

GRAND GULF NUCLEAR STATION  
 CLAIBORNE COUNTY, MISSISSIPPI  
 CY 1989

EPA Cross-Check Results--1989

All values reported in pCi/l unless otherwise indicated.

		Reported	Known
January	Strontium in Water		
	Strontium 89	30, 30, 30	40±8.5
	Strontium 90	9, 9, 9	25±2.6
	Gross Alpha/Beta in Water		
	Alpha	7, 7, 7	8±8.6
	Beta	3, 3, 3	4±8.5
	Gamma in Water		
	Chromium 51	245, 245, 245	235±41
	Cobalt 60	15, 15, 15	10±8.7
	Zinc 65	155, 155, 155	159±27
	Ruthenium 106	200, 200, 200	178±31
	Cesium 134	15, 15, 15	10±8.7
	Cesium 137	15, 15, 15	10±8.7
February	Iodine in Water		
	Iodine	140, 140, 140	106±19
	Tritium in Water		
	Tritium	2635, 2650, 2697	2754±617
April	Radium in Water		
	Radium 226	5.9, 5.9, 6.0	4.90±1.21
	Radium 228	1.9, 1.9, 2.0	1.70±.52
	Air Filter		
	Alpha	20, 20, 21	21±8.6h
	Beta	61, 61, 61	62±8.6h
	Strontium 90	25, 25, 25	20±2.6h
	Cesium 137	12, 13, 14	20±8.6h
	Uranium in Water		
	Uranium	4, 5, 5	5±8.6

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		Reported	Known
April	Performance Evaluation Intercomparison Study		
	Alpha	23, 24, 24	29±12
	Radium 226	3.9, 3.9, 3.9	3.5±.87
	Radium 228	7.5, 7.5, 7.5	3.6±.87
	Uranium	10, 10, 10	3±10
	Beta	27, 28, 28	57±8.6
	Strontium 89	4, 4, 4	8±8.6
	Strontium 90	8, 8, 8	8±8.6
	Cesium 134	20, 20, 20	20±8.6
	Cesium 137	20, 20, 20	20±8.6
	Radionuclides in Milk		
	Strontium 89	1, 1, 1	39±8.6
	Strontium 90	60, 60, 60	55±5.2
	Iodine 131	15, 15, 15	4±0
	Cesium 137	55, 55, 55	50±8.6
	Potassium	1700, 1700, 1700	1600±139
May	Strontium in Water		
	Strontium 89	4, 4, 4	5±8.6
	Strontium 90	5, 5, 5	6±2.6
	Gross Alpha/Beta in Water		
	Alpha	26, 26, 26	29±8.6
	Beta	29, 29, 29	50±8.6
June	Radionuclides in Water		
	Barium 133	55, 55, 55	49±8.6
	Cobalt 60	35, 35, 35	31±8.6
	Zinc 65	180, 180, 180	165±29.4
	Ruthenium 106	135, 135, 135	128±22.5
	Cesium 134	40, 40, 40	39±8.6
	Cesium 137	20, 20, 20	20±8.6
	Tritium in Water		
	Tritium	4525, 4490, 4540	4503±780

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July	Radium in Water		
	Radium 226	19.1, 19.1, 19.1	17.7±4.68
	Radium 228	19.0, 19.0, 19.0	18.3±4.68
	Uranium in Water		
	Uranium	30, 30, 31	41±10.39
August	Iodine in Water		
	Iodine	79, 80, 80	83±13.84
	Air Filter Cross Check		
	Alpha	6, 6, 6	6±8.6h
	Beta	18, 18, 18	invalid
	Iodine 131	30, 30, 30	invalid
	Cesium 137	10, 10, 10	10±8.6h
September	Gross Alpha/Beta in Water		
	Alpha	7, 7, 7	4±8.6
	Beta	10, 10, 10	6±8.6
	Strontium in Water		
	Strontium 89	15, 15, 15	14±8.7
	Strontium 90	9, 9, 9	10±2.6
October	Radionuclides in Water		
	Barium 133	60, 60, 60	59±10.31
	Cobalt 60	35, 35, 35	30±8.6
	Zinc 65	137, 137, 137	129±22.52
	Ruthenium 106	165, 165, 165	161±27.21
	Cesium 134	30, 30, 30	29±8.6
	Cesium 137	60, 60, 60	59±8.6
	Tritium in Water		
Tritium	3500, 3474, 3461	3496±631	

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October	Performance Evaluation Intercomparison Study		
	Alpha	44, 44, 45	49±20.8
	Radium 226	7.9, 7.9, 7.9	8.4±2.3
	Radium 228	3.2, 3.2, 3.2	4.1±1.0
	Uranium	10, 10, 10	12±10.4
	Beta	32, 32, 32	32±8.7
	Strontium 89	15, 15, 16	15±8.7
	Strontium 90	5, 5, 5	7±2.6
	Cesium 134	5, 5, 5	5±8.7
	Cesium 137	7, 7, 7	5±8.7
November	Radium in Water		
	Radium 226	8.1, 8.1, 8.1	8.7±2.3
	Radium 228	8.2, 8.2, 8.2	9.3±2.4
	Uranium in Water		
	Uranium	11, 11, 11	15±10.39

h Values are reported as pCi/filter.