

New York State Department of Environmental Conservation
Division of Solid & Hazardous Materials
Bureau of Pesticides & Radiation
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John P. Cahill
Acting Commissioner

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

APR 03 1997

Dear Mr. McGovern:

Re: Radiological Characterization Plan for
Union Carbide Spoils Area

We have reviewed Cintichem's proposed Radiological Characterization Plan for Union Carbide Spoils Area, which Mr. Adler sent to this Department on January 22, 1997.

During our telephone conversation on February 10, 1997, you provided the following additional information regarding the plan:

1. On page 8, it is stated, "The characterization effort will . . . work outward until the 'affected area' has been laterally bounded by a series of sampling/measurement locations which indicate the absence of uranium ore residues." On the same page, it is stated, "Within the suspected affected areas, the systematic sampling/measurement location will be placed using a 10 meter by 10 meter grid system." You explained that outside of the affected area, the drilling will also follow the grid pattern until the affected area has been bounded.
2. The spot checks referred to at the end of the first paragraph on page 9 will be done at 3-5 locations outside the affected area where surface radiation levels were found to be greater than background in previous surveys.
3. Samples from one borehole in each grid will be analyzed for radionuclides. The samples will be collected at 0.33 meter intervals, yielding about 12-15 samples per borehole. There are eight grid squares wholly or partially within the boundary of the affected area (Figure 2). Therefore, samples from up to 8 boreholes will be analyzed. We understand that some locations may not be accessible.
4. The "fraction of the typical criteria" referred to at the top of page 10 is 1/10.

Based on the above information, the Department finds the Radiological Characterization Plan for Union Carbide Spoils to be acceptable. However, further sampling and remediation may be necessary, depending upon the results of this investigation.

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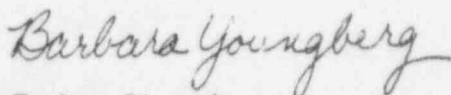
On March 19, 1997, you and I discussed the regulatory status of the ore in the landfill with Mr. Thomas Dragoun of the US Nuclear Regulatory Commission (NRC). We did not resolve the issue at that time. After our telephone conversation, you faxed to me a copy of a Registration of Sources of Radiation, signed by a Mr. J. E. Skvarla of Union Carbide and stamped "Registered" on September 12, 1957 by the New York State Department of Labor. The registration listed various quantities of uranium ore, yellow cake, and refined green salt to be used in the "Old School House" on Sterling Lake Road in Sterling Forest. Since that conversation, I checked our files for any relevant records, but found none; our files begin in 1977.

I sent a copy of the registration to Mrs. Rita Aldrich of the New York State Department of Labor (NYSDOL). On March 20, 1997, she told me that in one other case, during the time before New York State became an Agreement State, NYSDOL had registered radioactive material that was licensed by the AEC. I conveyed this information to Tom Dragoun, and he agreed to contact NRC headquarters. On March 24, 1997, he told me that NRC headquarters said that the material may have been licensed by the AEC, but licensing authority was turned over to the State when the New York State Agreement was signed. Also, you have informed me that you believe the 1957 Registration eventually became Cintichem's NYSDOL license.

The information from both the NRC and yourself indicate that this material is subject to New York State's regulatory authority. Therefore, we will review the results of the characterization plan to determine whether remediation is needed to meet this Department's *Cleanup Guideline for Soils Contaminated with Radioactive Materials* (Technical Administrative Guidance Memorandum 4003).

Please call me if you have any questions.

Sincerely,



Barbara Youngberg
Supervisor, Radiation Section
Bureau of Pesticides & Radiation
Division of Solid & Hazardous
Materials

cc: T. Dragoun, NRC, Region 1
D. Orlando, NRC
R. Aldrich, NYSDOL
R. Aldrich, DEC Region 3 RSHME