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**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
WASHINGTON, D.C. 20555-0001

September 8, 1997

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Division of Waste Management, NMSS

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Low-Level Waste and Decommissioning
Projects Branch
Division of Waste Management, NMSS

SUBJECT: TRIP REPORT: CINTICHEM, INC. DECOMMISSIONING
PROJECT, AUGUST 26-27, 1997

Malone

On August 26-27, 1997, I accompanied staff of the Office of Nuclear Reactor Regulation on an inspection of the Cintichem, Inc. facility in Tuxedo, NY. The purpose of this inspection was to perform a final inspection of the facility to determine if the facility is suitable for release for unrestricted use and license termination. Staff of the New York State Department of Environmental Conservation (NYSDEC) and New York State Department of Labor (NYSDEL) were also present during this inspection. In addition, Confirmatory Surveys were being conducted by the Oak Ridge Institute for Science and Education during the inspection. A complete Inspection Report is currently being prepared by the Region I staff inspectors and, as such, inspection findings and observations will be described in detail in that report. Outlined below is a report on the status of the decommissioning of Cintichem's Tuxedo, NY, facility and a summary and discussion of outstanding issues that may affect the release of the facility and termination of the license.

Status of Decommissioning Operations

Almost all remediation operations at the facility have been completed. During final surveys Cintichem discovered a small area of contaminated soil under the 001 outfall, which was subsequently remediated. The 001 outfall is located across the road to the Cintichem property (Longmeadow road), and is just off the Cintichem property. This outfall drained much of the site rainwater runoff after it had been collected in an area on the property known as the retention pond (prior to release the rainwater was evaluated for the presence of radioactive material and the release was conducted in accordance with the NRC license and NYSDEC permits). Cintichem is currently evaluating the final survey of the soil from the remediation of this area and expected to complete the remediation during the week of September 4, 1997. Remediation is also continuing in Building 4 and in the area of the property known as the Union

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Carbide Spoils Area. Building 4 is under the regulatory authority of the NYSDOL. NYSDEC has regulatory authority for the Union Carbide Spoils Area.

To date, approximately 400,000 ft³ of waste has been generated during the decommissioning of the facility. Some radioactive waste is still present at the facility. The radioactive waste from remediation that is still present at the facility consists of approximately:

- 1,650 ft³ of dry active waste - packaged awaiting transportation to a low-level waste disposal facility;
- 650 ft³ of dry active waste to be packaged for disposal;
- 1,000 ft³ of soil samples from final surveys to be packaged for disposal;
- Various pieces of contaminated equipment that will be transferred to the Trojan Nuclear Power Station for use in decommissioning that facility;
- Approximately 100 check sources that will be used during final surveys; and,
- Approximately eighteen 55 gallon drums of mixed waste that is being evaluated for disposal or off-site transfer

Cintichem is currently evaluating disposal options for the mixed waste, including disposal at Envirocare or Nuclear Fuel Services or transfer to another licensed facility. On August 28, 1997, I forwarded the attendee list from the recent American Society of Mechanical Engineers Mixed Waste Symposium to Cintichem for their use in locating other facilities with similar mixed wastes that may have located alternative treatment or disposal capacity for their wastes. Attachment 1 is a copy of this list.

Cintichem has completed Final Surveys at 100 percent of the NRC regulated areas at the facility and approximately 70 percent of the surveys in Building 4. In addition, surveys are underway in the Union Carbide Spoils Area. To date, approximately 400,000 individual survey points have been evaluated. Cintichem expects to complete these surveys in September 1997. In addition, Cintichem anticipates forwarding the bedrock surveys/dose analysis to NRC for review and approval in a few weeks. This information will be the final information that will be submitted by Cintichem to support the decommissioning operations.

Outstanding Issues

1. ⁹⁰Sr in Groundwater

Groundwater extracted from Monitoring Well 2-S (MW2S) located near Building 3 has shown levels of ⁹⁰Sr in excess of the EPA's drinking water limit for several years. Cintichem located the apparent source of the ⁹⁰Sr and remediated it in late 1996, but, to date, the levels of ⁹⁰Sr in this well have not been consistently below the criteria established

for the facility. Note that, with EPA's concurrence, NRC determined that the appropriate criteria for ⁹⁰Sr in groundwater at the site is 42 picocuries per liter (pCi/l) from an unfiltered sample (this equates to 4 mrem/year TEDE).

Issue - Does the groundwater data support a conclusion that the groundwater meets the unrestricted release criteria and, if not, what will Cintichem and/or NRC and NYSDEC need to do to complete the decommissioning?

Discussion - NYSDEC has maintained a spreadsheet of weekly ⁹⁰Sr groundwater concentrations which they will forward to NRC. Based on this data, NRC may be able to determine if ⁹⁰Sr levels in the groundwater can permit unrestricted use of the site.

2. Final Public Meeting for the Project

To date, NRC staff has participated in meetings that Cintichem has had with the public and with the Tuxedo Town Board. These were not Public Meetings and NRC was not the lead presenter at either meeting, although we did answer questions from the public about the decommissioning of the facility.

Issue - Should a final meeting be held to describe the completion of the decommissioning project?

Discussion - Cintichem agreed to raise the issue with the Tuxedo Town Supervisor to determine whether the Town Board is interested in having a final meeting. Cintichem also agreed to be the lead presenter and NRC and NYSDEC would be available to address questions about the decommissioning. Cintichem will inform NRC and NYSDEC of the Town Board's preference for a meeting.

I will update you when I get the information from NYSDEC and Cintichem. If you have any questions, please contact me at (301)415-6749.

License Nos.: SNM-639, R-81
Docket Nos.: 70-687, 50-54

Attachment: As stated

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08/21/97

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August 18-21, 1997

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