

CINTICHEM, INC.

P.O. BOX 816  
TUXEDO, NEW YORK 10987 [914] 351-2131

July 15, 1992

U.S. Nuclear Regulatory Commission  
Division of Low Level Waste Management  
and Decommissioning, NMSS  
Decommissioning and Regulatory Issues Branch  
Washington, DC 20555

Attn: Mr. Dominick Orlando

Re: USNRC License, SNM639 Amend #6  
dated January 16, 1992 (Docket 70-687)

Dear Mr. Orlando:

The referenced license amendment was issued to authorize commencement of the decommissioning of the facilities at the Cintichem Inc. site in Tuxedo, New York where operations were conducted under the Special Nuclear Materials License.

License condition 10.G of the referenced amendment directed Cintichem to develop residual soil contamination limits that would be appropriate as unrestricted release criteria for satisfying the decontamination requirements of the decommissioning project. Accordingly, these limits are enclosed along with a brief description of their technical bases for your review and approval.

These proposed limits have been developed in accordance with the principle of maintaining exposures to future residents on site as low as reasonably achievable. The primary method for decommissioning will be to remove residual contamination as much as is reasonably achievable as opposed to reduction or mitigation by dilution. If residual contamination exists in more than one area or zone, the individual criteria will be additive; also, potential direct exposure will be additive to that from ingestion or inhalation. Any resultant actual exposure will be less than the potential maximum per the proposed criteria, because it is unlikely that all exposure pathways will be contributing factors simultaneously. The potential maximum dose to any future resident on the Cintichem site will be less than 10 mRem/year, which is not significant in the presence of the currently existing average background radiation of approximately 300 mRem/year in this geographical location. Additional aspects of the proposed limits that make them conservative are mentioned in the enclosure.

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In addition to the technical bases for these proposed limits, Cintichem is developing a groundwater flow model that is based on site-specific hydrology data that will show a further reduction in the potential future water-dependent pathway that was not included among the bases for these proposed limits. This groundwater flow model can be used as a supplement to the proposed criteria by which potential future dose predictions will be reduced very significantly. The supplementary ground-water flow model will be submitted by July 31, 1992.

Very truly yours,



J. J. McGovern  
President/Plant Manager

JJMcG/kk

Enclosure

cc: P. Merges  
G. Kasik  
A. Dorozynski  
Director, Technical  
Development Programs  
State of NY Energy Office  
A. Gartner  
B. Youngburg

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