



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

DEC 15 1978

27-39

Mr. John S. Moore  
Division of Land/Noise  
Pollution Control  
Illinois Environmental  
Protection Agency  
2200 Churchill Road  
Springfield, Illinois 62706

Dear Mr. Moore:

As discussed recently with Joe Petrilli of your staff, the Nuclear Regulatory Commission (NRC) has licensing responsibility for the existing low-level radioactive waste disposal site near Sheffield operated by Nuclear Engineering Company, Inc. (NECO). We are also reviewing the operator's proposed site expansion and preparing an environmental impact statement on both.

Based on the limited information we have on the location of the chemical trenches and extrapolated groundwater contours, our hydrologists believe that chemical wastes are being buried upgradient of the radioactive site. Recent experience at radioactive waste burial sites has demonstrated that interaction between the chemical components of radioactive wastes and contained nuclides may result in chelation or other means to cause more rapid movement of radionuclides in the environment. Therefore, the possibility of migrating materials from the chemical site interacting with radionuclides either in the trenches or in common groundwater pathways is of concern for the same reason.

To help us assess the situation, we would appreciate any information which you can provide on the following:

1. The location of buried chemical wastes.
2. Volumes and types of chemicals buried.
3. Any ground water observations made at the chemical site.
4. Monitoring data from the site and environment.
5. Information on any borings made at the chemical site with regard to location, logs, and water levels.

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John S. Moore

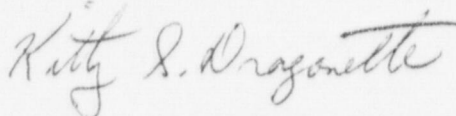
- 2 -

DEC 15 1978

6. Details on the berm being constructed around the chemical site.
7. Copies of criteria, regulations or guidelines used to evaluate the chemical waste disposal site.

We recognize that the holiday season is approaching, but a response no later than the end of January would be most helpful.

Sincerely,



Kitty S. Dragonette  
Low-Level Waste Branch  
Office of Nuclear Material Safety  
and Safeguards

cc: Sheffield Service List  
Joe Petrilli, IEPA