaturated zone.

Source: SNL 2008d, Figure 8.3-14[a].

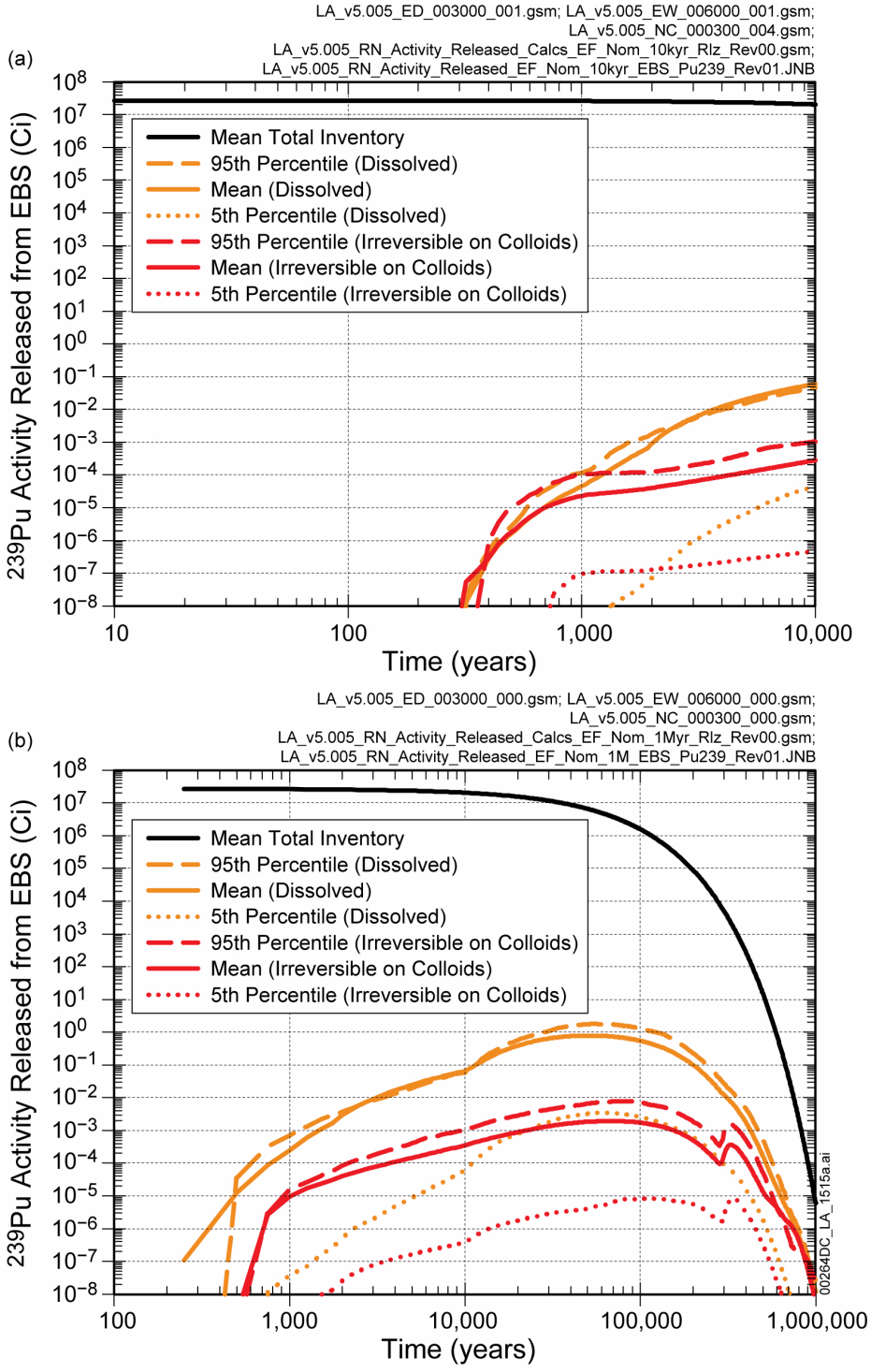

Figure 2.1-22. Uncertainty in Expected Activity of ^{239}Pu Released from the Engineered Barrier System for the Combined Nominal/Early Failure Modeling Case for (a) 10,000 Years and (b) 1,000,000 Years after Repository Closure

NOTE: Radionuclide activities in figures account for decay and ingrowth occurring after radionuclide transport from the EBS to the unsaturated zone.

Source: SNL 2008d, Figure 8.3-15[a].

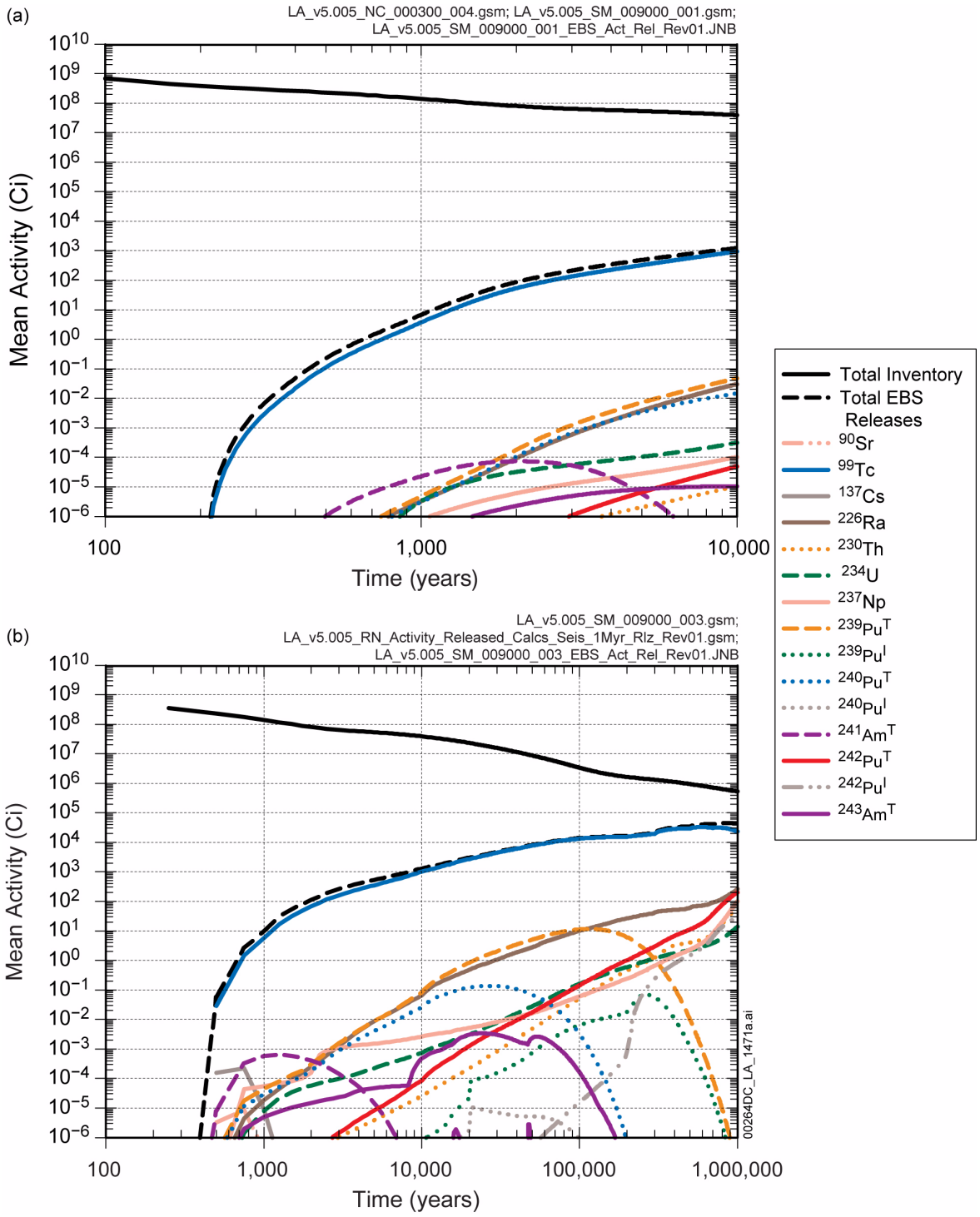

Figure 2.1-23. Mean Activity Released from the Engineered Barrier System for the Seismic Ground Motion Modeling Case for (a) 10,000 Years and (b) 1,000,000 Years after Repository Closure

NOTE: Radionuclide activities in figures account for decay and ingrowth occurring after radionuclide transport from the EBS to the unsaturated zone.

Source: SNL 2008d, Figure 8.3-16[a].

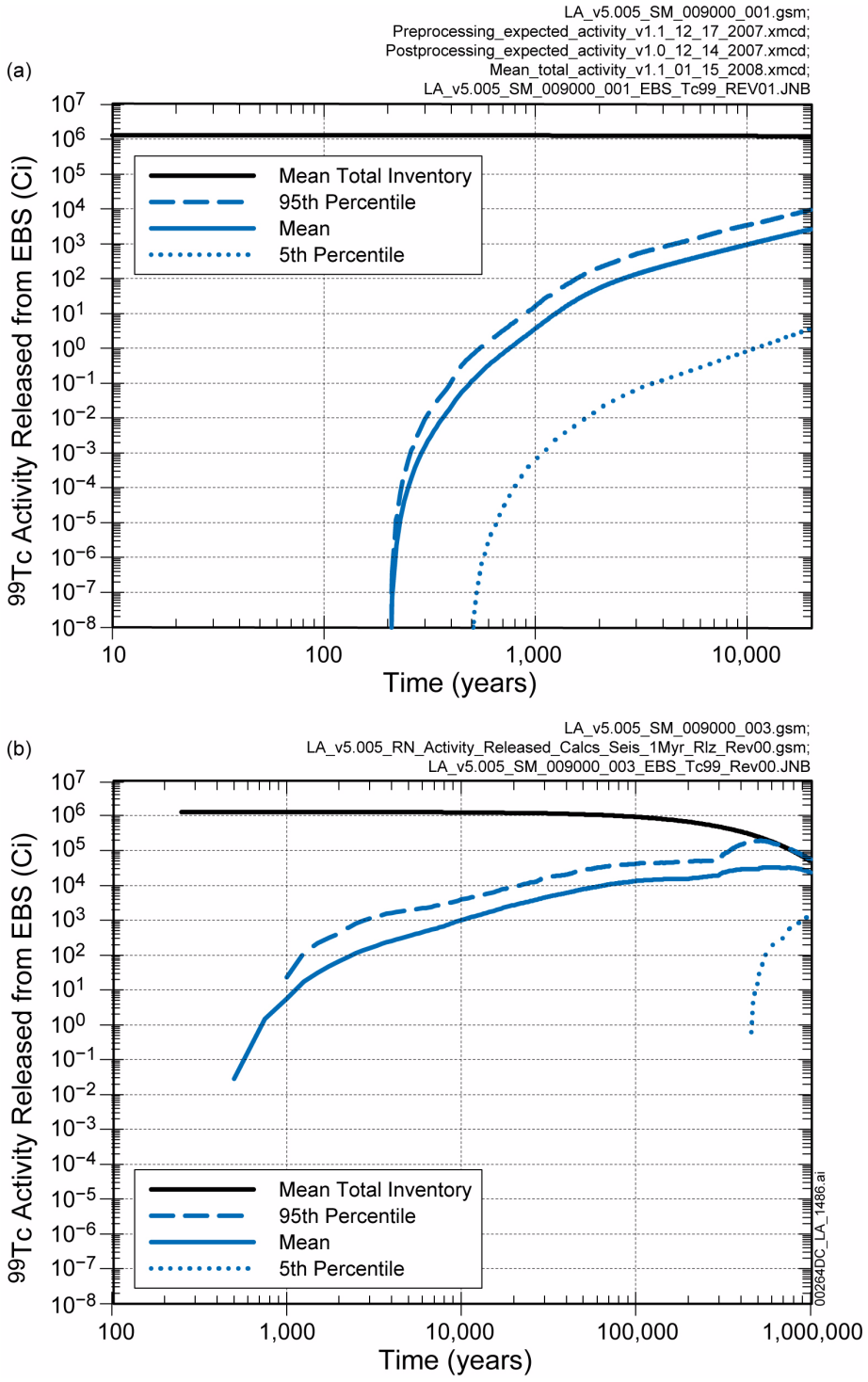

Figure 2.1-24. Uncertainty in Activity of ^{99}Tc Released from the Engineered Barrier System for the Seismic Ground Motion Modeling Case for (a) 10,000 Years and (b) 1,000,000 Years after Repository Closure

NOTE: Radionuclide activities in figures account for decay and ingrowth occurring after radionuclide transport from the EBS to the unsaturated zone.

Source: SNL 2008d, Figure 8.3-17[a].

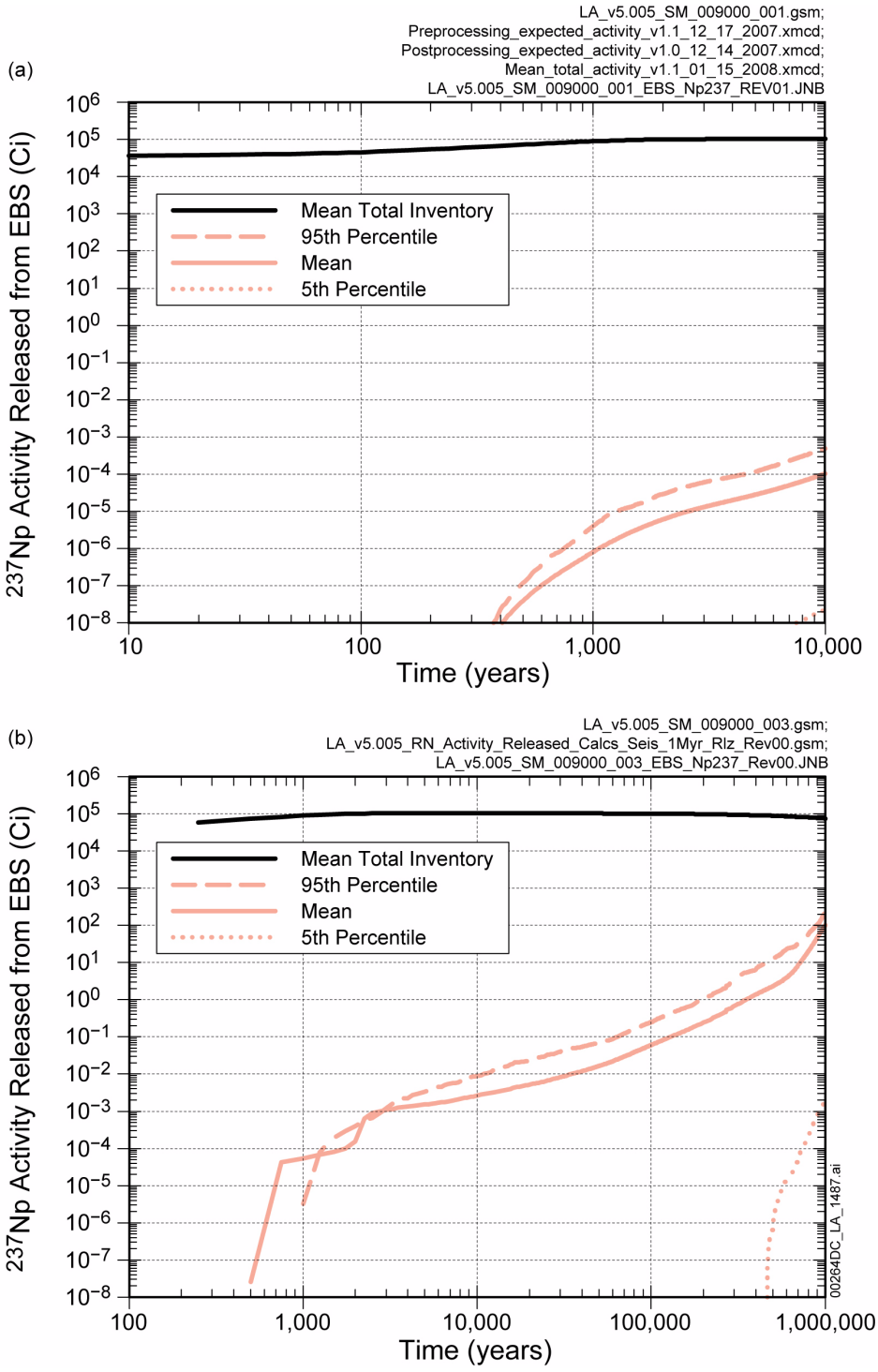

Figure 2.1-25. Uncertainty in Activity of ^{237}Np Released from the Engineered Barrier System for the Seismic Ground Motion Modeling Case for (a) 10,000 Years and (b) 1,000,000 Years after Repository Closure

NOTE: Radionuclide activities in figures account for decay and ingrowth occurring after radionuclide transport from the EBS to the unsaturated zone.

Source: SNL 2008d, Figure 8.3-18[a].

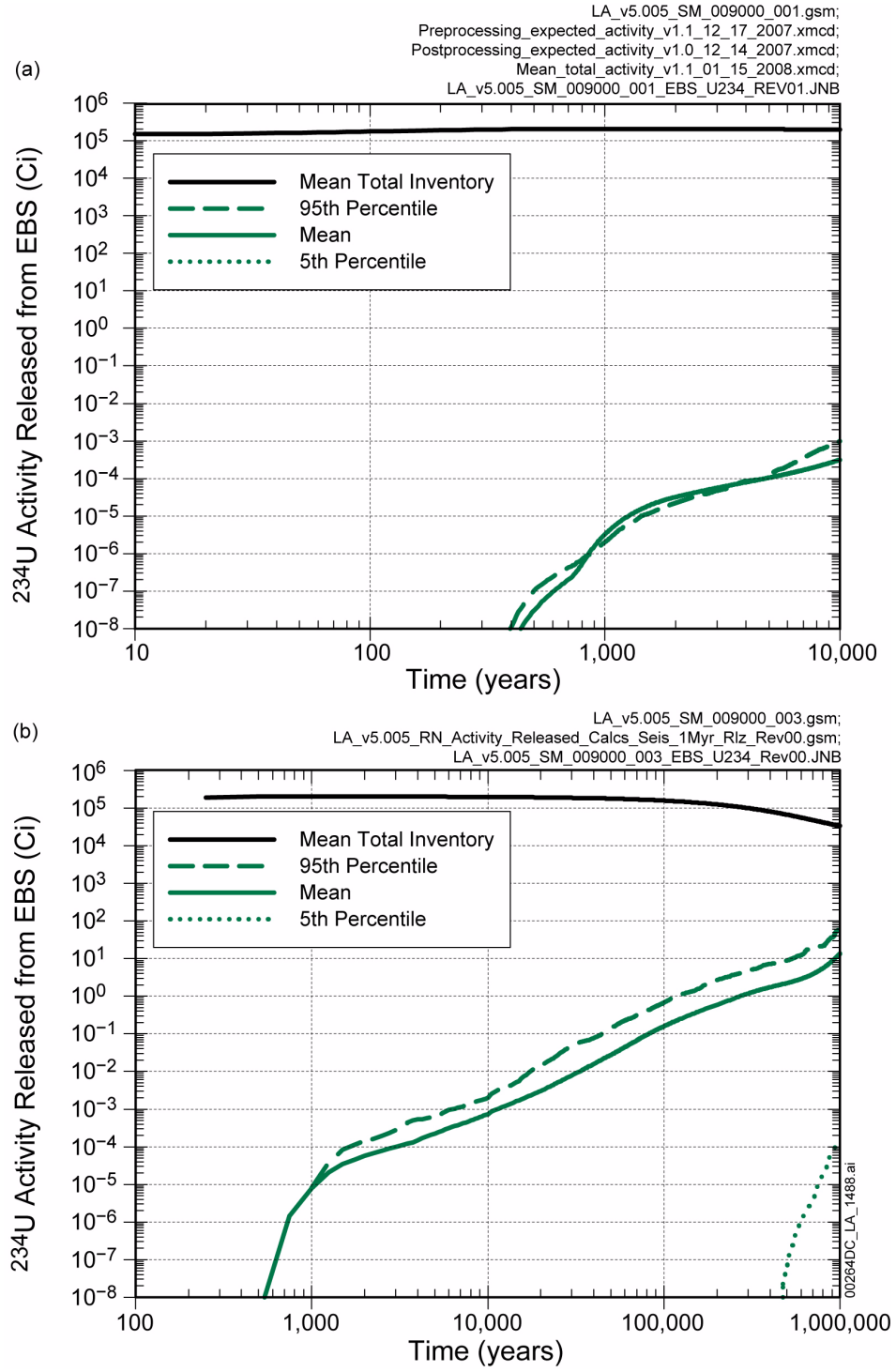

Figure 2.1-26. Uncertainty in Activity of ^{234}U Released from the Engineered Barrier System for the Seismic Ground Motion Modeling Case for (a) 10,000 Years and (b) 1,000,000 Years after Repository Closure

NOTE: Radionuclide activities in figures account for decay and ingrowth occurring after radionuclide transport from the EBS to the unsaturated zone.

Source: SNL 2008d, Figure 8.3-19[a].

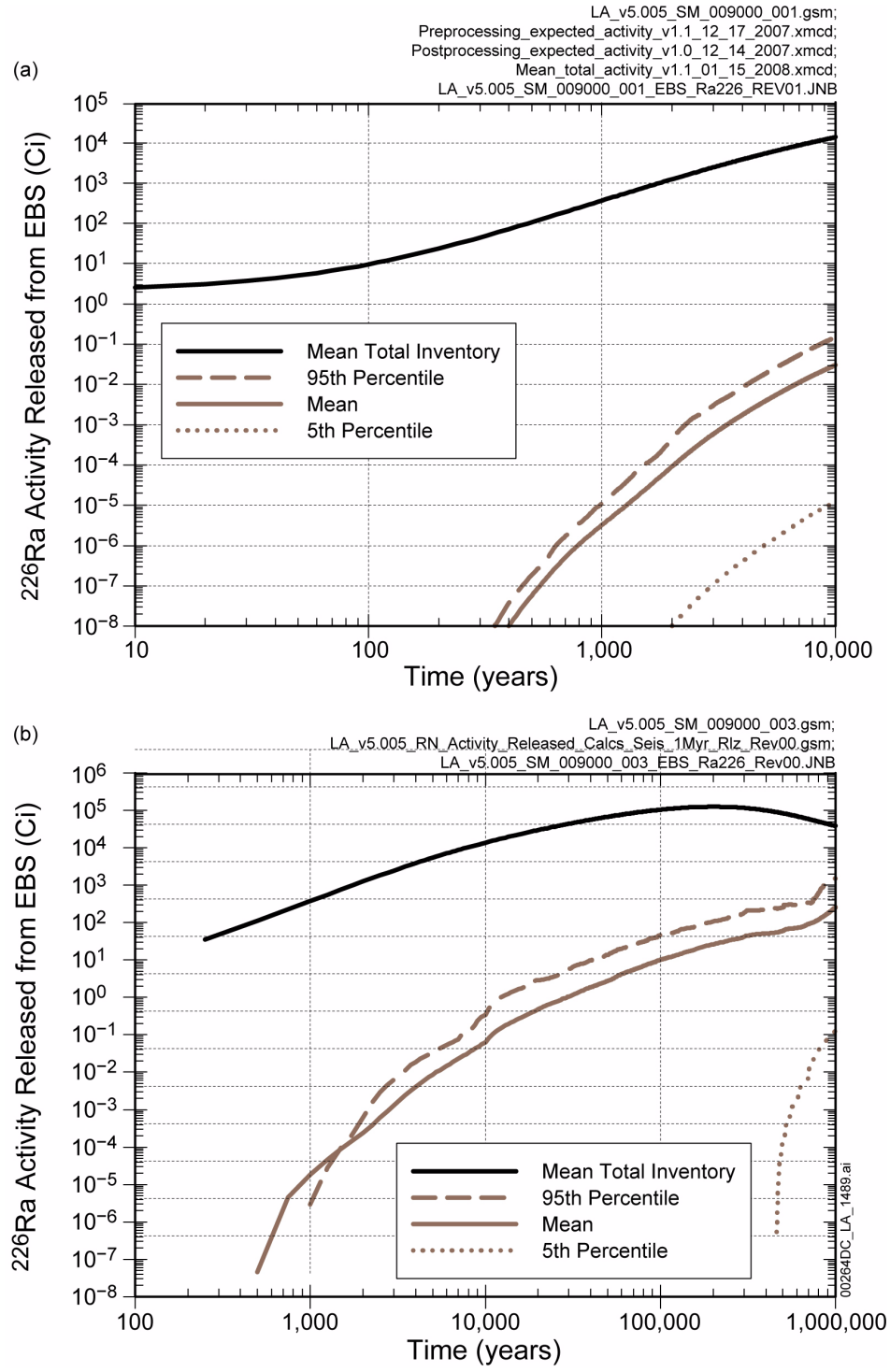

Figure 2.1-27. Uncertainty in Activity of ^{226}Ra Released from the Engineered Barrier System for the Seismic Ground Motion Modeling Case for (a) 10,000 Years and (b) 1,000,000 Years after Repository Closure

NOTE: Radionuclide activities in figures account for decay and ingrowth occurring after radionuclide transport from the EBS to the unsaturated zone.

Source: SNL 2008d, Figure 8.3-20[a].

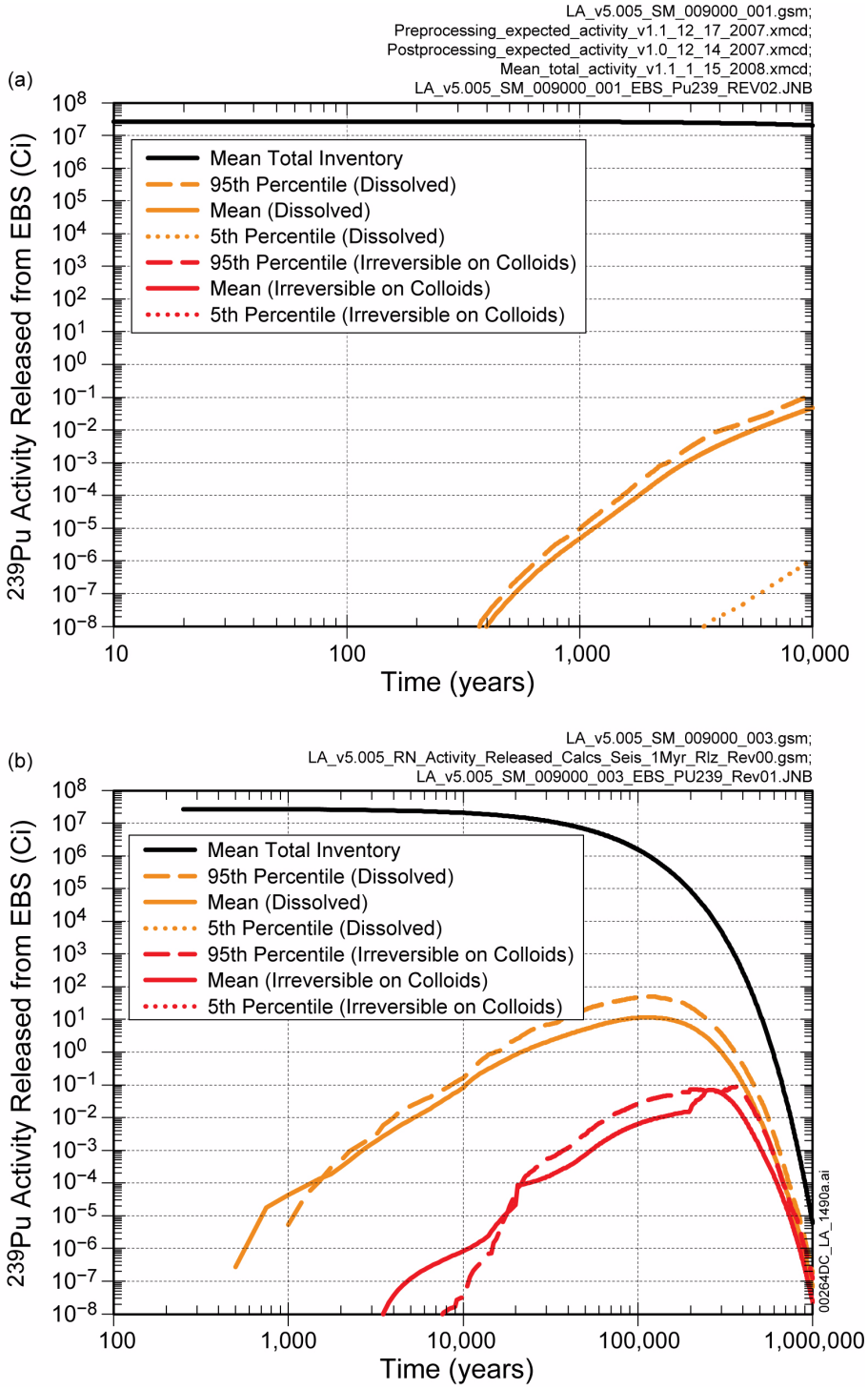

Figure 2.1-28. Uncertainty in Activity of ^{239}Pu Released from the Engineered Barrier System for the Seismic Ground Motion Modeling Case for (a) 10,000 Years and (b) 1,000,000 Years after Repository Closure

NOTE: Radionuclide activities in figures account for decay and ingrowth occurring after radionuclide transport from the EBS to the unsaturated zone.

Source: SNL 2008d, Figure 8.3-21[a].

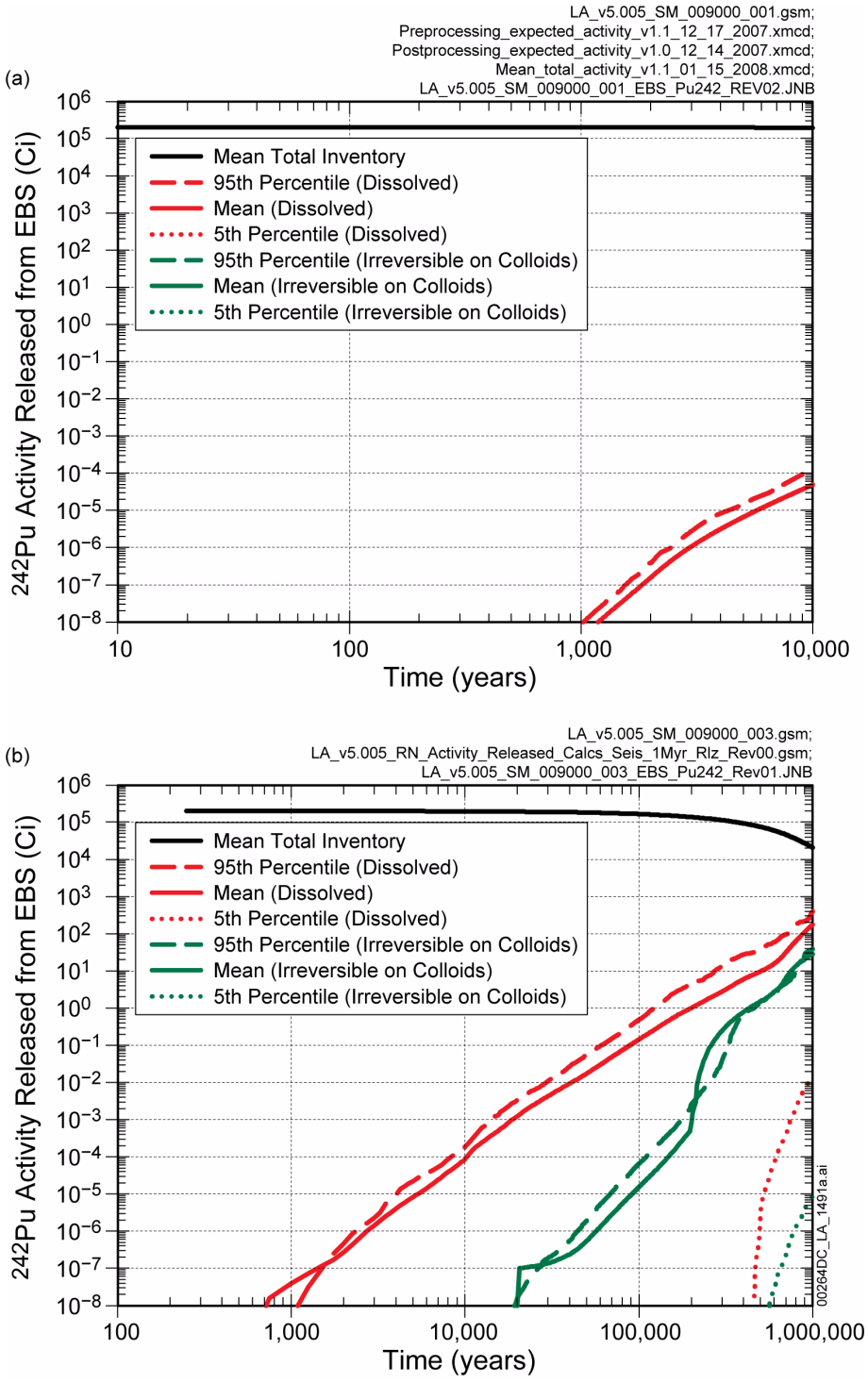

Figure 2.1-29. Uncertainty in Activity of ^{242}Pu Released from the Engineered Barrier System for the Seismic Ground Motion Modeling Case for (a) 10,000 Years and (b) 1,000,000 Years after Repository Closure

NOTE: Radionuclide activities in figures account for decay and ingrowth occurring after radionuclide transport from the EBS to the unsaturated zone.

Source: SNL 2008d, Figure 8.3-22[a].

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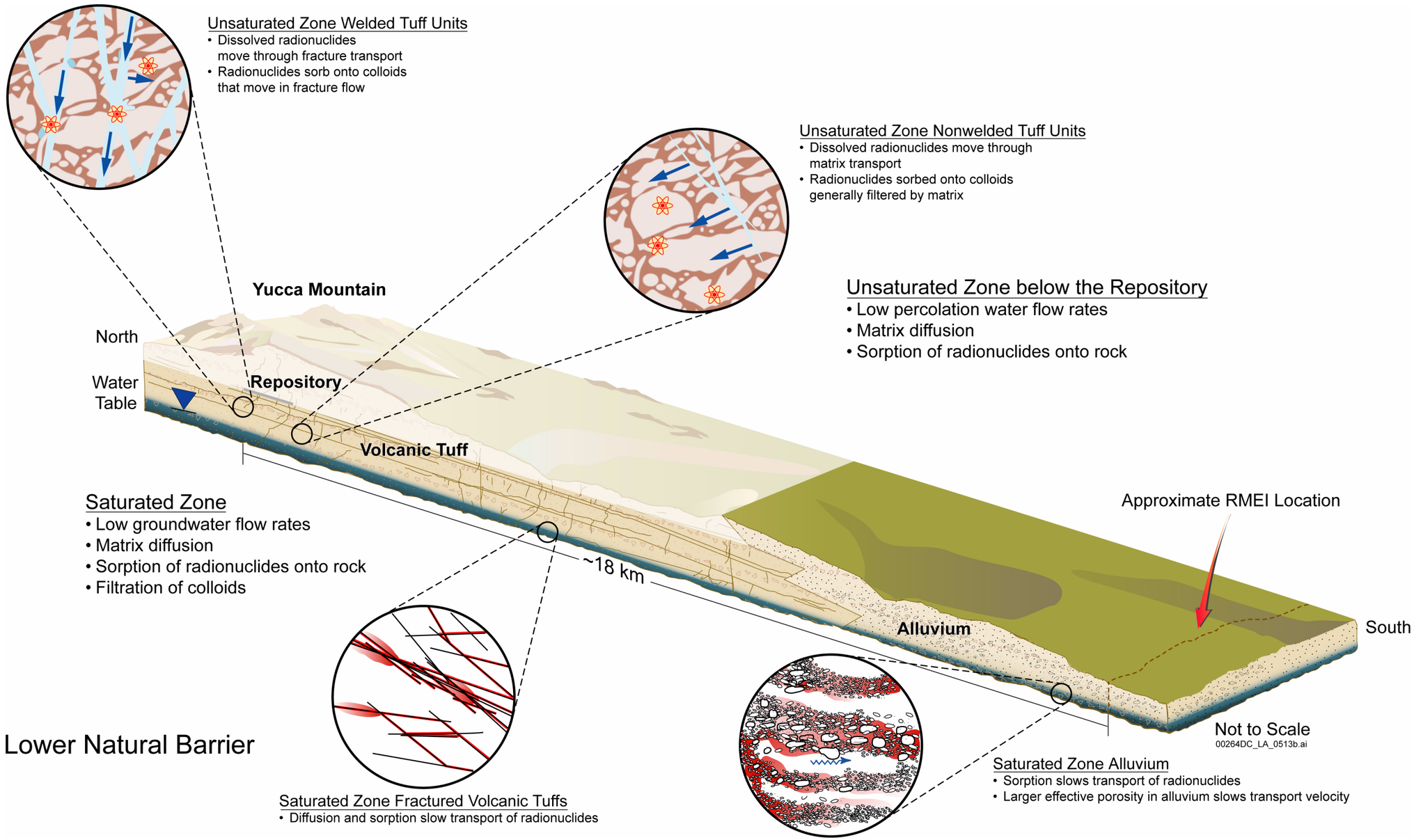

Figure 2.1-30. Schematic of Lower Natural Barrier

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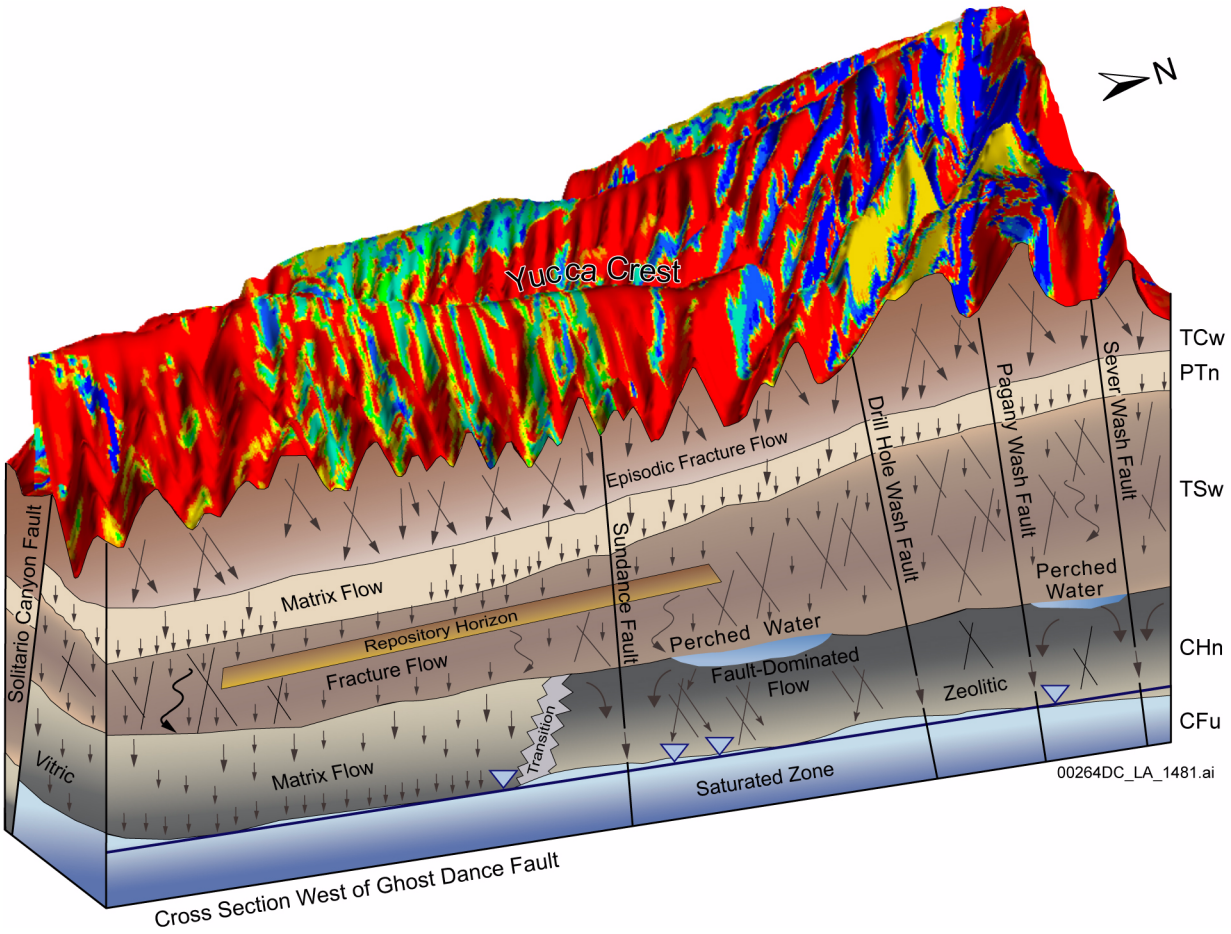

Figure 2.1-31. Conceptualized Water Flow Behavior in the Different Hydrogeologic Units Below the Repository

NOTE: The infiltration map and repository horizon are shown for illustrative purposes only. Color variations on the ground surface are qualitatively indicative of spatial variability of infiltration.

Source: Modified from BSC 2004b, Figure 6-1.

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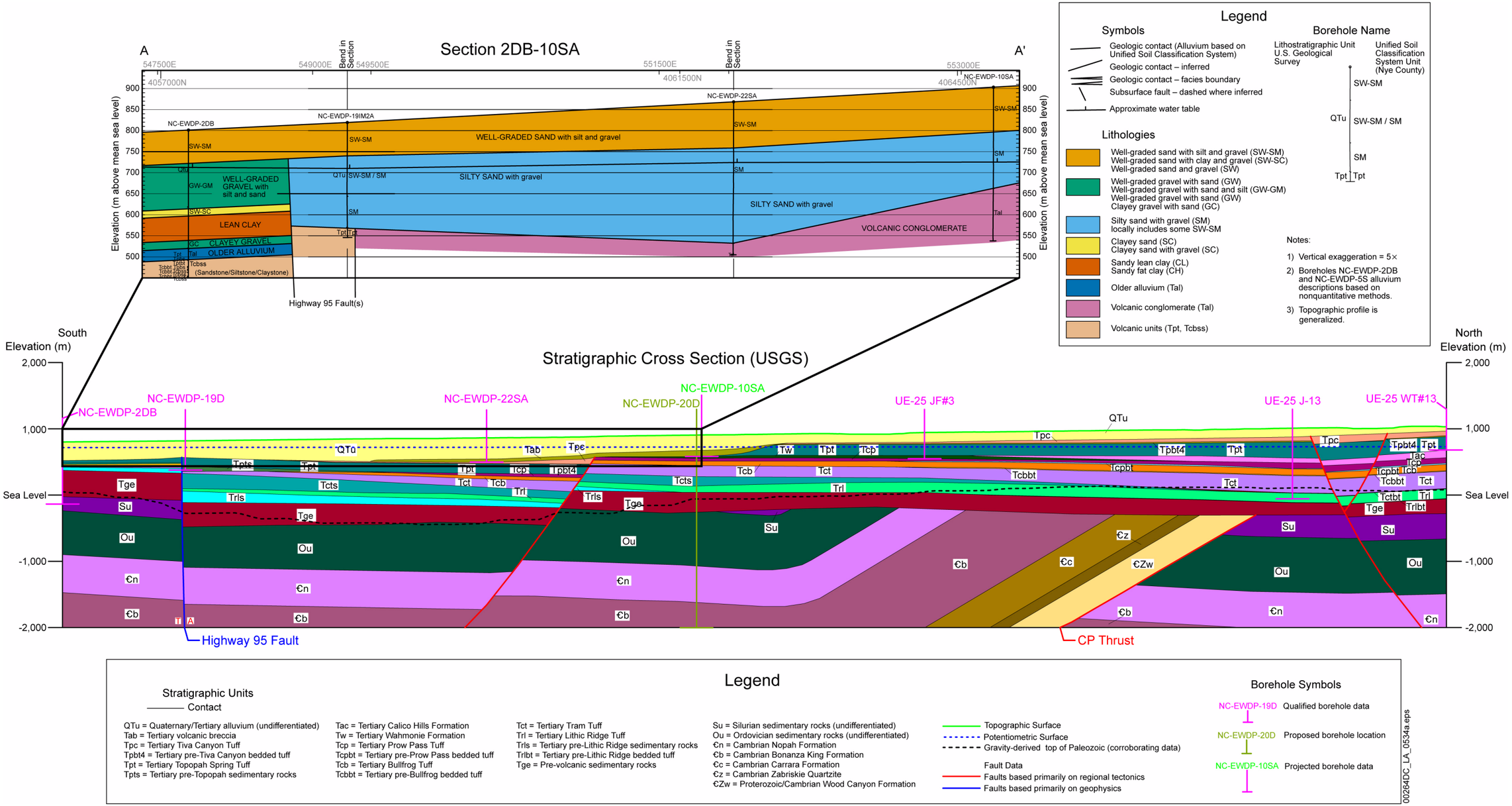

NOTE: The location of these cross sections and the boreholes indicated here is provided in Figure 2.1-33.

Source: Nye County alluvium cross section: NWRPO 2003, Figure 4.5-4.

Figure 2.1-32. Cross Section of the Saturated Zone Downgradient from the Repository

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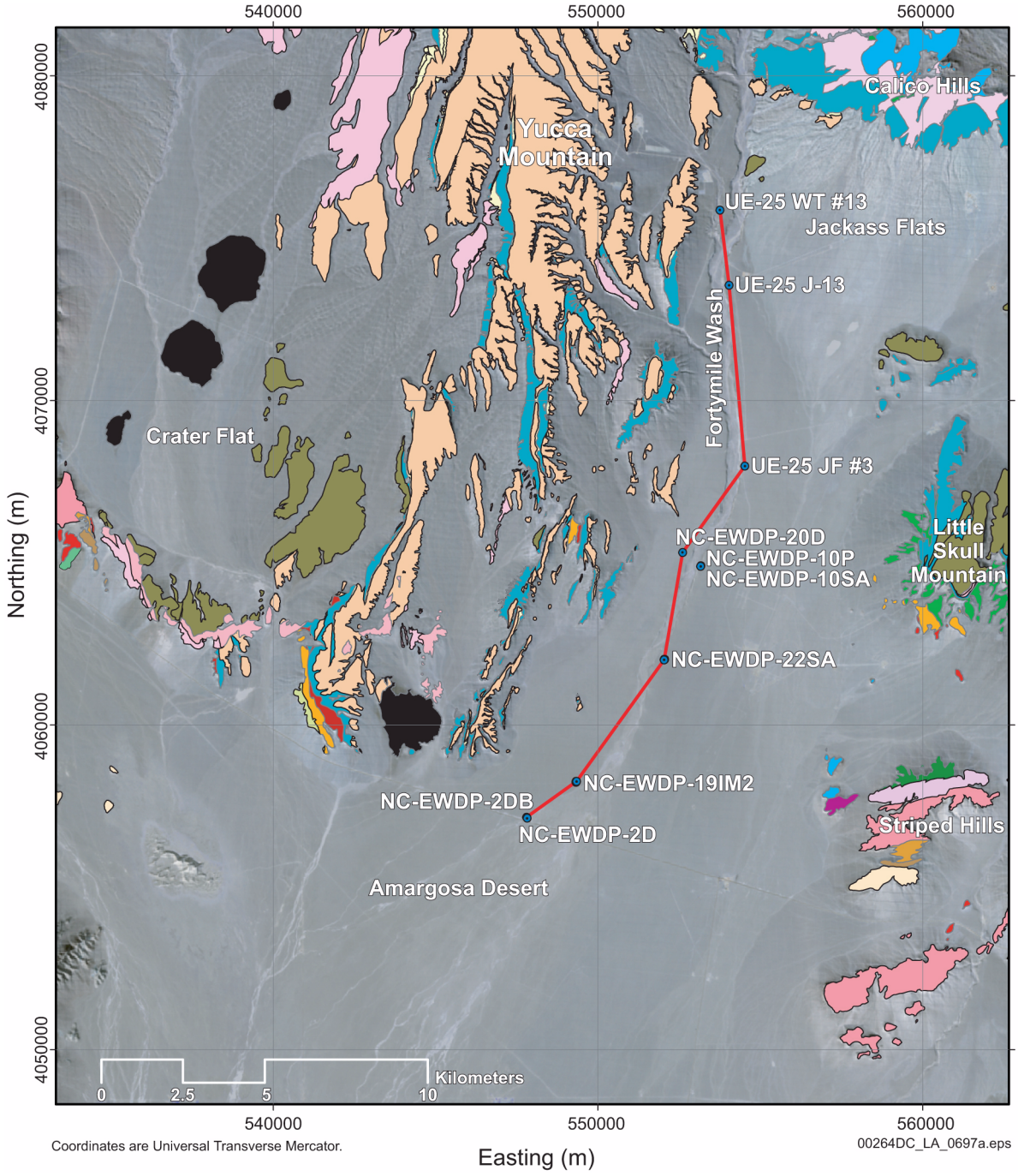

Figure 2.1-33. Satellite Image and Superimposed Generalized Geologic Map of Areas of Exposed Bedrock, Showing the Location of the Cross Section in Figure 2.1-32

NOTE: Approximate reasonably maximally exposed individual location is at about 4058261 m Northing UTM.

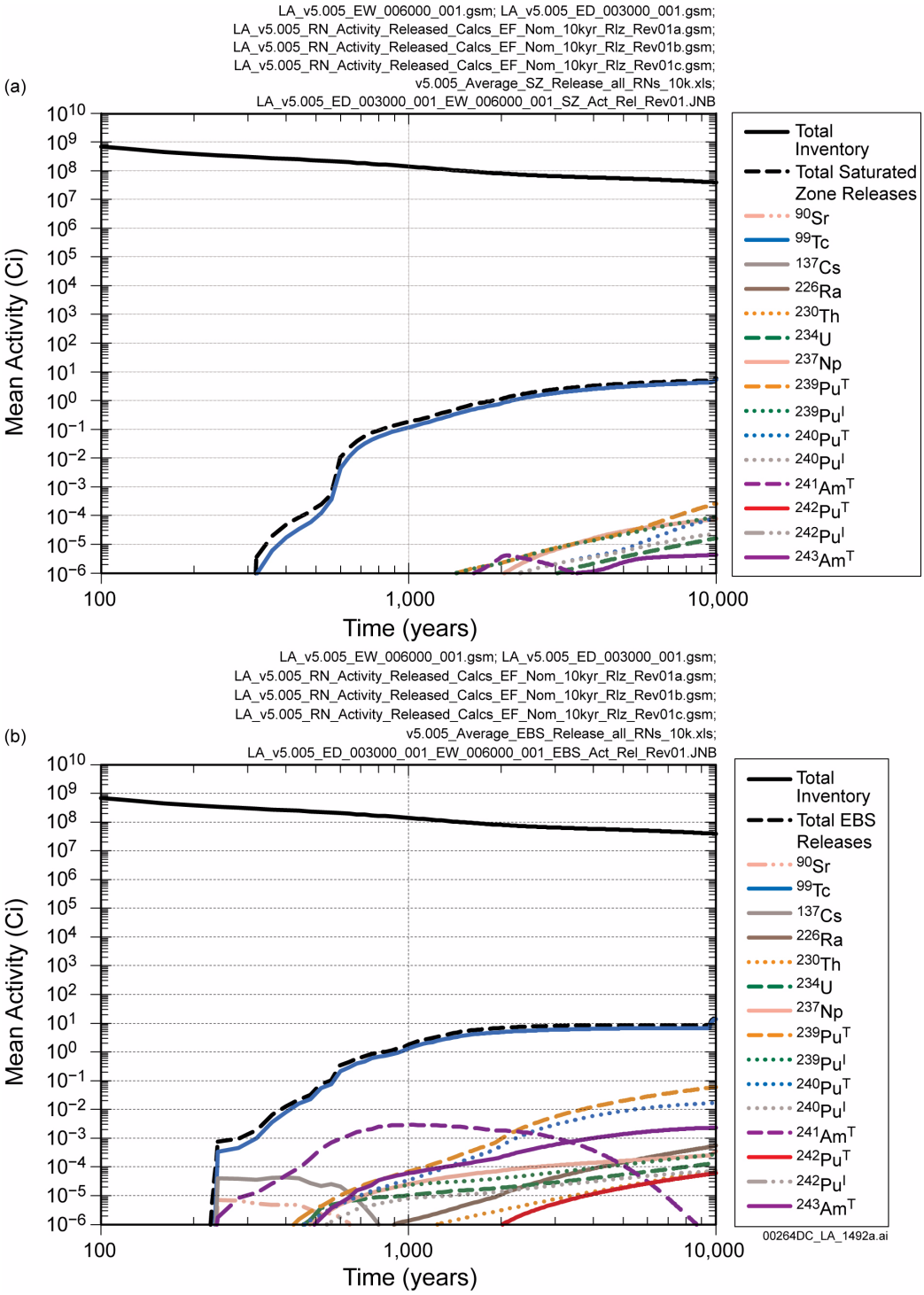

Figure 2.1-34. Mean Activity Released from the (a) Saturated Zone and (b) Engineered Barrier System, for the Combined Nominal/Early Failure Modeling Case for 10,000 Years after Repository Closure

NOTE: Radionuclide activities in figures account for decay and ingrowth occurring after radionuclide transport from the (a) saturated zone to the accessible environment and (b) from the EBS to the unsaturated zone.

Source: SNL 2008d, Figure 8.3-23[a].

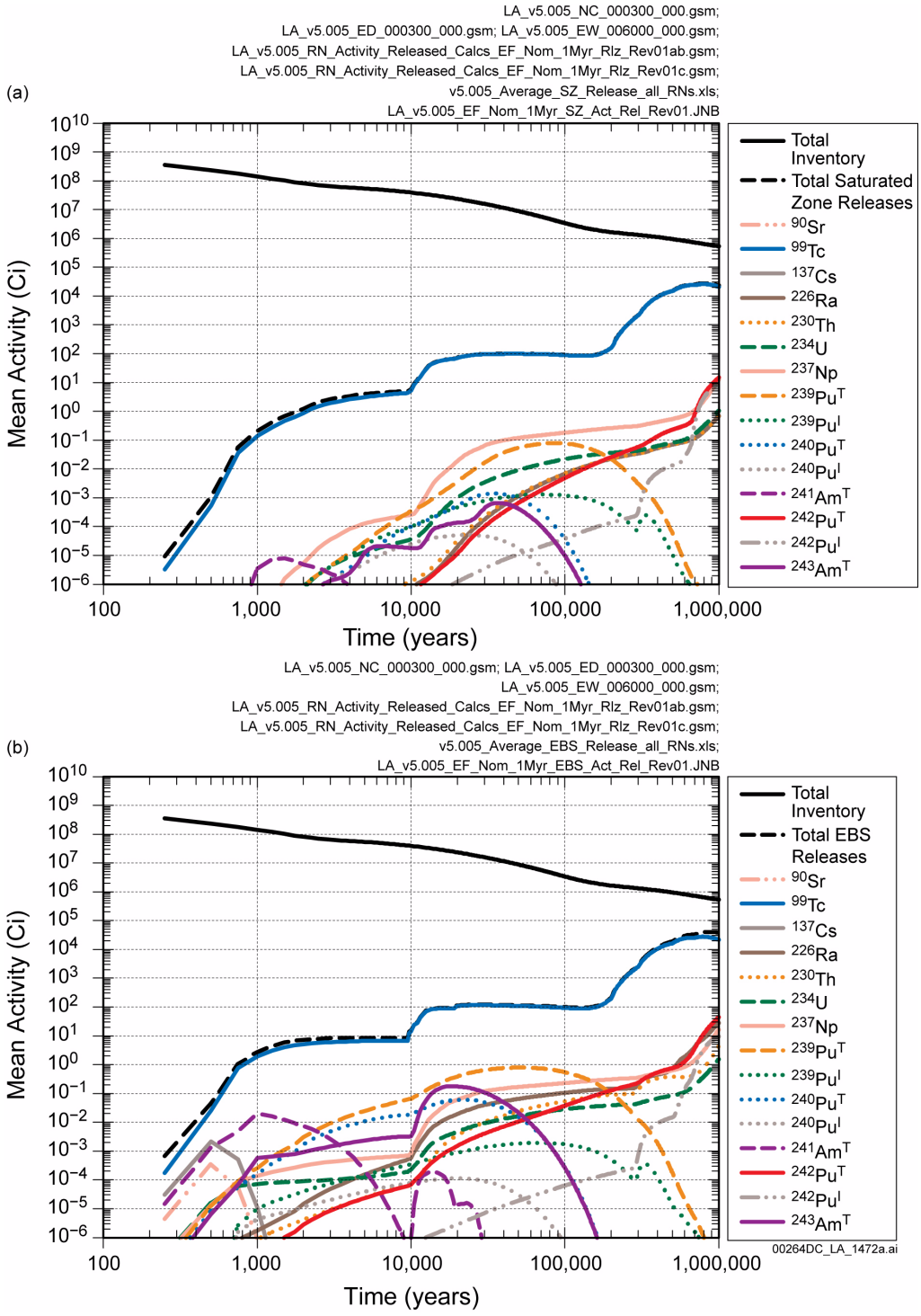

Figure 2.1-35. Mean Activity Released from the (a) Saturated Zone and (b) Engineered Barrier System, for the Combined Nominal/Early Failure Modeling Case for 1,000,000 years after Repository Closure

NOTE: Radionuclide activities in figures account for decay and ingrowth occurring after radionuclide transport from the (a) saturated zone to the accessible environment and (b) from the EBS to the unsaturated zone.

Source: SNL 2008d, Figure 8.3-24[a].

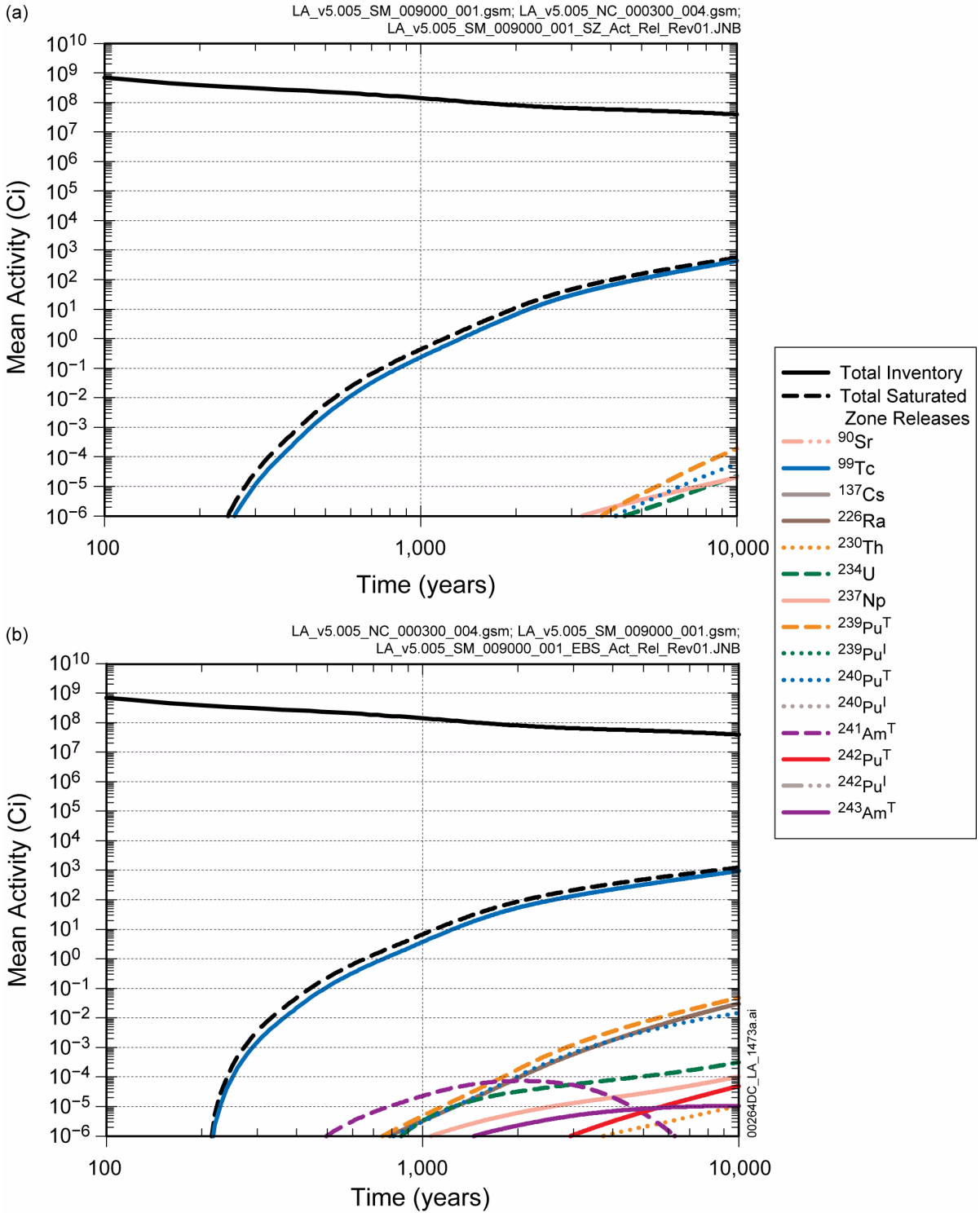

Figure 2.1-36. Mean Activity Released from the (a) Saturated Zone and (b) Engineered Barrier System, for the Seismic Ground Motion Modeling Case for 10,000 Years after Repository Closure

NOTE: Radionuclide activities in figures account for decay and ingrowth occurring after radionuclide transport from the (a) saturated zone to the accessible environment and (b) from the EBS to the unsaturated zone.

Source: SNL 2008d, Figure 8.3-25[a].

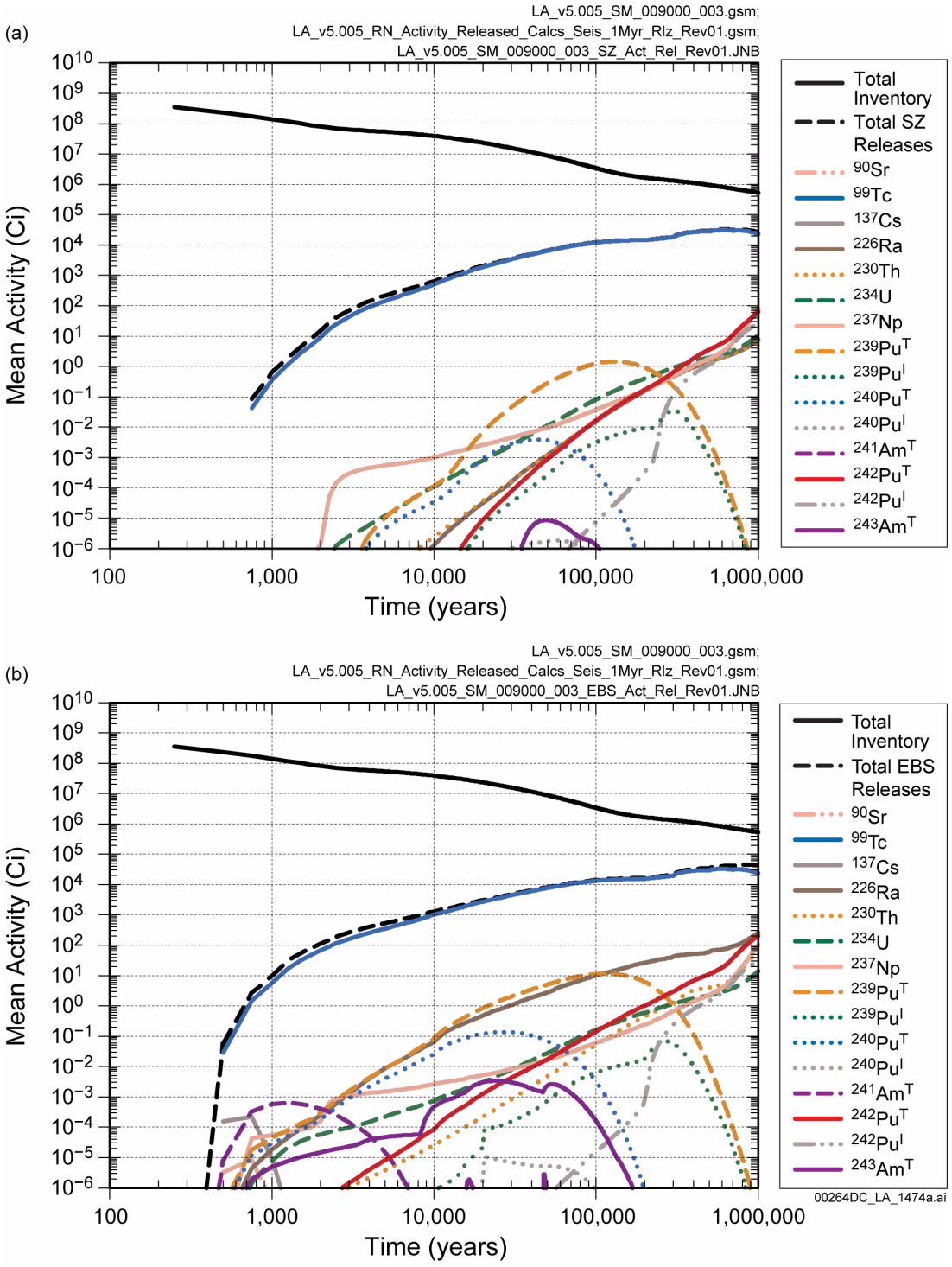

Figure 2.1-37. Mean Activity Released from the (a) Saturated Zone and (b) Engineered Barrier System, for the Seismic Ground Motion Modeling Case and 1,000,000 Years after Repository Closure

NOTE: Radionuclide activities in figures account for decay and ingrowth occurring after radionuclide transport from the (a) saturated zone to the accessible environment and (b) from the EBS to the unsaturated zone.

Source: SNL 2008d, Figure 8.3-26[a].

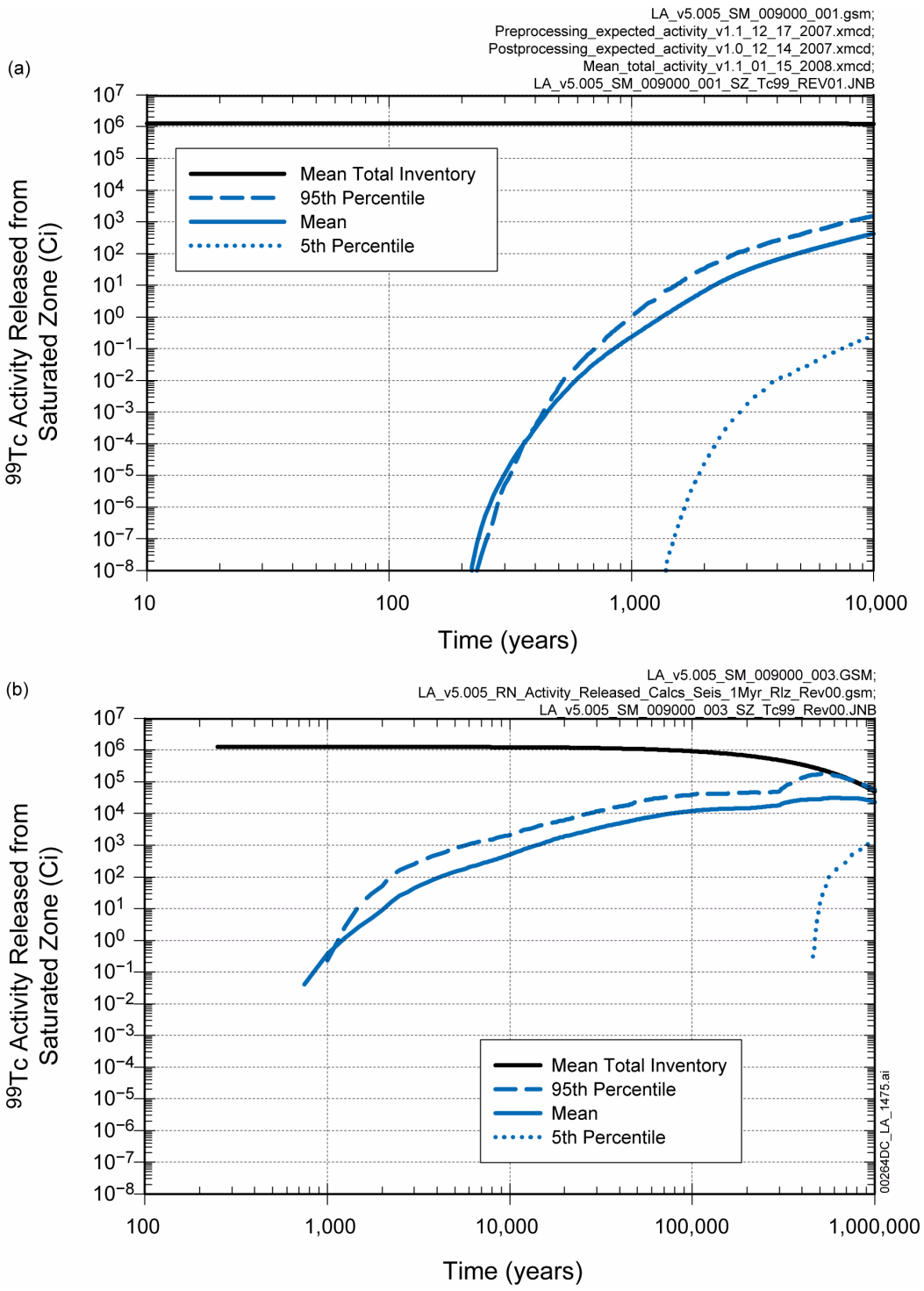

Figure 2.1-38. Uncertainty in Activity of ^{99}Tc Released from the Saturated Zone for the Seismic Ground Motion Modeling Case for (a) 10,000 Years and (b) 1,000,000 Years after Repository Closure

NOTE: Radionuclide activities in figures account for decay and ingrowth occurring after radionuclide transport from the saturated zone to the accessible environment.

Source: SNL 2008d, Figure 8.3-27[a].

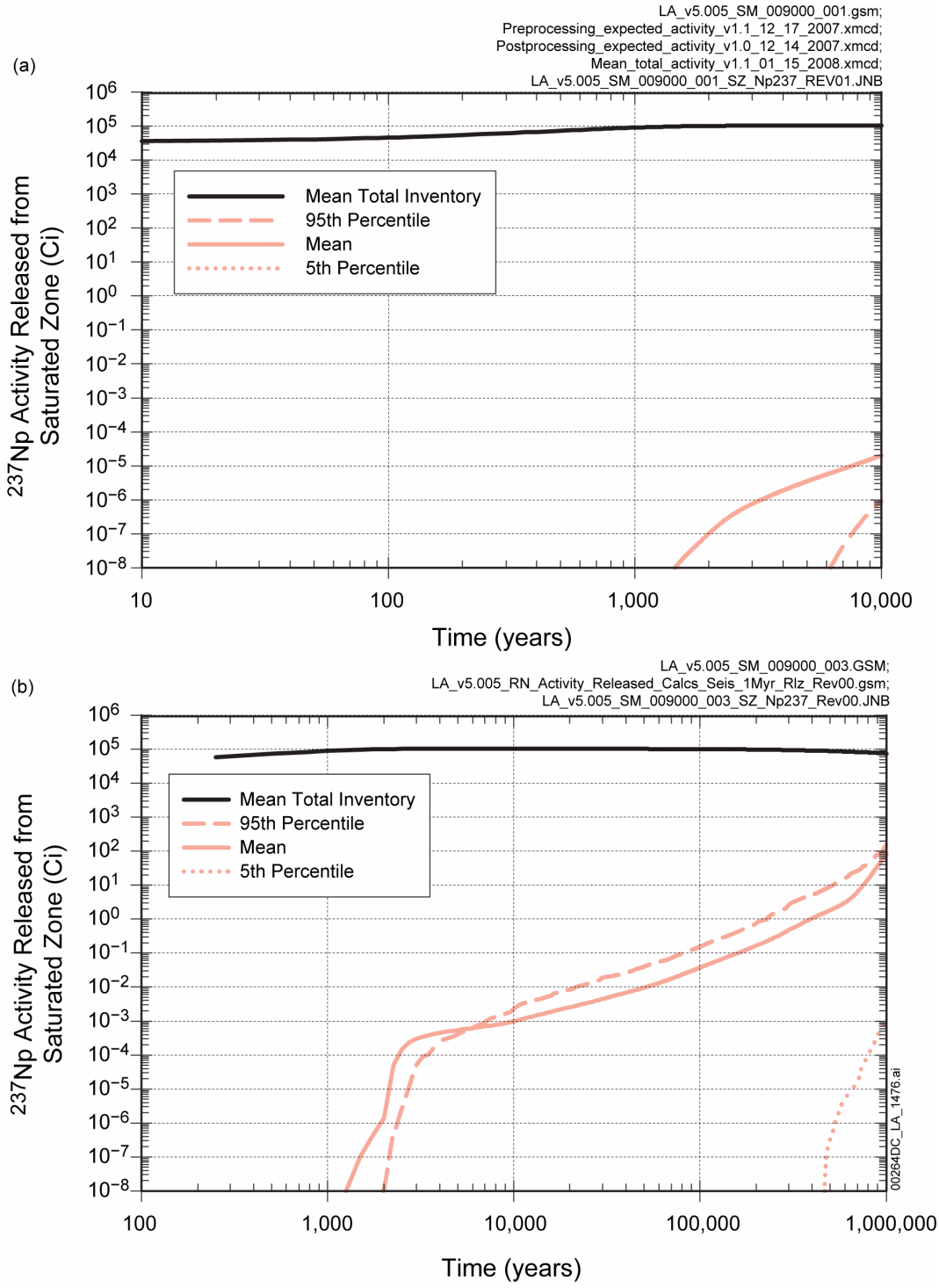

Figure 2.1-39. Uncertainty in Activity of ^{237}Np Released from the Saturated Zone for the Seismic Ground Motion Modeling Case for (a) 10,000 Years and (b) 1,000,000 Years after Repository Closure

NOTE: Radionuclide activities in figures account for decay and ingrowth occurring after radionuclide transport from the saturated zone to the accessible environment.

Source: SNL 2008d, Figure 8.3-28[a].

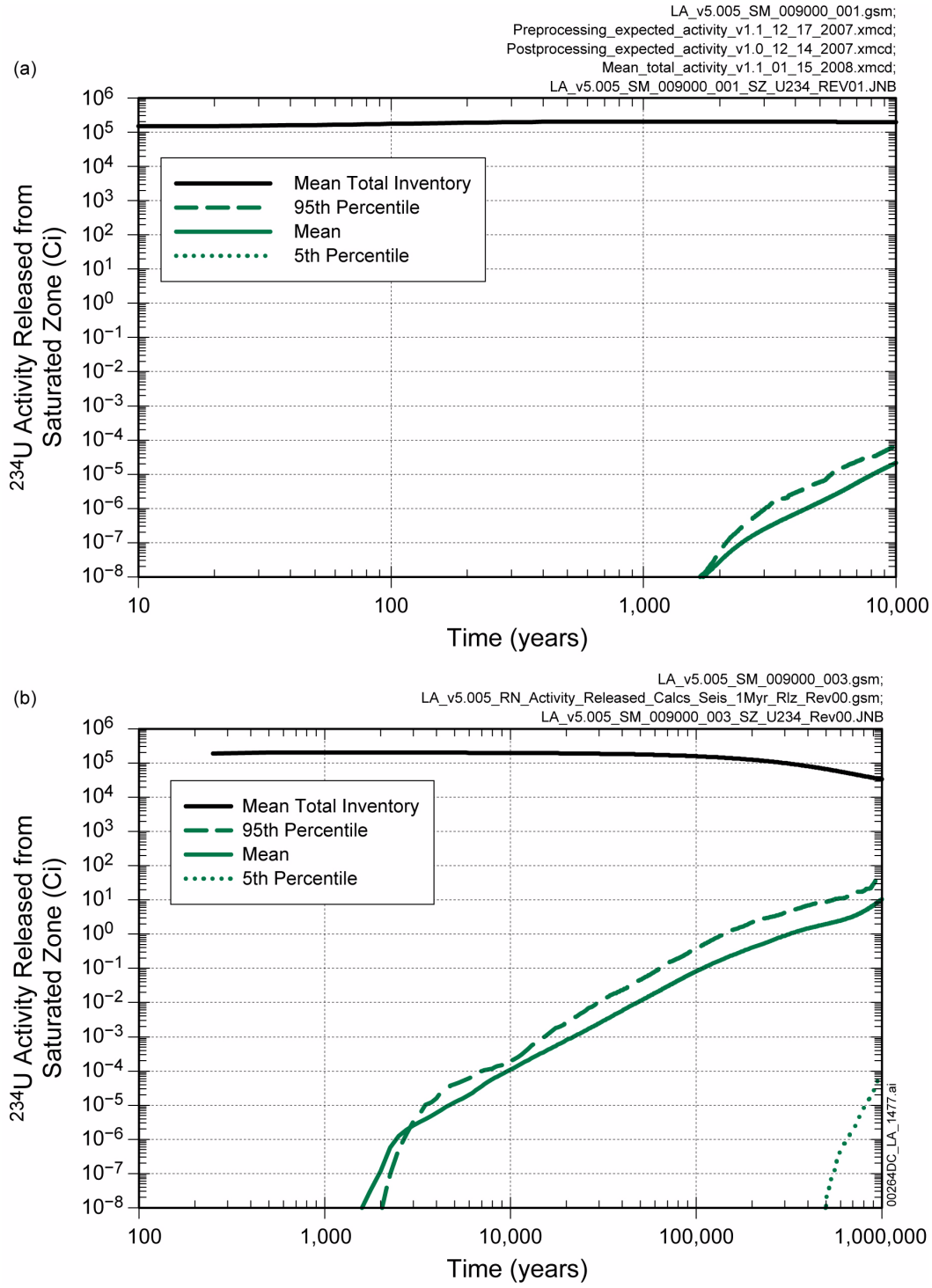

Figure 2.1-40. Uncertainty in Activity of ^{234}U Released from the Saturated Zone for the Seismic Ground Motion Modeling Case for (a) 10,000 Years and (b) 1,000,000 Years after Repository Closure

NOTE: Radionuclide activities in figures account for decay and ingrowth occurring after radionuclide transport from the saturated zone to the accessible environment.

Source: SNL 2008d, Figure 8.3-29[a].

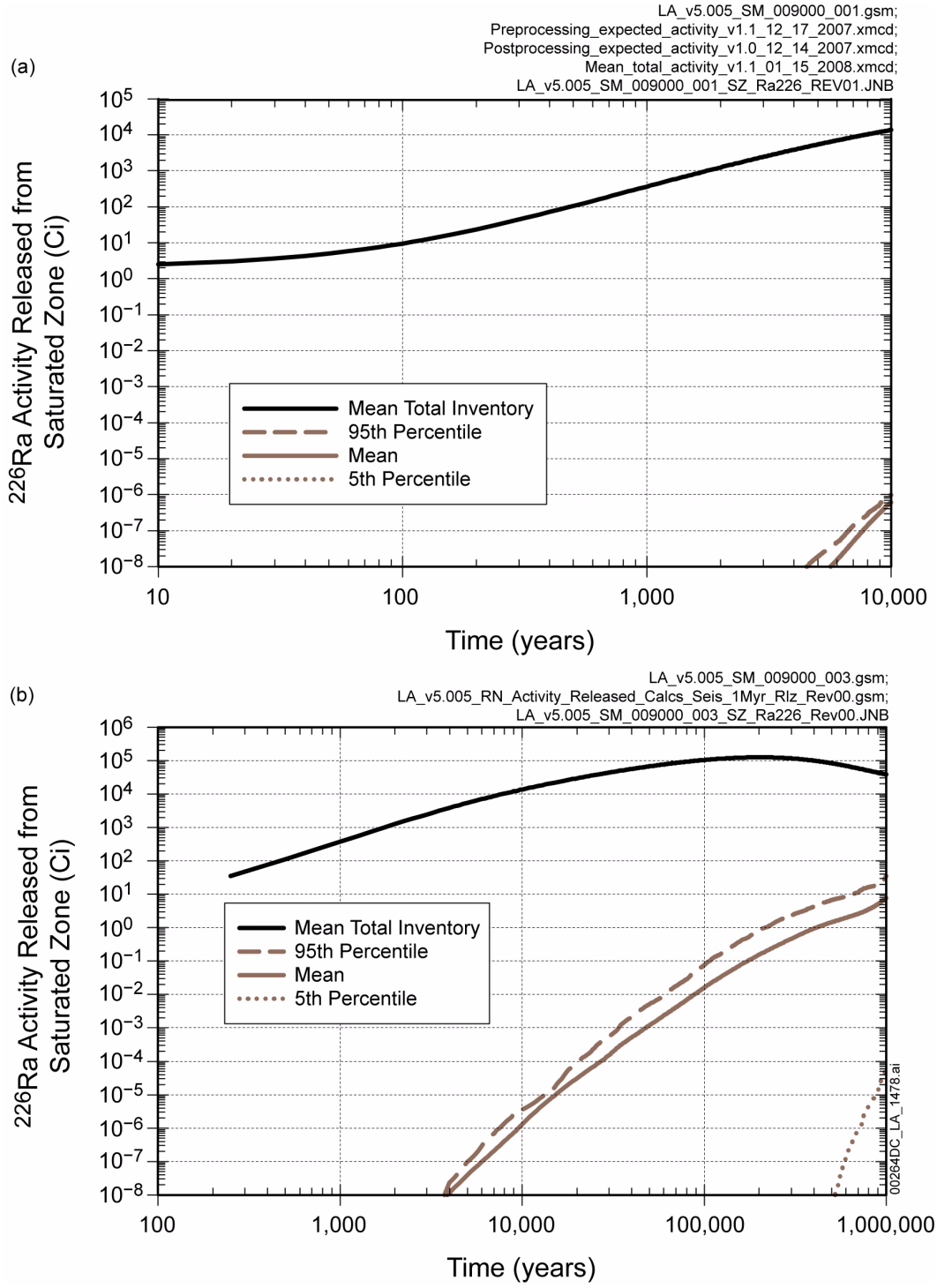

Figure 2.1-41. Uncertainty in Activity of ^{226}Ra Released from the Saturated Zone for the Seismic Ground Motion Modeling Case for (a) 10,000 Years and (b) 1,000,000 Years after Repository Closure

NOTE: Radionuclide activities in figures account for decay and ingrowth occurring after radionuclide transport from the saturated zone to the accessible environment.

Source: SNL 2008d, Figure 8.3-30[a].

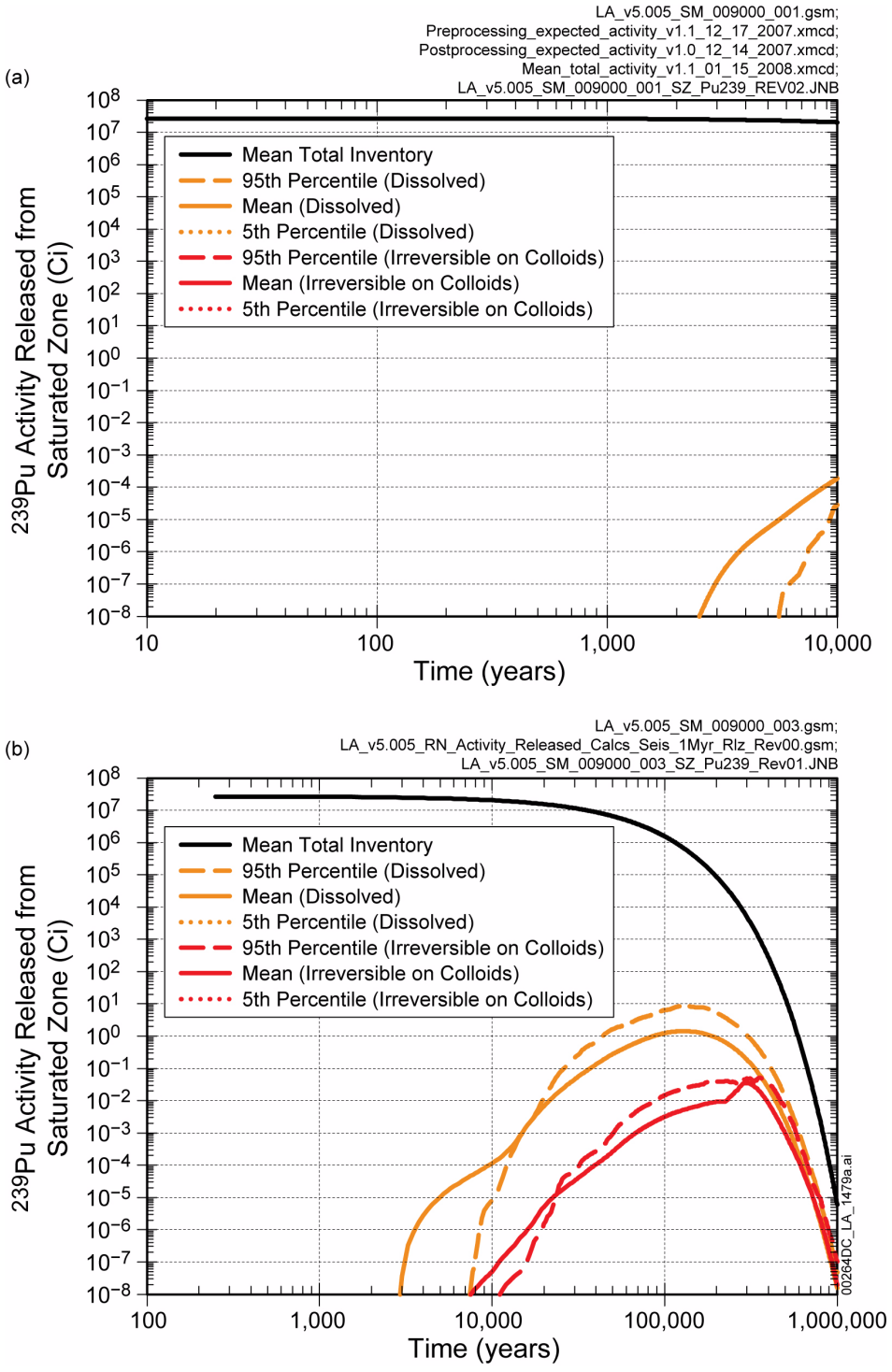

Figure 2.1-42. Uncertainty in Activity of ^{239}Pu Released from the Saturated Zone for the Seismic Ground Motion Modeling Case for (a) 10,000 Years and (b) 1,000,000 Years after Repository Closure

NOTE: Radionuclide activities in figures account for decay and ingrowth occurring after radionuclide transport from the saturated zone to the accessible environment.

Source: SNL 2008d, Figure 8.3-31[a].

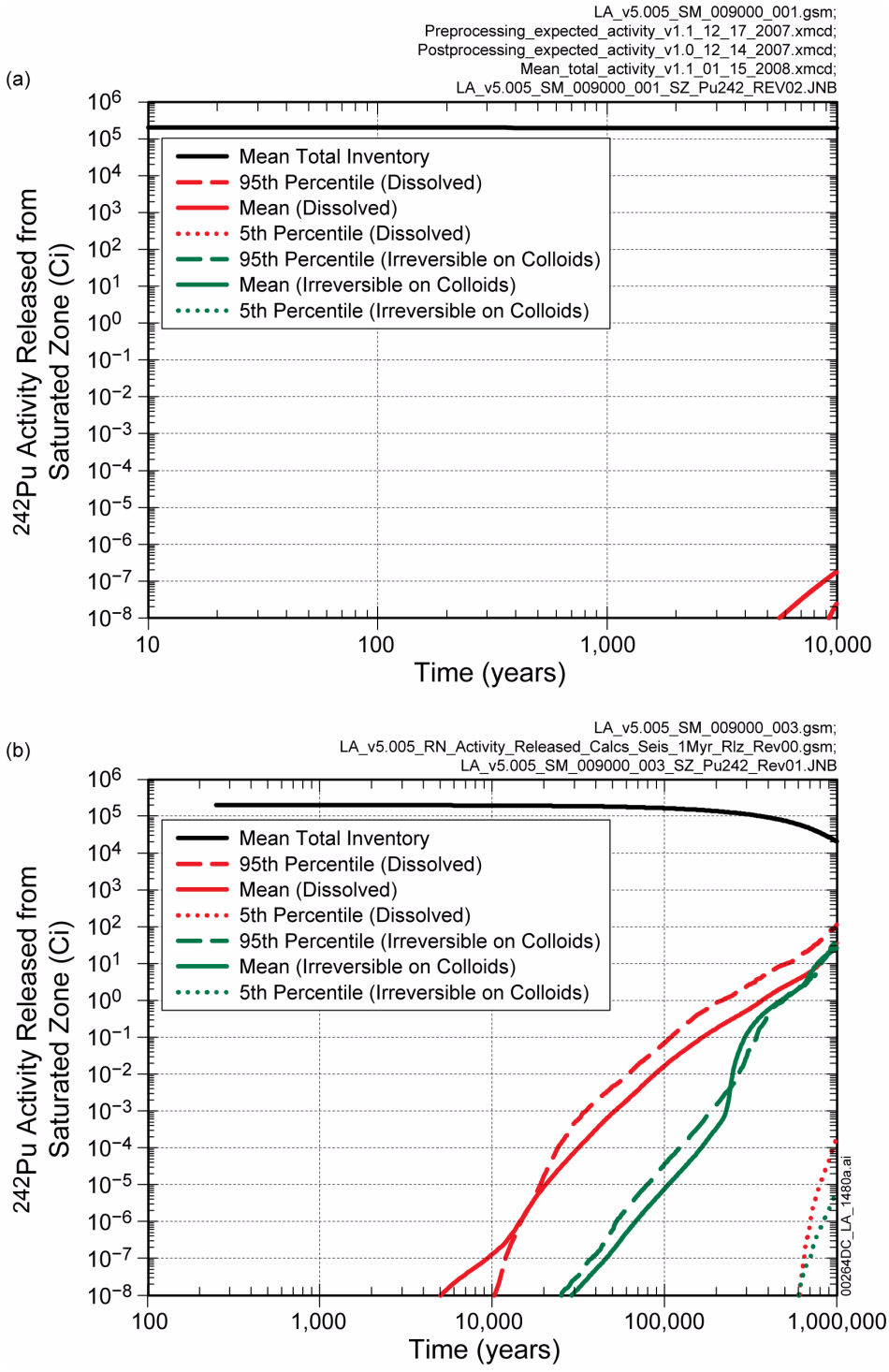

Figure 2.1-43. Uncertainty in Activity of ^{242}Pu Released from the Saturated Zone for the Seismic Ground Motion Modeling Case for (a) 10,000 Years and (b) 1,000,000 Years after Repository Closure

NOTE: Radionuclide activities in figures account for decay and ingrowth occurring after radionuclide transport from the saturated zone to the accessible environment.

Source: SNL 2008d, Figure 8.3-32[a].

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