

November 17, 2009

Reference No. 050681

ATTN: Document Control Desk Deputy Director
Decommissioning and Uranium Recovery Licensing Directorate
Division of Waste Management and Environmental Protection
Office of Federal and State Materials and Environmental Management Programs
Mailstop T8-F5
United States Nuclear Regulatory Commission
Washington, D.C. 20555-0001

Dear Sir:

**Re: 3rd Quarter 2009 NRC Groundwater Sampling
Results and Monitoring Well Status
Stepan Company, 100 West Hunter Ave.
Maywood, New Jersey
NRC License STC-1333**

This letter provides a summary of the 3rd quarter 2009 NRC groundwater analytical results for the above-referenced Site. The attached table presents a summary of the results. The NRC license at the Stepan Company site is suspended for Burial Pits #2 and #3, and USACE is responsible for radiation control and the protection of the public health and safety consistent with the requirements of 10 CFR Part 20. Only Wells #4 and #5 at Burial Pit #1 were accessible for sampling during the 3rd quarter 2009 routine groundwater sampling event. Due to access and health & safety issues, Stepan was unable to sample the remaining monitoring wells around these burial pits in the 3rd quarter 2009.

In CRA's October 14th letter, Stepan requested that the NRC sampling program be discontinued based on the license suspension for Burial Pits #2 and #3. That request was denied. Sampling of all accessible monitoring wells is currently scheduled for November 30 and December 1, 2009.

The following is a summary of the current condition of the NRC monitoring wells on-Site:

Burial Pit #1

- Wells 4 and 5 – Accessible and not impacted by FUSRAP activities.

Burial Pit #2

- Well 7 – Inaccessible. Well is currently blocked by FUSRAP equipment/materials.
- Wells 8 and 9 – Accessible, but within FUSRAP BP #2 controlled area.



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Burial Pit #3

- Wells 1 and 2 – Accessible, but within the FUSRAP BP #3 controlled area. Both wells are within the BP #3 dewatering system capture zone and currently have less than a foot of groundwater in each of them.
- Well 3 – Accessible. Well is within the FUSRAP BP #3 dewatering system capture zone and it is dry.

Stepan will attempt to sample all wells during the 4th quarter sampling event. Stepan will coordinate with USACE regarding gaining access to wells with the FUSRAP controlled areas. If you have any questions, please do not hesitate to call.

Sincerely,



Stepan Company
Mark Stanek

JAG/smk/2

Attachment

cc: Regional Administrator, Region I, NRC
Yolande Norman, NRC
Judith Joustra, NRC
Lydia W. Chang, NRC
Mark Roberts, NRC
Ed Troskowski, NJDEP
Allen Roos, USACE
Bill Kollar, Shaw
Christina King Loundy, Stepan Company
Jeff Nelson, Stepan Company
Mark Stanek, Stepan Company
John McGahren, Patton Boggs LLP
Laurie Matthews, Patton Boggs LLP
John Garges, CRA



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Table 1
 Analytical Results of Third Quarter 2009 NRC Well Sampling
 Stepan Company
 100 West Hunter Avenue
 Maywood, New Jersey

| Sample Identification | NRC Permit Criteria | Well 1 | Well 2 | Well 3 | Well 4 | Well 5 | Well 7 | Well 8 | Well 9 |
|------------------------|---------------------|--------|--------|--------|-----------|-----------|--------|--------|--------|
| Sample Date | (pCi/L) | -- | -- | -- | 9/24/2009 | 9/24/2009 | -- | -- | -- |
| (all results in pCi/L) | | | | | | | | | |
| Gross Alpha | 15 | NS | NS | NS | 0.37 | 2.64 | NS | NS | NS |

Notes:
 pCi/L = pico Curies per Liter.
Bold/Box = Analyte detected above Permit Criteria.
 NS = Not Sampled