



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

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This letter provides a summary of the 3<sup>rd</sup> 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 3<sup>rd</sup> 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 3<sup>rd</sup> quarter 2009.

In CRA's October 14<sup>th</sup> 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 4<sup>th</sup> 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



**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	--	--	--
<i>(all results in pCi/L)</i>									
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