NRC FORM 374

U.S. NUCLEAR REGULATORY COMMISSION

MATERIALS LICENSE

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 36, 39, 40, and 70, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess, and transfer byproduct, source, and special nuclear material designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s). This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations, and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

Licensee	
1. Stepan Company	3. License Number STC-1333, Amendment No. 4
2. 100 West Hunter Avenue Maywood, New Jersey 07607	4. Expiration Date: Until Terminated
	5. Docket No. 40-8610 Reference No.

6. Byproduct Source, and/or Special Nuclear Material	7. Chemical and/or Physical Form	8. Maximum amount that Licensee May Possess at Any One Time Under This License
Thorium	Alkaline thorium phosphate tailings	As contained in approximately 19,000 cubic yards of buried tailings

9. Authorized place of use: Underground storage in three burial pits at Stepan Company, 100 West Hunter Avenue, Maywood, New Jersey.

10. Except as specifically provided otherwise by this license, the licensee shall possess licensed material described in Items 6, 7 and 8 of this license in accordance with statement, representations, and procedures contained in application dated March 16, 1983, and supplement dated June 29, 1987.

11. Licensed material in the underground storage shall be kept under the supervision of a Radiation Safety Officer who shall have the following education, training, and experience.

    1. Education: A bachelor's degree in the physical sciences, industrial hygiene, or engineering from an accredited college or university or an equivalent combination of training and relevant experience in radiological protection. Two years of relevant experience are generally considered equivalent to 1 year of academic study.

    2. Health physics experience: At least 1 year of work experience in applied health physics, industrial hygiene, or similar work relevant to radiological hazards associated with site remediation. This experience shall involve actually working with radiation detection and measurement equipment, not strictly administrative or "desk" work.

    3. Specialized knowledge: A thorough knowledge of the proper application and use of all health physics equipment used for the radionuclides present at the site, the chemical and analytical procedures used for radiological sampling and monitoring, and methodologies used to calculate personnel exposure to the radionuclides present at the site.

[Applicable Amendments: 3, 4] [Enclosure]

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12. The licensee shall conduct the monitoring program as proposed in the enclosure to the letter dated June 29, 1987, with the exception of sampling monitoring well 6. Sample wells 1, 2, 3, 4, 5, 7B, 8, and 9 on a quarterly frequency for dissolved gross alpha activity and, or for dissolved specific radionuclides.

    A. Notwithstanding, the licensee is required to sample these groundwater monitoring wells if there is sufficient well volume for the sample to be retrieved and if these wells are not compromised by approved corrective actions in the immediate vicinity of the burial pit.

    B. If any of the groundwater monitoring wells are dry for 2 consecutive semiannual periods and are not compromised by approved corrective actions, the licensee shall install a new well to substitute effectively for the dry well.

    C. The licensee shall on a quarterly frequency, submit groundwater monitoring reports once these wells have been sampled in accordance with License Condition 14.

[Applicable Amendments: 3, 4]

13. [DELETED BY Amendment 4 and incorporated in License Condition 12]

14. If the gross alpha activity concentration (excluding Radon) in any of the groundwater monitoring well exceeds 15 pCi/liter, specific analyses for thorium isotopes, uranium isotopes and total dissolved radium must be performed to determine the major contributors. If the radioactivity concentration (except radon) in any of the monitoring wells exceeds 50pCi Ra-226 and Ra-228/liter or 150 pCi gross alpha /liter, the licensee shall submit to the NRC within 3 months a report which describes corrective actions proposed by the licensee.

[Applicable Amendments: 3, 4]

15. Except as specifically provided otherwise in this license, the licensee shall conduct the environmental monitoring program in accordance with the statement representations, and procedures contained in the documents, including any enclosures listed below. The NRC's regulations shall govern unless the statements, representations, and procedures in the license application and correspondence are more restrictive than the regulation.

    A. Safety Evaluation Report, License Renewal Application dated March 16, 1983.
    B. Letter and attachments for license renewal dated June 29, 1987.
    C. NRC Letter dated November 5, 1987.
    D. Letter from Stepan to NRC Region 1, License Renewal Application dated March 30, 1992.
    E. Memorandum of Understanding between the U.S. Nuclear Regulatory Commission and U.S Army Corps of Engineers (USACE) for Coordination of Cleanup & Decommissioning of the Formerly Utilized Sites Remedial Action Program (FUSRAP) Sites with NRC Licensed Facilities, dated July 12, 2001 (ADAMS Accession Number ML011630081).
    F. Technical Evaluation Report dated October 19, 2009.

[Applicable Amendment: 4]

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16. The licensee is hereby exempted from the provisions of 10 CFR 40.36 insofar as this section applies to the underground stored materials held under license; based on the commitments made by the USACE in a Maywood site ROD, dated September 22, 2003, to remediate three licensed burial pits at the Stepan sites, a Memorandum of Understanding between the NRC and USACE for Coordination of Cleanup & Decommissioning of the FUSRAP Sites with NRC-Licensed Facilities (ML011630081), as well as the USACE's commitment to seek appropriations to complete decommissioning of the burial pits.

[Applicable Amendment: 4]

17. All written notices and reports to NRC required under this license shall be addressed to: 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, U.S. Nuclear Regulatory Commission, Washington DC 20555-0001. Required telephone notification shall be made to the NRC Operations Center at (301) 816-5100, unless otherwise specified.

[Applicable Amendment: 4]

FOR THE NUCLEAR REGULATORY COMMISSION

Date: 10/21/2009

/RA

Keith I. McConnell, 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