



New York State Department of Environmental Conservation

50 Wolf Road, Albany, New York 12233-7255
518-457-2225 FAX 518-485-8390

May 15, 1995

Mr. Dominick Orlando
US Nuclear Regulatory Commission
1 White Flint North
11555 Rockville Pike
Rockville, MD 20852

Mr. J. J. McGovern
Plant Manager/President
Cintichem, Inc.
P.O. Box 816
Tuxedo, New York 10987

Dear Messrs. Orlando and McGovern:

Re: Cintichem, Inc. Decommissioning
Proposed Bedrock Criteria

We have reviewed Cintichem's April 6, 1995 letter to Mr. Michael Weber of the NRC. Cintichem was responding to Mr. Weber's March 8, 1995 letter and my February 2, 1995 letter regarding the bedrock decontamination criteria Cintichem had proposed in a January 6, 1995 letter to the NRC.

Cintichem's general approach may be acceptable. As I wrote in my February 2, 1995 letter to Mr. Orlando, Cintichem should characterize the residual contamination in the bedrock. If the resulting dose to the maximally exposed member of the general public is predicted to be less than 10 millirem per year, no further remediation is needed.

While we agree with the theory, several questions remain unanswered.

Cintichem has proposed to demonstrate that the ALARA goals will be met, "by core-sampling the bedrock and determining the average concentration of radionuclides in the affected bedrock volumes." Therefore, the validity of that demonstration will depend on the number, depth, and distribution of the cores and the mass of material cored versus the concentration of radioactive material in the cores. DEC cannot approve this proposal until we have reviewed and approved both the coring plan and a demonstration by Cintichem that the cores will adequately characterize the contamination in the bedrock. We are also

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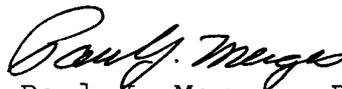
interested in how NRC (and its contractor) will address the bedrock contamination during the confirmatory survey.

In their April 6, 1995 letter, Cintichem implied that their January letter had demonstrated these bedrock criteria could be applied to "concrete foundation in contact with the residual bedrock." We do not agree with that implication. We do not find any mention of concrete in the January letter, nor would we agree, without a clear demonstration, that the bedrock criteria should be, or need to be, applied to concrete.

We believe a meeting among all three parties at the site would be very helpful in clarifying these issues. We suggest a meeting within the next two weeks.

Our detailed comments, addressed to Cintichem, are enclosed. Please call Barbara Youngberg of this Bureau if you have any questions and to arrange a date for the on-site meeting.

Sincerely yours,



Paul J. Merges, Ph.D.
Chief, Bureau of Radiation
Division of Hazardous Substances
Regulation

BY/
Enclosure
cc: T. Dragoun, NRC Region I

April 6, 1995 Submittal on Proposed Bedrock Criteria for
Cintichem Decommissioning

Comments of the NYS Department of Environmental Conservation
May 15, 1995

1. In several places in the Attachments, the concentration dose conversion factors (DCFs) are converted to surface contamination DCFs (Att. 1, pp. 2, 4, and 6; Att. 3, p. 2; Att. 4 p. 2; Att. 5, pp. 1 and 2). We recognize that Cintichem provided these factors "for information only" and that "they may be used by Cintichem for unofficial informational scoping surveys during conduct of E&E work." Please explain what valid information would be obtained by using this factor.
2. Cintichem must demonstrate that the proposed coring plan will yield useful and relevant data that will reasonably characterize the contamination in the fractures. The plan, and the demonstration of its validity, should be submitted to DEC and the NRC for approval before any coring begins.
3. In question 1 of the NRC's March 8, 1995 letter, NRC asked for an explanation of the derivation of the limits and the calculations done. We expected that Cintichem's April 1995 letter would show the derivation of the same factors presented in the January 1995 letter. However, the two sets of numbers do not appear to match. Do the factors in the April 1995 letter completely replace the January 1995 figures?
4. We understand from the telephone conference call in January 1995 that Cintichem does not intend to remove any more bedrock from the reactor monolith area. Please identify those areas from which you do plan to remove any bedrock before you begin coring to demonstrate compliance with the decommissioning criteria. Please describe the criteria that will be applied to determine when bedrock removal should cease and coring should begin.
5. Cintichem did not respond to all of DEC's February 2, 1995 letter. In question 2, we suggested that Cintichem break some cores into one-foot segments to determine the concentration profile of the contamination. In our question 3, we asked for all of Cintichem's core data. In response, you provided only a summary. Please respond to both of these questions.