APPENDIX D
Structure and Outdoor Surface Direct Activity Results

R-14 Outdoor Surface Direct Alpha Activity Results

Survey Unit 4A, Class 2

Detector Active Area (cm^2)	126
2224/43-68 alpha efficiency	0.125

Alpha Activity DCGL (dpm/100 cm^2)	100

Sample Count Time (min)	1.0
Background Count Time (min)	1.0

	ID	Date	Background Counts	Sample Counts	Background cpm	Sample cpm	Sample (dpm/100 cm^2)	Sign Test Parameter
1	AS-04-01	9/29/2008	0	7	0.0	7.0	44.4	1
2	AS-04-02	9/29/2008	0	9	0.0	9.0	57.1	1
3	AS-04-03	9/29/2008	0	9	0.0	9.0	57.1	1
4	AS-04-04	9/29/2008	0	2	0.0	2.0	12.7	1
5	AS-04-05	9/29/2008	0	3	0.0	3.0	19.0	1
6	AS-04-06	9/29/2008	0	1	0.0	1.0	6.3	1
7	AS-04-07	9/29/2008	0	1	0.0	1.0	6.3	1
8	AS-04-08	9/29/2008	0	3	0.0	3.0	19.0	1
9	AS-04-09	9/29/2008	0	1	0.0	1.0	6.3	1
10	AS-04-10	9/29/2008	0	2	0.0	2.0	12.7	1
11	AS-04-11	9/29/2008	0	6	0.0	6.0	38.1	1
12	AS-04-12	9/29/2008	0	6	0.0	6.0	38.1	1
13	AS-04-13	9/29/2008	0	4	0.0	4.0	25.4	1
14	AS-04-14	9/29/2008	0	4	0.0	4.0	25.4	1
15	AS-04-15	9/29/2008	0	4	0.0	4.0	25.4	1
16	AS-04-16	9/29/2008	0	6	0.0	6.0	38.1	1
17	AS-04-17	9/29/2008	0	4	0.0	4.0	25.4	1
18	AS-04-18	9/29/2008	0	4	0.0	4.0	25.4	1
19	AS-04-19	9/29/2008	0	2	0.0	2.0	12.7	1
20	AS-04-20	9/29/2008	0	3	0.0	3.0	19.0	1

Mean	25.7
Median	25.4
Std Dev	15.5
Minimum	6.3
Maximum	57.1

MARSSIM Sign Test Evaluation[1]	
Sum of Positive Signs	*20*
Sign Test Critical Value N = 20	*14*
Null Hypothesis Evaluation	*Rejected*
Survey Unit Evaluation	***PASS***

NOTES

1 MARSSIM Sign Test parameter. If Result > DCGLw, Sign = -1, otherwise 1.

R-14 Outdoor Surface Direct Alpha Activity Results

Survey Unit 5A, Class 2

Detector Active Area (cm^2)	126
2224/43-68 alpha efficiency	0.125

Alpha Activity DCGL (dpm/100 cm^2)	100

Sample Count Time (min)	1.0
Background Count Time (min)	1.0

	ID	Date	Background Counts	Sample Counts	Background cpm	Sample cpm	Sample (dpm/100 cm^2)	Sign Test Parameter
1	AS-05-01	7/23/2008	1	4	1.0	4.0	19.0	1
2	AS-05-02	7/23/2008	1	1	1.0	1.0	0.0	1
3	AS-05-03	7/23/2008	1	6	1.0	6.0	31.7	1
4	AS-05-04	7/23/2008	1	2	1.0	2.0	6.3	1
5	AS-05-05	7/23/2008	1	10	1.0	10.0	57.1	1
6	AS-05-06	7/23/2008	1	4	1.0	4.0	19.0	1
7	AS-05-07	7/23/2008	1	2	1.0	2.0	6.3	1
8	AS-05-08	7/23/2008	1	6	1.0	6.0	31.7	1
9	AS-05-09	7/23/2008	1	4	1.0	4.0	19.0	1
10	AS-05-10	7/23/2008	1	1	1.0	1.0	0.0	1
11	AS-05-11	7/23/2008	1	5	1.0	5.0	25.4	1
12	AS-05-12	7/23/2008	1	10	1.0	10.0	57.1	1
13	AS-05-13	7/23/2008	1	5	1.0	5.0	25.4	1
14	AS-05-14	7/23/2008	1	2	1.0	2.0	6.3	1
15	AS-05-15	7/23/2008	1	4	1.0	4.0	19.0	1
16	AS-05-16	7/23/2008	1	8	1.0	8.0	44.4	1
17	AS-05-17	7/23/2008	1	6	1.0	6.0	31.7	1
18	AS-05-18	7/23/2008	1	4	1.0	4.0	19.0	1
19	AS-05-19	7/23/2008	1	2	1.0	2.0	6.3	1
20	AS-05-20	7/23/2008	1	6	1.0	6.0	31.7	1

Mean	22.9
Median	19.0
Std Dev	16.8
Minimum	0.0
Maximum	57.1

MARSSIM Sign Test Evaluation[1]	
Sum of Positive Signs	*20*
Sign Test Critical Value N = 20	*14*
Null Hypothesis Evaluation	*Rejected*
Survey Unit Evaluation	***PASS***

NOTES

1 MARSSIM Sign Test parameter. If Result > DCGLw, Sign = -1, otherwise 1.

R-14 Outdoor Surface Direct Alpha Activity Results

Survey Unit 6A, Class 2

Detector Active Area (cm^2)	126
2224/43-68 alpha efficiency	0.125

Alpha Activity DCGL (dpm/100 cm^2)	100

Sample Count Time (min)	1.0
Background Count Time (min)	1.0

	ID	Date	Background Counts	Sample Counts	Background cpm	Sample cpm	Sample (dpm/100 cm^2)	Sign Test Parameter
1	AS-06-01	7/23/2008	1	5	1.0	5.0	25.4	1
2	AS-06-02	7/23/2008	1	7	1.0	7.0	38.1	1
3	AS-06-03	7/23/2008	1	0	1.0	0.0	-6.3	1
4	AS-06-04	7/23/2008	1	3	1.0	3.0	12.7	1
5	AS-06-05	7/23/2008	1	1	1.0	1.0	0.0	1
6	AS-06-06	7/23/2008	1	6	1.0	6.0	31.7	1
7	AS-06-07	7/23/2008	1	3	1.0	3.0	12.7	1
8	AS-06-08	7/23/2008	1	9	1.0	9.0	50.8	1
9	AS-06-09	7/23/2008	1	4	1.0	4.0	19.0	1
10	AS-06-10	7/23/2008	1	5	1.0	5.0	25.4	1
11	AS-06-11	7/23/2008	1	4	1.0	4.0	19.0	1
12	AS-06-12	7/23/2008	1	4	1.0	4.0	19.0	1
13	AS-06-13	7/23/2008	1	3	1.0	3.0	12.7	1
14	AS-06-14	7/23/2008	1	3	1.0	3.0	12.7	1
15	AS-06-15	7/23/2008	1	2	1.0	2.0	6.3	1
16	AS-06-16	7/23/2008	1	5	1.0	5.0	25.4	1
17	AS-06-17	7/23/2008	1	3	1.0	3.0	12.7	1
18	AS-06-18	7/23/2008	1	5	1.0	5.0	25.4	1
19	AS-06-19	7/23/2008	1	2	1.0	2.0	6.3	1
20	AS-06-20	7/23/2008	1	1	1.0	1.0	0.0	1

Mean	17.5
Median	15.9
Std Dev	13.6
Minimum	-6.3
Maximum	50.8

MARSSIM Sign Test Evaluation[1]	
Sum of Positive Signs	*20*
Sign Test Critical Value N = 20	*14*
Null Hypothesis Evaluation	*Rejected*
Survey Unit Evaluation	***PASS***

NOTES

1 MARSSIM Sign Test parameter. If Result > DCGLw, Sign = -1, otherwise 1.

R-14 Structure Direct Alpha Activity Results

Survey Unit 7A, Class 1

Detector Active Area (cm^2)	126
2224/43-68 alpha efficiency	0.125

Alpha Activity DCGL (dpm/100 cm^2)	100

Sample Count Time (min)	1.0
Background Count Time (min)	1.0

	ID	Date	Background Counts	Sample Counts	Background cpm	Sample cpm	Sample (dpm/100 cm^2)	Sign Test Parameter
1	AS-07A-01	9/17/2008	1	9	1.0	9.0	50.8	1
2	AS-07A-02	9/17/2008	1	4	1.0	4.0	19.0	1
3	AS-07A-03	9/17/2008	1	11	1.0	11.0	63.5	1
4	AS-07A-04	9/17/2008	1	3	1.0	3.0	12.7	1
5	AS-07A-05	9/17/2008	1	1	1.0	1.0	0.0	1
6	AS-07A-06	9/17/2008	1	8	1.0	8.0	44.4	1
7	AS-07A-07	9/17/2008	1	8	1.0	8.0	44.4	1
8	AS-07A-08	9/17/2008	1	8	1.0	8.0	44.4	1
9	AS-07A-09	9/17/2008	1	1	1.0	1.0	0.0	1
10	AS-07A-10	9/17/2008	1	1	1.0	1.0	0.0	1
11	AS-07A-11	9/17/2008	1	6	1.0	6.0	31.7	1
12	AS-07A-12	9/17/2008	1	4	1.0	4.0	19.0	1
13	AS-07A-13	9/17/2008	1	4	1.0	4.0	19.0	1
14	AS-07A-14	9/17/2008	1	1	1.0	1.0	0.0	1
15	AS-07A-15	9/17/2008	1	2	1.0	2.0	6.3	1
16	AS-07A-16	9/17/2008	1	1	1.0	1.0	0.0	1
17	AS-07A-17	9/17/2008	1	4	1.0	4.0	19.0	1
18	AS-07A-18	9/17/2008	1	5	1.0	5.0	25.4	1
19	AS-07A-19	9/17/2008	1	4	1.0	4.0	19.0	1
20	AS-07A-20	9/17/2008	1	1	1.0	1.0	0.0	1

Mean	21.0
Median	19.0
Std Dev	19.8
Minimum	0.0
Maximum	63.5

MARSSIM Sign Test Evaluation[1]	
Sum of Positive Signs	*20*
Sign Test Critical Value N = 20	*14*
Null Hypothesis Evaluation	*Rejected*
Survey Unit Evaluation	***PASS***

NOTES

1 MARSSIM Sign Test parameter. If Result > DCGLw, Sign = -1, otherwise 1.

R-14 Structure Direct Alpha Activity Results

Survey Unit 7B, Class 1

Detector Active Area (cm^2)	126
2224/43-68 alpha efficiency	0.125

Alpha Activity DCGL (dpm/100 cm^2)	100

Sample Count Time (min)	1.0
Background Count Time (min)	1.0

	ID	Date	Background Counts	Sample Counts	Background cpm	Sample cpm	Sample (dpm/100 cm^2)	Sign Test Parameter
1	AS-07B-01	9/24/2008	1	4	1.0	4.0	19.0	1
2	AS-07B-02	9/24/2008	1	9	1.0	9.0	50.8	1
3	AS-07B-03	9/24/2008	1	4	1.0	4.0	19.0	1
4	AS-07B-04	9/24/2008	1	7	1.0	7.0	38.1	1
5	AS-07B-05	9/24/2008	1	3	1.0	3.0	12.7	1
6	AS-07B-06	9/24/2008	1	2	1.0	2.0	6.3	1
7	AS-07B-07	9/24/2008	1	6	1.0	6.0	31.7	1
8	AS-07B-08	9/24/2008	1	4	1.0	4.0	19.0	1
9	AS-07B-09	9/24/2008	1	7	1.0	7.0	38.1	1
10	AS-07B-10	9/24/2008	1	2	1.0	2.0	6.3	1
11	AS-07B-11	9/24/2008	1	2	1.0	2.0	6.3	1
12	AS-07B-12	9/24/2008	1	9	1.0	9.0	50.8	1
13	AS-07B-13	9/24/2008	1	2	1.0	2.0	6.3	1
14	AS-07B-14	9/24/2008	1	7	1.0	7.0	38.1	1
15	AS-07B-15	9/24/2008	1	5	1.0	5.0	25.4	1
16	AS-07B-16	9/24/2008	1	5	1.0	5.0	25.4	1
17	AS-07B-17	9/24/2008	1	4	1.0	4.0	19.0	1
18	AS-07B-18	9/24/2008	1	4	1.0	4.0	19.0	1
19	AS-07B-19	9/24/2008	1	5	1.0	5.0	25.4	1
20	AS-07B-20	9/24/2008	1	5	1.0	5.0	25.4	1

Mean	24.1
Median	22.2
Std Dev	13.8
Minimum	6.3
Maximum	50.8

MARSSIM Sign Test Evaluation[1]	
Sum of Positive Signs	*20*
Sign Test Critical Value N = 20	*14*
Null Hypothesis Evaluation	*Rejected*
Survey Unit Evaluation	***PASS***

NOTES

1 MARSSIM Sign Test parameter. If Result > DCGLw, Sign = -1, otherwise 1.

R-14 Structure Direct Alpha Activity Results

Survey Unit 7C, Class 1

Detector Active Area (cm^2)	126
2224/43-68 alpha efficiency	0.125

Alpha Activity DCGL (dpm/100 cm^2)	100

Sample Count Time (min)	1.0
Background Count Time (min)	1.0

	ID	Date	Background Counts	Sample Counts	Background cpm	Sample cpm	Sample (dpm/100 cm^2)	Sign Test Parameter
1	AS-07C-01	9/24/2008	1	3	1.0	3.0	12.7	1
2	AS-07C-02	9/24/2008	1	2	1.0	2.0	6.3	1
3	AS-07C-03	9/24/2008	1	4	1.0	4.0	19.0	1
4	AS-07C-04	9/24/2008	1	5	1.0	5.0	25.4	1
5	AS-07C-05	9/24/2008	1	5	1.0	5.0	25.4	1
6	AS-07C-06	9/24/2008	1	2	1.0	2.0	6.3	1
7	AS-07C-07	9/24/2008	1	2	1.0	2.0	6.3	1
8	AS-07C-08	9/24/2008	1	1	1.0	1.0	0.0	1
9	AS-07C-09	9/24/2008	1	3	1.0	3.0	12.7	1
10	AS-07C-10	9/24/2008	1	2	1.0	2.0	6.3	1
11	AS-07C-11	9/24/2008	1	2	1.0	2.0	6.3	1
12	AS-07C-12	9/24/2008	1	9	1.0	9.0	50.8	1
13	AS-07C-13	9/24/2008	1	4	1.0	4.0	19.0	1
14	AS-07C-14	9/24/2008	1	1	1.0	1.0	0.0	1
15	AS-07C-15	9/24/2008	1	9	1.0	9.0	50.8	1
16	AS-07C-16	9/24/2008	1	4	1.0	4.0	19.0	1
17	AS-07C-17	9/24/2008	1	5	1.0	5.0	25.4	1
18	AS-07C-18	9/24/2008	1	6	1.0	6.0	31.7	1
19	AS-07C-19	9/24/2008	1	9	1.0	9.0	50.8	1
20	AS-07C-20	9/24/2008	1	4	1.0	4.0	19.0	1

Mean	19.7
Median	19.0
Std Dev	16.1
Minimum	0.0
Maximum	50.8

MARSSIM Sign Test Evaluation[1]	
Sum of Positive Signs	*20*
Sign Test Critical Value N = 20	*14*
Null Hypothesis Evaluation	*Rejected*
Survey Unit Evaluation	***PASS***

NOTES

1 MARSSIM Sign Test parameter. If Result > DCGLw, Sign = -1, otherwise 1.

R-14 Structure Direct Alpha Activity Results

Survey Unit 7D, Class 1

Detector Active Area (cm^2)	126
2224/43-68 alpha efficiency	0.125

Alpha Activity DCGL (dpm/100 cm^2)	100

Sample Count Time (min)	1.0
Background Count Time (min)	1.0

	ID	Date	Background Counts	Sample Counts	Background cpm	Sample cpm	Sample (dpm/100 cm^2)	Sign Test Parameter
1	AS-07D-01	9/25/2008	0	2	0.0	2.0	12.7	1
2	AS-07D-02	9/25/2008	0	5	0.0	5.0	31.7	1
3	AS-07D-03	9/25/2008	0	3	0.0	3.0	19.0	1
4	AS-07D-04	9/25/2008	0	2	0.0	2.0	12.7	1
5	AS-07D-05	9/25/2008	0	1	0.0	1.0	6.3	1
6	AS-07D-06	9/25/2008	0	4	0.0	4.0	25.4	1
7	AS-07D-07	9/25/2008	0	4	0.0	4.0	25.4	1
8	AS-07D-08	9/25/2008	0	4	0.0	4.0	25.4	1
9	AS-07D-09	9/25/2008	0	1	0.0	1.0	6.3	1
10	AS-07D-10	9/24/2008	1	1	1.0	1.0	0.0	1
11	AS-07D-11	9/24/2008	1	1	1.0	1.0	0.0	1
12	AS-07D-12	9/24/2008	1	3	1.0	3.0	12.7	1
13	AS-07D-13	9/25/2008	0	1	0.0	1.0	6.3	1
14	AS-07D-14	9/24/2008	1	0	1.0	0.0	-6.3	1
15	AS-07D-15	9/24/2008	1	3	1.0	3.0	12.7	1
16	AS-07D-16	9/25/2008	0	2	0.0	2.0	12.7	1
17	AS-07D-17	9/24/2008	1	3	1.0	3.0	12.7	1
18	AS-07D-18	9/24/2008	1	2	1.0	2.0	6.3	1
19	AS-07D-19	9/24/2008	1	7	1.0	7.0	38.1	1
20	AS-07D-20	9/24/2008	1	9	1.0	9.0	50.8	1

Mean	15.6
Median	12.7
Std Dev	13.9
Minimum	-6.3
Maximum	50.8

MARSSIM Sign Test Evaluation[1]	
Sum of Positive Signs	*20*
Sign Test Critical Value N = 20	*14*
Null Hypothesis Evaluation	*Rejected*
Survey Unit Evaluation	***PASS***

NOTES

1 MARSSIM Sign Test parameter. If Result > DCGLw, Sign = -1, otherwise 1.

R-14 Structure Direct Alpha Activity Results

Survey Unit 7E, Class 1

Detector Active Area (cm^2)	126
2224/43-68 alpha efficiency	0.125

Alpha Activity DCGL (dpm/100 cm^2)	100

Sample Count Time (min)	1.0
Background Count Time (min)	1.0

	ID	Date	Background Counts	Sample Counts	Background cpm	Sample cpm	Sample (dpm/100 cm^2)	Sign Test Parameter
1	AS-07E-01	9/25/2008	0	2	0.0	2.0	12.7	1
2	AS-07E-02	9/25/2008	0	2	0.0	2.0	12.7	1
3	AS-07E-03	9/25/2008	0	4	0.0	4.0	25.4	1
4	AS-07E-04	9/25/2008	0	2	0.0	2.0	12.7	1
5	AS-07E-05	9/25/2008	0	0	0.0	0.0	0.0	1
6	AS-07E-06	9/25/2008	0	3	0.0	3.0	19.0	1
7	AS-07E-07	9/25/2008	0	1	0.0	1.0	6.3	1
8	AS-07E-08	9/25/2008	0	3	0.0	3.0	19.0	1
9	AS-07E-09	9/25/2008	0	1	0.0	1.0	6.3	1
10	AS-07E-10	9/25/2008	0	0	0.0	0.0	0.0	1
11	AS-07E-11	9/25/2008	0	2	0.0	2.0	12.7	1
12	AS-07E-12	9/25/2008	0	4	0.0	4.0	25.4	1
13	AS-07E-13	9/25/2008	0	0	0.0	0.0	0.0	1
14	AS-07E-14	9/25/2008	0	3	0.0	3.0	19.0	1
15	AS-07E-15	9/25/2008	0	1	0.0	1.0	6.3	1
16	AS-07E-16	9/25/2008	0	0	0.0	0.0	0.0	1
17	AS-07E-17	9/25/2008	0	2	0.0	2.0	12.7	1
18	AS-07E-18	9/25/2008	0	8	0.0	8.0	50.8	1
19	AS-07E-19	9/25/2008	0	0	0.0	0.0	0.0	1
20	AS-07E-20	9/25/2008	0	3	0.0	3.0	19.0	1

Mean	13.0
Median	12.7
Std Dev	12.3
Minimum	0.0
Maximum	50.8

MARSSIM Sign Test Evaluation[1]	
Sum of Positive Signs	*20*
Sign Test Critical Value N = 20	*14*
Null Hypothesis Evaluation	*Rejected*
Survey Unit Evaluation	***PASS***

NOTES

1 MARSSIM Sign Test parameter. If Result > DCGLw, Sign = -1, otherwise 1.

R-14 Structure Direct Alpha Activity Results

Building 1150D, Survey Unit 8, Class 3

Detector Active Area (cm^2)	582
2360/43-37 alpha efficiency	0.124

Alpha Activity DCGL (dpm/100 cm^2)	100

Sample Count Time (min)	1.0
Background Count Time (min)	1.0

	ID	Date	Background Counts	Sample Counts	Background cpm	Sample cpm	Sample (dpm/100 cm^2)	Sign Test Parameter
1	1150D-01	7/21/2008	17	24	17.0	24.0	9.7	1
2	1150D-02	7/21/2008	17	28	17.0	28.0	15.2	1
3	1150D-03	7/21/2008	17	13	17.0	13.0	-5.5	1
4	1150D-04	7/21/2008	17	20	17.0	20.0	4.2	1
5	1150D-05	7/21/2008	17	13	17.0	13.0	-5.5	1
6	1150D-06	7/21/2008	17	14	17.0	14.0	-4.2	1
7	1150D-07	7/21/2008	17	24	17.0	24.0	9.7	1
8	1150D-08	7/21/2008	17	21	17.0	21.0	5.5	1
9	1150D-09	7/21/2008	17	19	17.0	19.0	2.8	1
10	1150D-10	7/21/2008	17	25	17.0	25.0	11.1	1
11	1150D-11	7/21/2008	17	26	17.0	26.0	12.5	1
12	1150D-12	7/21/2008	17	16	17.0	16.0	-1.4	1
13	1150D-13	7/21/2008	17	14	17.0	14.0	-4.2	1
14	1150D-14	7/21/2008	17	24	17.0	24.0	9.7	1
15	1150D-15	7/21/2008	17	22	17.0	22.0	6.9	1
16	1150D-16	7/21/2008	17	18	17.0	18.0	1.4	1
17	1150D-17	7/21/2008	17	12	17.0	12.0	-6.9	1
18	1150D-18	7/21/2008	17	19	17.0	19.0	2.8	1
19	1150D-19	7/21/2008	17	16	17.0	16.0	-1.4	1
20	1150D-20	7/21/2008	17	16	17.0	16.0	-1.4	1

Mean	3.0
Median	2.8
Std Dev	6.8
Minimum	-6.9
Maximum	15.2

MARSSIM Sign Test Evaluation[1]	
Sum of Positive Signs	*20*
Sign Test Critical Value N = 20	*14*
Null Hypothesis Evaluation	*Rejected*
Survey Unit Evaluation	***PASS***

NOTES

1 MARSSIM Sign Test parameter. If Result > DCGLw, Sign = -1, otherwise 1.

R-14 Structure Direct Alpha Activity Results

Wash Rack Shed Building, Survey Unit 9, Class 3

Detector Active Area (cm^2)	582
2360/43-37 alpha efficiency	0.124

Alpha Activity DCGL (dpm/100 cm^2)	100

Sample Count Time (min)	1.0
Background Count Time (min)	1.0

	ID	Date	Background Counts	Sample Counts	Background cpm	Sample cpm	Sample (dpm/100 cm^2)	Sign Test Parameter
1	WRS-01	7/21/2008	17	16	17.0	16.0	-1.4	1
2	WRS-02	7/21/2008	17	13	17.0	13.0	-5.5	1
3	WRS-03	7/21/2008	17	14	17.0	14.0	-4.2	1
4	WRS-04	7/21/2008	17	16	17.0	16.0	-1.4	1
5	WRS-05	7/21/2008	17	19	17.0	19.0	2.8	1
6	WRS-06	7/21/2008	17	13	17.0	13.0	-5.5	1
7	WRS-07	7/21/2008	17	12	17.0	12.0	-6.9	1
8	WRS-08	7/21/2008	17	17	17.0	17.0	0.0	1
9	WRS-09	7/21/2008	17	17	17.0	17.0	0.0	1
10	WRS-10	7/21/2008	17	11	17.0	11.0	-8.3	1
11	WRS-11	7/21/2008	17	13	17.0	13.0	-5.5	1
12	WRS-12	7/21/2008	17	13	17.0	13.0	-5.5	1
13	WRS-13	7/21/2008	17	14	17.0	14.0	-4.2	1
14	WRS-14	7/21/2008	17	17	17.0	17.0	0.0	1
15	WRS-15	7/21/2008	17	15	17.0	15.0	-2.8	1
16	WRS-16	7/21/2008	17	20	17.0	20.0	4.2	1
17	WRS-17	7/21/2008	17	14	17.0	14.0	-4.2	1
18	WRS-18	7/21/2008	17	13	17.0	13.0	-5.5	1
19	WRS-19	7/21/2008	17	12	17.0	12.0	-6.9	1
20	WRS-20	7/21/2008	17	31	17.0	31.0	19.4	1

Mean	-2.1
Median	-4.2
Std Dev	6.1
Minimum	-8.3
Maximum	19.4

MARSSIM Sign Test Evaluation[1]	
Sum of Positive Signs	*20*
Sign Test Critical Value N = 20	*14*
Null Hypothesis Evaluation	*Rejected*
Survey Unit Evaluation	***PASS***

NOTES

1 MARSSIM Sign Test parameter. If Result > DCGLw, Sign = -1, otherwise 1.

R-14 Structure Direct Alpha Activity Results

Evaporator Building, Survey Unit 10, Class 3

Detector Active Area (cm^2)	126
2224/43-68 alpha efficiency	0.125

Alpha Activity DCGL (dpm/100 cm^2)	100

Sample Count Time (min)	1.0
Background Count Time (min)	1.0

	ID	Date	Background Counts	Sample Counts	Background cpm	Sample cpm	Sample (dpm/100 cm^2)	Sign Test Parameter
1	WL1-10-01	10/1/2008	1	1	1.0	1.0	0.0	1
2	CL-10-02	10/2/2008	0	2	0.0	2.0	12.7	1
3	WL2-10-03	10/2/2008	0	1	0.0	1.0	6.3	1
4	WL2-10-04	10/1/2008	1	2	1.0	2.0	6.3	1
5	CL-10-05	10/2/2008	0	2	0.0	2.0	12.7	1
6	WL3-10-06	10/1/2008	1	7	1.0	7.0	38.1	1
7	WL3-10-07	10/2/2008	0	0	0.0	0.0	0.0	1
8	CL-10-08	10/2/2008	0	2	0.0	2.0	12.7	1
9	WL2-10-09	10/2/2008	0	4	0.0	4.0	25.4	1
10	CL-10-10	10/2/2008	0	3	0.0	3.0	19.0	1
11	CL-10-11	10/2/2008	0	1	0.0	1.0	6.3	1
12	CL-10-12	10/2/2008	0	6	0.0	6.0	38.1	1
13	FL-10-13	10/1/2008	1	3	1.0	3.0	12.7	1
14	FL-10-14	10/1/2008	1	3	1.0	3.0	12.7	1
15	CL-10-15	10/2/2008	0	5	0.0	5.0	31.7	1
16	WL3-10-16	10/1/2008	1	1	1.0	1.0	0.0	1
17	WL1-10-17	10/1/2008	1	2	1.0	2.0	6.3	1
18	FL-10-18	10/1/2008	1	5	1.0	5.0	25.4	1
19	FL-10-19	10/1/2008	1	3	1.0	3.0	12.7	1
20	WL2-10-20	10/2/2008	0	2	0.0	2.0	12.7	1

Mean	14.6
Median	12.7
Std Dev	11.7
Minimum	0.0
Maximum	38.1

MARSSIM Sign Test Evaluation[1]	
Sum of Positive Signs	*20*
Sign Test Critical Value N = 20	*14*
Null Hypothesis Evaluation	*Rejected*
Survey Unit Evaluation	***PASS***

NOTES

1 MARSSIM Sign Test parameter. If Result > DCGLw, Sign = -1, otherwise 1.

APPENDIX D
Structure and Outdoor Surface Biased Direct Activity Results

R-14 Outdoor Surface Biased Direct Alpha Activity Results

Survey Unit 4A, Class 2

Detector Active Area (cm^2)	126
2224/43-68 alpha efficiency	0.125

Alpha Activity DCGL (dpm/100 cm^2)	100

Sample Count Time (min)	1.0
Background Count Time (min)	1.0

	ID	Date	Background Counts	Sample Counts	Background cpm	Sample cpm	Sample (dpm/100 cm^2)
1	AS-04A-21	9/24/2008	1	4	1.0	4.0	19.0
						Mean	19.0
						Median	19.0
						Std Dev	N/A
						Minimum	19.0
						Maximum	19.0

R-14 Outdoor Surface Biased Direct Alpha Activity Results

Survey Unit 5A, Class 2

Detector Active Area (cm^2)	126
2224/43-68 alpha efficiency	0.125

Alpha Activity DCGL (dpm/100 cm^2)	100

Sample Count Time (min)	1.0
Background Count Time (min)	1.0

	ID	Date	Background Counts	Sample Counts	Background cpm	Sample cpm	Sample (dpm/100 cm^2)
1	AS-05-21	7/31/2008	0	1	0.0	1.0	6.3
2	AS-05-22	7/31/2008	0	4	0.0	4.0	25.4
3	AS-05-23	7/31/2008	0	2	0.0	2.0	12.7
						Mean	14.8
						Median	12.7
						Std Dev	9.7
						Minimum	6.3
						Maximum	25.4

R-14 Outdoor Surface Biased Direct Alpha Activity Results

Survey Unit 6A, Class 2

Detector Active Area (cm^2)	126
2224/43-68 alpha efficiency	0.125

Alpha Activity DCGL (dpm/100 cm^2)	100

Sample Count Time (min)	1.0
Background Count Time (min)	1.0

	ID	Date	Background Counts	Sample Counts	Background cpm	Sample cpm	Sample (dpm/100 cm^2)
1	AS-06A-21	9/25/2008	0	6	0.0	6.0	38.1
						Mean	38.1
						Median	38.1
						Std Dev	N/A
						Minimum	38.1
						Maximum	38.1

R-14 Structure Biased Direct Alpha Activity Results

Survey Unit 7, Class 1

Detector Active Area (cm^2)	126
2224/43-68 alpha efficiency	0.125

Alpha Activity DCGL (dpm/100 cm^2)	100

Sample Count Time (min)	1.0
Background Count Time (min)	1.0

Survey Unit	ID	Date	Background Counts	Sample Counts	Background cpm	Sample cpm	Sample (dpm/100 cm^2)
7C	AS-07C-21	9/24/2008	1	3	1.0	3.0	12.7
7D	AS-07D-21	9/24/2008	1	2	1.0	2.0	6.3
7E	AS-07E-21	9/25/2008	0	3	0.0	3.0	19.0
						Mean	12.7
						Median	12.7
						Std Dev	6.3
						Minimum	6.3
						Maximum	19.0

R-14 Structure Biased Direct Alpha Activity Results

Evaporator Building, Survey Unit 10, Class 3

Detector Active Area (cm^2)	125
2224-1/43-93 alpha efficiency	0.15

Alpha Activity DCGL (dpm/100 cm^2)	100
Sample Count Time (min)	1.0
Background Count Time (min)	1.0

	ID	Date	Background Counts	Sample Counts	Background cpm	Sample cpm	Sample (dpm/100 cm^2)
1	Evaporator Roof-01	10/1/2008	2	8	2.0	8.0	32.0
2	Evaporator Roof-02	10/1/2008	2	11	2.0	11.0	48.0
3	Evaporator Roof-03	10/1/2008	2	11	2.0	11.0	48.0
4	Evaporator Roof-04	10/1/2008	2	8	2.0	8.0	32.0
5	Evaporator Roof-05	10/1/2008	2	7	2.0	7.0	26.7
6	Evaporator Roof-06	10/1/2008	2	8	2.0	8.0	32.0
						Mean	36.4
						Median	32.0
						Std Dev	9.2
						Minimum	26.7
						Maximum	48.0

APPENDIX D
Structure and Outdoor Surface Removable Activity Results

R-14 Outdoor Surface Removable Alpha Activity Results

Survey Unit 4A, Class 2

Alpha Activity DCGL (dpm/100 cm^2)	10

2929/43-10-1 alpha efficiency	0.345

Sample Count Time (min)	4.0
Background Count Time (min)	20.0

	ID	Date	Background Counts	Sample Counts	Background cpm	Sample cpm	Sample (dpm/100 cm^2)
1	AS0-04-01R[1]	9/30/2008	22	3	1.1	0.8	-1.0
2	AS-04-02R[1]	9/30/2008	22	2	1.1	0.5	-1.7
3	AS-04-03	9/29/2008	20	2	1.0	0.5	-1.4
4	AS-04-04	9/29/2008	20	3	1.0	0.8	-0.7
5	AS-04-05	9/29/2008	20	7	1.0	1.8	2.2
6	AS-04-06	9/29/2008	20	0	1.0	0.0	-2.9
7	AS-04-07	9/29/2008	20	0	1.0	0.0	-2.9
8	AS-04-08	9/29/2008	20	8	1.0	2.0	2.9
9	AS-04-09	9/29/2008	20	3	1.0	0.8	-0.7
10	AS-04-10	9/29/2008	20	6	1.0	1.5	1.4
11	AS-04-11	9/29/2008	20	2	1.0	0.5	-1.4
12	AS-04-12	9/29/2008	20	5	1.0	1.3	0.7
13	AS-04-13	9/29/2008	20	1	1.0	0.3	-2.2
14	AS-04-14	9/29/2008	20	7	1.0	1.8	2.2
15	AS-04-15	9/29/2008	20	1	1.0	0.3	-2.2
16	AS-04-16	9/29/2008	20	8	1.0	2.0	2.9
17	AS-04-17	9/29/2008	20	1	1.0	0.3	-2.2
18	AS-04-18	9/29/2008	20	6	1.0	1.5	1.4
19	AS-04-19	9/29/2008	20	4	1.0	1.0	0.0
20	AS-04-20	9/29/2008	20	5	1.0	1.3	0.7

Mean	-0.2
Median	-0.7
Std Dev	1.9
Minimum	-2.9
Maximum	2.9

NOTES

1 Smear samples were recounted after one day to allow for decay of radon

R-14 Outdoor Surface Removable Alpha Activity Results

Survey Unit 5A, Class 2

Alpha Activity DCGL (dpm/100 cm^2)	10

2929/43-10-1 alpha efficiency	0.345

Sample Count Time (min)	4.0
Background Count Time (min)	20.0

	ID	Date	Background Counts	Sample Counts	Background cpm	Sample cpm	Sample (dpm/100 cm^2)
1	AS-05-01	7/23/2008	11	4	0.6	1.0	1.3
2	AS-05-02	7/23/2008	11	4	0.6	1.0	1.3
3	AS-05-03	7/23/2008	11	2	0.6	0.5	-0.1
4	AS-05-04	7/23/2008	11	1	0.6	0.3	-0.9
5	AS-05-05	7/23/2008	11	3	0.6	0.8	0.6
6	AS-05-06	7/23/2008	11	4	0.6	1.0	1.3
7	AS-05-07	7/23/2008	11	5	0.6	1.3	2.0
8	AS-05-08	7/23/2008	11	7	0.6	1.8	3.5
9	AS-05-09	7/23/2008	11	11	0.6	2.8	6.4
10	AS-05-10	7/23/2008	11	3	0.6	0.8	0.6
11	AS-05-11	7/23/2008	11	1	0.6	0.3	-0.9
12	AS-05-12	7/22/2008	25	0	1.3	0.0	-3.6
13	AS-05-13	7/22/2008	25	0	1.3	0.0	-3.6
14	AS-05-14	7/22/2008	25	3	1.3	0.8	-1.4
15	AS-05-15	7/22/2008	25	4	1.3	1.0	-0.7
16	AS-05-16	7/22/2008	25	3	1.3	0.8	-1.4
17	AS-05-17	7/22/2008	25	5	1.3	1.3	0.0
18	AS-05-18	7/22/2008	25	1	1.3	0.3	-2.9
19	AS-05-19	7/22/2008	25	2	1.3	0.5	-2.2
20	AS-05-20	7/22/2008	25	1	1.3	0.3	-2.9
						Mean	-0.2
						Median	-0.4
						Std Dev	2.5
						Minimum	-3.6
						Maximum	6.4

R-14 Outdoor Surface Removable Alpha Activity Results

Survey Unit 6A, Class 2

Alpha Activity DCGL (dpm/100 cm^2)	10

2929/43-10-1 alpha efficiency	0.345

Sample Count Time (min)	4.0
Background Count Time (min)	20.0

	ID	Date	Background Counts	Sample Counts	Background cpm	Sample cpm	Sample (dpm/100 cm^2)
1	AS-06-01	7/23/2008	11	2	0.6	0.5	-0.1
2	AS-06-02	7/23/2008	11	10	0.6	2.5	5.7
3	AS-06-03	7/23/2008	11	5	0.6	1.3	2.0
4	AS-06-04	7/23/2008	11	8	0.6	2.0	4.2
5	AS-06-05	7/23/2008	11	5	0.6	1.3	2.0
6	AS-06-06	7/23/2008	11	5	0.6	1.3	2.0
7	AS-06-07	7/23/2008	11	3	0.6	0.8	0.6
8	AS-06-08	7/23/2008	11	3	0.6	0.8	0.6
9	AS-06-09	7/23/2008	11	2	0.6	0.5	-0.1
10	AS-06-10	7/23/2008	11	4	0.6	1.0	1.3
11	AS-06-11	7/23/2008	11	2	0.6	0.5	-0.1
12	AS-06-12	7/23/2008	11	4	0.6	1.0	1.3
13	AS-06-13	7/23/2008	11	13	0.6	3.3	7.8
14	AS-06-14	7/23/2008	11	2	0.6	0.5	-0.1
15	AS-06-15	7/23/2008	11	6	0.6	1.5	2.8
16	AS-06-16	7/23/2008	11	0	0.6	0.0	-1.6
17	AS-06-17	7/23/2008	11	3	0.6	0.8	0.6
18	AS-06-18	7/23/2008	11	13	0.6	3.3	7.8
19	AS-06-19	7/23/2008	11	4	0.6	1.0	1.3
20	AS-06-20	7/23/2008	11	3	0.6	0.8	0.6
						Mean	1.9
						Median	1.3
						Std Dev	2.6
						Minimum	-1.6
						Maximum	7.8

R-14 Structure Removable Alpha Activity Results

Survey Unit 7A, Class 1

Alpha Activity DCGL (dpm/100 cm^2)	10

2929/43-10-1 alpha efficiency	0.345

Sample Count Time (min)	4.0
Background Count Time (min)	20.0

	ID	Date	Background Counts	Sample Counts	Background cpm	Sample cpm	Sample (dpm/100 cm^2)
1	AS-07A-01	9/17/2008	19	2	1.0	0.5	-1.3
2	AS-07A-02	9/17/2008	19	3	1.0	0.8	-0.6
3	AS-07A-03	9/17/2008	19	1	1.0	0.3	-2.0
4	AS-07A-04	9/17/2008	19	4	1.0	1.0	0.1
5	AS-07A-05	9/17/2008	19	2	1.0	0.5	-1.3
6	AS-07A-06	9/17/2008	19	5	1.0	1.3	0.9
7	AS-07A-07	9/17/2008	19	5	1.0	1.3	0.9
8	AS-07A-08	9/17/2008	19	2	1.0	0.5	-1.3
9	AS-07A-09	9/17/2008	19	6	1.0	1.5	1.6
10	AS-07A-10	9/17/2008	19	3	1.0	0.8	-0.6
11	AS-07A-11	9/17/2008	19	2	1.0	0.5	-1.3
12	AS-07A-12	9/17/2008	19	7	1.0	1.8	2.3
13	AS-07A-13	9/17/2008	19	5	1.0	1.3	0.9
14	AS-07A-14	9/18/2008	22	8	1.1	2.0	2.6
15	AS-07A-15	9/18/2008	22	2	1.1	0.5	-1.7
16	AS-07A-16	9/18/2008	22	6	1.1	1.5	1.2
17	AS-07A-17	9/18/2008	22	10	1.1	2.5	4.1
18	AS-07A-18	9/18/2008	22	8	1.1	2.0	2.6
19	AS-07A-19	9/18/2008	22	4	1.1	1.0	-0.3
20	AS-07A-20	9/18/2008	22	5	1.1	1.3	0.4
						Mean	0.4
						Median	0.3
						Std Dev	1.7
						Minimum	-2.0
						Maximum	4.1

R-14 Structure Removable Alpha Activity Results

Survey Unit 7B, Class 1

Alpha Activity DCGL (dpm/100 cm^2)	10

2929/43-10-1 alpha efficiency	0.345

Sample Count Time (min)	4.0
Background Count Time (min)	20.0

	ID	Date	Background Counts	Sample Counts	Background cpm	Sample cpm	Sample (dpm/100 cm^2)
1	AS-07B-01	9/25/2008	20	2	1.0	0.5	-1.4
2	AS-07B-02	9/25/2008	20	5	1.0	1.3	0.7
3	AS-07B-03	9/25/2008	20	3	1.0	0.8	-0.7
4	AS-07B-04	9/25/2008	20	9	1.0	2.3	3.6
5	AS-07B-05	9/25/2008	20	5	1.0	1.3	0.7
6	AS-07B-06	9/25/2008	20	1	1.0	0.3	-2.2
7	AS-07B-07	9/25/2008	20	6	1.0	1.5	1.4
8	AS-07B-08	9/25/2008	20	3	1.0	0.8	-0.7
9	AS-07B-09	9/25/2008	20	2	1.0	0.5	-1.4
10	AS-07B-10	9/25/2008	20	4	1.0	1.0	0.0
11	AS-07B-11	9/25/2008	20	7	1.0	1.8	2.2
12	AS-07B-12	9/25/2008	20	1	1.0	0.3	-2.2
13	AS-07B-13	9/25/2008	20	2	1.0	0.5	-1.4
14	AS-07B-14	9/25/2008	20	6	1.0	1.5	1.4
15	AS-07B-15	9/25/2008	20	2	1.0	0.5	-1.4
16	AS-07B-16	9/25/2008	20	3	1.0	0.8	-0.7
17	AS-07B-17	9/25/2008	20	4	1.0	1.0	0.0
18	AS-07B-18	9/25/2008	20	5	1.0	1.3	0.7
19	AS-07B-19	9/25/2008	20	0	1.0	0.0	-2.9
20	AS-07B-20	9/25/2008	20	4	1.0	1.0	0.0
						Mean	-0.2
						Median	-0.4
						Std Dev	1.6
						Minimum	-2.9
						Maximum	3.6

R-14 Structure Removable Alpha Activity Results

Survey Unit 7C, Class 1

Alpha Activity DCGL (dpm/100 cm^2)	10

2929/43-10-1 alpha efficiency	0.345

Sample Count Time (min)	4.0
Background Count Time (min)	20.0

	ID	Date	Background Counts	Sample Counts	Background cpm	Sample cpm	Sample (dpm/100 cm^2)
1	AS-07C-01	9/25/2008	20	2	1.0	0.5	-1.4
2	AS-07C-02	9/25/2008	20	3	1.0	0.8	-0.7
3	AS-07C-03	9/25/2008	20	1	1.0	0.3	-2.2
4	AS-07C-04	9/25/2008	20	2	1.0	0.5	-1.4
5	AS-07C-05	9/25/2008	20	1	1.0	0.3	-2.2
6	AS-07C-06	9/25/2008	20	3	1.0	0.8	-0.7
7	AS-07C-07	9/25/2008	20	1	1.0	0.3	-2.2
8	AS-07C-08	9/25/2008	20	5	1.0	1.3	0.7
9	AS-07C-09	9/25/2008	20	4	1.0	1.0	0.0
10	AS-07C-10	9/25/2008	20	5	1.0	1.3	0.7
11	AS-07C-11	9/25/2008	20	6	1.0	1.5	1.4
12	AS-07C-12	9/25/2008	20	4	1.0	1.0	0.0
13	AS-07C-13	9/25/2008	20	2	1.0	0.5	-1.4
14	AS-07C-14	9/25/2008	20	9	1.0	2.3	3.6
15	AS-07C-15	9/25/2008	20	5	1.0	1.3	0.7
16	AS-07C-16	9/25/2008	20	3	1.0	0.8	-0.7
17	AS-07C-17	9/25/2008	20	2	1.0	0.5	-1.4
18	AS-07C-18	9/25/2008	20	1	1.0	0.3	-2.2
19	AS-07C-19	9/25/2008	20	8	1.0	2.0	2.9
20	AS-07C-20	9/25/2008	20	2	1.0	0.5	-1.4
						Mean	-0.4
						Median	-0.7
						Std Dev	1.7
						Minimum	-2.2
						Maximum	3.6

R-14 Structure Removable Alpha Activity Results

Survey Unit 7D, Class 1

Alpha Activity DCGL (dpm/100 cm^2)	10

2929/43-10-1 alpha efficiency	0.345

Sample Count Time (min)	4.0
Background Count Time (min)	20.0

	ID	Date	Background Counts	Sample Counts	Background cpm	Sample cpm	Sample (dpm/100 cm^2)
1	AS-07D-01	9/25/2008	20	4	1.0	1.0	0.0
2	AS-07D-02	9/25/2008	20	3	1.0	0.8	-0.7
3	AS-07D-03	9/25/2008	20	3	1.0	0.8	-0.7
4	AS-07D-04	9/25/2008	20	1	1.0	0.3	-2.2
5	AS-07D-05	9/25/2008	20	4	1.0	1.0	0.0
6	AS-07D-06	9/25/2008	20	4	1.0	1.0	0.0
7	AS-07D-07	9/25/2008	20	2	1.0	0.5	-1.4
8	AS-07D-08	9/25/2008	20	2	1.0	0.5	-1.4
9	AS-07D-09	9/25/2008	20	5	1.0	1.3	0.7
10	AS-07D-10	9/25/2008	20	4	1.0	1.0	0.0
11	AS-07D-11	9/25/2008	20	9	1.0	2.3	3.6
12	AS-07D-12	9/25/2008	20	4	1.0	1.0	0.0
13	AS-07D-13	9/25/2008	20	1	1.0	0.3	-2.2
14	AS-07D-14	9/25/2008	20	1	1.0	0.3	-2.2
15	AS-07D-15	9/25/2008	20	2	1.0	0.5	-1.4
16	AS-07D-16	9/25/2008	20	1	1.0	0.3	-2.2
17	AS-07D-17	9/25/2008	20	3	1.0	0.8	-0.7
18	AS-07D-18	9/25/2008	20	3	1.0	0.8	-0.7
19	AS-07D-19	9/25/2008	20	1	1.0	0.3	-2.2
20	AS-07D-20	9/25/2008	20	8	1.0	2.0	2.9
						Mean	-0.5
						Median	-0.7
						Std Dev	1.6
						Minimum	-2.2
						Maximum	3.6

R-14 Structure Removable Alpha Activity Results

Survey Unit 7E, Class 1

Alpha Activity DCGL (dpm/100 cm^2)	10

2929/43-10-1 alpha efficiency	0.345

Sample Count Time (min)	4.0
Background Count Time (min)	20.0

	ID	Date	Background Counts	Sample Counts	Background cpm	Sample cpm	Sample (dpm/100 cm^2)
1	AS-07E-01	9/25/2008	20	3	1.0	0.8	-0.7
2	AS-07E-02	9/25/2008	20	3	1.0	0.8	-0.7
3	AS-07E-03	9/29/2008	20	4	1.0	1.0	0.0
4	AS-07E-04	9/29/2008	20	5	1.0	1.3	0.7
5	AS-07E-05	9/29/2008	20	8	1.0	2.0	2.9
6	AS-07E-06	9/29/2008	20	6	1.0	1.5	1.4
7	AS-07E-07	9/29/2008	20	3	1.0	0.8	-0.7
8	AS-07E-08	9/29/2008	20	5	1.0	1.3	0.7
9	AS-07E-09	9/29/2008	20	3	1.0	0.8	-0.7
10	AS-07E-10	9/29/2008	20	4	1.0	1.0	0.0
11	AS-07E-11	9/29/2008	20	3	1.0	0.8	-0.7
12	AS-07E-12	9/29/2008	20	9	1.0	2.3	3.6
13	AS-07E-13	9/29/2008	20	4	1.0	1.0	0.0
14	AS-07E-14	9/29/2008	20	5	1.0	1.3	0.7
15	AS-07E-15	9/29/2008	20	1	1.0	0.3	-2.2
16	AS-07E-16	9/29/2008	20	2	1.0	0.5	-1.4
17	AS-07E-17	9/29/2008	20	5	1.0	1.3	0.7
18	AS-07E-18	9/29/2008	20	3	1.0	0.8	-0.7
19	AS-07E-19	9/29/2008	20	3	1.0	0.8	-0.7
20	AS-07E-20	9/29/2008	20	6	1.0	1.5	1.4
						Mean	0.2
						Median	0.0
						Std Dev	1.4
						Minimum	-2.2
						Maximum	3.6

R-14 Structure Removable Alpha Activity Results

Building 1150D, Survey Unit 8, Class 3

Alpha Activity DCGL (dpm/100 cm^2)	10

2929/43-10-1 alpha efficiency	0.345

Sample Count Time (min)	4.0
Background Count Time (min)	20.0

	ID	Date	Background Counts	Sample Counts	Background cpm	Sample cpm	Sample (dpm/100 cm^2)
1	1150D-1	7/15/2008	13	1	0.7	0.3	-1.2
2	1150D-2	7/15/2008	13	1	0.7	0.3	-1.2
3	1150D-3	7/15/2008	13	16	0.7	4.0	9.7
4	1150D-4	7/15/2008	13	6	0.7	1.5	2.5
5	1150D-5	7/15/2008	13	13	0.7	3.3	7.5
6	1150D-6	7/15/2008	13	6	0.7	1.5	2.5
7	1150D-7	7/15/2008	13	10	0.7	2.5	5.4
8	1150D-8	7/15/2008	13	6	0.7	1.5	2.5
9	1150D-9	7/15/2008	13	13	0.7	3.3	7.5
10	1150D-10	7/15/2008	13	4	0.7	1.0	1.0
11	1150D-11	7/15/2008	13	7	0.7	1.8	3.2
12	1150D-12	7/15/2008	13	5	0.7	1.3	1.7
13	1150D-13	7/15/2008	13	9	0.7	2.3	4.6
14	1150D-14	7/15/2008	13	4	0.7	1.0	1.0
15	1150D-15	7/15/2008	13	12	0.7	3.0	6.8
16	1150D-16	7/15/2008	13	9	0.7	2.3	4.6
17	1150D-17	7/15/2008	13	12	0.7	3.0	6.8
18	1150D-18	7/15/2008	13	2	0.7	0.5	-0.4
19	1150D-19	7/15/2008	13	2	0.7	0.5	-0.4
20	1150D-20	7/15/2008	13	2	0.7	0.5	-0.4
						Mean	3.2
						Median	2.5
						Std Dev	3.3
						Minimum	-1.2
						Maximum	9.7

R-14 Structure Removable Alpha Activity Results

Wash Rack Shed Building, Survey Unit 9, Class 3

Alpha Activity DCGL (dpm/100 cm^2)	10

2929/43-10-1 alpha efficiency	0.345

Sample Count Time (min)	4.0
Background Count Time (min)	20.0

	ID	Date	Background Counts	Sample Counts	Background cpm	Sample cpm	Sample (dpm/100 cm^2)
1	WRS-1	7/15/2008	13	5	0.7	1.3	1.7
2	WRS-2	7/15/2008	13	3	0.7	0.8	0.3
3	WRS-3	7/15/2008	13	6	0.7	1.5	2.5
4	WRS-4	7/15/2008	13	1	0.7	0.3	-1.2
5	WRS-5	7/15/2008	13	4	0.7	1.0	1.0
6	WRS-6	7/15/2008	13	2	0.7	0.5	-0.4
7	WRS-7	7/15/2008	13	8	0.7	2.0	3.9
8	WRS-8	7/15/2008	13	2	0.7	0.5	-0.4
9	WRS-9	7/15/2008	13	8	0.7	2.0	3.9
10	WRS-10	7/15/2008	13	5	0.7	1.3	1.7
11	WRS-11	7/15/2008	13	4	0.7	1.0	1.0
12	WRS-12	7/15/2008	13	2	0.7	0.5	-0.4
13	WRS-13	7/15/2008	13	1	0.7	0.3	-1.2
14	WRS-14	7/15/2008	13	5	0.7	1.3	1.7
15	WRS-15	7/15/2008	13	13	0.7	3.3	7.5
16	WRS-16	7/15/2008	13	3	0.7	0.8	0.3
17	WRS-17	7/15/2008	13	7	0.7	1.8	3.2
18	WRS-18	7/15/2008	13	2	0.7	0.5	-0.4
19	WRS-19	7/15/2008	13	3	0.7	0.8	0.3
20	WRS-20	7/15/2008	13	2	0.7	0.5	-0.4
						Mean	1.2
						Median	0.7
						Std Dev	2.2
						Minimum	-1.2
						Maximum	7.5

R-14 Structure Removable Alpha Activity Results

Evaporator Building, Survey Unit 10, Class 3

Alpha Activity DCGL (dpm/100 cm^2)	10

2929/43-10-1 alpha efficiency	0.345

Sample Count Time (min)	4.0
Background Count Time (min)	20.0

	ID	Date	Background Counts	Sample Counts	Background cpm	Sample cpm	Sample (dpm/100 cm^2)
1	WL1-10-01	10/1/2008	18	1	0.9	0.3	-1.9
2	CL-10-02	10/2/2008	16	2	0.8	0.5	-0.9
3	WL2-10-03	10/2/2008	16	1	0.8	0.3	-1.6
4	WL2-10-04	10/1/2008	18	2	0.9	0.5	-1.2
5	CL-10-05	10/2/2008	16	2	0.8	0.5	-0.9
6	WL3-10-06	10/1/2008	18	7	0.9	1.8	2.5
7	WL3-10-07	10/2/2008	16	0	0.8	0.0	-2.3
8	CL-10-08	10/2/2008	16	2	0.8	0.5	-0.9
9	WL2-10-09	10/2/2008	16	4	0.8	1.0	0.6
10	CL-10-10	10/2/2008	16	3	0.8	0.8	-0.1
11	CL-10-11	10/2/2008	16	1	0.8	0.3	-1.6
12	CL-10-12	10/2/2008	16	6	0.8	1.5	2.0
13	FL-10-13	10/1/2008	18	3	0.9	0.8	-0.4
14	FL-10-14	10/1/2008	18	3	0.9	0.8	-0.4
15	CL-10-15	10/2/2008	16	5	0.8	1.3	1.3
16	WL3-10-16	10/1/2008	18	1	0.9	0.3	-1.9
17	WL1-10-17	10/1/2008	18	2	0.9	0.5	-1.2
18	FL-10-18	10/1/2008	18	5	0.9	1.3	1.0
19	FL-10-19	10/1/2008	18	3	0.9	0.8	-0.4
20	WL2-10-20	10/1/2008	18	2	0.9	0.5	-1.2
						Mean	-0.5
						Median	-0.9
						Std Dev	1.3
						Minimum	-2.3
						Maximum	2.5

APPENDIX D

Structure and Outdoor Surface Biased Removable Activity Results

R-14 Outdoor Surface Biased Removable Alpha Activity Results

Survey Unit 4A, Class 2

Alpha Activity DCGL (dpm/100 cm^2)	10

2929/43-10-1 alpha efficiency	0.345

Sample Count Time (min)	4.0
Background Count Time (min)	20.0

	ID	Date	Background Counts	Sample Counts	Background cpm	Sample cpm	Sample (dpm/100 cm^2)
1	AS-04A-21	9/25/2008	20	14	1.0	3.5	7.2
						Mean	7.2
						Median	7.2
						Std Dev	N/A
						Minimum	7.2
						Maximum	7.2

R-14 Outdoor Surface Biased Removable Alpha Activity Results

Survey Unit 5A, Class 2

Alpha Activity DCGL (dpm/100 cm^2)	10

2929/43-10-1 alpha efficiency	0.345

Sample Count Time (min)	4.0
Background Count Time (min)	20.0

	ID	Date	Background Counts	Sample Counts	Background cpm	Sample cpm	Sample (dpm/100 cm^2)
1	AS-05-21	7/31/2008	20	1	1.0	0.3	-2.2
2	AS-05-22	7/31/2008	20	1	1.0	0.3	-2.2
3	AS-05-23	7/31/2008	20	2	1.0	0.5	-1.4
						Mean	-1.9
						Median	-2.2
						Std Dev	0.4
						Minimum	-2.2
						Maximum	-1.4

R-14 Outdoor Surface Biased Removable Alpha Activity Results

Survey Unit 6A, Class 2

Alpha Activity DCGL (dpm/100 cm^2)	10

2929/43-10-1 alpha efficiency	0.345

Sample Count Time (min)	4.0
Background Count Time (min)	20.0

	ID	Date	Background Counts	Sample Counts	Background cpm	Sample cpm	Sample (dpm/100 cm^2)
1	AS-06A-21	9/25/2008	20	4	1.0	1.0	0.0
						Mean	0.0
						Median	0.0
						Std Dev	N/A
						Minimum	0.0
						Maximum	0.0

R-14 Structure Biased Removable Alpha Activity Results

Survey Unit 7, Class 1

Alpha Activity DCGL (dpm/100 cm^2)	10

2929/43-10-1 alpha efficiency	0.345

Sample Count Time (min)	4.0
Background Count Time (min)	20.0

Survey Unit	ID	Date	Background Counts	Sample Counts	Background cpm	Sample cpm	Sample (dpm/100 cm^2)
7C	AS-07C-21	9/25/2008	20	4	1.0	1.0	0.0
7D	AS-07D-21	9/25/2008	20	2	1.0	0.5	-1.4
7E	AS-07E-21	9/25/2008	20	1	1.0	0.3	-2.2
						Mean	-1.2
						Median	-1.4
						Std Dev	1.1
						Minimum	-2.2
						Maximum	0.0

R-14 Structure Biased Removable Alpha Activity Results

Evaporator Building, Survey Unit 10, Class 3

Alpha Activity DCGL (dpm/100 cm^2)	10

2929/43-10-1 alpha efficiency	0.345

Sample Count Time (min)	4.0
Background Count Time (min)	20.0

	ID	Date	Background Counts	Sample Counts	Background cpm	Sample cpm	Sample (dpm/100 cm^2)
1	EVAP-ROOF-01	10/2/2008	16	6	0.8	1.5	2.0
2	EVAP-ROOF-02	10/2/2008	16	5	0.8	1.3	1.3
3	EVAP-ROOF-03	10/2/2008	16	11	0.8	2.8	5.7
4	EVAP-ROOF-04	10/2/2008	16	4	0.8	1.0	0.6
5	EVAP-ROOF-05	10/2/2008	16	3	0.8	0.8	-0.1
6	EVAP-ROOF-06	10/2/2008	16	11	0.8	2.8	5.7
7	EVAP-ROOF-07	10/2/2008	16	2	0.8	0.5	-0.9
						Mean	2.0
						Median	1.3
						Std Dev	2.6
						Minimum	-0.9
						Maximum	5.7

APPENDIX D
Structure Activity Scan Results

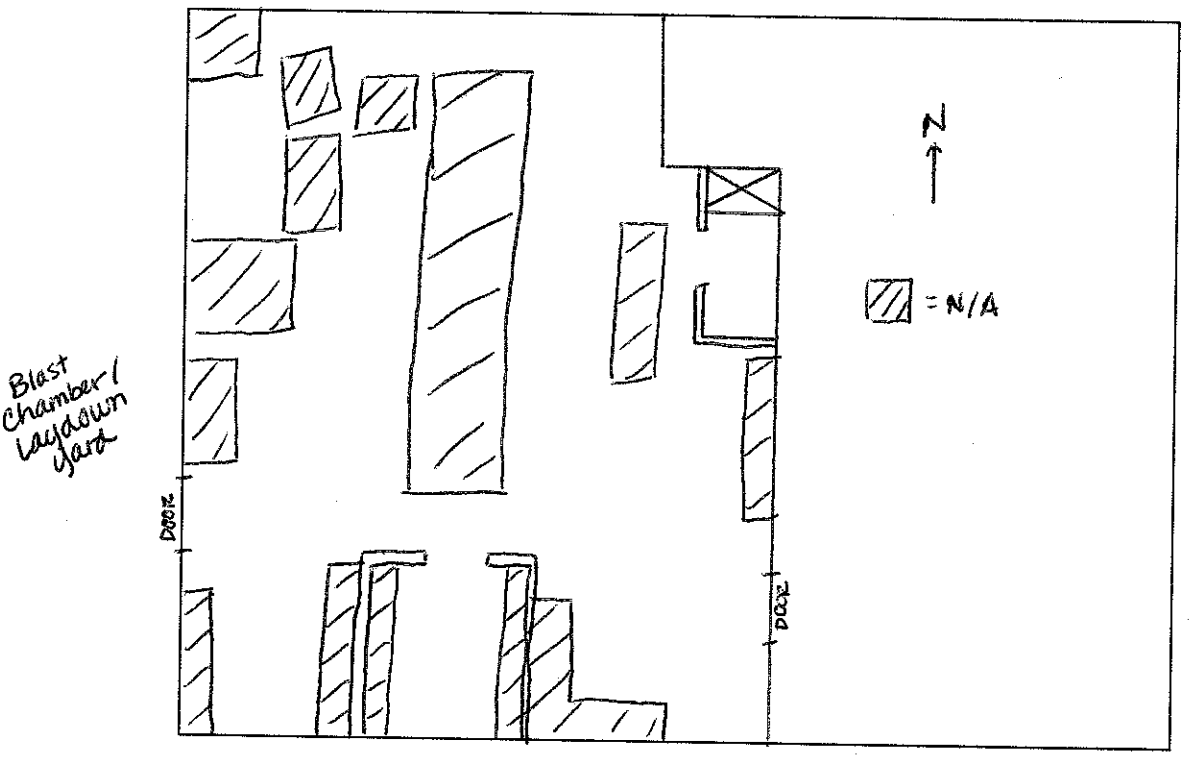
Scan Information Sheet

SU/Area: SU9 / Bldg 1150D

Class: 3

Tech Init.: MD

Note:
1. On map: draw dimensions and characters
2. Record scan data for different surfaces
3. Mark all areas > Action Level (include sample ID)



Notes: All floors (linoleum) 400-800 β cpm. α-levels were at background. All walls (drywall) 400-600 β cpm. α-levels were at background.

Tech Signature: M. Driscoll

Date: 7/21/08

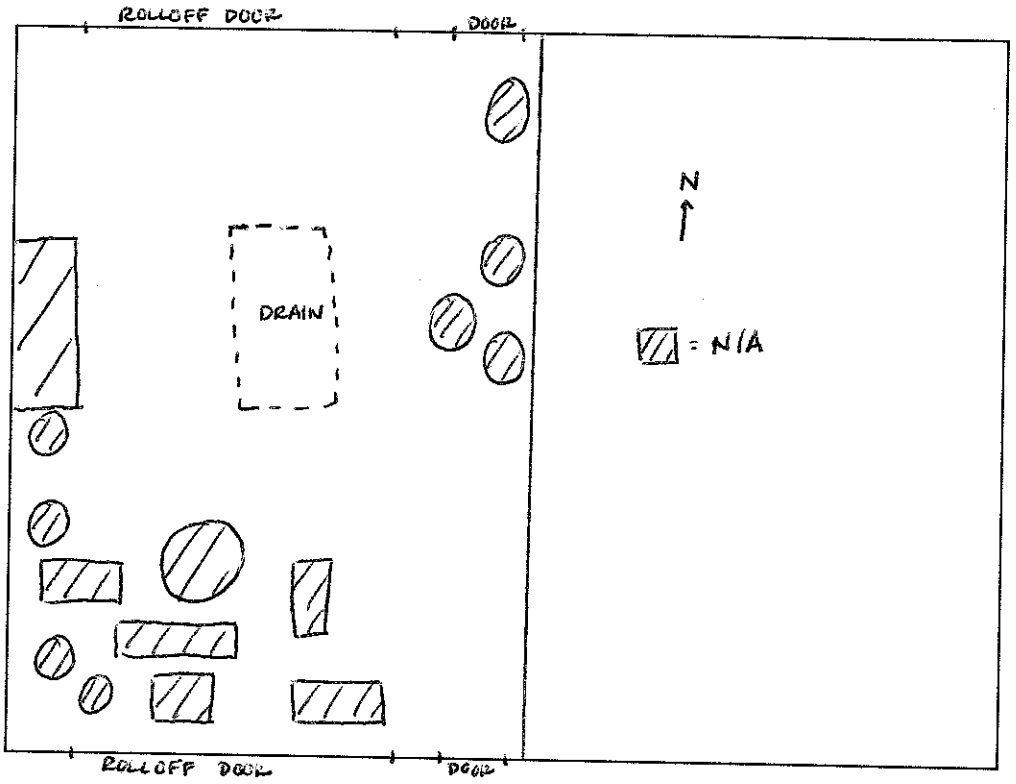
Scan Information Sheet

SU/Area: SU8/Wash Rack Shed

Class: 3

Tech Init.: MD

Note:
1. On map: draw dimensions and characters
2. Record scan data for different surfaces
3. Mark all areas > Action Level (include sample ID)



(Laydown yard)

Notes: 400-600 β cpm in drain area, 600-1000 β cpm on concrete floor remainder. α-levels at background. 200-400 β cpm on aluminum walls and rolloff doors. α-levels at background.

Tech Signature: M. Driscoll

Date: 7/21/08

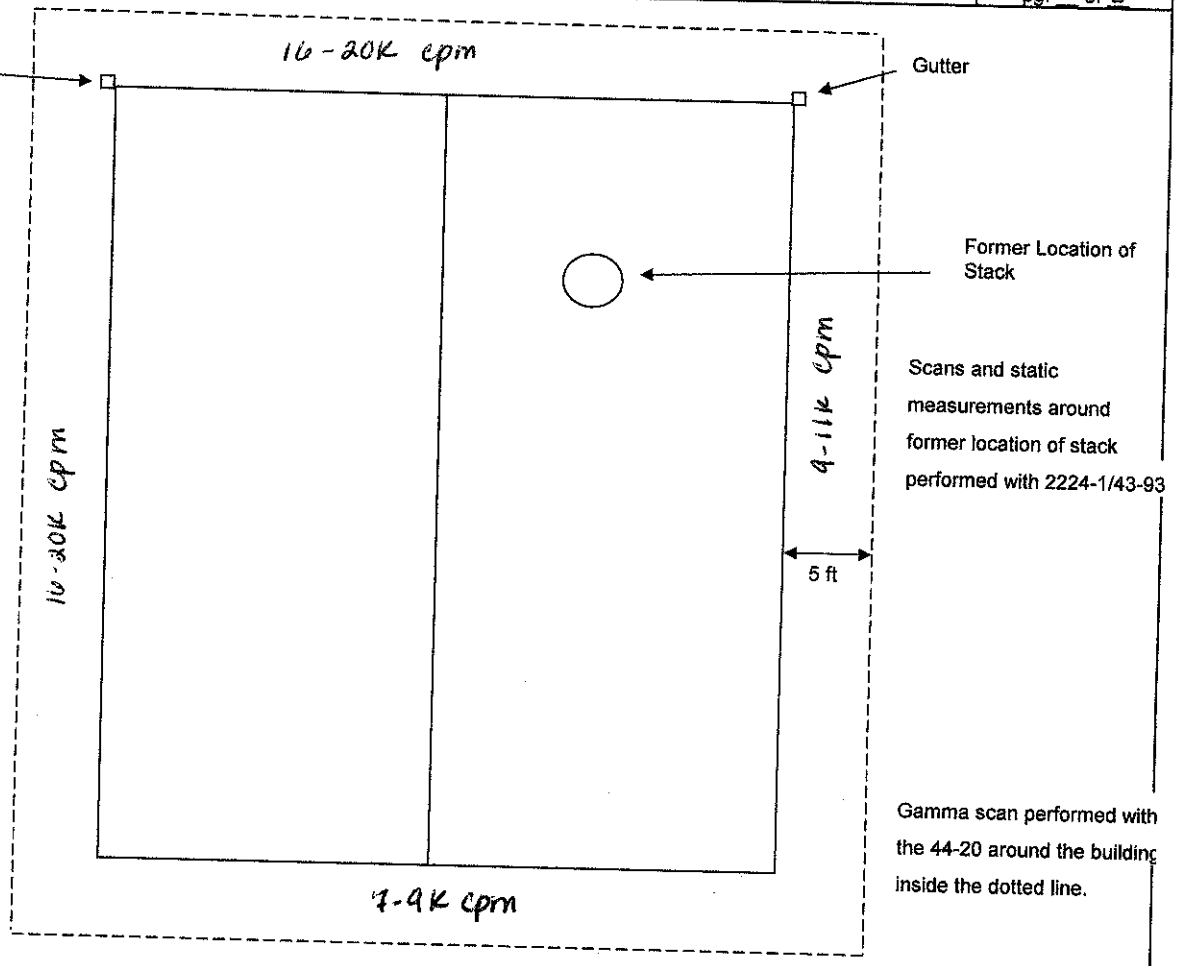
OP-001-02 Radiological Survey Sheet

Radiological Surveys

Location: Evaporator Building ~~Roof~~	RWP#	Survey #	Survey Type:	pg. 1 of 8
Site: APG R-14	1	79	FSS	

Smear (CPM/100 cm²) / Direct Count (CPM/Direct Frisk) — circle one

No.	α	β	No.	α	β
1			26		
2			27		
3			28		
4			29		
5			30		
6			31		
7			32		
8			33		
9			34		
10			35		
11			36		
12			37		
13	N	A	38	N	A
14			39		
15			40		
16			41		
17			42		
18			43		
19			44		
20			45		
21			46		
22			47		
23			48		
24			49		
25			50		



Scans and static measurements around former location of stack performed with 2224-1/43-93

Gamma scan performed with the 44-20 around the building inside the dotted line.

Comments

Surveyed By:	Date:
M. Driscoll	9/30/08
Reviewed By:	Date:

Instrument	Serial #	α Eff.	β Eff.	α Bkg.	β Bkg	γ Bkg	Cal. Due
2929	200051	0.347	0.309	—	—	N/A	4/7/09
43-10-1	215948						
2224-1/43-93	227224/ PR244545	0.15	0.10	—	—	N/A	10/26/08
2221	216473	N/A	N/A	N/A	N/A	—	—
44-20	PR262403	N/A	N/A	N/A	N/A	6955	4/17/09
			N	A			

Key

- ■ A/S Location
- *-* Boundary
- ○ Smear
- □ Dose Rate _____ /hr
- * Direct Reading CPM/direct frisk
- △ Grab Sample

Location: Outside Evaporator Building
Site: APG R-14

RWP# 1

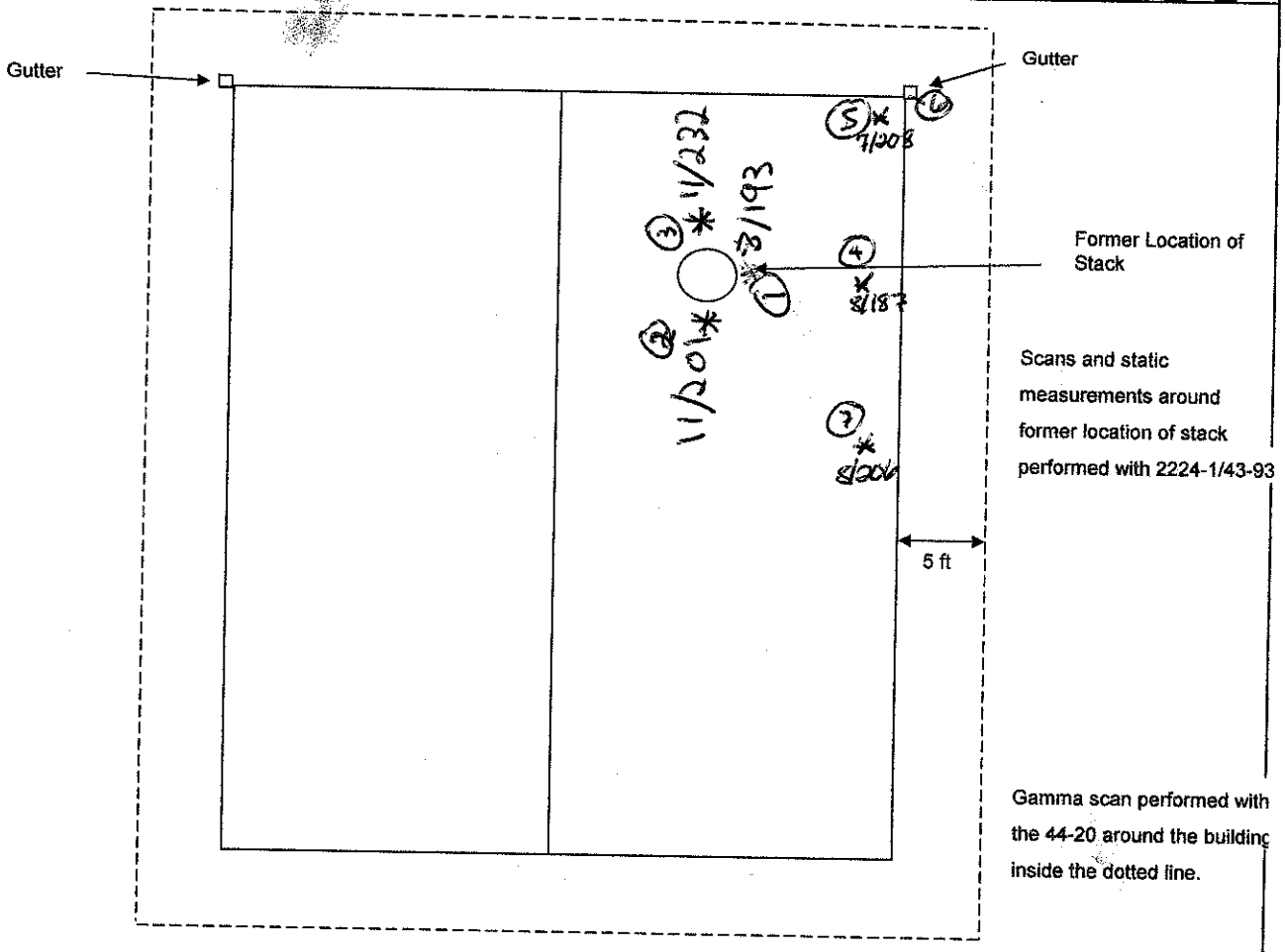
Survey # 79

Survey Type: Gamma Scan

pg. 2 of 8

Smear (CPM/100 cm²)
Direct Count (CPM/Direct Frisk)
circle one

No.	α	β	No.	α	β
1	6	212	26		
2	5	179	27		
3	11	210	28		
4	4	201	29		
5	3	215	30		
6	11	212	31		
7	2	195	32		
8			33		
9			34		
10			35		
11			36		
12			37		
13			38	N	A
14			39		
15			40		
16			41		
17	N	A	42		
18			43		
19			44		
20			45		
21			46		
22			47		
23			48		
24			49		
25			50		



Comments	Surveyed By:	Date:	Instrument	Serial #	α Eff.	β Eff.	α Bkg.	β Bkg	γ Bkg	Cal. Due
Smears were	M. Driscoll	10/1108	2929	200051	0.347	0.309	0.8	47.7	N/A	4/7/09
counted on 10/2, so		10/2/08	43-10-1	215948						
QC reflects correct			2224-1/43-93	227224/ PR244545	0.15	0.10	2	154	N/A	10/26/08
date. They were			2221	216473	N/A	N/A	N/A	N/A	—	—
counted for 4-min			44-20	PR262403	N/A	N/A	N/A	N/A	—	—
as per the FSSP.	Reviewed By:	Date:								

Key

- ■ A/S Location
- *-* Boundary
- ○ Smear
- □ Dose Rate _____ /hr
- * Direct Reading CPM/direct frisk
- △ Grab Sample

Scan Information Sheet

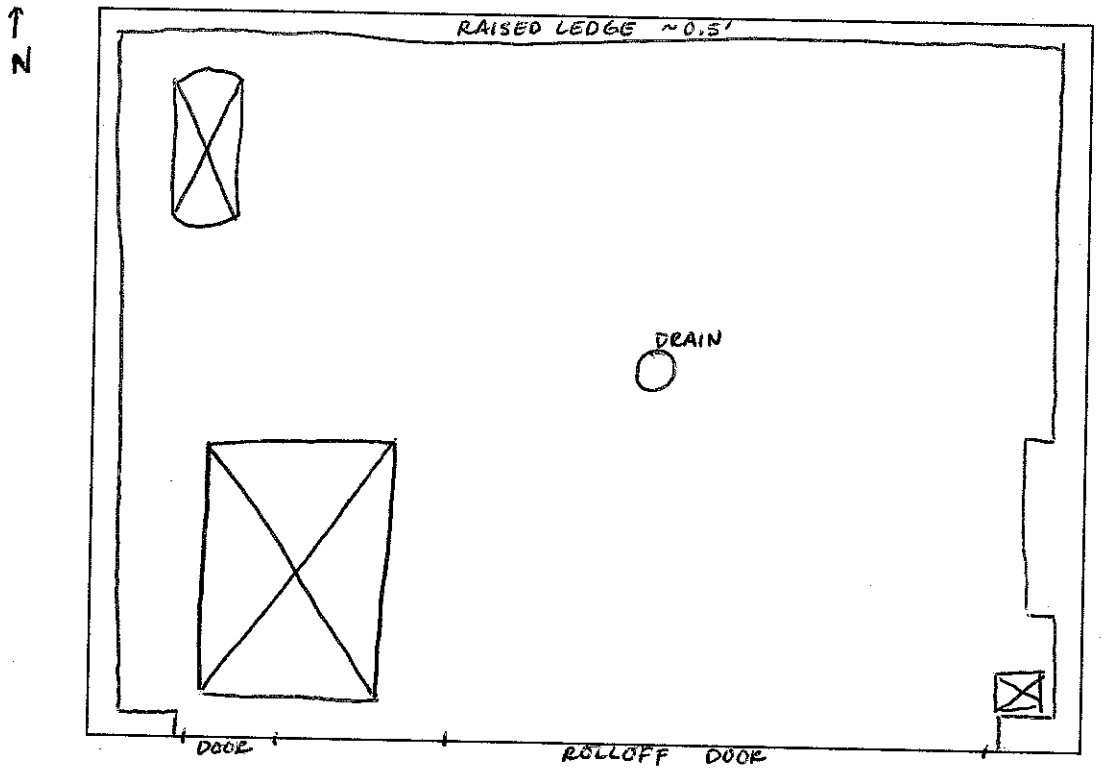
SU/Area: Evaporator Building

Class: 3

Tech Init.: MD

Note:
1. On map: draw dimensions and characters
2. Record scan data for different surfaces
3. Mark all areas > Action Level (include sample ID)

Instrument: 43-68 (161781)/2224 (183048)
Bkgd (10/1/08): 4/442 (α/β)



Notes: Concrete floor showed consistent readings of ~600-650 cpm in all accessible areas. Aluminum walls showed consistent readings of 400-550 cpm in all accessible areas.

Tech Signature: MD

Date: 10/1/08