June 13

Senator James Buckley
U.S. Senate
Washington, D.C.

Dear Senator Buckley:

Enclosed is the latest correspondence with the NRC concerning the spent fuel storage situation at Nine Mile Point 1, near Oswego. Thank you for being attentive to this matter.

Sincerely,
Martin Resnikoff
Box 123 Market Sta.
Buffalo, N.Y. 14203

Donald F. Knuth, Director
Office of Inspection and Enforcement
Nuclear Regulatory Commission
Washington, D.C. 20555

Re: Docket No. 50-220
Nine Mile Point 1
Spent Fuel Storage

Dear Mr. Knuth:

Thank you so much for taking the time to respond to our questions of March 27. The answers will aid us in making an independent judgment of the safety of the spent fuel situation at Nine Mile Point 1. However, we will need further information before we share your view that the spent fuel situation at NMP 1 is not a safety problem.

I have enclosed a letter from Sue Reinert of Ecology Action of Oswego which may have come to your attention by this time. (To correct one error, the numbers 6,000 and 20,000 BTU/hr in her letter should read 6×10^6 and 20×10^6 BTU/hr, respectively.) Her questions concern the cooling capacity of the storage pool, and the inter-relationship of the storage pool with other safety matters. In addressing Ms. Reinert's questions, we would hope that you could not only answer the specific questions, but the general thrust of her questions as well. I have drawn out her questions a bit further below, to make the intent clear.

CRITERIA FOR SHUTDOWN

You imply, on page 1 of your letter, that when the reactor and spent fuel pool are full, the reactor would close down. "If the licensee reaches a point where he has used all onsite spent fuel storage space and has consumed the fuel in the reactor, and has nowhere to ship spent fuel to make storage room for defueling the reactor, then he would have no choice but to reduce and eventually cease power production." Thus, your criteria for shutdown seems to be when the reactor and spent storage pool are full. However, as you can see from the questions below, we are asking for a full statement of your assumptions to this conclusion, and <u>quantitative criteria</u> for a shutdown of NMP 1 reactor.

COOLING CAPACITY OF STORAGE POOL

In your letter of April 30, 1975, you mention that the cooling capacity of the storage pool is 20×10^6 BTU/hr. Does this assume one or both of the cooling systems are operating? (Reinert question #2) Is the cooling system capacity of each equal to one-half of the total or 10×10^6 BTU/hr?

We would like to know what assumptions go into this determination of the cooling capacity. (Reinert question #1) We know, for example, that each spent fuel cooling system has a pump and heat exchanger with the coolant water. Are there credible circumstances in which the coolant would heat up, thereby lowering the cooling capacity of the spent fuel cooling system? Is this situation further jeopardized by the storage of a large amount of fuel in the spent fuel storage pool? Please explicitly state your assumptions.

How much fuel, of what reactor exposure, for what cooling period, must be in the spent fuel pool before both cooling systems are required to operate simultaneously? (Reinert question #3) We are assuming that one cooling system serves as a back-up for the other, in case one system should break down, and that the use of both pumps simultaneously would be an undesirable operating condition. Is there a conceivable set of circumstances which would lead you to this undesirable condition?

NEED FOR SAFETY HEARING

If there are credible circumstances which would lower the cooling capacity of the spent fuel cooling system, and if the spent fuel load further contributed to this problem, then your quantitative criteria for a reactor shutdown must include this information.

If there are credible circumstances which would require you to examine the mecahnisms within the reactor pressure vessel, then a reactor shutdown would be required if the full core could not be emptied into the spent fuel storage pool. Your quantitative criteria should take these circumstances into account.

It is my personal belief that a full safety hearing is required on this spent fuel situation, that this is an operating condition that was not anticipated in the original safety hearing. However, if you feel that this situation was fully and adequately covered in the original safety hearing, and that the answers to our questions are known and straight-forward, then please provide us the information. We thank you for looking further into this matter.

cc: S. Reinert
A.Z. Roisman
G. Speth
Sen. J. Buckley

Sincerely,

M. Resnikoff

Dr. Marvin Resnikoff
Box 123 Market Station
Buffalo, New York 14203

Box 94
Oswego, New York 13126
May 22, 1975

Nuclear Regulatory Commission
Washington, D.C. 20555

Gentlemen:

We would like further information on the cooling system for the spent fuel pool at Nine Mile Unit 1. According to the Final Safety Analysis Report for the plant, the normal load for the fuel pool is 50 per cent of the core, and a cooling "loop" which can handle 6,000 BTU per hour provides enough cooling for the normal load. A second, backup system is provided to handle the unusual situation of a full fuel pool, or 150 per cent of the core. The FSAR says the two systems together can handle the required 20,000 BTU per hour.

Since Nine Mile Unit 1 already has more than 50 per cent of a core in its fuel pool, we would like answers to the following:

1. What is the maximum cooling capacity of each system? Please state the assumptions that were made, such as maximum temperature of coolant.

2. What is the basis for the statement that both systems together can handle 20,000 BTU per hour?

3. Are both systems currently being used at Nine Mile Unit 1? If so, for how long have they been used? If not, when do you anticipate that both will be required to operate?

4. What is the schedule of testing for the backup system? If it is not in use, when was it last tested?

5. What provisions are made for situations when both systems are needed but one of them is out of service?

6. What effect will a rise in temperature of the reactor coolant have on the capability of the fuel pool cooling systems?

As you can probably gather, we are concerned about the continuous operation of this system at above normal loads. The spent fuel pool now has about 56 per cent of a core of 532 assemblies. If Niagara Mohawk unloads about one third of the core at its next refueling this fall, the pool will contain roughly 470 assemblies, or about 70 per cent of the core. In view of the fact that the designers of the plant apparently thought that a load of more than 50 per cent of the core would be unusual, we don't understand how you can state that the spent fuel pool situation is not a safety matter, as you said in your most recent letter to us.

Sincerely,

Sue Reinert

Sue Reinert
Ecology Action of Oswego

cc: Dr. Marvin Resnikoff