



Chemtura

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TECHNOLOGY - CROP PROTECTION

REGISTRATION CHEMISTRY

199 BENSON ROAD m/s 1-2

MIDDLEBURY, CT 06749 U.S.A.

Total Number of Pages in This Transmission (INCLUDING COVER PAGE) 10MESSAGE:

As per conversation over the phone, I am enclosing a copy of the amended report (revision of Submittal dated 10/11/2010) for the final status survey results of the Chemtura Bethany site, CT. If you have any question, please call me at (203) 573-3698.

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NMSS/RGN1 MATERIALS-002

## **Chemtura Bethany Site**

- **Final Status Survey Results**
- **Revision of Submittal Dated  
October 11, 2010**

**Radiation Safety Associates, Inc.**

**October 13, 2010**

## **EXECUTIVE SUMMARY**

Soil sample results from the MARSSIM<sup>1</sup>-compliant license termination survey indicated that only one point in the Peach Tree area was contaminated in excess of the established limits. Utilizing methodology provided in MARSSIM, it has been determined that no additional remediation or sampling will be required to have NRC release the land area of the Bethany site for unrestricted use.

## **INTRODUCTION**

This is a report on the results of the soil sampling that was done as part of the Chemtura Bethany Site remediation, and was the subject of a sampling plan and responses to questions dated June 15, 2010 and August 05, 2010 respectively. The analyses of the soil samples indicate that the Apple Tree Area, Grape Area and Corral Area each meet the unconditional free-release criterion. One of the 36 samples in the Peach Tree Area, however, exceeded the criterion. As described below, the statistical analysis methods provided in MARSSIM show that the site meets the free-release criterion.

## **PURPOSE**

The purpose of this document is to report the results of final status soil sampling of the four outdoor areas that were utilized for experiments involving C-14 compounds, and to show that all four areas meet the criterion for unrestricted radiological release under the MARSSIM method.

Chemtura is also petitioning NRC to confirm that the land area at its site in Bethany, Connecticut, meets the criterion for unrestricted radiological release and remove this portion of the site from the license. A final radiological status survey report that addresses the buildings at the site will be submitted to at a later date.

## **INFORMATION PREVIOUSLY PROVIDED**

The Facility Description, Data Quality Objectives and Acceptance Criteria are the same as were reported in the June 15, 2010 and August 5, 2010 documents referred to above.

## **FINDINGS—SAMPLE RESULTS**

Soil samples were collected on September 14 and 15, 2010. Steven R. Courtemanche, Health Physicist, NRC, was present during sample collection. Samples were analyzed by Eberline Analytical for carbon-14 (C-14) using modified EPA Method 520.0.

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<sup>1</sup> Multi-Agency Radiological Site Survey and Investigation Manual.

**1. Corral Area**

As shown in the survey plan dated June 15, 2010, 18 sample points were randomly selected. At each location a sample was obtained at 0-6 inches and at 6-12 inches. All sample results were less than the acceptance criterion. Sample results are provided in the table below.

Location	Result pCi/g	MDA pCi/g
FSC-1, 0-6 in, Corral Area	1.82E-01	6.91E-01
FSC-2, 0-6 in, Corral Area	1.93E-01	7.35E-01
FSC-3, 0-6 in, Corral Area	-1.90E-01	7.23E-01
FSC-4, 0-6 in, Corral Area	-1.98E-01	7.53E-01
FSC-5, 0-6 in, Corral Area	-1.93E-01	7.34E-01
FSC-6, 0-6 in, Corral Area	3.63E-01	6.90E-01
FSC-7, 0-6 in, Corral Area	3.85E-01	7.32E-01
FSC-8, 0-6 in, Corral Area	-1.92E-01	7.30E-01
FSC-9, 0-6 in, Corral Area	1.85E-01	7.01E-01
FSC-10, 0-6 in, Corral Area	0.00E+00	7.26E-01
FSC-11, 0-6 in, Corral Area	0.00E+00	7.12E-01
FSC-12, 0-6 in, Corral Area	7.61E-01	7.23E-01
FSC-13, 0-6 in, Corral Area	3.86E-01	7.33E-01
FSC-14, 0-6 in, Corral Area	1.84E-01	6.98E-01
FSC-15, 0-6 in, Corral Area	0.00E+00	7.44E-01
FSC-16, 0-6 in, Corral Area	1.90E-01	7.21E-01
FSC-17, 0-6 in, Corral Area	4.01E-01	7.62E-01
FSC-17, 0-6 in, Corral Area (DUP)	6.04E-01	7.65E-01
FSC-18, 0-6 in, Corral Area	2.00E-01	7.60E-01
FSC-1, 6-12 in, Corral Area	-1.95E-01	7.42E-01
FSC-2, 6-12 in, Corral Area	0.00E+00	7.82E-01
FSC-3, 6-12 in, Corral Area	1.98E-01	7.53E-01
FSC-4, 6-12 in, Corral Area	0.00E+00	7.51E-01
FSC-5, 6-12 in, Corral Area	0.00E+00	8.05E-01
FSC-6, 6-12 in, Corral Area	0.00E+00	8.07E-01
FSC-7, 6-12 in, Corral Area	-1.87E-01	7.11E-01
FSC-8, 6-12 in, Corral Area	2.03E-01	7.73E-01
FSC-9, 6-12 in, Corral Area	0.00E+00	7.17E-01
FSC-10, 6-12 in, Corral Area	-2.06E-01	7.82E-01
FSC-11, 6-12 in, Corral Area	-3.96E-01	7.52E-01
FSC-12, 6-12 in, Corral Area	0.00E+00	7.51E-01
FSC-13, 6-12 in, Corral Area	1.98E-01	7.53E-01
FSC-14, 6-12 in, Corral Area	0.00E+00	7.56E-01
FSC-15, 6-12 in, Corral Area	1.99E-01	7.57E-01
FSC-16, 6-12 in, Corral Area	7.91E-01	4.36E-01
FSC-16, 6-12 in, Corral Area (DUP)	9.72E-01	7.00E-01
FSC-17, 6-12 in, Corral Area	-1.93E-01	3.97E-01
FSC-18, 6-12 in, Corral Area	1.96E-01	4.16E-01

DUP = Duplicate sample.

*Table 1. Sample results for the Corral area.*

## 2. Peach Tree Area

As shown in the survey plan dated June 15, 2010, 18 sample points were randomly selected. At each location a sample was obtained at 0-6 inches and at 6-12 inches. One sample result exceeded the acceptance criterion. Analysis of this data using the Sine Test is provided below. Sample results are given in the table below.

Location	Result pCi/g	MDA pCi/g
FSP-1, 0-6 in, Peach Tree Area	5.59E-01	6.71E-01
FSP-2, 0-6 in, Peach Tree Area	1.36E+00	7.01E-01
FSP-3, 0-6 in, Peach Tree Area	5.88E-01	7.06E-01
FSP-4, 0-6 in, Peach Tree Area	7.86E-01	7.08E-01
FSP-5, 0-6 in, Peach Tree Area	9.87E-01	7.10E-01
FSP-6, 0-6 in, Peach Tree Area	9.92E-01	7.15E-01
FSP-7, 0-6 in, Peach Tree Area	1.20E+00	7.23E-01
FSP-8, 0-6 in, Peach Tree Area	2.72E+00	7.00E-01
FSP-9, 0-6 in, Peach Tree Area	4.96E+00	7.45E-01
FSP-10, 0-6 in, Peach Tree Area	3.45E+00	7.31E-01
FSP-11, 0-6 in, Peach Tree Area	5.18E+00	7.17E-01
FSP-12, 0-6 in, Peach Tree Area	1.79E+00	7.18E-01
FSP-13, 0-6 in, Peach Tree Area	1.01E+00	7.30E-01
FSP-14, 0-6 in, Peach Tree Area	2.37E+00	7.49E-01
FSP-14, 0-6 in, Peach Tree Area (DUP)	2.15E+00	7.44E-01
FSP-15, 0-6 in, Peach Tree Area	1.20E+00	7.58E-01
FSP-16, 0-6 in, Peach Tree Area	8.11E-01	7.71E-01
FSP-17, 0-6 in, Peach Tree Area	6.09E-01	7.71E-01
FSP-18, 0-6 in, Peach Tree Area	1.91E-01	7.27E-01
FSP-1, 6-12 in, Peach Tree Area	2.01E-01	7.63E-01
FSP-2, 6-12 in, Peach Tree Area	5.86E-01	7.42E-01
FSP-3, 6-12 in, Peach Tree Area	-2.14E-01	8.13E-01
FSP-4, 6-12 in, Peach Tree Area	0.00E+00	7.61E-01
FSP-5, 6-12 in, Peach Tree Area	2.03E-01	7.70E-01
FSP-6, 6-12 in, Peach Tree Area	4.03E-01	7.67E-01
FSP-7, 6-12 in, Peach Tree Area	5.83E-01	7.38E-01
FSP-8, 6-12 in, Peach Tree Area	1.46E+00	7.93E-01
FSP-9, 6-12 in, Peach Tree Area	3.95E+00	7.51E-01
FSP-10, 6-12 in, Peach Tree Area	2.59E+00	7.56E-01
<b>FSP-11, 6-12 in, Peach Tree Area</b>	<b>2.39E+02</b>	<b>6.75E-01</b>
FSP-12, 6-12 in, Peach Tree Area	4.08E+00	7.76E-01
FSP-13, 6-12 in, Peach Tree Area	5.74E-01	7.28E-01
FSP-13, 6-12 in, Peach Tree Area (DUP)	8.49E-01	8.07E-01
FSP-14, 6-12 in, Peach Tree Area	7.89E-01	7.50E-01
FSP-15, 6-12 in, Peach Tree Area	7.65E-01	7.27E-01
FSP-16, 6-12 in, Peach Tree Area	1.97E-01	7.48E-01
FSP-17, 6-12 in, Peach Tree Area	4.08E-01	7.76E-01
FSP-18, 6-12 in, Peach Tree Area	1.95E-01	7.43E-01

DUP = Duplicate sample.

*Table 2. Sample results for the Peach Tree area.*

### 3. Apple Tree Area

As shown in the survey plan dated June 15, 2010, 18 sample points were randomly selected. At each location a sample was obtained at 0-6 inches and at 6-12 inches. All sample results were less than the acceptance criterion. Sample results are provided in the table below.

Location	Result pCi/g	MDA pCi/g
FSA-1, 0-6 in, Apple Tree Area	3.94E-01	7.48E-01
FSA-2, 0-6 in, Apple Tree Area	0.00E+00	7.61E-01
FSA-3, 0-6 in, Apple Tree Area	4.02E-01	7.65E-01
FSA-4, 0-6 in, Apple Tree Area	0.00E+00	7.41E-01
FSA-5, 0-6 in, Apple Tree Area	1.96E-01	7.44E-01
FSA-6, 0-6 in, Apple Tree Area	0.00E+00	7.20E-01
FSA-7, 0-6 in, Apple Tree Area	0.00E+00	7.29E-01
FSA-8, 0-6 in, Apple Tree Area	1.96E-01	7.44E-01
FSA-9, 0-6 in, Apple Tree Area	5.92E-01	7.51E-01
FSA-10, 0-6 in, Apple Tree Area	0.00E+00	7.71E-01
FSA-11, 0-6 in, Apple Tree Area	0.00E+00	7.26E-01
FSA-11, 0-6 in, Apple Tree Area (DUP)	1.80E-01	7.17E-01
FSA-12, 0-6 in, Apple Tree Area	1.84E-01	7.33E-01
FSA-13, 0-6 in, Apple Tree Area	0.00E+00	6.97E-01
FSA-14, 0-6 in, Apple Tree Area	-1.79E-01	7.15E-01
FSA-15, 0-6 in, Apple Tree Area	0.00E+00	7.03E-01
FSA-16, 0-6 in, Apple Tree Area	1.88E-01	7.41E-01
FSA-17, 0-6 in, Apple Tree Area	4.08E-01	8.13E-01
FSA-18, 0-6 in, Apple Tree Area	1.85E-01	7.38E-01
FSA-1, 6-12 in, Apple Tree Area	0.00E+00	7.61E-01
FSA-2, 6-12 in, Apple Tree Area	-3.59E-01	7.15E-01
FSA-3, 6-12 in, Apple Tree Area	0.00E+00	7.21E-01
FSA-4, 6-12 in, Apple Tree Area	0.00E+00	7.26E-01
FSA-5, 6-12 in, Apple Tree Area	1.80E-01	7.20E-01
FSA-6, 6-12 in, Apple Tree Area	1.82E-01	7.27E-01
FSA-7, 6-12 in, Apple Tree Area	1.83E-01	7.29E-01
FSA-8, 6-12 in, Apple Tree Area	0.00E+00	7.30E-01
FSA-9, 6-12 in, Apple Tree Area	-1.84E-01	7.34E-01
FSA-10, 6-12 in, Apple Tree Area	3.89E-01	7.58E-01
FSA-10, 6-12 in, Apple Tree Area (DUP)	-1.96E-01	7.63E-01
FSA-11, 6-12 in, Apple Tree Area	-1.99E-01	7.76E-01
FSA-12, 6-12 in, Apple Tree Area	-4.00E-01	7.79E-01
FSA-13, 6-12 in, Apple Tree Area	-2.09E-01	8.15E-01
FSA-14, 6-12 in, Apple Tree Area	-4.35E-01	8.48E-01
FSA-15, 6-12 in, Apple Tree Area	-1.91E-01	7.46E-01
FSA-16, 6-12 in, Apple Tree Area	-1.92E-01	7.49E-01
FSA-17, 6-12 in, Apple Tree Area	0.00E+00	7.50E-01
FSA-18, 6-12 in, Apple Tree Area	-1.92E-01	7.49E-01

DUP = Duplicate sample.

*Table 3. Sample results for the Apple Tree area.*

#### 4. Grape Area

As shown in the survey plan dated June 15, 2010, 18 sample points were randomly selected. At each location a sample was obtained at 0-6 inches and at 6-12 inches. All sample results were less than the acceptance criterion. Sample results are provided in the table below.

Location	Result pCi/g	MDA pCi/g
FSG-1, 0-6 in, Grape Vine Area	-1.94E-01	7.57E-01
FSG-2, 0-6' , in Grape Vine Area	-1.98E-01	7.64E-01
FSG-3, 0-6 in, Grape Vine Area	0.00E+00	7.83E-01
FSG-4, 0-6 in, Grape Vine Area	0.00E+00	7.74E-01
FSG-5, 0-6 in, Grape Vine Area	1.95E-01	7.61E-01
FSG-6, 0-6 in, Grape Vine Area	-3.98E-01	7.71E-01
FSG-7, 0-6 in, Grape Vine Area	-1.99E-01	7.74E-01
FSG-8, 0-6 in, Grape Vine Area	-1.91E-01	7.43E-01
FSG-8, 0-6 in, Grape Vine Area (DUP)	-1.89E-01	7.37E-01
FSG-9, 0-6 in, Grape Vine Area	0.00E+00	7.01E-01
FSG-10, 0-6 in, Grape Vine Area	0.00E+00	7.23E-01
FSG-11, 0-6 in, Grape Vine Area	0.00E+00	7.32E-01
FSG-12, 0-6 in, Grape Vine Area	-3.75E-01	7.30E-01
FSG-13, 0-6 in, Grape Vine Area	0.00E+00	7.25E-01
FSG-14, 0-6 in, Grape Vine Area	-3.58E-01	6.97E-01
FSG-15, 0-6 in, Grape Vine Area	1.87E-01	7.29E-01
FSG-16, 0-6 in, Grape Vine Area	-1.86E-01	7.23E-01
FSG-17, 0-6 in, Grape Vine Area	0.00E+00	7.21E-01
FSG-18, 0-6 in, Grape Vine Area	0.00E+00	7.38E-01
FSG-1, 6-12 in, Grape Vine Area	1.86E-01	7.26E-01
FSG-2, 6-12 in, Grape Vine Area	-1.87E-01	7.28E-01
FSG-3, 6-12 in, Grape Vine Area	1.87E-01	7.28E-01
FSG-4, 6-12 in, Grape Vine Area	-3.77E-01	7.34E-01
FSG-5, 6-12 in, Grape Vine Area	0.00E+00	7.32E-01
FSG-6, 6-12 in, Grape Vine Area	-1.90E-01	7.41E-01
FSG-7, 6-12 in, Grape Vine Area	0.00E+00	7.37E-01
FSG-7, 6-12 in, Grape Vine Area (DUP)	4.14E-01	7.88E-01
FSG-8, 6-12 in, Grape Vine Area	0.00E+00	7.42E-01
FSG-9, 6-12 in, Grape Vine Area	1.99E-01	7.56E-01
FSG-10, 6-12 in, Grape Vine Area	1.95E-01	7.42E-01
FSG-11, 6-12 in, Grape Vine Area	1.98E-01	7.53E-01
FSG-12, 6-12 in, Grape Vine Area	3.98E-01	7.56E-01
FSG-13, 6-12 in, Grape Vine Area	0.00E+00	7.60E-01
FSG-14, 6-12 in, Grape Vine Area	3.98E-01	7.56E-01
FSG-15, 6-12 in, Grape Vine Area	2.01E-01	7.62E-01
FSG-16, 6-12 in, Grape Vine Area	2.00E-01	7.61E-01
FSG-17, 6-12 in, Grape Vine Area	2.02E-01	7.66E-01
FSG-18, 6-12 in, Grape Vine Area	2.02E-01	7.67E-01

DUP = Duplicate sample.

*Table 4. Sample results for the Grape area.*

**DATA REDUCTION**

Since the results of all samples at all locations in the Corral, Apple Tree area and Grape area were well below the DCGL<sub>w</sub> for this project, so no statistical test needs to be applied. For these three survey units the Null Hypothesis (that the survey unit exceeds the release criterion) is rejected and it is shown that they meet the criterion for unrestricted radiological release.

Since one sample of the 36 taken in the Peach Tree area exceeded the DCGL<sub>w</sub> for this project, the Sign statistical test (described in MARSSIM section 8.3.2) was applied to determine whether or not this survey unit met the free-release criterion or not. According to MARSSIM the Sign Test is applied using five (5) steps.

**Step 1.** List the survey unit measurements,  $X_i$ ,  $i = 1, 2, 3, \dots, N$ .

The 36 sample results are listed in column 2 of Table 1 below.

**Step 2.** Subtract each measurement,  $X_i$ , from the DCGL<sub>w</sub> to obtain the differences:

$$D_i = DCGL_w - X_i, i = 1, 2, 3, \dots, N.$$

The values of the differences between the DCGL<sub>w</sub> and each measurement are given in column 5 of Table 1 below. In the locations where duplicate samples were analyzed, the larger of the two values was used for this data tabulation.

	(1)	(2)	(3)	(4)	(5)	(6)
	Sample point	Result (X) pCi/g	MDA	DCGL <sub>w</sub>	DCGL <sub>w</sub> - X	Sign
1	FSP-1, 0-6 in, Peach Tree Area	0.56	6.71E-01	9.12	8.56	1
2	FSP-2, 0-6 in, Peach Tree Area	1.36	7.01E-01	9.12	7.76	1
3	FSP-3, 0-6 in, Peach Tree Area	0.59	7.06E-01	9.12	8.53	1
4	FSP-4, 0-6 in, Peach Tree Area	0.79	7.08E-01	9.12	8.33	1
5	FSP-5, 0-6 in, Peach Tree Area	0.99	7.10E-01	9.12	8.13	1
6	FSP-6, 0-6 in, Peach Tree Area	0.99	7.15E-01	9.12	8.13	1
7	FSP-7, 0-6 in, Peach Tree Area	1.20	7.23E-01	9.12	7.92	1
8	FSP-8, 0-6 in, Peach Tree Area	2.72	7.00E-01	9.12	6.40	1
9	FSP-9, 0-6 in, Peach Tree Area	4.96	7.45E-01	9.12	4.16	1
10	FSP-10, 0-6 in, Peach Tree Area	3.45	7.31E-01	9.12	5.67	1
11	FSP-11, 0-6 in, Peach Tree Area	5.18	7.17E-01	9.12	3.94	1
12	FSP-12, 0-6 in, Peach Tree Area	1.79	7.18E-01	9.12	7.33	1
13	FSP-13, 0-6 in, Peach Tree Area	1.01	7.30E-01	9.12	8.11	1
14	FSP-14, 0-6 in, Peach Tree Area	2.37	7.49E-01	9.12	6.75	1
15	FSP-15, 0-6 in, Peach Tree Area	1.20	7.58E-01	9.12	7.92	1
16	FSP-16, 0-6 in, Peach Tree Area	0.81	7.71E-01	9.12	8.31	1
17	FSP-17, 0-6 in, Peach Tree Area	0.81	7.71E-01	9.12	8.51	1
18	FSP-18, 0-6 in, Peach Tree Area	0.19	7.27E-01	9.12	8.93	1
19	FSP-1, 8-12 in, Peach Tree Area	0.20	7.63E-01	9.12	8.92	1
20	FSP-2, 8-12 in, Peach Tree Area	0.59	7.42E-01	9.12	8.53	1
21	FSP-3, 8-12 in, Peach Tree Area	-0.21	8.13E-01	9.12	9.33	1

22	FSP-4, 6-12 in, Peach Tree Area	0.00	7.61E-01	9.12	9.12	1
23	FSP-5, 6-12 in, Peach Tree Area	0.20	7.70E-01	9.12	8.92	1
24	FSP-6, 6-12 in, Peach Tree Area	0.40	7.67E-01	9.12	8.72	1
25	FSP-7, 6-12 in, Peach Tree Area	0.58	7.38E-01	9.12	8.54	1
26	FSP-8, 6-12 in, Peach Tree Area	1.46	7.93E-01	9.12	7.66	1
27	FSP-9, 6-12 in, Peach Tree Area	3.95	7.51E-01	9.12	5.17	1
28	FSP-10, 6-12 in, Peach Tree Area	2.59	7.56E-01	9.12	6.53	1
29	<b>FSP-11, 6-12 in, Peach Tree Area</b>	<b>239.00</b>	<b>6.75E-01</b>	9.12	-229.88	-1
30	FSP-12, 6-12 in, Peach Tree Area	4.08	7.76E-01	9.12	5.04	1
31	FSP-13, 6-12 in, Peach Tree Area (DUP)	0.85	8.07E-01	9.12	8.27	1
32	FSP-14, 6-12 in, Peach Tree Area	0.79	7.50E-01	9.12	8.33	1
33	FSP-15, 6-12 in, Peach Tree Area	0.77	7.27E-01	9.12	8.36	1
34	FSP-16, 6-12 in, Peach Tree Area	0.20	7.48E-01	9.12	8.92	1
35	FSP-17, 6-12 in, Peach Tree Area	0.41	7.76E-01	9.12	8.71	1
36	FSP-18, 6-12 in, Peach Tree Area	0.20	7.43E-01	9.12	8.93	1
	MEAN	7.9668889				35
	STD DEV ( $\sigma$ )	39.630389		Total sample points		36
	MEAN + 3*STD DEV ( $3\sigma$ )	126.85806		Total Positive Points (S+)		35

**Table 5. Sample locations, results, and statistical data.**

**Step 3.** Discard each difference that is exactly zero and reduce the sample size,  $N$ , by the number of such zero measurements.

No difference is exactly zero, so  $N$  remains 36.

**Step 4.** Count the number of positive differences. The result is the test statistic,  $S+$ . (Note that a positive difference corresponds to a measurement below the  $DCGL_W$  and contributes evidence that the survey unit meets the release criterion.)

The number of positive differences is 35, therefore  $S+ = 35$ .

**Step 5.** Large values of  $S+$  indicate that the null hypothesis (that the survey unit exceeds the release criterion) is false. The value of  $S+$  is then compared to the critical values in Table I.3. If  $S+$  is greater than the critical value,  $k$ , in that table, the null hypothesis is rejected.

**Table 2. From MARSSIM Appendix I, Table I.3 Critical Values for the Sign Test Statistic  $S+$  (portion)**

N	Alpha								
	0.005	0.01	0.025	0.05	0.1	0.2	0.3	0.4	0.5
35	25	24	23	22	21	20	19	18	17
36	26	25	24	23	22	21	20	19	18

**Conclusion**

For this data set the sample size (N) is 36 and the Sign Test statistic (S+) is 35. Using the Alpha decision error of 0.05 and the sample size of 36, the critical value for this survey unit is 23. Since the Test Statistic S+ exceeds the critical value, Chemtura rejects the Null Hypothesis (that the survey unit exceeds the release criterion) and affirms that the survey unit meets the criterion for unrestricted release.

Chemtura requests that NRC confirm Chemtura's conclusion that the land areas of its Bethany site meet the requirements for unrestricted radiological release. Results of the final radiological status of the buildings at the Bethany site will be submitted at a later date.

**Additional Sample**

During the site inspection on September 1, 2010, Mr. Thomas K. Thompson, Senior Health Physicist, NRC, was touring the greenhouses on the property and noticed that a floor drain had had the concrete seal removed from it. He suggested that a sample be collected from the drain for radiological analysis. The results of this sample were less than the DCGL value as shown in the table below. This drain sample data will also be reported with the final status survey results for the buildings at the Bethany site.

Location	Result pCi/g	MDA pCi/g
Drain Sample (Back Section) Greenhouse #3	1.86E+00	6.74E-02
Drain Sample (Back Section) Greenhouse #3	2.22E+00	6.99E-02

  
K. Paul Steinmeyer, RRPT  
Senior Health Physicist

10/13/10  
Date