



U.S. Nuclear Waste Technical Review Board

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# **NUWASTE Results Scenario 2.1**

## **Characteristics of U.S. Spent Fuel Inventory as of December 2009**

**Presented to: NWTRB Workshop on Evaluation of Waste Streams  
Associated with LWR Fuel Cycle Options**

**Presented By: Gene Rowe  
Mark Abkowitz**

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# NUWASTE Results - Scenario 2.1

## Characteristics of U.S. Spent Fuel Inventory as of December 2009

[BWR](#) [PWR](#)

[BWR Access](#) [PWR Access](#)

- Total mass of spent fuel at the beginning of 2010, Output Measure 2.1.2.1).

Number of Assemblies			Mass of Assemblies (MT)		
PWR	BWR	Total	PWR	BWR	Total
94,289	117,694	211,983	40,544.27	21,184.92	61,729.19

- Mass of  $^{234}\text{U}$ ,  $^{235}\text{U}$ ,  $^{236}\text{U}$ , and  $^{238}\text{U}$  in spent fuel at the beginning of 2010, Output Measure 2.1.2.2).

PWR Masses (MT)					BWR Masses (MT)				
U-234	U-235	U-236	U-238	Total	U-234	U-235	U-236	U-238	Total
6.7	327.3	187.3	37,934.8	38,456.1	2.6	73.6	70.0	20,147.7	20,293.8

Total Masses (MT)				
U-234	U-235	U-236	U-238	Total
9.3	400.8	257.3	58,082.5	58,749.9



# NUWASTE Results - Scenario 2.1

## Characteristics of U.S. Spent Fuel Inventory as of December 2009

[Excel 2.1](#)

- Total mass of  $^{238}\text{Pu}$ ,  $^{239}\text{Pu}$ ,  $^{240}\text{Pu}$ ,  $^{241}\text{Pu}$ , and  $^{242}\text{Pu}$  in spent fuel at the beginning of 2010, Output Measure 2.1.2.3).

PWR Masses (MT)						BWR Masses (MT)					
Pu-238	Pu-239	Pu-240	Pu-241	Pu-242	Total	Pu-238	Pu-239	Pu-240	Pu-241	Pu-242	Total
7.4	230.2	104.7	29.7	27.2	399.3	1.9	79.2	51.0	9.9	13.7	155.6

Total Masses (MT)					
Pu-238	Pu-239	Pu-240	Pu-241	Pu-242	Total
9.3	309.4	155.7	39.6	40.9	554.9

- Mass of fission products and minor actinides, either total or by isotope, in spent fuel at the beginning of 2010, Output Measure 2.1.2.4).

PWR Masses (MT)	BWR Masses (MT)	Total Masses (MT)
FP & Minor Actinides	FP & Minor Actinides	FP & Minor Actinides
1,688.9	735.5	2,424.4

