

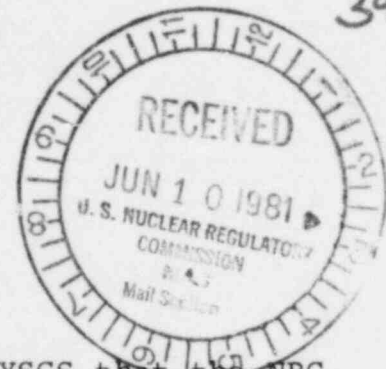


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PDR  
Return to  
D. Cramer  
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June 3, 1981



Mr. Charles Haughney  
Division of Fuel Cycle &  
Material Safety  
Nuclear Regulatory Commission  
Washington, DC 20555

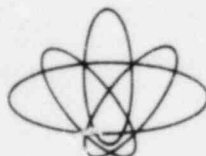
Dear Mr. Haughney:

I just learned from Mr. Fakudiny of NYSGS that the NRC is funding the survey to do a series of drillings at the NRC-licensed burial ground. I understand that the survey is to determine if the sandy strata located at the southern end of the State-licensed burial ground extends to the NRC-burial ground, and to determine if there are any other sandy strata present that might provide a route for off-site migration of radioactivity.

We are very pleased that this study is being undertaken and would appreciate a copy from you of the contract agreement outlining the goals and methodology of the study and the scope of work.

We are concerned, however, that the NYSGS has a preconception about the geology of the burial ground which may affect the work performed by that agency. This preconception appears to rest on the assumption that the silty till is a good medium to prevent off-site migration of radionuclides and that there are no underground, continuous sand lenses or interconnections with vertical fractures through which radioactive materials could migrate. We do not believe there is sufficient data regarding the complex geology of the burial ground to substantiate this assumption. We believe, further, this assumption has prevented a thorough and rigorous analysis of the ground water regime of underground sand lenses, and the possible interconnections with vertically oriented fractures.

We strongly feel that both before work proceeds on this study and during the work, an independent review board should be set up to evaluate the scope and progress of work. This review board should include specialists both on ground water



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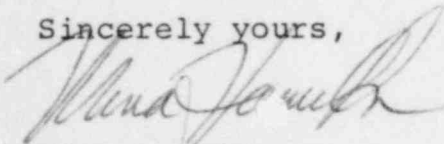
hydrology and ground water geology. This board would not substantially increase the costs of the study, but would greatly improve the scientific quality of the work.

In addition, we would like to request that the study include a systematic, detailed survey of the area to the west of trench #14. According to NYSGS, the backhoe drilling work conducted by NFS was confused and inconclusive as to the extent of the sandy strata identified by EPA staff in trench #13. The drillings conducted by NYSGS are also inconclusive. Only a total of four drillings were made with two designed in such a way as to permit an underground sandy strata to go undetected. One drill hole (u) only went down 10', and a second (Q) failed to sample between a depth of 14' and 20'. Thus, at two locations considerable uncertainty exists as to the presence or absence of sandy strata. At the remaining two drill holes L and K, a sandy strata was identified at about 20' below the surface. Whether this sandy strata is continuous or not is unknown. Given these uncertainties, the need for further, extensive drilling work is mandatory. At the least, it seems to us, NYSGS should lay out a regular array of drill holes, continuously sample, to a specific depth. Instead, it seems that past drilling involved random holes, and sampled random depths to determine the extent of the sand lenses. We have confidence, however, that if a board of geological experts became involved this type of problem could be avoided.

Finally, we are greatly concerned about the elevated tritium levels in the lagoon between the NRC and State-licensed burial grounds. We think it is important to determine the source of this tritium migration.

We would appreciate a prompt reply to our request for a copy of the contract and scope of study, and for the establishment of an independent review committee. We hope that these comments are useful to you, and will lead to a study in which the NRC and the public can have confidence.

Sincerely yours,



Mina Hamilton  
Co-Director  
Sierra Club Radioactive Waste Campaign

MH/sr

cc: Congressman Morris Udall  
Congressman Richard Ottinger  
Dr. Peter Gold