GPU NUCLEAR

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September 8, 2005
E910-05-066

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555

Gentlemen:

Subject: Saxton Nuclear Experimental Corporation
Operating License No. DPR-4
Docket 50-146
Response to Comments on SNEC Final Status Survey Reports

Enclosed are the responses to the comments provided on the SNEC Final Status Survey Reports with changes to the reports provided in detail where required. These changes are administrative and for clarification purposes and do not change the final conclusions of the reports. The responses are provided in the order that the comments were issued. Each set of responses is provided with the original GPU Nuclear transmittal letter number and the date of the ORISE comment letter for cross-reference.

If there are any questions regarding this letter, please contact Mr. Art Paynter of my staff at (717) 948-8425.

Sincerely,

James J. Byrne
Program Director, SNEC

cc:
NRC Project Manager
NRC Project Scientist, Region I
T. Vitkus, ORISE Project Leader

A001

Survey Report MA2 Discharge Outfall

(GPU Nuclear Letter E910-05-016 comments from ORISE Letter dated June 22, 2005)

1) Attachment 2-3 of appendix A is provided
2) Attachment 6-2 of appendix A is provided
3) Change Table 1 "75% Action Level" to "75% Administrative Limit"
4) Change the first paragraph of section 6.1.1 starting at the second sentence to:
   "The 75% Administrative Limit was 4.89 pCi/gm and the adjusted surrogate Cs137 DCGLw for this survey unit was 6.52 pCi/gm (table 1 on page 2 of appendix A). Although this is a Class 3 survey unit and the elevated measurement process does not specifically apply, the area factor can be used to compare the MDCscan to the 75% Administrative Limit. In this case, the MDCscan was below the 75% Administrative Limit times the limiting area factor so no sample number adjustment was needed."
5) Change the first sentence of the third paragraph of section 6.1.2 to read:
   "None of the ten fixed point soil samples collected in MA2 had results in excess of the 75% Administrative Limit."
6) Change the second sentence of section 7.2 to read:
   "Ten soil samples were all less than the 75% Administrative Limit".
7) Change the second sentence in section 7.4.2 to read:
   "The duplicate had good agreement as shown in the table below (Table 3) because they both support the same conclusion, that the survey unit passes."
8) Section 8 should be modified to read:
   "1) The average residual radioactivity in the soils is less than the 75% Administrative Limit in the survey unit"
   "2) All measurements were less than the 75% Administrative Limit in the survey unit."

Note: Some of the above changes are not based on specific comments but are consistent with comments made on other reports

TABLE 1 - Data Listing (pCi/g)

			T 1/2	T 1/2	T 1/2	T 1/2	T 1/2	T 1/2	T 1/2	T 1/2	T 1/2	T 1/2	T 1/2	Decay Date: January 15, 2004	
			4485.27	10446.15	1925.23275	11019.5925	157861.05	32050.6875	8813847.75	5259.6	2092882.5	36561.525	4967.4		
	SNEC Sample No	Location/Description	H-3	Sr-90	Co-60	Cs-137	Am-241	Pu-238	Pu-239	Pu-241	C-14	Ni-63	Eu-152	Analysis Date	Elapsed Time (d)
1	SX10SD990031	Discharge Tunnel Wall Scraping			0.84	120	0.2	0.04	0.04					July 29, 1999	1631
2	SX10SD990033	Discharge Tunnel 6" Drain Line Scraping	100	8	30	4800	5.4	1.6	2.5	60	6	55	20	July 22, 1999	1638
3	SX5SD99264	SSGS Discharge Tunnel Floor Sediment ~670'			0.2	1.6								November 22, 1999	1515
4	SX5SD99266	SSGS Discharge Tunnel Floor Sediment ~610'			0.3	2.3								November 22, 1999	1515
5	SX5SD99267	SSGS Discharge Tunnel Floor Sediment ~550'			0.16	2								November 22, 1999	1515
6	SXCC4236	SSGS Discharge Tunnel SP-3, Ceiling, Sect 1, Slice 1	0.732	0.0259	0.0237	25.8	0.0181	0.026	0.0159	2.52	0.141	0.54	0.13	October 16, 2003	91
7	SXCW3536	SSGS Discharge Tunnel # 2, Concrete Wall Core - SR-56, Building Structure	2.01	0.0138	0.0663	26.9	0.0876	0.148	0.0119	3.98	0.189	2.43	0.207	May 6, 2003	254
8	SXCW3539	SSGS Discharge, Tunnel # 3, Concrete Wall Core - SR-56, Building Structure	1.99	0.0168	0.13	1.42	0.131	0.26	0.13	4.98	0.17	2.65	0.262	May 6, 2003	254
9	SXCW736	SSGS Tunnel, North Wall - 5'-8" From Floor	10.3	0.03	0.07	22.6	0.044	0.047	0.044	6.57	3.96	7.88	0.33	March 6, 2001	1045
10	SX5D923	SSGS Tunnel, Rubble @ 700', SR-0008	3.69	0.05	0.01	0.15	0.006	0.003	0.003	0.549	0.064	7.02	0.05	May 22, 2001	968

TABLE 2 - Decayed Listing (pCi/g)

	SNEC Sample No	Location/Description	H-3	Sr-90	Co-60	Cs-137	Am-241	Pu-238	Pu-239	Pu-241	C-14	Ni-63	Eu-152	Analysis Date
1	SX10SD990031	Discharge Tunnel Wall Scraping			4.67E-01	1.08E+02	1.99E-01	3.86E-02	4.00E-02					July 29, 1999
2	SX10SD990033	Discharge Tunnel 6" Drain Line Scraping	7.76E+01	7.18E+00	1.66E+01	4.33E+03	5.36E+00	1.54E+00	2.50E+00	4.84E+01	6.00E+00	5.33E+01	1.59E+01	July 22, 1999
3	SX5SD99264	SSGS Discharge Tunnel Floor Sediment ~670'			1.16E-01	1.45E+00								November 22, 1999
4	SX5SD99266	SSGS Discharge Tunnel Floor Sediment ~610'			1.74E-01	2.09E+00								November 22, 1999
5	SX5SD99267	SSGS Discharge Tunnel Floor Sediment ~550'			9.27E-02	1.82E+00								November 22, 1999
6	SXCC4236	SSGS Discharge Tunnel SP-3, Ceiling, Sect 1, Slice 1	7.22E-01	2.57E-02	2.29E-02	2.57E+01	1.81E-02	2.59E-02	1.59E-02	2.49E+00	1.41E-01	5.39E-01	1.28E-01	October 16, 2003
7	SXCW3536	SSGS Discharge Tunnel # 2, Concrete Wall Core - SR-56, Building Structure	1.93E+00	1.36E-02	6.05E-02	2.63E+01	8.75E-02	1.47E-01	1.19E-02	3.85E+00	1.89E-01	2.42E+00	2.00E-01	May 6, 2003
8	SXCW3539	SSGS Discharge, Tunnel # 3, Concrete Wall Core - SR-56, Building Structure	1.91E+00	1.65E-02	1.19E-01	1.40E+00	1.31E-01	0.26	1.30E-01	4.82E+00	1.70E-01	2.64E+00	2.53E-01	May 6, 2003
9	SXCW736	SSGS Tunnel, North Wall - 5'-8" From Floor	8.76E+00	2.80E-02	4.81E-02	2.12E+01	4.36E-02	4.59E-02	4.40E-02	5.72E+00	3.96E+00	7.73E+00	2.85E-01	March 6, 2001
10	SX5D923	SSGS Tunnel, Rubble @ 700', SR-0008	3.18E+00	4.69E-02	7.06E-03	1.41E-01	5.97E-03	2.94E-03	3.00E-03	4.83E-01	6.40E-02	6.89E+00	4.37E-02	May 22, 2001
		Mean⇒	1.57E+01	1.22E+00	1.77E+00	4.52E+02	8.35E-01	2.95E-01	3.92E-01	1.10E+01	1.75E+00	1.23E+01	2.80E+00	499.84
		Sigma⇒	30.481	2.919	5.224	1363.086	1.997	0.558	0.930	18.414	2.580	20.308	6.423	
		Mean % of Total⇒	3.14%	0.24%	0.35%	90.40%	0.17%	0.06%	0.08%	2.19%	0.35%	2.45%	0.56%	100.00%

KEY

	Yellow Shaded Background = Positive Result
	Gray Shaded Background = MDA

ATTACHMENT 2 - 3

C01

Soil Sample Survey Points for Miscellaneous Survey Area MA2

VSP 2nr 8/29/05

~~COMPASS~~ provides survey points using a scale relative to the southwestern corner of the survey unit. This is cumbersome as field personnel must measure over large distances (sometimes hundreds of meters) from the single reference point. To remedy this situation, this spreadsheet provides the ~~COMPASS~~ survey points based on the actual location within each grid.

VSP 2nr 8/29/05

To use this spreadsheet, start at the grid marker. Go east the number of meters under the "E" column and then move north the number of meters in the "N" column. For simplicity, all measurements have been rounded to the nearest meter.

Location	Grid	E (meters)	N (meters)	X coordinate	Y coordinate
1	BP136	6.7	0.4	6.6635	0.3754
2	BP135	5.1	0.4	15.1282	0.3754
3	BP136	2.4	7.7	2.4312	7.7061
4	BP135	0.9	7.7	10.8959	7.7061
5	BP135	9.4	7.7	19.3606	7.7061
6	BQ136	6.7	5	6.6635	15.0367
7	BQ135	5.1	5	15.1282	15.0367
8	BR136	2.4	2.4	2.4312	22.3674
9	BR135	0.9	2.4	10.8959	22.3674
10	BR135	9.4	2.4	19.3606	22.3674
11	BR136	6.7	9.7	6.6635	29.698
12	BR135	5.1	9.7	15.1282	29.698

Survey Report OL1-7 East Yard Excavation

(GPU Nuclear Letter E910-05-019 comments from ORISE Letter dated June 22, 2005)

1) The LBGR listed in Table 1 should be 3.19pCi/g as also shown on attachment 7-2 of the design calculation
2) Change Table 1 "75% Action Level" to "75% Administrative Limit"
3) Change the first paragraph of section 6.1.1 starting at the second sentence to:
   "The 75% Administrative Limit was 4.3 pCi/gm and the adjusted surrogate Cs137 DCGLw for this survey unit was 5.73 pCi/gm (table 1 on page 2 of appendix A). The area factor can be used to compare the MDCscan to the 75% Administrative Limit. In this case, the MDCscan was below the 75% Administrative Limit times the limiting area factor so no sample number adjustment was needed."
4) Change the first sentence of the second paragraph of section 6.1.2 to read:
   "None of the design fixed point soil samples in OL1-7 had results in excess of the 75% Administrative Limit".
5) Change section 7.2 beginning with the second sentence to read:
   "Both alarm points were investigated and sampled. The south alarm point had activity in excess of the 75% Administrative Limit. However, the result was less than the DCGLw adjusted down for the 4.7% contribution from the de-listed radionuclides (SNEC LTP section 6.2.2.3). Since the 75% Administrative Limit is used for conservative screening purposes, and the results were below the DCGLw adjusted down by 3.45% to account for de-listed radionuclides (SNEC LTP section 6.2.2.3), no EMC test is required. The result from the north alarm point was less than the 75% Administrative Limit. Scan MDCs were adequate. Eleven design fixed point soil samples were all less than the 75% Administrative Limit. Scan fraction, scan MDC, and number of soil samples all meet LTP and MARSSIM requirements".
6) Change the second sentence in section 7.4.2 to read:
   "The duplicates had good agreement as shown in the table below (Table 5) because they both support the same conclusion, that the survey unit passes."
7) Change section 8 items 1 and 2 to read:
   "1) The average residual radioactivity in the soils is less than the 75% Administrative Limit in the survey unit"
   "2) All measurements were less than the 75% Administrative Limit in the survey unit except the south alarm point sample, which was less than the DCGLw adjusted down by 4.7% for the de-listed radionuclides."
8) Attachment 2-2 of appendix A is provided
9) Attachment 3-1 of appendix A is provided
10) Attachment 8-1 of appendix A is provided

Note: Some of the above changes are not based on specific comments but are consistent with comments made on other reports.

TABLE 1 - Data Listing (pCi/g)

	SNEC Sample No	Location/Description	H-3	Sr-90	Co-60	Cs-137	Am-241	Pu-238	Pu-239	Pu-241	C-14	Ni-63	Eu-152
1	CV Tunnel	CV Tunnel Sediment Composite, OL1	9.40E+00	9.67E+00	1.26E+00	1.25E+03	1.80E-01	5.50E-01	2.20E-01	4.47E+01	9.34E+00	4.02E+00	1.30E-01
2	SX9SL89219	Subsuface Sample #29 (0-5'), AY-128, OL1			7.00E-02	5.90E-01							
3	SXSL1063	North CV Yard Soil BA-127, 812' El, Sample # 5, OL2	4.58E+00	5.31E-02	1.92E-02	8.86E-01	9.61E-02	4.68E-02	3.27E-02	3.77E+00	2.10E-01	1.09E+01	5.25E-02
4	SXSL1089	North CV Yard Soil AY-127, 810' El, Sample # 3, OL1	3.03E+00	6.95E-02	3.32E-02	1.29E+00	9.93E-02	1.28E-01	5.00E-02	4.97E+00	2.10E-01	7.54E+00	8.28E-02
5	SXSL1115	North CV Yard Soil AY-128, 804' El, Sample # 2, OL1	4.88E+00	5.36E-02	2.43E-02	1.80E+00	2.40E-01	1.38E-01	4.07E-02	4.21E+00	2.10E-01	7.60E+00	5.71E-02
6	SXSL1122	North CV Yard Soil AY-129, 798' El, Sample # 2, OL1	3.44E+00	5.29E-02	2.79E-02	4.77E+00	1.83E-01	8.94E-02	4.00E-02	3.68E+00	2.06E-01	8.75E+00	8.62E-02
7	SXSL1130	North CV Yard Soil AX-129, 803' El, Sample # 4, OL1	4.99E+00	6.48E-02	2.98E-02	2.26E+01	1.49E-01	8.56E-02	1.21E-02	3.55E+00	2.31E-01	1.34E+01	9.89E-02
8	SXSL1132	North CV Yard Soil AZ-130, Sample # 5, OL1	2.98E+00	7.15E-02	3.50E-02	2.59E+00	1.64E-01	7.46E-02	6.46E-02	5.27E+00	2.15E-01	1.26E+01	7.34E-02
9	SXSL1270	AX-128, 3-3, Soil, CV SE Side 5' From CV, 800' El., OL1	1.13E+01	2.00E-02	1.00E-02	2.31E+01	3.70E-02	7.00E-03	7.00E-03	2.10E+00	3.93E+00	8.68E+00	7.00E-02
10	SXSL1281	AX-128, 3-1, Soil, CV Tunnel East 5' From CV, 800' El, OL1	1.15E+01	3.00E-02	1.00E-02	4.38E+00	3.10E-02	1.60E-02	7.00E-03	1.91E+00	4.00E+00	7.78E+00	4.00E-02
11	SXSL2849	Anulus Well, A-2, 5 to 10' Depth, OL1	2.00E+00	3.14E-02	1.00E-01	6.00E-01	9.78E-03	1.33E-02	1.10E-02	1.87E+00	1.83E-01	1.75E+00	
13	SXSL2871	CV Area - East Yard Dirt Pile - Middle, 1/2 Way Up, OL1		3.00E-02	7.00E-02	5.60E-01							
14	SXSL2872	CV Area - East Yard Dirt Pile - Bottom (also top center), OL1		3.00E-02	6.00E-02	1.00E-01							
15	SXSL3140	East CV Yard, Soil Pile @ 6' on West Side (6" Depth), OL1	1.89E+00	1.20E-02	1.40E-02	8.25E-01	7.00E-03	5.00E-03	5.00E-03	3.69E-01	8.60E-02	3.41E+00	3.00E-02
16	SXSL3142	Soil Pile, CV Yard, Three Feet on East Side, SR-37, OL1		2.95E-02	7.00E-02	6.00E-01							
17	SXSL3145	East CV Yard, Soil Pile @ 3' on East Side (6" Depth), OL1	1.90E+00	1.70E-02	1.30E-02	1.26E+00	4.00E-03	5.00E-03	5.00E-03	3.76E-01	8.30E-02	3.69E+00	3.80E-02
18	SXSL3149	Soil Pile, CV Yard, Six Feet on East Side, SR-37, OL1		2.97E-02	8.00E-02	3.00E-01							
19	SXSL3153	East CV Yard, Soil Pile @ Top (6" Depth), OL1	1.94E+00	4.30E-02	2.30E-02	3.00E-01	3.00E-03	5.00E-03	5.00E-03	3.43E-01	8.70E-02	4.18E+00	5.10E-02
21	SXSL4142	CV Yard Soil - West Side, AP1-7, OL1	2.22E+00	3.25E-02	5.00E-02	9.00E-01	1.76E-02	6.71E-02	2.02E-02				
22	SXSL4143	CV Yard Soil - West Side, AP1-7, OL1	2.23E+00	3.16E-02	5.00E-02	5.00E-01	2.21E-02	6.31E-02	3.64E-02				
23	SXSL4149	CV Yard Soil - West Side, AP1-7, OL1	2.24E+00	2.77E-02	7.00E-02	3.90E+00	2.77E-02	4.30E-02	3.04E-02				

TABLE 2 - Decayed Listing (pCi/g)

			T 1/2	T 1/2	T 1/2	T 1/2	T 1/2	T 1/2	T 1/2	T 1/2	T 1/2	T 1/2	T 1/2	Decay Date	
			4485.27	10446.15	1925.23275	11019.5925	157861.05	32050.6875	8813847.75	5259.6	2092882.5	36561.525	4967.4	January 15, 2004	
	SNEC Sample No	Location/Description	H-3	Sr-90	Co-60	Cs-137	Am-241	Pu-238	Pu-239	Pu-241	C-14	Ni-63	Eu-152	Analysis Date	ET (d)
1	CV Tunnel	CV Tunnel Sediment Composite, OL1	7.97E+00	9.01E+00	8.59E-01	1.17E+03	1.79E-01	5.37E-01	2.20E-01	3.88E+01	9.34E+00	3.94E+00	1.12E-01	February 14, 2001	1065
2	SX9SL89219	Subsuface Sample #29 (0-5'), AY-128, OL1			4.05E-02	5.36E-01								November 17, 1999	1520
3	SXSL1063	North CV Yard Soil BA-127, 812' El, Sample # 5, OL2	4.20E+00	5.11E-02	1.57E-02	8.55E-01	9.59E-02	4.62E-02	3.27E-02	3.50E+00	2.10E-01	1.08E+01	4.85E-02	June 27, 2002	567
4	SXSL1089	North CV Yard Soil AY-127, 810' El, Sample # 3, OL1	2.78E+00	6.69E-02	2.71E-02	1.24E+00	9.91E-02	1.26E-01	5.00E-02	4.61E+00	2.10E-01	7.46E+00	7.65E-02	June 28, 2002	566
5	SXSL1115	North CV Yard Soil AY-128, 804' El, Sample # 2, OL1	4.47E+00	5.16E-02	1.98E-02	1.74E+00	2.39E-01	1.36E-01	4.07E-02	3.91E+00	2.10E-01	7.52E+00	5.28E-02	June 29, 2002	565
6	SXSL1122	North CV Yard Soil AY-129, 798' El, Sample # 2, OL1	3.15E+00	5.10E-02	2.28E-02	4.60E+00	1.83E-01	8.83E-02	4.00E-02	3.42E+00	2.06E-01	8.66E+00	7.97E-02	June 29, 2002	565
7	SXSL1130	North CV Yard Soil AX-129, 803' El, Sample # 4, OL1	4.58E+00	6.24E-02	2.44E-02	2.18E+01	1.49E-01	8.46E-02	1.21E-02	3.30E+00	2.31E-01	1.33E+01	9.15E-02	July 3, 2002	561
8	SXSL1132	North CV Yard Soil AZ-130, Sample # 5, OL1	2.73E+00	6.89E-02	2.86E-02	2.50E+00	1.64E-01	7.37E-02	6.46E-02	4.89E+00	2.15E-01	1.25E+01	6.79E-02	July 3, 2002	561
9	SXSL1270	AX-128, 3-3, Soil, CV SE Side 5' From CV, 800' El., OL1	9.84E+00	1.88E-02	7.22E-03	2.18E+01	3.69E-02	6.86E-03	7.00E-03	1.87E+00	3.93E+00	8.53E+00	6.17E-02	July 28, 2001	903
10	SXSL1281	AX-128, 3-1, Soil, CV Tunnel East 5' From CV, 800' El, OL1	1.00E+01	2.83E-02	7.22E-03	4.14E+00	3.09E-02	1.57E-02	7.00E-03	1.69E+00	4.00E+00	7.65E+00	3.53E-02	July 28, 2001	903
11	SXSL2849	Anulus Well, A-2, 5 to 10' Depth, OL1	1.79E+00	3.00E-02	7.77E-02	5.74E-01	9.75E-03	1.31E-02	1.10E-02	1.71E+00	1.83E-01	1.73E+00		February 13, 2002	701
13	SXSL2871	CV Area - East Yard Dirt Pile - Middle, 1/2 Way Up, OL1		2.87E-02	5.48E-02	5.37E-01								March 6, 2002	680
14	SXSL2872	CV Area - East Yard Dirt Pile - Bottom (also top center), OL1		2.87E-02	4.70E-02	9.58E-02								March 6, 2002	680
15	SXSL3140	East CV Yard, Soil Pile @ 6' on West Side (6" Depth), OL1	1.75E+00	1.16E-02	1.17E-02	7.99E-01	6.98E-03	4.95E-03	5.00E-03	3.45E-01	8.60E-02	3.37E+00	2.80E-02	August 30, 2002	503
16	SXSL3142	Soil Pile, CV Yard, Three Feet on East Side, SR-37, OL1		2.85E-02	5.81E-02	5.81E-01								August 13, 2002	520
17	SXSL3145	East CV Yard, Soil Pile @ 3' on East Side (6" Depth), OL1	1.76E+00	1.64E-02	1.08E-02	1.22E+00	3.99E-03	4.95E-03	5.00E-03	3.52E-01	8.30E-02	3.65E+00	3.54E-02	August 30, 2002	503
18	SXSL3149	Soil Pile, CV Yard, Six Feet on East Side, SR-37, OL1		2.87E-02	6.63E-02	2.90E-01								August 13, 2002	520
19	SXSL3153	East CV Yard, Soil Pile @ Top (6" Depth), OL1	1.79E+00	4.16E-02	1.92E-02	2.91E-01	2.99E-03	4.95E-03	5.00E-03	3.21E-01	8.70E-02	4.14E+00	4.75E-02	August 30, 2002	503
21	SXSL4142	CV Yard Soil - West Side, AP1-7, OL1	2.18E+00	3.23E-02	4.81E-02	8.94E-01	1.76E-02	6.69E-02	2.02E-02					October 2, 2003	105
22	SXSL4143	CV Yard Soil - West Side, AP1-7, OL1	2.19E+00	3.14E-02	4.81E-02	4.97E-01	2.21E-02	6.30E-02	3.64E-02					October 2, 2003	105
23	SXSL4149	CV Yard Soil - West Side, AP1-7, OL1	2.20E+00	2.75E-02	6.74E-02	3.87E+00	2.77E-02	4.29E-02	3.04E-02					October 2, 2003	105

KEY

	Yellow Shaded Background = Positive Result
	Gray Shaded Background = MDA

C02

2350 INSTRUMENT AND PROBE EFFICIENCY CHART

7/01/04 (Typical 2" by 2" Nal (Cs-137 W) Conversion Factors)

Inst.#	Cal Due	AP #		Probe #	Cal Due	cpm/mR/h
98625	5/18/05	R & Y		211680 Pk	5/18/05	214.882
98647	5/18/05	G &Y		211667 Pk	5/18/05	218.807
129423	5/18/05	P &Y.		211687 Pk	5/18/05	213.539
117573	5/18/05	O &Y		211674 Pk	5/18/05	212.173
117566	4/9/05	G&R		185852 Pk	4/13/05	209.862
126183	11/19/04	B&R		206280 Pk	12/12/04	190,907
129429	11/3/04	Y&W		206283 Pk	10/31/04	177185
126198	11/03/04	R&W		196021Pk	5/25/05	209.194
126172	6/07/05	G&W		196022	6/07/05	208.302
129440	4/09/05	O&W		210938 Pk	4/14/05	205.603
120588	6/08/05	B&W		185844 Pk	6/09/05	216.654
95361	6.25/05	P&W		025686	6/28/05	211.799

ATTACHMENT 2

2350 INSTRUMENT AND PROBE EFFICIENCY CHART

7/01/04 (Typical 43-68 Beta Efficiency Factors)

Different Instrument/Probe Cal Due	Cesium only instruments (PlusV ie 2nd)

Attachment 3-1
E900-05-012

INST #	INST C/D	43-68 PROBE #	PROBE C/D	44-10 PROBE #	PROBE C/D	BETA EFF	ALPHA EFF
79037	04/05/05	122014	04/23/05			25.2%	N/A
126188	1/27/05	099186	1/27/05			28.2%	N/A
126218	01/08/05	095080	01/09/05			27.9%	N/A

East Yard Excavation Sample Results

Location	Cs137	
Pit 1	0.8	
Pit 1	0.1	
Pit 1	0.38	
Pit 1	0.46	
Pit 1	0.8	
Pit 1	0.09	
Pit 1	1.4	
Pit 1	0.7	
Gas Tanks	0.1	
Gas Tanks	0.1	
Gas Tanks	0.08	
Gas Tanks	0.17	
Pit 2	0.19	
Pit 2	0.16	
Deep pit pad	0.56	concrete
Deep pit pad	0.09	concrete
Gas tank pad	0.06	concrete
Gas tank pad	0.06	concrete
Average	0.35	
Std Dev	0.37	

Highlight= results <MDA

Attachment 8-1
E900-05-012

Survey Report OL5 Open Land

(GPU Nuclear Letter E910-05-017 comments from ORISE Letter dated June 22, 2005)

1) Change the third paragraph of the Executive Summary to read:
   "One alarm point (AP) was found by NaI scanning in OL5-3. Subsequent investigation sampling showed the residual activity in the area to be less than the 75% Administrative Limit".
2) Change table 1 item as follows:
   Change "75% action level" to "75% Administrative Limit"
3) Add footnote to Table 1 as follows:
   "12 sample points were defined in OL5-2, OL5-3, and OL5-4 because the triangular random start grid automatically fit 12 points on the rectangular survey unit"
4) Change the first paragraph of sections 6.1.1, 6.2.1, 6.3.1, and 6.4.1 starting at the second sentence to:
   "The 75% Administrative Limit was 4.7 pCi/gm and the adjusted surrogate Cs137 DCGLw for this survey unit was 6.28 pCi/gm (table 1 on page 2 of appendix A). The area factor can be used to compare the MDCscan to the 75% Administrative Limit. In this case, the MDCscan was below the 75% Administrative Limit times the limiting area factor so no sample number adjustment was needed."
5) Change section 7.2 as follows:
   Change "DCGLw" in five places to "75% Administrative Limit"
6) Change the second sentence in section 7.4.2 to read:
   "The split samples had good agreement as shown in the table below (Table 7) because they support the same conclusion, that the survey units pass."
7) Change section 8 items 1 and 2 to read:
   "1) The average residual radioactivity in the soils is less than the 75% Administrative Limit in all four of the survey units"
   "2) All measurements were less than the 75% Administrative Limit in all four of the survey units"
8) Attachment 4-1 of appendix A is provided
9) Page 1 of Appendix B is provided

Note: Some of the above changes are not based on specific comments but are consistent with comments made on other reports.

NaI Scan MDC Calculation

MDCscan =	6.2	pCi / g

)ackground in counts per minute
background counts in observation interval
v = NaI Detector / meter calibrated response in cpm/uR/hr
Index of sensitivity from MARSSIM Table 6.5 based on 95% detection, 60% false positive
l = Elevated measurement spot diameter in centimeters
Cscan = MinimumDetectable Concentration for scanning in pCi/g
CRi = Minimum Detectable Count Rate in net counts per minute
CRsurv = MDCRi adjusted for the human performance factor p - in net counts per minute
ER = Minimum Detectable Exposure Rate in uR / hr
output = MicroShield derived exposure rate for 1 pCi/g contaminant in mR/hr
= Observation interval in seconds
= human performance adjustment factor - unitless
= Scanning movement rate in centimeters per second
CGLeq = Net count rate equivalent to the Adjusted DCGL

b =	300	cpm	p =	0.5	HSd =	56	cm
SR =	25	cm	d =	1.38	Conv =	205.6	cpm/uR/hr

Msoutput = 1.37E-04 mR/hr / pCi/g DCGL = 4.3 pCi/g

HSd / SR = 2.24 = Oi (sec) b*Oi / 60 (sec/min) = 11.2 = bi (counts)

d*sqrt(bi)*60 / Oi = 123.7 = MDCRi (net counts per minute)

MDCRi / sqrt(p) = 174.9 = MDCRsurv (net counts per minute)

MDCRsurveyor / Conv = 0.851 = MDER (uR/hr)

MDER / MSoutput*1000(uR/mR) = **6.21** = MDCscan pCi/g

MDCsurv*DCGL / MDCscan = 121 = AL net cpm

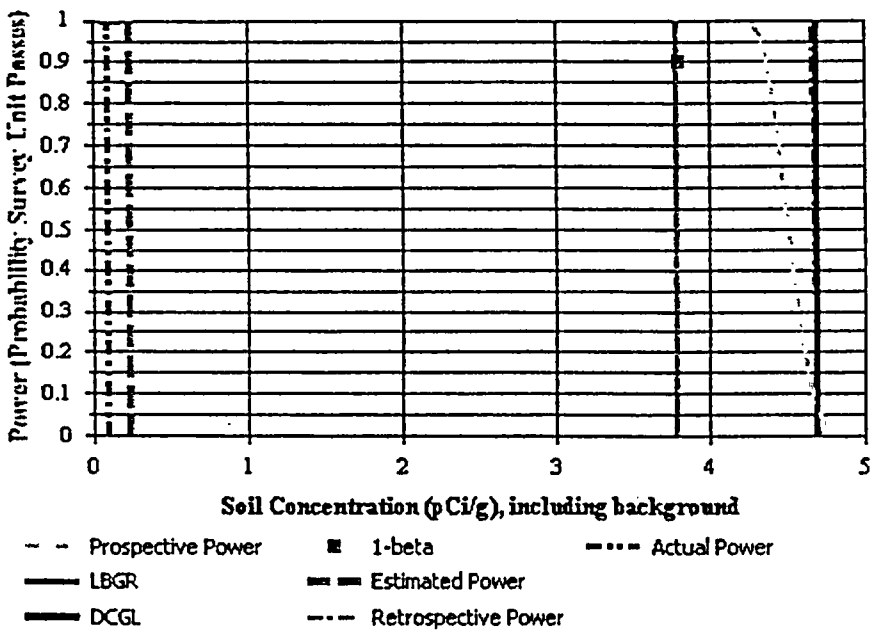
Attachment 4-1
E900-05-016

DQA Surface Soil Report

Assessment Summary

Site:	North-East Dump Area		
Planner(s):	W J Cooper		
Survey Unit Name:	Open Land Areas of OL5 Survey unit OL5-1		
Report Number:	2		
Survey Unit Samples:	11		
Reference Area Samples:	0		
Test Performed:	Sign	Test Result:	Not Performed
Judgmental Samples:	0	EMC Result:	Not Performed
Assessment Conclusion:	***Reject Null Hypothesis (Survey Unit PASSES)***		

Retrospective Power Curve



Appendix B
OL5

Survey Report OL9 Open Land

(GPU Nuclear Letter E910-05-018 comments from ORISE Letter dated June 22, 2005)

1) Attachment 2-2 of appendix A is provided
2) Attachment 2-8 of appendix A is provided
3) Appendix C is provided in its entirety
4) Change table 1 line item "75% action level" to read: "75% Administrative Limit"
5) Change the first paragraph of section 6.1.1 beginning with the second sentence to:
   "The adjusted surrogate Cs137 75% Administrative Limit for this survey unit was 2.82 pCi/gm and the DCGLw was 3.76 pCi/gm (table 1 on page 2 of appendix A). Although this is a Class 2 survey unit and the EMC process does not specifically apply, the area factor can be used to compare the MDCscan to the 75% Administrative Limit. In this case, although the MDCscan is above the DCGLw, the MDCscan was below the 75% Administrative Limit times the effective area factor. Therefore, no sample number adjustment was needed."
5) Change the first paragraph of section 6.2.1 beginning with the second sentence to:
   "The 75% Administrative Limit for this survey unit was 4.3 pCi/gm and the DCGLw was 5.73 pCi/gm (table 1, page 2 of appendix A). Although this is a Class 2 survey unit and the EMC process does not specifically apply, the area factor can be used to compare the MDCscan to the 75% Administrative Limit. In this case, the MDCscan was below the 75% Administrative Limit times the effective area factor. Therefore, no sample number adjustment was needed."
6) Change the first sentence of the third paragraph of section 6.1.2 to read:
   "None of the design fixed point samples in OL9-1 had results in excess of the 75% Administrative Limit."
7) Change the first sentence of the fourth paragraph of section 6.2.2 to read:
   "None of the design fixed point samples in OL9-2 had results in excess of the 75% Administrative Limit."
8) Change section 7.2 as follows:
   Change "DCGLw" in two places to "75% Administrative Limit"
9) Change the second sentence in section 7.4.2 to read:
   "The split samples had good agreement as shown in the table below (Table 5) because they support the same conclusion, that the survey units pass."
10) Change section 8 items 1 and 2 to read:
   "1) The average residual radioactivity in the soils is less than the 75% Administrative Limit in both survey units as modified by item 3 below."
   "2) All measurements were less than the 75% Administrative Limit in both of the survey units as modified by item 3 below."

   Note: Some of the above changes are not based on specific comments but are consistent with comments made on other reports.

TABLE 1 - RAW DATA LISTING

	SIIEC Sample No	LAB No.	Location/Description	H-3	Sr-90	Co-60	Cs-137	Am-241	Pu-238	Pu-239	Pu-241	C-14	Ni-63	Eu-152	Analysis Date
1	SX10SD99223	111076	Southwest Garage #4 Floor Drain Rim - OL9			< 0.3	6.4								July 22, 1999
2	SX11SD990135	110660	SW Garage - South of Fence - 12" Line, OL9			< 0.05	0.072								September 2, 1999
3	SX11SL990085	**Teledyne; L20270-2**	Soil, Grid AP-144, SURFA01, OL8	< 1.76	< 0.0493	< 0.0288	1.3	< 0.0797	< 0.0966	< 0.0966	< 5.84	< 0.497	< 3.03	< 0.0582	October 6, 1999
4	SXSD3240	**Teledyne; L20648-8**	SSGS Drain Field. OL9			< 0.03	0.4					< 0.175			October 22, 2002
5	SXSD3242	**Teledyne; L20648-9**	SSGS Drain Field, OL9			< 0.03	0.6					< 0.218			October 22, 2002
6	SXSD3243	**Teledyne; L20648-10**	SSGS Drain Field, OL9			< 0.06	0.6					< 0.246			October 22, 2002
7	SXSL5717	**Teledyne, L25070-1-2**	Soil, SR-132, AL-143, OL9	< 0.772	< 0.0419	< 0.0378	1.04	< 0.0894	< 0.0186	< 0.0228	< 3.27	0.28	< 2.59	< 0.114	June 16, 2004
8	SX11SL99230	111082	Subsurface Sample #4 (0-4') AI-153, SP1			< 0.3	0.21								November 18, 1999
9	SX11SL990128	110653	Spray Pond - Sample #5, SP1			< 0.02	0.29								October 14, 1999
10	SX11SL99233	111084	Subsurface Sample #2 (0-3') AH-156, SP1			< 0.12	0.33								November 18, 1999
11	SX9SL99208	111068	Subsurface Sample #1 (4-6') AG-156, SP1			< 0.14	0.45								November 18, 1999
12	SX11SL99229	111080	Subsurface Sample #1 (0-3') AG-156, SP1			< 0.12	0.47								November 18, 1999
13	SX11SL990124	110649	Spray Pond - Sample #1, SP1			< 0.02	0.62								October 28, 1999
14	SX11SL990125	110650	Spray Pond - Sample #2, SP1			< 0.05	0.72								October 28, 1999
15	SX11SL990126	110651	Spray Pond - Sample #3, SP1			< 0.06	1.8								October 28, 1999
16	SX11SL990127	110652	Spray Pond - Sample #4, SP1			< 0.05	2.2								October 28, 1999
17	SX11SL990120	110645	Spray Pond - Sample #10, SP1			< 0.019	< 0.02								October 28, 1999
18	SX11SL990119	110644	Spray Pond - Sample #6, SP1			< 0.03	< 0.03								October 28, 1999
19	SX11SL990122	110647	Spray Pond - Sample #9, SP1			< 0.03	< 0.03								October 28, 1999
20	SX11SL990123	110648	Spray Pond - Sample #8, SP1			< 0.03	< 0.03								October 28, 1999
21	SX11SL990121	110646	Spray Pond - Sample #7, SP1			< 0.05	< 0.05								October 28, 1999
22	SX9SL99204	111064	Subsurface Sample #2 (4-6') AH-156, SP1			< 0.17	< 0.06								November 18, 1999
23	SX9SL99205	111065	Subsurface Sample #3 (4-6') AJ-156, SP1			< 0.1	< 0.11								November 18, 1999
24	SX11SL99226	111137	Subsurface Sample #3 (0-3') AJ-156, SP1			< 0.3	< 0.2								November 18, 1999
25	SXSL25262	111151	Composite of Spray Pond Soil 125, 126 & 127, SP1			0.053	1.57	0.0035	< 0.0009	0.0043					October 28, 1999
26	SX11SL990126	**Teledyne; L21441-1**	Spray Pond - Sample #3, SP1 (Spray01)	< 2.08	< 0.0384	< 0.0111	1.56	< 0.0102	< 0.0402	< 0.00898	< 2.38	0.225	< 1.19	< 0.025	October 28, 1999
27	SX11SL990127	**Teledyne; L21441-2**	Spray Pond - Sample #4, SP1 (Spray01)	< 2.04	< 0.0338	< 0.019	2.8	< 0.0162	< 0.0225	< 0.0318	< 1.64	0.591	< 1.22	< 0.0387	October 28, 1999

KEY	
	Yellow Shaded Background = Positive Result
	Gray Shaded Background = MDA

ATTACHMENT 2 - 2

C03

TABLE 1 - Data Listing (pCi/g)

	SNEC Sample No	Location/Description	H-3	Sr-90	Co-60	Cs-137	Am-241	Pu-238	Pu-239	Pu-241	C-14	Ni-63	Eu-152
1	CV Tunnel	CV Tunnel Sediment Composite, OL1	9.40E+00	9.67E+00	1.26E+00	1.25E+03	1.80E-01	5.50E-01	2.20E-01	4.47E+01	9.34E+00	4.02E+00	1.30E-01
2	SXSL99219	Subsuface Sample #29 (0-5'), AY-128, OL1			7.00E-02	5.90E-01							
3	SXSL1083	North CV Yard Soil BA-127, 812' El, Sample # 5, OL2	4.58E+00	5.31E-02	1.92E-02	8.86E-01	9.61E-02	4.68E-02	3.27E-02	3.77E+00	2.10E-01	1.09E+01	5.25E-02
4	SXSL1089	North CV Yard Soil AY-127, 810' El, Sample # 3, OL1	3.03E+00	6.95E-02	3.32E-02	1.29E+00	9.93E-02	1.28E-01	5.00E-02	4.97E+00	2.10E-01	7.54E+00	8.28E-02
5	SXSL1115	North CV Yard Soil AY-128, 804' El, Sample # 2, OL1	4.88E+00	5.36E-02	2.40E-02	1.80E+00	2.40E-01	1.38E-01	4.07E-02	4.21E+00	2.10E-01	7.60E+00	5.71E-02
6	SXSL1122	North CV Yard Soil AY-129, 798' El, Sample # 2, OL1	3.44E+00	5.29E-02	2.79E-02	4.77E+00	1.83E-01	8.94E-02	4.00E-02	3.68E+00	2.06E-01	8.75E+00	8.62E-02
7	SXSL1130	North CV Yard Soil AX-129, 803' El, Sample # 4, OL1	4.99E+00	6.48E-02	2.98E-02	2.26E+01	1.49E-01	8.56E-02	1.21E-02	3.55E+00	2.31E-01	1.34E+01	9.89E-02
8	SXSL1132	North CV Yard Soil AZ-130, Sample # 5, OL1	2.98E+00	7.15E-02	3.50E-02	2.59E+00	1.64E-01	7.46E-02	6.46E-02	5.27E+00	2.15E-01	1.26E+01	7.34E-02
9	SXSL1270	AX-128, 3-3, Soil, CV SE Side 5' From CV, 800' El., OL1	1.13E+01	2.00E-02	1.00E-02	2.31E+01	3.70E-02	7.00E-03	7.00E-03	2.10E+00	3.93E+00	8.68E+00	7.00E-02
10	SXSL1281	AX-128, 3-1, Soil, CV Tunnel East 5' From CV, 800' El, OL1	1.15E+01	3.00E-02	1.00E-02	4.38E+00	3.10E-02	1.60E-02	7.00E-03	1.91E+00	4.00E+00	7.78E+00	4.00E-02
11	SXSL2848	Anulus Well, A-2, 5 to 10' Depth, OL1	2.00E+00	3.14E-02	1.00E-01	6.00E-01	9.78E-03	1.33E-02	1.10E-02	1.87E+00	1.83E-01	1.75E+00	
13	SXSL2871	CV Area - East Yard Dirt Pile - Middle, 1/2 Way Up, OL1		3.00E-02	7.00E-02	5.60E-01							
14	SXSL2872	CV Area - East Yard Dirt Pile - Bottom (also top center), OL1		3.00E-02	6.00E-02	1.00E-01							
15	SXSL3140	East CV Yard, Soil Pile @ 8' on West Side (8" Depth), OL1	1.89E+00	1.20E-02	1.40E-02	8.25E-01	7.00E-03	5.00E-03	5.00E-03	3.69E-01	8.60E-02	3.41E+00	3.00E-02
16	SXSL3142	Soil Pile, CV Yard, Three Feet on East Side, SR-37, OL1		2.95E-02	7.00E-02	6.00E-01							
17	SXSL3145	East CV Yard, Soil Pile @ 3' on East Side (6" Depth), OL1	1.90E+00	1.70E-02	1.30E-02	1.26E+00	4.00E-03	5.00E-03	5.00E-03	3.76E-01	8.30E-02	3.69E+00	3.80E-02
18	SXSL3148	Soil Pile, CV Yard, Six Feet on East Side, SR-37, OL1		2.97E-02	8.00E-02	3.00E-01							
19	SXSL3163	East CV Yard, Soil Pile @ Top (6" Depth), OL1	1.94E+00	4.30E-02	2.30E-02	3.00E-01	3.00E-03	5.00E-03	5.00E-03	3.43E-01	8.70E-02	4.18E+00	5.10E-02
21	SXSL4142	CV Yard Soil - West Side, AP1-7, OL1	2.22E+00	3.25E-02	5.00E-02	9.00E-01	1.76E-02	6.71E-02	2.02E-02				
22	SXSL4143	CV Yard Soil - West Side, AP1-7, OL1	2.23E+00	3.16E-02	5.00E-02	5.00E-01	2.21E-02	6.31E-02	3.64E-02				
23	SXSL4148	CV Yard Soil - West Side, AP1-7, OL1	2.24E+00	2.77E-02	7.00E-02	3.90E+00	2.77E-02	4.30E-02	3.04E-02				

TABLE 2 - Decayed Listing (pCi/g)

			T 1/2	T 1/2	T 1/2	T 1/2	T 1/2	T 1/2	T 1/2	T 1/2	T 1/2	T 1/2	T 1/2	Decay Date	
			4485.27	10446.15	1925.23275	11019.5925	157861.05	32050.6875	8813847.75	5259.6	2092882.5	36561.525	4967.4	January 16, 2004	
	SNEC Sample No	Location/Description	H-3	Sr-90	Co-60	Cs-137	Am-241	Pu-238	Pu-239	Pu-241	C-14	Ni-63	Eu-152	Analysis Date	ET (d)
1	CV Tunnel	CV Tunnel Sediment Composite, OL1	7.97E+00	9.01E+00	8.59E-01	1.17E+03	1.79E-01	5.37E-01	2.20E-01	3.88E+01	9.34E+00	3.94E+00	1.12E-01	February 14, 2001	1065
2	SXSL99219	Subsuface Sample #29 (0-5'), AY-128, OL1			4.05E-02	5.36E-01								November 17, 1999	1520
3	SXSL1083	North CV Yard Soil BA-127, 812' El, Sample # 5, OL2	4.20E+00	5.11E-02	1.57E-02	8.55E-01	9.59E-02	4.62E-02	3.27E-02	3.50E+00	2.10E-01	1.08E+01	4.85E-02	June 27, 2002	567
4	SXSL1089	North CV Yard Soil AY-127, 810' El, Sample # 3, OL1	2.78E+00	6.69E-02	2.71E-02	1.24E+00	9.91E-02	1.26E-01	5.00E-02	4.61E+00	2.10E-01	7.46E+00	7.65E-02	June 28, 2002	566
5	SXSL1115	North CV Yard Soil AY-128, 804' El, Sample # 2, OL1	4.47E+00	5.16E-02	1.98E-02	1.74E+00	2.39E-01	1.36E-01	4.07E-02	3.91E+00	2.10E-01	7.52E+00	5.28E-02	June 29, 2002	565
6	SXSL1122	North CV Yard Soil AY-129, 798' El, Sample # 2, OL1	3.15E+00	5.10E-02	2.28E-02	4.60E+00	1.83E-01	8.83E-02	4.00E-02	3.42E+00	2.06E-01	8.66E+00	7.97E-02	June 29, 2002	565
7	SXSL1130	North CV Yard Soil AX-129, 803' El, Sample # 4, OL1	4.59E+00	6.24E-02	2.44E-02	2.18E+01	1.49E-01	8.46E-02	1.21E-02	3.30E+00	2.31E-01	1.33E+01	9.15E-02	July 3, 2002	561
8	SXSL1132	North CV Yard Soil AZ-130, Sample # 5, OL1	2.73E+00	6.89E-02	2.86E-02	2.50E+00	1.64E-01	7.37E-02	6.46E-02	4.89E+00	2.15E-01	1.25E+01	6.79E-02	July 3, 2002	561
9	SXSL1270	AX-128, 3-3, Soil, CV SE Side 5' From CV, 800' El., OL1	9.84E+00	1.88E-02	7.22E-03	2.18E+01	3.69E-02	6.86E-03	7.00E-03	1.87E+00	3.93E+00	8.53E+00	6.17E-02	July 28, 2001	903
10	SXSL1281	AX-128, 3-1, Soil, CV Tunnel East 5' From CV, 800' El, OL1	1.00E+01	2.83E-02	7.22E-03	4.14E+00	3.09E-02	1.57E-02	7.00E-03	1.69E+00	4.00E+00	7.65E+00	3.53E-02	July 28, 2001	903
11	SXSL2848	Anulus Well, A-2, 5 to 10' Depth, OL1	1.79E+00	3.00E-02	7.77E-02	5.74E-01	9.75E-03	1.31E-02	1.10E-02	1.71E+00	1.83E-01	1.73E+00		February 13, 2002	701
13	SXSL2871	CV Area - East Yard Dirt Pile - Middle, 1/2 Way Up, OL1		2.87E-02	5.48E-02	5.37E-01								March 6, 2002	680
14	SXSL2872	CV Area - East Yard Dirt Pile - Bottom (also top center), OL1		2.87E-02	4.70E-02	9.58E-02								March 6, 2002	680
15	SXSL3140	East CV Yard, Soil Pile @ 8' on West Side (8" Depth), OL1	1.75E+00	1.16E-02	1.17E-02	7.99E-01	6.98E-03	4.95E-03	5.00E-03	3.45E-01	8.60E-02	3.37E+00	2.80E-02	August 30, 2002	503
16	SXSL3142	Soil Pile, CV Yard, Three Feet on East Side, SR-37, OL1		2.85E-02	5.81E-02	5.81E-01								August 13, 2002	520
17	SXSL3145	East CV Yard, Soil Pile @ 3' on East Side (6" Depth), OL1	1.76E+00	1.64E-02	1.08E-02	1.22E+00	3.99E-03	4.95E-03	5.00E-03	3.52E-01	8.30E-02	3.65E+00	3.54E-02	August 30, 2002	503
18	SXSL3148	Soil Pile, CV Yard, Six Feet on East Side, SR-37, OL1		2.87E-02	6.63E-02	2.90E-01								August 13, 2002	520
19	SXSL3163	East CV Yard, Soil Pile @ Top (6" Depth), OL1	1.79E+00	4.16E-02	1.92E-02	2.91E-01	2.99E-03	4.95E-03	5.00E-03	3.21E-01	8.70E-02	4.14E+00	4.75E-02	August 30, 2002	503
21	SXSL4142	CV Yard Soil - West Side, AP1-7, OL1	2.18E+00	3.23E-02	4.81E-02	8.94E-01	1.76E-02	6.69E-02	2.02E-02					October 2, 2003	105
22	SXSL4143	CV Yard Soil - West Side, AP1-7, OL1	2.19E+00	3.14E-02	4.81E-02	4.97E-01	2.21E-02	6.30E-02	3.64E-02					October 2, 2003	105
23	SXSL4148	CV Yard Soil - West Side, AP1-7, OL1	2.20E+00	2.75E-02	6.74E-02	3.87E+00	2.77E-02	4.29E-02	3.04E-02					October 2, 2003	105

KEY

	Yellow Shaded Background = Positive Result
	Gray Shaded Background = MDA

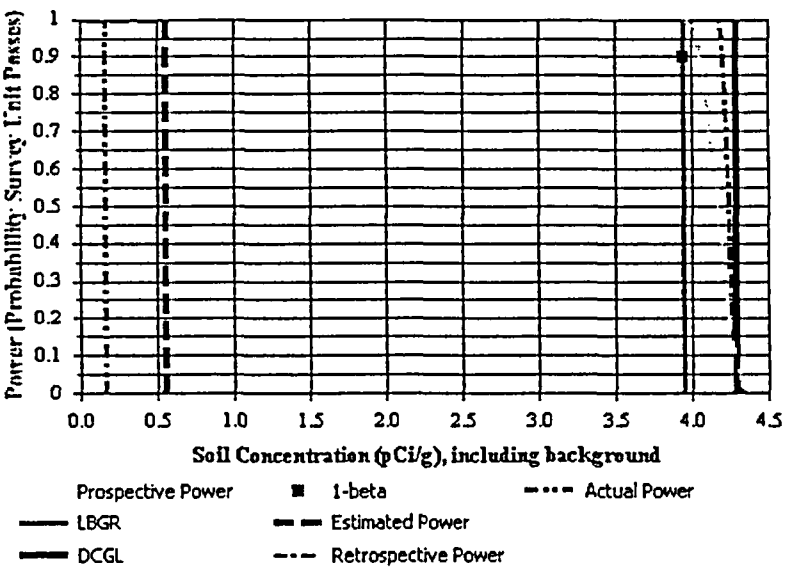
ATTACHMENT 2 - 8

DQA Surface Soil Report

Assessment Summary

Site:	OL9-2		
Planner(s):	W J Cooper		
Survey Unit Name:	OL9-2		
Report Number:	2		
Survey Unit Samples:	17		
Reference Area Samples:	0		
Test Performed:	Sign	Test Result:	Not Performed
Judgmental Samples:	0	EMC Result:	Not Performed
Assessment Conclusion:	***Reject Null Hypothesis (Survey Unit PASSES)***		

Retrospective Power Curve



Appendix C – OL9

DQA Surface Soil Report

Survey Unit Data

NOTE: Type = "S" indicates survey unit sample.
Type = "R" indicates reference area sample.

Sample Number	Type	Cs-137 (pCi/g)
1	S	0.2
2	S	0.2
3	S	0.17
4	S	0.17
5	S	0.15
6	S	0.17
7	S	0.12
9	S	0.2
10	S	0.16
11	S	0.51
12	S	0.09
13	S	0.2
14	S	0.09
15	S	0.21
16	S	0.11
19	S	0.15
21	S	0.14

Basic Statistical Quantities Summary

Statistic	Survey Unit	Background	DQO Results
Sample Number	17	N/A	N=18
Mean (pCi/g)	0.18	N/A	0.56
Median (pCi/g)	0.17	N/A	N/A
Std Dev (pCi/g)	0.09	N/A	0.29
High Value (pCi/g)	0.51	N/A	N/A
Low Value (pCi/g)	0.09	N/A	N/A

Appendix C – OL9

Survey Report SP1 Spray Pond Area

(GPU Nuclear Letter E910-05-020 comments from ORISE Letter dated June 22, 2005)

1) Section 7.3.1 – Add the following as a last paragraph after table 5:
   "Repeat scan measurements and samples were performed and met the applicable acceptance criteria established in Section 4.6 of SNEC Procedure E900-IMP-4520.04. All QC samples/measurements are taken in accordance with the requirements of Reference 9.1 (the SNEC LTP), which requires that at least 5% of all samples and scans be re-done. No discrepancies are reported for this area, and at least 5% or more of all samples and scan measurements were repeated with acceptable results."
2) Change "DCGLw" to "75% Administrative Limit" in section 7.4 item 1
3) Change "DCGLw" to "75% Administrative Limit" in section 8.0 in three places - items 1, 2, and 3
4) Change Table 2 line item "Surface DCGLw" entry from "3601*" to: "3601* (Administrative Limit)"

Note: Some of the above changes are not based on specific comments but are consistent with comments made on other reports

Survey Report MA9 Fences

(GPU Nuclear Letter E910-05-023 comments from ORISE Letter dated July 20, 2005)

1) Change table 1 line item "action level" to read: "75% Administrative Limit"
2) Change section 6.1.1 beginning with the second sentence to:
   "The 75% Administrative Limit was 19834 dpm/100cm^2 (table 1 on page 2 of appendix A), and the adjusted surrogate Cs137 DCGLw for this survey unit was 26445dpm/100cm^2 (table 1 on page 2 of appendix A). Although this is a Class 2 survey unit and the EMC process does not specifically apply, the area factor can be used to compare the MDCscan to the 75% Administrative Limit. In this case the MDCscan was below the 75% Administrative Limit so no fixed point number adjustment was needed."
3) Change the first sentence of the second paragraph of section 6.1.2 to read:
   "None of the design fixed point measurements in MA9-1 had results in excess of the 75% Administrative Limit."
4) Change section 6.2.1 beginning with the second sentence to:
   "The 75% Administrative Limit was 19834 dpm/100cm^2 (table 1 on page 2 of appendix A), and the adjusted surrogate Cs137 DCGLw for this survey unit was 26445dpm/100cm^2 (table 1 on page 2 of appendix A). Although this is a Class 3 survey unit and the EMC process does not specifically apply, the area factor can be used to compare the MDCscan to the 75% Administrative Limit. In this case the MDCscan was below the 75% Administrative Limit so no fixed point number adjustment was needed."
5) Change the first sentence of the second paragraph of section 6.2.2 to read:
   "None of the design fixed point measurements in MA9-2 had results in excess of the 75% Administrative Limit."
6) Change section 7.2 as follows:
   Change "DCGLw" in two places to "75% Administrative Limit"
7) Change the second sentence in section 7.4.2 to read:
   "These duplicates had good agreement as shown in the table below (Table 4) because they both support the conclusion that the survey units pass and the results are within 20% or less than twice background."
8) Change section 8 items 1 and 2 to read:
   "1) The average residual radioactivity on the surfaces is less than the 75% Administrative Limit in both survey units."
   "2) All measurements were less than the 75% Administrative Limit in both of the survey units."

   Note: Some of the above changes are not based on specific comments but are consistent with comments made on other reports.

Survey Report OL4 Open Land

(GPU Nuclear Letter E910-05-022 comments from ORISE Letter dated July 20, 2005)

1) Change table 1 line item "75% action level" to read: "75% Administrative Limit"
2) Change the first paragraph of sections 6.1.1, 6.2.1, 6.3.1, and 6.4.1 starting at the second sentence to read:

   "The 75% Administrative Limit was 4.8 pCi/gm and the adjusted surrogate Cs137 DCGLw for this survey unit was 6.46 pCi/gm (table 1, page 2 of appendix A). The area factor can be used to compare the MDCscan to the 75% Administrative Limit. In this case, the MDCscan was below the 75% Administrative Limit times the limiting area factor so no sample number adjustment was needed."
3) Change the first sentence of the second paragraph of sections 6.1.2, 6.2.2, 6.3.2, and 6.4.2 to read:

   "None of the design fixed point soil samples had results in excess of the 75% Administrative Limit"
4) Change "DCGLw" to "75% Administrative Limit" in the last sentence of the last paragraph of section 6.2.3 and 6.4.3
5) Change section 7.2 as follows: Change "DCGLw" to "75% Administrative Limit" in five places: in the next to last sentence of each paragraph and in the second sentence of the last paragraph
6) Section 7.2 change the second sentence of the second paragraph to read:

   "The alarm point was extensively sampled and shown to be less than the 75% Administrative Limit, except for a surface grab sample that was above the 75% Administrative Limit but below the DCGLw adjusted down for the 4.7% contribution from the de-listed radionuclides (SNEC LTP section 6.2.2.3)."
7) Change the second sentence in section 7.4.1 to read:

   "The QC rescans were consistent with the primary scans because they both support the conclusion that the survey area passes."
8) Change the second sentence in section 7.4.2 to read:

   "These duplicates had good agreement as shown in the table below (Table 8) because they both support the conclusion that the survey area passes."
9) Change section 8 items 1, 2, and 3 to read:

   "1) The average residual radioactivity in the soils is less than the 75% Administrative Limit in all four survey units.

   2) All fixed point measurements were less than the 75% Administrative Limit in all four of the survey units."

   3) Samples collected for investigation of alarm points in two of the survey units were less than then 75% Administrative Limit except for one surface grab sample that was less than the DCGLw adjusted down by 4.7% to account for de-listed radionuclides."

   Note: Some of the above changes are not based on specific comments but are consistent with comments made on other reports.

Survey Report OL8 Open Land

(GPU Nuclear Letter E910-05-029 comments from ORISE Letter dated July 20, 2005)

1) Change the second sentence in section 7.4.2 to read:

   "These duplicates had good agreement as shown in Table 8 below, because they support the same conclusion, that the survey units pass.

2) Reference to COMPASS was changed to VSP on the original of attachment 6

3) Change line item in Table 1 "Action Level" to "75% Administrative Limit"

4) The last sentence of the first paragraph in sections 6.1.1, 6.2.1, 6.3.1, 6.4.1, and 6.5.1 should be changed to read:

   "Although this is a class 3 survey unit and the EMC process does not specifically apply, the area factor can be used to compare the MDCscan to the 75% Administrative Limit. In this case, the MDCscan was below the 75% Administrative Limit times the limiting area factor, so no sample number adjustment was required."

5) Change the first sentence of the second paragraph of sections 6.1.2, 6.2.2, 6.3.2, 6.4.2, and 6.5.2 to read:

   "None of the design fixed point soil samples had results in excess of the 75% Administrative Limit."

6) In section 7.2, change "DCGLw" to "75% Administrative Limit" in five places, one in each of the five paragraphs.

7) Change section 8 items 1 and 2 to read:

   "1) The average residual radioactivity in the soils is less than the 75% Administrative Limit in all five survey units.

   2) All measurements were less than the 75% Administrative Limit in all five of the survey units."

   Note: Some of the above changes are not based on specific comments but are consistent with comments made on other reports.

Survey Report OL11 Open Land
(GPU Nuclear Letter E910-05-025 comments from ORISE Letter dated July 20, 2005)

1) Change "DCGLw" in the last sentence of section 6.1 to "75% Administrative Limit"
2) Change "DCGLw" to "75% Administrative Limit" in section 7.2.3 third sentence
3) Change "DCGLw" to "75% Administrative Limit" in the last sentence of section 7.3.1
4) Change "DCGLw" to "75% Administrative Limit" in item 1 in section 7.4
5) Change "DCGLw" to "75% Administrative Limit" in section 8.0 in three places - items 1, 2, and 3

Note: Some of the above changes may not be based on specific comments for this report but are consistent with comments made on other reports

Survey Report OL13 Open Land

(GPU Nuclear Letter E910-05-024 comments from ORISE Letter dated July 20, 2005)

1) Change second sentence of section 7.4.2 to read:
   "These duplicates had good agreement as shown in Table 5, below because they both support the same conclusion, that the survey unit passes."
2) Table 1 change line item "action Level" to "75% Administrative Limit"
3) The last sentence of the first paragraph in sections 6.1.1, 6.2.1, and 6.3.1should be changed to read:
   "Although this is a class 3 survey unit and the EMC process does not specifically apply, the area factor can be used to compare the MDCscan to the 75% Administrative Limit. In this case, the MDCscan was below the 75% Administrative Limit times the limiting area factor, so no sample number adjustment was required."
4) Change the first sentence of the second paragraph of sections 6.1.2, 6.2.2, and 6.3.2 to read:
   "None of the design fixed point soil samples had results in excess of the 75% Administrative Limit."
5) In section 7.2, change "DCGLw" to "75% Administrative Limit" in three places, one in each of the three paragraphs.
6) Change section 8 items 1 and 2 to read:
   "1) The average residual radioactivity in the soils is less than the 75% Administrative Limit in all three survey units.
   2) All measurements were less than the 75% Administrative Limit in all three of the survey units."

Note: Some of the above changes may not be based on specific comments for this report but are consistent with comments made on other reports

Survey Report Penelec Switchyard

(GPU Nuclear Letter E910-05-030 comments from ORISE Letter dated July 20, 2005)

1) Add footnote to table 4 as follows:

   Change seventh line item to read "Applicable Statistical Test ***"

   Add footnote: "*** background data for all three survey units from Williamsburg station data. See Appendix B-1 SNEC calculation E900-05-002."

2) The table below should replace table 8. EMC test for PS4-1 is recalculated using an area factor of 1 for the survey unit mean.

FirstEnergy

Site Report

Analysis Based on MARSSIM Equation 8-2

EMC CALCULATOR

Survey Unit Mean	0.62 pCi/g	Cs-137 DCGLw	4.3 pCi/g			
Reference Bkgnd	0.28 pCi/g	Remove Bkgnd ?	No			
				m^2		EMC
Mean	0.62 pCi/g	Mean AF	1	1613		PASS
EM-1	11.31 pCi/g	AF-1	28.2	1.5		PASS
EM-2	pCi/g	AF-2				PASS
EM-3	pCi/g	AF-3				PASS
RATIO	0.23 Equation 8-2, MARSSIM				PASS	

NOTE: Required input values in RED.

3) The number of samples used to build a surrogate ratio depends on the number of samples collected from an area that contains measurable Cs-137 concentrations (the surrogate). Samples collected in the OL11 area during characterization activities produced few substantive Cs-137 concentrations worth sending for costly off-site analysis. In addition, the added level of conservatism employed for OL12-1 by using the extremely low 75% Administrative Limit value of 2.41 pCi/g Cs-137 developed for this area, is considered adequate. These and similar low contamination areas typically contain so little surrogate radionuclide that useful ratios are difficult to establish. Because the OL11 survey area contains Cs-137 concentrations at essentially background levels, additional sampling for this purpose is considered unwarranted. No changes to the report are required.

4) Section 7.4 change "DCGLw" to "75% Administrative Limit" in two places, one each in items 2 and 3

5) Section 8.0 change "DCGLw" to "75% Administrative Limit" in two places, one each in items 1 and 3

6) Page 4 last paragraph. Delete the period after "(more or less)"

Survey Report Penelec Switchyard (Continued)
7) Change "...Figure 3..." to "...Figure 2..." first sentence section 2.3

Note: Some of the above changes may not be based on specific comments for this report but are consistent with comments made on other reports

Survey Report OL3 Open Land

(GPU Nuclear Letter E910-05-056 comments from ORISE Letter dated August 10, 2005)

1) Change table 1 line item "Action level" to read: "75% Administrative Limit"
2) The following should be appended to the first paragraph in sections 6.1.1, 6.2.1, 6.3.1, 6.4.1, 6.5.1, and 6.6.1:
   "The area factor can be used to compare the MDCscan to the 75% Administrative Limit. In this case, the MDCscan was below the 75% Administrative Limit times the limiting area factor, so no sample number adjustment was required."
2) The report should be amended so the last sentence in the first paragraph in sections 6.1.2 and 6.5.2 reads:
   "No biased samples were required by the initial survey design"
3) The OL3-5 discussion in section 7.2 should be amended to read:
   "A soil sample taken at the alarm point revealed activity much less than the 75% Administrative Limit, so the EMC test was not required."
4) Change section 7.2 as follows: Change "DCGLw" to "75% Administrative Limit" in six places
5) Change the first sentence of the last paragraph of section 7.3.1 to read:
   "The sample taken from the re-excavated location was 1.12 pCi/g Cs-137 which is less than the 75% Administrative Limit."
6) Section 7.4.2 should be amended to read:
   "These duplicates had good agreement as shown in Table 9 below because both sets of data support the conclusion that the survey units pass"
7) Section 8 should be modified to read:
   "1) The average residual radioactivity in the soils is less than the 75% Administrative Limit in all of the survey units"
   "2) All measurements in the survey units were less than the 75% Administrative Limit except for a single area in OL3-1 identified by scanning.
   3) OL3-1 had elevated results that pass the EMC test. Measurements of this area after sampling were all less than the 75% Administrative Limit."
8) Instruments with efficiencies less than the minimum specified in the survey design are not used. The minimum efficiency is carried forward into the "Survey Request" as a prerequisite and is one of the supervisory survey completion review parameters. No changes to the report are required

Note: Some of the above changes may not be based on specific comments for this report but are consistent with comments made on other reports

Survey Report OL3 Paved Surfaces and Concrete

(GPU Nuclear Letter E910-05-048 comments from ORISE Letter dated August 10, 2005)

1) The survey was designed using the sign test based on the simplifying assumption that background would be insignificant and the 75% Administrative Limit in use for the DCGL is based solely on a surrogate Cs137. MARSSIM allows use of the sign test if the licensee is willing to accept the contribution of background. The SNEC LTP section 5.6.4.2 allows the use of the sign test for gross measurements if background is considered to be insignificant. The survey design is consistent with MARSSIM and the SNEC LTP. No changes to the report are required.
2) Change line item in table 1 from "Action Level" to "75% Administrative Limit"
3) In section 7.2 change "DCGLw" to "75% Administrative Limit" in three places
4) Section 7.4.2 change the second sentence to read:
   "These duplicates had good agreement as shown in Table 5 below, because they support the same conclusion, that the survey units pass, and they are within 20% of the initial result."
5) Change section 8.0 to read:
   "1) The average residual radioactivity on the asphalt and concrete surfaces is less than the 75% Administrative Limit in the survey units
   2) All measurements in the survey units were less than the 75% Administrative Limit"
6) The sheet in the design showing an efficiency of 21.7% is for a 43-37 detector SN92501. The minimum efficiency required for 43-37 detectors was 20%. No changes in the report are required.
7) Change the second sentence in the last paragraph of section 6.1.1, 6.2.1, and 6.3.1 from "The Administrative Limit was >1190 ncpm." To:
   "The Administrative Limit was >1190 ncpm (Table 2, page 3 of Appendix A)."

Note: Some of the above changes may not be based on specific comments for this report but are consistent with comments made on other reports

Survey Report OL7 Paved Surfaces and Concrete

(GPU Nuclear Letter E910-05-042 comments from ORISE Letter dated August 10, 2005)

1) The survey was designed using the sign test based on the simplifying assumption that background would be insignificant and the 75% Administrative Limit in use for the DCGL is based solely on a surrogate Cs137. MARSSIM allows use of the sign test if the licensee is willing to accept the contribution of background. The SNEC LTP section 5.6.4.2 allows the use of the sign test for gross measurements if background is considered to be insignificant. The survey design is consistent with MARSSIM and the SNEC LTP. No changes to the report are required.
2) Section 2.1.2 of appendix A discusses the use of the NaI for scanning. Since the surrogate is Cs137, any instrument can be used that is capable of detecting Cs137. Appendix A demonstrates that the detection efficiency and MDCscan is adequate for FSS. Common industry practice and historical practice at SNEC is to use gamma sensitive instruments when surface conditions warrant. In this case, the macadam was old (~40 years old) porous, broken, etc. and was more appropriately scanned using gamma sensitive equipment. No changes to the report are required.
3) Change section 7.4.2 to read:
   "These duplicates had good agreement, as shown in Table 5 below, because they support the same conclusion, that the survey units pass, and they are within 20% of the original results"
4) Change section 8.0 to read:
   "1) The average residual radioactivity on the asphalt and concrete surfaces is less than the 75% Administrative Limit in the survey units
   2) All measurements in the survey units were less than the 75% Administrative Limit"
5) Instruments with efficiencies less than the minimum specified in the survey design are not used. The minimum efficiency is carried forward into the "Survey Request" as a prerequisite and is one of the supervisory survey completion review parameters. No changes to the report are required
6) Change section 7.2 as follows: change "DCGLw" to "75% Administrative Limit" in three places

Note: Some of the above changes may not be based on specific comments for this report but are consistent with comments made on other reports

Survey Report OL7 Open Land Soils

(GPU Nuclear Letter E910-05-035 comments from ORISE Letter dated August 10, 2005)

1) Section 7.4.2 can be changed to read:
   "These duplicates had good agreement, as shown in Table 5 below, because they support the same conclusion that the survey units pass."
2) Section 8.0 change both line items to read:
   "1) The average residual radioactivity in the soils is less than the 75% Administrative Limit in all three of the survey units.
   2) All measurements in all three of the survey units were less than the 75% Administrative Limit"
3) Instruments with efficiencies less than the minimum specified in the survey design are not used. The minimum efficiency is carried forward into the "Survey Request" as a prerequisite and is one of the supervisory survey completion review parameters. No changes to the report are required.
4) Change the Table 1 line item "Action Level" to "75% Administrative Limit"
5) Change the last sentence of the first paragraph of sections 6.1.1, 6.2.1 and 6.3.1:
   "Although this is a Class 2 survey unit and the area factor does not specifically apply, the area factor can be used to compare the MDCscan to the 75% Administrative Limit. In this case, the MDCscan was below the 75% Administrative Limit times the limiting area factor so no sample number adjustment was needed."
6) Change section 7.2 as follows: change "DCGLw" to "75% Administrative Limit" in three places

Note: Some of the above changes may not be based on specific comments for this report but are consistent with comments made on other reports

Survey Report Switch Yard Control Building
(GPU Nuclear Letter E910-05-032 comments from ORISE Letter dated August 10, 2005)

1) In section 8.0, change "DCGLw" to "75% Administrative Limit" in two places - one each in items 1 and 2
2) In section 7.4, change "DCGLw" to "75% Administrative Limit" in item 1
3) Change "DCGLw" to "75% Administrative Limit" in the next-to-last paragraph of the executive summary (page 3)

Note: Some of the above changes may not be based on specific comments for this report but are consistent with comments made on other reports

Survey Report Remediated Soils
(GPU Nuclear Letter E910-05-031 comments from ORISE Letter dated August 10, 2005)
1) The SR sheets are signed. Copies are attached.
2) Change last sentence in section 6.1.2 under heading "Results Conclusion" to read:
"…. The applicable 75% Administrative Limit and therefore…"
3) Section 8.0 change all three line items to read:

"1) The average residual radioactivity in the soils is less than the 75% Administrative Limit.

2) Since all measurements were either less than the 75% Administrative Limit, or were discarded from the batch, no EMC test is required.

3) Remediation of soils prior to FSS reduced levels of residual radioactivity to below the concentrations necessary to meet the 75% Administrative Limit."

Note: Some of the above changes may not be based on specific comments for this report but are consistent with comments made on other reports

SURVEY REQUEST CONTINUATION SHEET			
SR NUMBER	SR-0186	AREA/LOCATION	SNEC Site
SPECIFIC SAMPLING / SURVEY INSTRUCTIONS OR COMMENTS			

C. Soil Samples

One hundred thirty-one samples were obtained covering 56 batches.

Results: The highest activity was indicated on sample SX-SL-9469 with 0.84 ± 0.14 pCi/g, Cs-137, <0.1 pCi/g, Co-60. Positive Cs-137 results ranged from 0.13 to 0.84 pCi/g. No Co-60 was identified (typical achieved MDA was 0.1 pCi/g).

Two additional samples (unprocessed) were obtained of material on the conveyor belt during the alarm of batch SRA-05-044-2). These samples indicated 0.6 ± 0.17 and 0.19 ± 0.08 pCi/g, Cs-137. No Co-60 activity was indicated (MDA was 0.09 and 0.18 pCi/g).

2. Quality Control (QC) Measurements and Comparisons

Repeat Scan measurements and Soil samples were performed and met the applicable acceptance criteria established in Section 4.6 of E900-IMP-4520.04. A repeat static measurement was not performed in response to the alarm in batch SRA-05-044-2. This was due to an oversight of the technician. The QAO was notified.

3. Special Notes:

R. Shepherd performed two quality checking inspections. Inspection performed on 12/04/04 primarily checked SRA technician's qualifications and observed pre-op checking of detectors. One discrepancy was identified. The technician did not have a copy of the SRA-SXTN-106 Rev. 0 procedure, "Operation of the SMCM /Conveyor System". A copy was obtained. An inspection performed on 1/18/05 observed a point source alarm/response by SRA technician and site Rad Con technician to ensure compliance with SR requirements. No discrepancies were identified.

4. Exceptions and Discrepancies: none

David Sarge (GRCS) _____ **Date** 6/26/05

SURVEY REQUEST CONTINUATION SHEET			
SR NUMBER	SR-0190	**AREA/LOCATION**	SNEC Site
SPECIFIC SAMPLING / SURVEY INSTRUCTIONS OR COMMENTS			

C. Soil Samples

Five samples were obtained covering batch SRA-05-054.

Results: The highest activity indicated was 1.0 ± 0.18 pCi/g, Cs-137, <0.15 pCi/g, Co-60. All samples indicted positive Cs-137 ranging from 0.7 to 1.0 pCi/g. No Co-60 was identified (typical achieved MDA was 0.13 pCi/g).

Four additional samples (unprocessed) were obtained of material on the conveyor belt during the alarms of batch SRA-05-054). These samples indicated positive Cs-137 ranging from 0.52 to 0.62 pCi/g. No Co-60 activity was indicated (typical achieved MDA was 0.12 pCi/g).

2. Quality Control (QC) Measurements and Comparisons

Repeat Scan and soil samples were performed and met the applicable acceptance criteria established in Section 4.6 of E900-IMP-4520.04. A repeat static measurement was not obtained during the response of the point source alarm. This was due to an oversight of the technician. The QAO was notified.

3. Special Notes: none

4. Exceptions and Discrepancies: see section 2.

David Sarge (GRCS) _____ **Date** 6/21/05

Survey Report OL1-6 Trench

(GPU Nuclear Letter E910-05-052 comments from ORISE Letter dated August 11, 2005)

1) Section 7.2.1 mentions that the soil samples were not 1 meter thick samples. The samples were 6-inch thick samples. Because the trench was about 1 meter deep, shallower samples are appropriate. No change to the report is needed.
2) Change section 8.0 "DCGLw" to "75% Administrative Limit" in three places one each in items 1, 2, and 3.
3) In Appendix A-1 the Microshield model is slightly different than those of other reports. Different cases may involve calculations of gamma flux in different models. Microshield calculations are then repeated in order to provide appropriate conversion factors. Engineering judgment is used in all of these cases to develop appropriate model conditions. In this case, the difference between 11-inch radius and 11.1-inch radius produces less than a 2% difference in the surface area of the assumed source. This difference is trivial compared to the variance associated with the judgment involved in developing the models and changes in assumptions that are case –to case and then comparing that to the actual surfaces scanned. No changes to the report are needed
4) Background values used in Appendix A-1 are different than those used in other reports. Background values are obtained during the design process, typically from the survey unit itself, where activity is not expected or known to not be present. Different instruments may vary in backgrounds to the extent noted in the comment. In addition, different surface materials will vary significantly, particularly at SNEC where fly ash and 'clinkers' as well as natural rocks and soils are present. Further, the MDCscan calculation is an a-priori estimate of the MDC. Since this is an estimate, primarily for demonstrating that the survey design meets detection capability requirements, different engineering choices may be made under different circumstances in designing different surveys. Since background directly affects the MDC, it may in one circumstance be desirable to estimate the probable MDC using the typical background, and in another to provide a conservative maximum MDC based on the highest expected background in order to demonstrate that the MDC will be adequate in any circumstance. Therefore, the observed backgrounds and choices made in evaluating the a-priori MDCscan do not materially affect the FSS results and no change to the report is required.
5) Change "DCGLW' to "75% Administrative Limit" in section 7.4 item 1

Note: Some of the above changes may not be based on specific comments for this report but are consistent with comments made on other reports

Survey Report OL2 Open Land

(GPU Nuclear Letter E910-05-052 comments from ORISE Letter dated August 11, 2005)

1) The survey of the residual concrete pads in OL2 was designed using the sign test based on the simplifying assumption that background would be insignificant and the 75% Administrative Limit in use for the DCGL is based solely on a surrogate Cs137. MARSSIM allows use of the sign test if the licensee is willing to accept the contribution of background. The SNEC LTP section 5.6.4.2 allows the use of the sign test for gross measurements if background is considered to be insignificant. The survey design is consistent with MARSSIM and the SNEC LTP. No changes to the report are required.
2) Section 8.0 change the four line items to read:
   "1) The average residual radioactivity in the soils is less than the 75% Administrative Limit in both of the survey units.
   2) The average residual radioactivity on the concrete is less than the 75% Administrative Limit.
   3) All measurements in all three of the survey units were less than the 75% Administrative Limit
   4) Samples collected for investigation of the alarm point in the OL2-2 survey unit were all less than the 75% Administrative Limit"
3) Instruments with efficiencies less than the minimum specified in the survey design are not used. The minimum efficiency is carried forward into the "Survey Request" as a prerequisite and is one of the supervisory survey completion review parameters. No changes to the report are required.
4) Change first sentence of second paragraph of section 6.3.2 to read:
   "None of the fixed point measurements in MA8-5 had results in excess of the 75% Administrative Limit."
5) In section 7.2, change "DCGLw" to "75% Administrative Limit" in four places.
6) Change "...discusse ..." to "...discussed..." in first line of section 2.0

Note: Some of the above changes may not be based on specific comments for this report but are consistent with comments made on other reports

Survey Report OL1 Macadam

(GPU Nuclear Letter E910-05-051 comments from ORISE Letter dated August 11, 2005)

1) Change table 1 line about "action level" to "75% Administrative Limit"
2) Change line item 1 in the executive summary to read:
   "...scans of 100% of the macadam surfaces in 18 grids covering about 42% of the 1800 square meters of the total area in the grids".
3) The survey was designed using the sign test based on the simplifying assumption that background would be insignificant and the 75% Administrative Limit in use for the DCGL is based solely on a surrogate Cs137. MARSSIM allows use of the sign test if the licensee is willing to accept the contribution of background. The SNEC LTP section 5.6.4.2 allows the use of the sign test for gross measurements if background is considered to be insignificant. No changes to the report are required.
4) Change the last sentence of the first paragraph of sections 6.1.1, 6.2.1, 6.3.1, 6.4.1, 6.5.1, 6.6.1, 6.7.1, 6.8.1, 6.9.1, and 6.10.1 to read:
   "In this case the MDCscan was below the 75% Administrative Limit so no fixed point number adjustment was needed"
5) Change the second sentence of the first paragraph of sections 6.1.2, 6.2.2, 6.3.2, 6.4.2, 6.5.2, 6.6.2, 6.7.2, 6.8.2, 6.9.2, and 6.10.2 to read:
   "None of the design fixed point measurements in [survey unit name e.g. MA8-6] had results in excess of the 75% Administrative Limit."
6) Table 12 is incorrect due to a personnel error in transferring the data into the report. Other FSS reports were reviewed to confirm that this was an isolated error. The table should read as follows:

Fixed Point	Result (cpm)	QC result (cpm)
MA8-6 3	387	428
MA8-7 1	364	383
MA8-8 2	357	394
MA8-9 1	384	401
MA8-10 6	331	322
MA8-11 7	341	343
MA8-12 5	369	376
MA8-13 2	343	349
MA8-16 1	327	381
MA8-17 1	344	428

The text of section 7.4.2 should be changed to read:
"These duplicate had good agreement as shown in the table below (Table 12) because they support the same conclusion, that the survey units pass and because the results are within 20% or are less than twice the background"

Survey Report OL1 Macadam (continued)

7) Section 8 should be changed to read:

"1) The average residual radioactivity on the surfaces is less than the 75% Administrative Limit in all of the survey units.

2) All measurements were less than the 75% Administrative Limit in all of the survey units"

8) The sheet in the design showing an efficiency of 21.7% is for a 43-37 detector SN92501. The minimum efficiency required for 43-37 detectors was 20%. No changes in the report are required.

Note: Some of the above changes may not be based on specific comments for this report but are consistent with comments made on other reports

Survey Report GA1 Small Peneiec Garage

(GPU Nuclear Letter E910-05-054 comments from ORISE Letter dated August 11, 2005)

1) The cumulative frequency distribution of the data collected is used to select a background from a group of backgrounds that are collected on various surfaces at the site. No changes to the report are required.
2) Change section 5.0 to read:
   "The maximum MDC observed for a 100 square centimeter area in the SCM scanning was about 28% of the 75% Administrative Limit"
3) Change section 6.1 last paragraph to read:
   "All SCM surveys indicated activity less than the 75% Administrative Limit. No follow-up 43-68 GFPC scans were required."
4) Change section 7.2 first sentence to read:
   "GA1-1 had no activity in excess of the 75% Administrative Limit during scan surveys of approximately 85% of the surface"
5) Add the following paragraph at the end of section 5.0:
   "Portions of this survey were conducted with an automated positionally sensitive proportional counter Surface Contamination Monitor (SCM) system. The SCM is typically used in a scanning (rolling) mode. In rolling mode, the SCM logs information in 25 square centimeter 'bins' by logging data for each 5 cm width of the detector and for each 5 cm of travel. A precision wheel encoder measures the distance traveled. Data are recorded in 25 square centimeter pixels over the entire surface surveyed, meaning the SCM records 400 measurements for every square meter it covers. When SCM data is analyzed, the software considers each 25 square centimeter measurement as 1/4 of four separate 100 square centimeter areas. This technique ensures that the highest activity in any single 100 square centimeter area is identified. The collection of large amounts of data in discrete values allows the data to be evaluated via statistical methods that consider the distribution of activity on the surface in addition to its average concentration."
6) Section 8 should be changed to read:
   "1) The average residual radioactivity on the surfaces is less than the 75% Administrative Limit in the survey unit.
   2) All measurements were less than the 75% Administrative Limit in the survey unit."
7) Since the garage pad did not contain specific contaminated systems and was of interest for residual radioactivity only because of the long-term presence of the garage at the site, the surfaces are expected to be uniformly contaminated with no locations of unusual concentrations such as would occur if systems or equipment were present. Therefore, the surfaces surveyed with the SCM were fully representative of the possible residual radioactivity. No changes to the report are required.
8) Add the following after the last paragraph of section 6.1:
   "The following table provides the summary of the SCM data."

Survey Name	Maximum 100 cm^2 Area ($dpm/100cm^2$)	Mean of 100 cm^2 Areas ($dpm/100cm^2$)	MDC ($dpm/100cm^2$)
SRR7001Z	10520	431	5958

Survey Report GA1 Small Penelec Garage (continued)

9) Change section 7.4.2 to read:

"Since no fixed point measurements were required due to the unique nature of the SCM scanning, no specific fixed point QC measurements were taken. However, since the SCM collects data in a positionally sensitive pixel process similar to full coverage fixed point measurements, comparisons of the SCM data can be made. Although exact pixel to pixel comparisons are impractical due to the limitations on the positional accuracy, the overall results agree as shown in the table below, since both sets reach the same conclusion that the survey unit passes."

Initial SCM results (cpm/100 cm^2)	QC SCM results (cpm/100cm^2)
628	580

Note: Some of the above changes may not be based on specific comments for this report but are consistent with comments made on other reports

Survey Report Weir Discharge Area

(GPU Nuclear Letter E910-05-053 comments from ORISE Letter dated August 11, 2005)

1a) Insert the following as a new paragraph in section 6.3 after the first paragraph:
"Samples were collected to a depth of about 6 inches because the sample point was in a trench already more than a meter below grade. Since the intent of 1 meter sampling is to represent the soil thickness used in the site dose model, 6-inch samples may be used when the sample point is more than 1 meter below grade. This would actually be conservative when the activity is not expected to be distributed through an additional meter of soil."

1b) Add the following to the end of the new second paragraph (as mentioned above) of section 6.3:
"The SNEC LTP (section 5.4.3.1) allows use of alternative sampling designs – e.g. to collect 30 samples if there is no statistical design. This data set meets these requirements."

1c) Add the following to section 2.0 after the sentence ending "... by September 2001."
" The soil under the pipe was originally unclassified, but was treated as Class 3 for the purposes of the Final Status Survey Report."

2) This result was inside the pipe and does not represent activity found in the soils. The pipe was completely removed. No changes to the report are required.

3) Appendix A-1 is SR-0020 closeout results for one phase of the remediation support survey work. Since the content of the removed pipe is actually irrelevant to the Final Status Survey, delete the last sentence in section 6.3.

4) This is a reference to a conservative remediation and sampling assumption. During the remediation of the pipe, there was no evidence of leakage from the piping into the ground below, and the elevated measurements reported for inside the pipe do not correspond to any activity found outside the pipe. No changes to the report are required

5) The highest concrete sample result (in pCi/g of Cs-137) was compared to the Cs-137 volumetric DCGLw as a point of reference, and not as a measure of compliance since these were simply remediation support surveys. Note however, that if one were to treat the concrete volume as volumetric material (typical for concrete when it is broken up), the mean concentration of the headwall would be well within the required 75% Administrative Limit for this area. With regard to why static measurements were not performed with the GM detector used for scanning the surface, this survey work was in support of the remediation of the Weir line and was not originally planned as an FSS type survey. The actual surface area of the Weir line headwall is about 7.3 square meters with an estimated volume of about 1.2 cubic meters. It is simply a slab of concrete through which the Weir pipe was retained at the rivers edge. Most of the structure is below grade or below the river water line. Because of the small size of the monolith and the expected deterioration in the riverbank zone, a volumetric DCGL consistent with section 5.5.3.4.4 of the SNEC LTP is dosimetrically appropriate. No changes to the report are required

6a) Section 8.0 change "DCGLw" to 75% Administrative Limit" in three paces – one each in items 1, 2, and 3

Survey Report Weir Discharge Area (Continued)

6b). The Weir pipe soil bed should have the following conclusion (No. 4) added to Section 8.0:

"4. The Weir pipe soil bed did not contain concentrations of residual contamination above the site Administrative Limit for Cs-137 concentration, as evidenced by samples taken during remediation support survey work. Results support the conclusion that additional survey and/or sampling efforts in this area are not warranted consistent with the SNEC LTP section 5.4.3.1."

7) Portions of the pipe were scanned. However, since the pipe was removed, the extent of the survey of the pipe is not relevant to the FSS. No changes to the report are required.

8)Different cases may involve calculations of gamma flux in different models. Microshield calculations are then repeated in order to provide appropriate conversion factors. Engineering judgment is used in all of these cases to develop appropriate model conditions. In this case, the difference between 11-inch radius and 11.1-inch radius produces less than a 2% difference in the surface area of the assumed source. This difference is trivial compared to the variance associated with the judgment involved in developing the models and changes in assumptions that are case –to case and then comparing that to the actual surfaces scanned. No changes to the report are needed.

9) Because the total efficiency is arbitrarily set to 10% (procedure E900-OPS-4524.42 SNEC Radiological Controls Instrument Operations Manual) when using a pancake GM probe (actual efficiencies are typically higher) the 10% value is entered in the instrument efficiency directly (Ei =0.1). In this case, the Es must be set to equal 1 in order for the total efficiency to remain 10%. No changes to the report are needed.

Survey Report CV Yard Excavation
(GPU Nuclear Letter E910-05-013 comments from ORISE Letter dated August 15, 2005)
1a) Change Table 1 as follows:
Delete the "Administrative Cs-137 DCGLw" and "Scan MDC" lines
Add the following lines:

75% Administrative Limit (Cs137 pCi/g)	4.3	
75% Administrative Limit (dpm/100cm^2)		33325
MDCscan pCi/g	3.2	
MDCscan dpm/100cm^2		4407

1b) Change table 4 as follows:
Delete the "Administrative Cs-137 DCGLw" and "Scan MDC(dpm/100cm^2)" lines
Add the following lines:

75% Administrative Limit (Cs137 pCi/g)	4.3			
75% Administrative Limit (dpm/100cm^2)		33325	33325	33325
MDCscan pCi/g	4.1			
MDCscan dpm/100cm^2		2204	784	784

1c) Change table 7 as follows:
Delete the "Administrative Cs-137 DCGLw" and "Scan MDC" lines
Add the following lines:

75% Administrative Limit (Cs137 pCi/g)	4.3	
75% Administrative Limit (dpm/100cm^2)		33325
MDCscan pCi/g	3.2	
MDCscan dpm/100cm^2		929

1d) Change table 11 as follows:
Delete the "Administrative Cs-137 DCGLw" and "Scan MDC" lines
Add the following lines:

75% Administrative Limit (Cs137 pCi/g)	4.3	
75% Administrative Limit (dpm/100cm^2)		33325
MDCscan pCi/g	3.3	
MDCscan dpm/100cm^2		2204

2) Section 6.2, Table 4 – A higher sample density was desired in the subsurface region of the CV yard. The WRS testing approach provided as many or more samples than the Sign Test would have for this area, and so the WRS testing approach was used to increase the sample population. Use of the WRS statistical testing approach is permitted by the SNEC LTP (as an example, see SNEC LTP Table 5-17). While this may have been inconsistent with other areas around the site where the Sign Test was applied exclusively, the area adjacent to the CV was considered a special subsurface volume with a much higher potential for contamination than at other SNEC site locations. No changes to the report are needed.
3) Table 4 Comment addressed in item 1b above

Survey Report CV Yard Excavation (Continued)

4) Since the surrogate isotope is Cs137, any instrument can be used that is capable of detecting Cs137. Appendix A demonstrates that the detection efficiency and MDCscan for a NaI detector is adequate for FSS. Common industry practice and historical practice at SNEC is to use gamma sensitive instruments when surface conditions warrant. In this case, the surfaces were old (~40 years old) porous, broken, etc. and were more appropriately scanned using gamma sensitive equipment. No changes to the report are required
5) Change section 8.0 references to "DCGLw" to "75% Administrative Limit" in 3 places – one each in each line item 1,2, and 3
6) Section 7.2 change references to "DCGLw" to 75% Administrative Limit" in 20 places – two in each of the ten paragraphs.
7) Section 6.1.1 change "...MDCscan of 3.2 pCi/g (page 3 of Appendix A)." to: "...MDCscan of 3.2 pCi/g (page 2 of Appendix A)."
8) Section 6.2.2 change "…. DCGLw for the concrete wall was 2519 ncpm." To: "...DCGLw for the concrete wall was 2519 ncpm (page 4 of Appendix B)."

Note: Some of the above changes may not be based on specific comments for this report but are consistent with comments made on other reports

Survey Report OL1 Open Land Soil

(GPU Nuclear Letter E910-05-041 comments from ORISE Letter dated August 11, 2005)

1) Change section 8.0 items 1, 2 and 3 to read:

   "1) The average residual radioactivity in the soils is less than the 75% Administrative Limit in all six survey units.

   2) All measurements were less than the 75% Administrative Limit in all six of the survey units

   3) Samples collected for investigation of alarm points in OL1-11, OL1-12, and OL1-13 survey units were all less than the 75% Administrative Limit"

2) Instruments with efficiencies less than the minimum specified in the survey design are not used. The minimum efficiency is carried forward into the "Survey Request" as a prerequisite and is one of the supervisory survey completion review parameters. No changes to the report are required.

3) In section 7.2 throughout the six paragraphs, change "DCGLw" to "75% Administrative Limit" in nine places.

Note: Some of the above changes may not be based on specific comments for this report but are consistent with comments made on other reports

Survey Report OL1 Residual Concrete

(GPU Nuclear Letter E910-05-050 comments from ORISE Letter dated August 11, 2005)

1) The survey was designed using the sign test based on the simplifying assumption that background would be insignificant and the 75% Administrative Limit in use for the DCGL is based solely on a surrogate Cs137. MARSSIM allows use of the sign test if the licensee is willing to accept the contribution of background. The SNEC LTP section 5.6.4.2 allows the use of the sign test for gross measurements if background is considered to be insignificant. The survey design is consistent with MARSSIM and the SNEC LTP. No changes to the report are required.
2) Change second sentence of section 7.4.2 to read:
   "These duplicates had good agreement as shown in the table below (Table 12) because they support the same conclusion, that the survey units pass, and the results are within 20% or are less than twice background"
3) Change section 8 items 1 and 2 to read:
   "1) The average residual radioactivity on the surfaces is less than the 75% Administrative Limit in all of the survey units
   2) All measurements were less than the 75% Administrative Limit in all of the survey units"
4) Change table 1 - in two places the text "action level" should read "75% Administrative Limit"
5) In sections 6.1.1, 6.2.1, 6.3.1, 6.4.1, 6.5.1, 6.6.1, 6.7.1, 6.8.1, and 6.9.1 change the last sentence of the first paragraph to read:
   "In this case the MDCscan was below the 75% Administrative Limit so no fixed point adjustment was needed"

   Note: Some of the above changes may not be based on specific comments for this report but are consistent with comments made on other reports

Survey Report OL6 and OL10 Open Land

(GPU Nuclear Letter E910-05-033 comments from ORISE Letter dated August 11, 2005)

1a) Change "DCGLw" to "75% Administrative Limit" in section 7.4

1b) Change "DCGLw" to "75% Administrative Limit" in three places, one in each line item, in section 8.0

1c) Change "DCGLw" to "75% Administrative Limit" in two places in the next-to-last paragraph in the executive summary.

1d) Change "DCGLw" to "75% Administrative Limit" in two places in the second paragraph of section 6.1

1e) Change "DCGLw" to "75% Administrative Limit" in the last sentence of section 6.3

1f) Change "DCGLw" to "75% Administrative Limit" in the last sentence of section 6.4

2) Instruments with efficiencies less than the minimum specified in the survey design are not used. The minimum efficiency is carried forward into the "Survey Request" as a prerequisite and is one of the supervisory survey completion review parameters. No changes to the report are required

Survey Report SSGS Spray Pump Area
(GPU Nuclear Letter E910-05-046 comments from ORISE Letter dated August 11, 2005)

1) Change section 1 first sentence second paragraph to read:
".... data collected in four survey units consisting..."
2) Change section 8 items 1 and 2 to read:
   "1) The average residual radioactivity on the surfaces is less than the 75% Administrative Limit in all of the survey units
   2) All measurements were less than the 75% Administrative Limit in all of the survey units"
3) Instruments with efficiencies less than the minimum specified in the survey design are not used. The minimum efficiency is carried forward into the "Survey Request" as a prerequisite and is one of the supervisory survey completion review parameters. No changes to the report are required.
4) Section 7.2 change "DCGLw" to "75% Administrative Limit" in four places (one in each paragraph).
5) Page 3, second line from top, change "...lowewr..." to "...lower..."

Note: Some of the above changes may not be based on specific comments for this report but are consistent with comments made on other reports

Survey Report SSGS Intake Tunnel

(GPU Nuclear Letter E910-05-043 comments from ORISE Letter dated August 17, 2005)

1) The cumulative frequency distribution of the data collected is used to select a background from a group of backgrounds that are collected on various surfaces at the site. No changes to the report are required.
2) Add the following paragraph at the end of section 5.0:

   "Portions of this survey were conducted with an automated positionally sensitive proportional counter Surface Contamination Monitor (SCM) system. The SCM is typically used in a scanning (rolling) mode. In rolling mode, the SCM logs information in 25 square centimeter 'bins' by logging data for each 5 cm width of the detector and for each 5 cm of travel. A precision wheel encoder measures the distance traveled. Data are recorded in 25 square centimeter pixels over the entire surface surveyed, meaning the SCM records 400 measurements for every square meter it covers. When SCM data is analyzed, the software considers each 25 square centimeter measurement as 1/4 of four separate 100 square centimeter areas. This technique ensures that the highest activity 100 square centimeter area is identified. The collection of large amounts of data in discrete values allows the data to be evaluated via statistical methods that consider the distribution of activity on the surface in addition to its average concentration."
3) SNEC agrees not to use 1 square meter generic default averaging therefore the third paragraph of sections 6.1.1, 6.2.1, 6.3.1, 6.4.1, 6.5.1, 6.6.1, 6.7.1, 6.8.1, and 6.9.1 should be changed to read:

   "All SCM surveys indicated activity less than the 75% Administrative Limit. No follow-up 43-68B scans were required."
4) Since the intake tunnel did not contain specific contaminated systems and was of interest for residual radioactivity only because of the recirculation of SSGS discharge water, the surfaces are expected to be uniformly contaminated with no locations of unusual concentrations such as would occur if systems or equipment were present. Therefore, the surfaces surveyed were fully representative of the possible residual radioactivity. No changes to the report are required.

Survey Report SSGS Intake Tunnel (continued)

5) Change section 7.4.2 to read:

"Since no fixed point measurements were required due to the unique nature of the SCM scanning, no specific fixed point QC measurements were taken. However, since the SCM collects data in a positionally sensitive pixel process similar to full coverage fixed point measurements, comparisons of the SCM data can be made. Although exact pixel to pixel comparisons are impractical due to the limitations on the positional accuracy, the overall results agree as shown in the table below, since both sets reach the same conclusion that the survey unit passes."

Survey area	Initial SCM results (cpm/100 cm^2)	QC SCM results (cpm/100cm^2)
SS19-1	-18	-94
SS19-2	-150	-116
SS19-3	-45	31
SS20-1	154	-48
SS20-2	-91	51
SS20-3	30	-22
SS21-1	57	-248
SS21-2	19	45
SS21-3	100	137

6) Change section 8 items 1 and 2 to read:

"1) The average residual radioactivity on the surfaces is less than the 75% Administrative Limit in all of the survey units

2) All measurements were less than the 75% Administrative Limit in all of the survey units"

7) Add the following after the last paragraph of section 6.1.1:

"The following table provides the summary of the SCM data."

Survey Name	Maximum 100 cm^2 Area (dpm/100cm^2)	Mean of 100 cm^2 Areas (dpm/100cm^2)	MDC (dpm/100cm^2)
SRS7032Z	4094	-50	2487

Add the following after the last paragraph of section 6.2.1:

"The following table provides the summary of the SCM data."

Survey Name	Maximum 100 cm^2 Area (dpm/100cm^2)	Mean of 100 cm^2 Areas (dpm/100cm^2)	MDC (dpm/100cm^2)
SRS7018Z	3223	-180	2075
SRS7021Z	3569	-20	2345
SRS7024Z	3324	5	2497

Survey Report SSGS Intake Tunnel (continued)

Add the following after the last paragraph of section 6.3.1:

"The following table provides the summary of the SCM data."

Survey Name	Maximum 100 cm^2 Area ($dpm/100cm^2$)	Mean of 100 cm^2 Areas ($dpm/100cm^2$)	MDC ($dpm/100cm^2$)
SRS7027S	3927	26	2581
SRS7027Z	3315	-75	2371

Add the following after the last paragraph of section 6.4.1:

"The following table provides the summary of the SCM data."

Survey Name	Maximum 100 cm^2 Area ($dpm/100cm^2$)	Mean of 100 cm^2 Areas ($dpm/100cm^2$)	MDC ($dpm/100cm^2$)
SRS7030S	3508	-14	2149
SRS7030Z	4194	85	2414
SRS7033R	4296	460	3099
SRS7033S	3945	653	3445
SRS7033Z	3513	175	2748

Add the following after the last paragraph of section 6.5.1:

"The following table provides the summary of the SCM data."

Survey Name	Maximum 100 cm^2 Area ($dpm/100cm^2$)	Mean of 100 cm^2 Areas ($dpm/100cm^2$)	MDC ($dpm/100cm^2$)
SRS7019R	2455	-193	1759
SRS7019S	2944	-185	1864
SRS7019T	2318	-189	1846
SRS7019Z	2821	-179	1820
SRS7022S	3205	-18	2187
SRS7022Z	3223	18	2231
SRS7025S	3475	-36	2109
SRS7025Z	2424	-155	1821

Add the following after the last paragraph of section 6.6.1:

"The following table provides the summary of the SCM data."

Survey Name	Maximum 100 cm^2 Area ($dpm/100cm^2$)	Mean of 100 cm^2 Areas ($dpm/100cm^2$)	MDC ($dpm/100cm^2$)
SRS7028R	3493	-65	2076
SRS7028S	3868	-32	2170
SRS7028T	2216	-160	1897
SRS7028U	3148	-98	2063
SRS7028Z	2965	-34	2110

Survey Report SSGS Intake Tunnel (continued)

Add the following after the last paragraph of section 6.7.1:

"The following table provides the summary of the SCM data."

Survey Name	Maximum 100 cm^2 Area ($dpm/100cm^2$)	Mean of 100 cm^2 Areas ($dpm/100cm^2$)	MDC ($dpm/100cm^2$)
SRS7031Z	3981	25	2682

Add the following after the last paragraph of section 6.8.1:

"The following table provides the summary of the SCM data."

Survey Name	Maximum 100 cm^2 Area ($dpm/100cm^2$)	Mean of 100 cm^2 Areas ($dpm/100cm^2$)	MDC ($dpm/100cm^2$)
SRS7020Z	2989	-98	2184
SRS7023Z	2796	150	2579
SRS7026Z	3220	-11	2513

Add the following after the last paragraph of section 6.9.1:

"The following table provides the summary of the SCM data."

Survey Name	Maximum 100 cm^2 Area ($dpm/100cm^2$)	Mean of 100 cm^2 Areas ($dpm/100cm^2$)	MDC ($dpm/100cm^2$)
SRS7029Z	4014	70	2682

Note: Some of the above changes may not be based on specific comments for this report but are consistent with comments made on other reports

Survey Report SSGS Discharge Tunnel

(GPU Nuclear Letter E910-05-044 comments from ORISE Letter dated August 17, 2005)

1a) Change the fourth paragraph of section 6.1.1 to read:

"All SCM surveys indicated activity less than the 75% Administrative Limit. All 43-68 scans were less than the 300 net cpm action level"

Change the last sentence of section 6.2.1 to read:

"All SCM surveys indicated activity less than the 75% Administrative Limit."

Change the last sentence of section 6.3.1 to read:

"All SCM surveys indicated activity less than the 75% Administrative Limit."

Change the fourth paragraph of section 6.4.1 to read:

"All SCM surveys indicated activity less than the 75% Administrative Limit except for a three square meter area that had a maximum value of 11553 dpm/100cm^2. This area was resurveyed using hand-held instrumentation. An elevated measurement comparison on this area is provided in section 6.4.3."

Change the last sentence of section 6.5.1 to read:

"All SCM surveys indicated activity less than the 75% Administrative Limit."

Change the fourth paragraph of section 6.6.1 to read:

"All SCM surveys indicated activity less than the 75% Administrative Limit."

Change the first two sentences of the fourth paragraph of section 6.7.1 to read:

"All SCM surveys indicated activity less than the 75% Administrative Limit except for two one square meter areas that had a maximum value of 7147 dpm/100cm^2. An elevated measurement comparison test is shown in section 6.7.3."

Change the last sentence of section 6.8.1 to read:

"All SCM surveys indicated activity less than the 75% Administrative Limit."

Change the last sentence of section 6.9.1 to read:

"All SCM surveys indicated activity less than the 75% Administrative Limit."

Add section 6.7.3 as follows:

"6.7.3 Elevated Measurement Comparison

Two areas were identified with the SCM scan, each less than one square meter in size. The maximum observed 100cm^2 value was 7147dpm/100 cm^2. This result can be used in an elevated measurement comparison using MARSSIM equation 8.2 as follows.

Assuming two areas of 1 square meter each one at 7147 and the other at 6742 dpm/100cm^2 a survey unit average of 21 dpm/100cm^2, and using the 75% Administrative Limit then Equation 8.2 becomes:

$$(7147-21)/(6605*11.2) + (6742-21)/(6605*11.2) + 21/6605 =$$
$$0.094 + 0.088 + 0.003 = 0.19$$

Therefore, the elevated measurement comparison using highly conservative assumptions (e.g. that each entire square meter is at the maximum observed for any single 100cm^2 area in that square meter instead of the average for the square meter, using two separate 1 square meter areas instead of one 2 square meter area reduces the effective area factor, using the 75% Administrative Limit instead of the DCGLw adjusted down by the 4.7% for the de-listed radionuclides per the SNEC LTP section 6.2.2.3, etc.), is 19% of the EMC test limit. Therefore the survey unit passes."

Survey Report SSGS Discharge Tunnel (continued)

1b) Since the class 2 and class 3 areas of the discharge tunnel did not contain specific contaminated systems and those areas of the discharge tunnel that were of higher potential for residual contamination were designated class 1, the class 2 and class 3 surfaces are expected to be uniformly contaminated with no locations of unusual concentrations such as would occur if systems or equipment were present. Therefore, the class 2 and class 3 surfaces surveyed with the SCM were fully representative of the possible residual radioactivity while class 1 areas did receive separate fixed-point measurements. No changes to the report are required.

1c)&1d) Change section 7.4.2 to add after table 7.4-1 read:

"Since the SCM collects data in a positionally sensitive pixel process similar to full coverage fixed point measurements, comparisons of the SCM data can be made. Although exact pixel to pixel comparisons are impractical due to the limitations on the positional accuracy, the overall results agree as shown in the table below, since both sets reach the same conclusion that the survey unit passes."

Survey area	Initial SCM results (cpm/100 cm^2)	QC SCM results (cpm/100cm^2)
SS1	-1	-240
SS2	-18	-91
SS3	81	55
SS4	427	-147
SS5	168	928
SS6-1	126	334
SS6-2	53	610
SS7-1	-152	580
SS7-2	377	1396

2) Change the last sentence of the third paragraph of section 6.4.3 to read:

".... the SCM data was used as documented in Appendix E to directly determine..."

3) Change the second sentence in the second paragraph of section 7.4.2 to read:

"... supported by both the initial and QC results (reference 9.8) and they are within 20% or two times the background".

4) A special dose assessment was performed to demonstrate compliance because of the unique condition of the survey unit (many feet below ground, narrow tunnel) and because of the multiple types of measurements collected. Section 2.5.1.1 of MARSSIM provides for the option of performing specific dose assessments: "as an alternative to the unity rule, the dose or risk due to the actual residual radioactivity distribution can be calculated...". No changes to the report are required.

5) The elements of the data listed as NA in the table were not available from the SCM vendor. Since this is a completed design. The design calculation will not be revised for this clarification. No changes to the report are required.

Survey Report SSGS Discharge Tunnel (continued)

6) Add the following paragraph at the end of section 5.0:

"Portions of this survey were conducted with an automated positionally sensitive proportional counter Surface Contamination Monitor (SCM) system. The SCM is typically used in a scanning (rolling) mode. In rolling mode, the SCM logs information in 25 square centimeter 'bins' by logging data for each 5 cm width of the detector and for each 5 cm of travel. A precision wheel encoder measures the distance traveled. Data are recorded in 25 square centimeter pixels over the entire surface surveyed, meaning the SCM records 400 measurements for every square meter it covers. When SCM data is analyzed, the software considers each 25 square centimeter measurement as 1/4 of four separate 100 square centimeter areas. This technique ensures that the highest activity 100 square centimeter area is identified. The collection of large amounts of data in discrete values allows the data to be evaluated via statistical methods that consider the distribution of activity on the surface in addition to its average concentration."

7) Add the following after the last paragraph of section 6.1.1:

"The following table provides the summary of the SCM data."

Survey Name	Maximum 100 cm^2 Area ($dpm/100cm^2$)	Mean of 100 cm^2 Areas ($dpm/100cm^2$)	MDC ($dpm/100cm^2$)
SCS7055S	1410	-100	1233
SCS7055Z	1621	50	1518
SRS7037Z	4469	-33	2436

Add the following after the last paragraph of section 6.2.1:

"The following table provides the summary of the SCM data."

Survey Name	Maximum 100 cm^2 Area ($dpm/100cm^2$)	Mean of 100 cm^2 Areas ($dpm/100cm^2$)	MDC ($dpm/100cm^2$)
SRS7051Z	4885	-49	2666

Add the following after the last paragraph of section 6.3.1:

"The following table provides the summary of the SCM data."

Survey Name	Maximum 100 cm^2 Area ($dpm/100cm^2$)	Mean of 100 cm^2 Areas ($dpm/100cm^2$)	MDC ($dpm/100cm^2$)
SRS7050Z	5412	49	2831

Survey Report SSGS Discharge Tunnel (continued)

Add the following after the last paragraph of section 6.4.1:

"The following table provides the summary of the SCM data."

Survey Name	Maximum 100 cm^2 Area ($dpm/100cm^2$)	Mean of 100 cm^2 Areas ($dpm/100cm^2$)	MDC ($dpm/100cm^2$)
SCS7074Z	1727	61	1350
SCS7075Z	3286	176	1652
SCS7076Z	3309	1069	3080
SRS7036Z	11553	395	4478

Add the following after the last paragraph of section 6.5.1:

"The following table provides the summary of the SCM data."

Survey Name	Maximum 100 cm^2 Area ($dpm/100cm^2$)	Mean of 100 cm^2 Areas ($dpm/100cm^2$)	MDC ($dpm/100cm^2$)
SRS7049Z	4424	114	3389

Add the following after the last paragraph of section 6.6.1:

"The following table provides the summary of the SCM data."

Survey Name	Maximum 100 cm^2 Area ($dpm/100cm^2$)	Mean of 100 cm^2 Areas ($dpm/100cm^2$)	MDC ($dpm/100cm^2$)
SCS7053S	2149	129	1630
SCS7053Z	1516	-91	1219
SRS7046Z	5164	95	3042

Add the following after the last paragraph of section 6.7.1:

"The following table provides the summary of the SCM data."

Survey Name	Maximum 100 cm^2 Area ($dpm/100cm^2$)	Mean of 100 cm^2 Areas ($dpm/100cm^2$)	MDC ($dpm/100cm^2$)
SCS7054S	1832	136	1594
SCS7054Z	1199	-163	1085
SRS7047Z	7147	21	3350

Add the following after the last paragraph of section 6.8.1:

"The following table provides the summary of the SCM data."

Survey Name	Maximum 100 cm^2 Area ($dpm/100cm^2$)	Mean of 100 cm^2 Areas ($dpm/100cm^2$)	MDC ($dpm/100cm^2$)
SRS7048L	4929	24	3199
SRS7048Z	5365	-184	2426

Survey Report SSGS Discharge Tunnel (continued)

Add the following after the last paragraph of section 6.9.1:

"The following table provides the summary of the SCM data."

Survey Name	Maximum 100 cm^2 Area ($dpm/100cm^2$)	Mean of 100 cm^2 Areas ($dpm/100cm^2$)	MDC ($dpm/100cm^2$)
SRS7052L	5069	-184	3089
SRS7052Z	3878	350	2926

8) Change section 8 items 1 and 2 to read:

"1) The average residual radioactivity on the surfaces is less than the 75% Administrative Limit in all of the survey units

2) All measurements were less than the 75% Administrative Limit in survey units SS1, SS2, SS3, SS5, SS7-1, and SS7-2. Units SS4, SS6-1, and SS6-2 were shown to meet the elevated measurement criteria."

Note: Some of the above changes may not be based on specific comments for this report but are consistent with comments made on other reports

Survey Report SSGS Discharge Tunnel Transition Area
(GPU Nuclear Letter E910-05-039 comments from ORISE Letter dated August 17, 2005)

1) Section 2.2.1 of appendix A discusses the use of the NaI for scanning for difficult to reach areas or highly corroded surfaces (where beta efficiencies would be limited). Since the surrogate is Cs137, any instrument can be used that is capable of detecting Cs137. Appendix A demonstrates that the detection efficiency and MDCscan is adequate for FSS. Common industry practice and historical practice at SNEC is to use gamma sensitive instruments when surface conditions warrant. In this case, the surfaces were old (up to 70 years) porous, broken, etc. and were more appropriately scanned using gamma sensitive equipment. No changes to the report are required.
2) Change table 7.4-1 last two fixed-point location identifiers to:
   NaI SS25-2 5
   NaI SS25-2 20
   Add the following to the first paragraph of section 7.4.2:
   "GFPC data and NaI data for SS25-2 5 was within 20% or a factor of two of the background. NaI data for SS25-2 20 cannot be specifically compared for the within two times background criteria because the data recorded was in gross cpm with no specific background acquired. However, the data show that the results of both the initial and QC scan were less than the scan action level."
3) Change section 8.0 items 1 and 2 to read:
   "1) The average residual radioactivity on the surfaces is less than the 75% Administrative Limit in all of the survey units.
   2) All measurements were less than the 75% Administrative Limit in three of the survey units and an elevated...."
4&5) Instruments with efficiencies less than the minimum specified in the survey design are not used. The minimum efficiency is carried forward into the "Survey Request" as a prerequisite and is one of the supervisory survey completion review parameters. No changes to the report are required.
6) In section 7.2, change "DCGLw" or "DCGL" to "75% Administrative Limit" in four places in through the first three paragraphs.

Note: Some of the above changes may not be based on specific comments for this report but are consistent with comments made on other reports

Survey Report SSGS CV Steam Tunnel

(GPU Nuclear Letter E910-05-045 comments from ORISE Letter dated August 17, 2005)

1) Change items 1 and 2 in section 8.0 to read:

   "1) The average residual radioactivity on the surfaces is less than the 75% Administrative Limit in all of the survey units.

   2) All measurements were less than the 75% Administrative Limit in all of the survey units."

2) Instruments with efficiencies less than the minimum specified in the survey design are not used. The minimum efficiency is carried forward into the "Survey Request" as a prerequisite and is one of the supervisory survey completion review parameters. No changes to the report are required.

Survey Report SSGS Seal Chamber Roofs

(GPU Nuclear Letter E910-05-047 comments from ORISE Letter dated August 19, 2005)

1) Change third sentence of section 7.4.2 to read:

   "...And therefore are in agreement with the primary result because they support the same conclusion, that the survey units pass, and the results are within 20% or are less than twice background"

2) Change items 1 and 2 in section 8.0 to read:

   "1) The average residual radioactivity on the surfaces is less than the 75% Administrative Limit in all of the survey units.

   2) All measurements were less than the 75% Administrative Limit in all of the survey units."

3&4) Instruments with efficiencies less than the minimum specified in the survey design are not used. The minimum efficiency is carried forward into the "Survey Request" as a prerequisite and is one of the supervisory survey completion review parameters. No changes to the report are required.

5) In section 7.2 change "action level" to "75% Administrative Limit" in four paces, one in each paragraph

6) Change second line of second paragraph of section 6.1.2 from "... the of 75%..." to: "... the 75%..."

Note: Some of the above changes may not be based on specific comments for this report but are consistent with comments made on other reports

Survey Report SSGS Basement

(GPU Nuclear Letter E910-05-037 comments from ORISE Letter dated August 19, 2005)

1) The cumulative frequency distribution of the data collected is used to select a background from a group of backgrounds that are collected on various surfaces at the site. No changes to the report are required

2) Replace the fist two sentences of the fourth paragraph of sections 6.1.1, 6.2.1, 6.3.1, 6.4.1, 6.5.1, 6.6.1, 6.7.1, 6.8.1, and 6.9.1 with:

"All SCM surveys indicated less than the 75% Administrative Limit."

3) Since the class 2 and class 3 areas of the basement were wall surfaces and did not contain specific contaminated systems and those areas of the basement that were of higher potential for residual contamination were designated class 1, the class 2 and class 3 surfaces are expected to be uniformly contaminated with no locations of unusual concentrations such as would occur if systems or equipment were present. Therefore, the class 2 and class 3 surfaces surveyed with the SCM were fully representative of the possible residual radioactivity. No changes to the report are required.

4a) Add to section 6.2.2 prior to table 6.2-2:

" A concrete surface sample was collected at fixed point 7 and analyzed by laboratory gamma spectroscopy. Results were less than the 75% Administrative Limit as shown in Table 6.2-2 below."

4b) Add to section 6.3.2 prior to table 6.3-2:

" A concrete surface sample was collected at fixed point 5 and analyzed by laboratory gamma spectroscopy. Results were less than the 75% Administrative Limit as shown in Table 6.3-2 below."

4c) Add to section 6.4.2 prior to table 6.4-2:

" A concrete surface sample was collected at fixed point 7 and analyzed by laboratory gamma spectroscopy. Results were less than the 75% Administrative Limit as shown in Table 6.4-2 below."

4d) Add to section 6.5.2 prior to table 6.5-2:

" A concrete surface sample was collected at fixed point 3 and analyzed by laboratory gamma spectroscopy. Results were less than the 75% Administrative Limit as shown in Table 6.5-2 below."

5) Change the second sentence in section 7.4.2 to read:

"These duplicates had good agreement as shown in the table below (Table 7.4-2) because they both support the same conclusion, that the survey units pass, and because they are within 20% or a factor of two times the background except for SS14-2 point 10. SS14-2 point ten results in both cases of the initial and QC measurement, had unshielded results more than twice the backgrounds. This sample pair does not meet the criteria in reference 9.8. However, the remaining results (10 measurement) meet replicate requirements.

6) Change items 1 and 2 in section 8.0 to read:

"1) The average residual radioactivity on the surfaces is less than the 75% Administrative Limit in all of the survey units.

2) All measurements were less than the 75% Administrative Limit in all of the survey units except SS14-1. Unit SS14-1 was shown by calculation to meet elevated measurement criteria"

Survey Report SSGS Basement (continued)

7) As a result of the comments from the inspection, the DCGLs were recalculated. The survey results were evaluated against these more recent mix calculations as discussed in section 5 and footnotes to table 1. No changes are required.

8)Add the following paragraph at the end of section 5.0:

"Portions of this survey were conducted with an automated positionally sensitive proportional counter Surface Contamination Monitor (SCM) system. The SCM is typically used in a scanning (rolling) mode. In rolling mode, the SCM logs information in 25 square centimeter 'bins' by logging data for each 5 cm width of the detector and for each 5 cm of travel. A precision wheel encoder measures the distance traveled. Data are recorded in 25 square centimeter pixels over the entire surface surveyed, meaning the SCM records 400 measurements for every square meter it covers. When SCM data is analyzed, the software considers each 25 square centimeter measurement as 1/4 of four separate 100 square centimeter areas. This technique ensures that the highest activity 100 square centimeter area is identified. The collection of large amounts of data in discrete values allows the data to be evaluated via statistical methods that consider the distribution of activity on the surface in addition to its average concentration."

9) Add the following after the last paragraph of section 6.1.1:

"The following table provides the summary of the SCM data."

Survey Name	Maximum 100 cm^2 Area ($dpm/100cm^2$)	Mean of 100 cm^2 Areas ($dpm/100cm^2$)	MDC ($dpm/100cm^2$)
SCS7066Z	3442	18	2078

Add the following after the last paragraph of section 6.2.1:

"The following table provides the summary of the SCM data."

Survey Name	Maximum 100 cm^2 Area ($dpm/100cm^2$)	Mean of 100 cm^2 Areas ($dpm/100cm^2$)	MDC ($dpm/100cm^2$)
SCS7067Z	2176	-117	1781

Add the following after the last paragraph of section 6.3.1:

"The following table provides the summary of the SCM data."

Survey Name	Maximum 100 cm^2 Area ($dpm/100cm^2$)	Mean of 100 cm^2 Areas ($dpm/100cm^2$)	MDC ($dpm/100cm^2$)
SCS7068Z	1955	-347	1424

Add the following after the last paragraph of section 6.4.1:

"The following table provides the summary of the SCM data."

Survey Name	Maximum 100 cm^2 Area ($dpm/100cm^2$)	Mean of 100 cm^2 Areas ($dpm/100cm^2$)	MDC ($dpm/100cm^2$)
SCS7069Z	2387	5	2018

Survey Report SSGS Basement (continued)

Add the following after the last paragraph of section 6.5.1:

"The following table provides the summary of the SCM data."

Survey Name	Maximum 100 cm^2 Area ($dpm/100cm^2$)	Mean of 100 cm^2 Areas ($dpm/100cm^2$)	MDC ($dpm/100cm^2$)
SCS7070Z	1754	-381	1339

Add the following after the last paragraph of section 6.6.1:

"The following table provides the summary of the SCM data."

Survey Name	Maximum 100 cm^2 Area ($dpm/100cm^2$)	Mean of 100 cm^2 Areas ($dpm/100cm^2$)	MDC ($dpm/100cm^2$)
SCS7072S	1859	-377	1668
SCS7072Z	2645	-221	1894

Add the following after the last paragraph of section 6.7.1:

"The following table provides the summary of the SCM data."

Survey Name	Maximum 100 cm^2 Area ($dpm/100cm^2$)	Mean of 100 cm^2 Areas ($dpm/100cm^2$)	MDC ($dpm/100cm^2$)
SCS7061Z	2219	-185	1298

Add the following after the last paragraph of section 6.8.1:

"The following table provides the summary of the SCM data."

Survey Name	Maximum 100 cm^2 Area ($dpm/100cm^2$)	Mean of 100 cm^2 Areas ($dpm/100cm^2$)	MDC ($dpm/100cm^2$)
SCS7062R	1827	-33	1350
SCS7062S	1510	-82	1243
SCS7062T	1405	25	1493
SCS7062Z	1616	-243	1207
SCS7063Z	1932	163	1590
SCS7064R	1616	-30	1312
SCS7064S	2038	-8	1462
SCS7064T	1721	-30	1335
SCS7064Z	2038	23	1421

Survey Report SSGS Basement (continued)

Add the following after the last paragraph of section 6.9.1:

"The following table provides the summary of the SCM data."

Survey Name	Maximum 100 cm^2 Area ($dpm/100cm^2$)	Mean of 100 cm^2 Areas ($dpm/100cm^2$)	MDC ($dpm/100cm^2$)
SCS7065R	1367	-152	1102
SCS7065S	1721	-96	1214
SCS7065T	1405	-133	1197
SCS7065U	1932	-44	1241
SCS7065V	1616	-43	1309
SCS7065Z	1616	-59	1285
SCS7071X	1965	96	1926

10) Change section 7.4.2 to add after table 7.4-3 to read:

"Since the SCM collects data in a positionally sensitive pixel process similar to full coverage fixed point measurements, comparisons of the SCM data can be made. Although exact pixel to pixel comparisons are impractical due to the limitations on the positional accuracy, the overall results agree as shown in the table below, since both sets reach the same conclusion that the survey unit passes."

Table 7.4-4 Basement SCM QC comparison

Survey area	Initial SCM results ($cpm/100\ cm^2$)	QC SCM results ($cpm/100cm^2$)
SS14-1	143	144
SS14-2	7	-170
SS14-3	-223	-488
SS14-4	129	517
SS14-5	-257	-417
SS15	-142	-212
SS16	196	68
SS17	-26	-37
SS17	220	-119

Note: Some of the above changes may not be based on specific comments for this report but are consistent with comments made on other reports

Survey Report SSGS Firing Aisle

(GPU Nuclear Letter E910-05-036 comments from ORISE Letter dated August 19, 2005)

1a) The cumulative frequency distribution of the data collected is used to select a background from a group of backgrounds that are collected on various surfaces at the site. No changes to the report are required

1b) Replace the fist two sentences of the third paragraph of sections 6.1.1 and 6.2.1 with:
"All SCM surveys indicated less than the 75% Administrative Limit."

1c) Since the class 3 areas of the firing aisle were floor and wall surfaces and did not contain specific contaminated systems the class 3 surfaces are expected to be uniformly contaminated with no locations of unusual concentrations such as would occur if systems or equipment were present. Therefore, the class 3 surfaces surveyed with the SCM were fully representative of the possible residual radioactivity. No changes to the report are required.

1d) Change items 1 and 2 in section 8.0 to read:
"1) The average residual radioactivity on the surfaces is less than the 75% Administrative Limit in both of the survey units.
2) All measurements were less than the 75% Administrative Limit in both of the survey units."

2&3) Change section 7.4.2 to read:
"Since no fixed point measurements were required due to the unique nature of the SCM scanning, no specific fixed point QC measurements were taken. However, since the SCM collects data in a positionally sensitive pixel process similar to full coverage fixed point measurements, comparisons of the SCM data can be made. Although exact pixel to pixel comparisons are impractical due to the limitations on the positional accuracy, the overall results agree as shown in the table below, since both sets reach the same conclusion that the survey unit passes."

Table 2 Firing Aisle SCM QC comparison

Survey area	Initial SCM results (cpm/100 cm^2)	QC SCM results (cpm/100cm^2)
SS13-1	-24	-388
SS13-2	-108	-301

4) Add the following paragraph at the end of section 5.0:
"Portions of this survey were conducted with an automated positionally sensitive proportional counter Surface Contamination Monitor (SCM) system. The SCM is typically used in a scanning (rolling) mode. In rolling mode, the SCM logs information in 25 square centimeter 'bins' by logging data for each 5 cm width of the detector and for each 5 cm of travel. A precision wheel encoder measures the distance traveled. Data are recorded in 25 square centimeter pixels over the entire surface surveyed, meaning the SCM records 400 measurements for every square meter it covers. When SCM data is analyzed, the software considers each 25 square centimeter measurement as 1/4 of four separate 100 square centimeter areas. This technique ensures that the highest activity 100 square centimeter area is identified. The collection of large amounts of data in discrete values allows the data to be evaluated via statistical methods that consider the distribution of activity on the surface in addition to its average concentration."

Survey Report SSGS Firing Aisle (continued)

5) Add the following after the last paragraph of section 6.1.1:

"The following table provides the summary of the SCM data."

Survey Name	Maximum 100 cm^2 Area ($dpm/100cm^2$)	Mean of 100 cm^2 Areas ($dpm/100cm^2$)	MDC ($dpm/100cm^2$)
SRS7056Z	5869	-234	3622

Add the following after the last paragraph of section 6.2.1:

"The following table provides the summary of the SCM data."

Survey Name	Maximum 100 cm^2 Area ($dpm/100cm^2$)	Mean of 100 cm^2 Areas ($dpm/100cm^2$)	MDC ($dpm/100cm^2$)
SRS7057L	4949	561	4304
SRS7057X	3844	-163	2936

Note: Some of the above changes may not be based on specific comments for this report but are consistent with comments made on other reports

Survey Report SSGS Seal Chambers
(GPU Nuclear Letter E910-05-038 comments from ORISE Letter dated August 19, 2005)

1) Change items 1 and 2 in section 8.0 to read:

   "1) The average residual radioactivity on the surfaces is less than the 75% Administrative Limit in all of the survey units.

   2) All measurements were less than the 75% Administrative Limit in all of the survey units except for one concrete sample in SS8-2."

2) Change center and right column headings in table 5.0.1 from "SS8-1, SS8-1, SS8-3" to: "SS8-1, SS8-2, SS8-3"

Note: Some of the above changes may not be based on specific comments for this report but are consistent with comments made on other reports

Survey Report Embedded Buried Piping
(GPU Nuclear Letter E910-05-055 comments from ORISE Letter dated August 23, 2005)
There were no comments requiring resolution on this report