

DEC 22 1975

License No. DPR-3  
(Docket No. 50-29)

Yankee Atomic Electric Company  
ATTN: Mr. Malcolm Allison  
20 Turnpike Road  
Westboro, Massachusetts 01581

Gentlemen:

To complete the information needed for evaluating your request for a Technical Specification change in regard to expansion of your fuel pool storage capacity, we need answers to the enclosed list of questions. Our review of your request will proceed upon receipt of the answers.

Sincerely,

Original signed by W. H. Regan, Jr.

Wm. H. Regan, Jr., Chief  
Environmental Projects Branch 4  
Division of Reactor Licensing

Enclosure:  
List of questions

cc: Mr. Donald C. Allen, President  
Yankee Atomic Electric Company  
20 Turnpike Road  
Westboro, Massachusetts 01581

Mr. Vincent A. DiCara  
Emergency Energy Coordinator  
Office of Energy Resources  
State Office Building  
Augusta, Maine 04330

THIS DOCUMENT CONTAINS  
POOR QUALITY PAGES

OFFICE	RL:EP-4	RL:EP-4				
SURNAME	RGilbert:aj	WRegan				
DATE	12/19/75	12/24/75				

Information Needed For  
Processing Applications  
Relating to the Request to  
Expand Storage Capacity in Spent  
Fuel Storage Pools at Light Water Reactors

- 1) What are the specific needs that require increased storage capacity in the spent fuel pool (SFP)? Include in the response:
  - a) status of contractual arrangements, if any, with fuel-storage or fuel-reprocessing facilities, and
  - b) proposed refueling schedule.
- 2) What is the total construction cost associated with the proposed modification of the SFP storage facilities?
- 3) What are the alternatives to increasing the storage capacity of the SFP? The alternatives considered should include:
  - a) shipment to a fuel reprocessing facility
  - b) shipment to another reactor site
  - c) shutting down the reactor

The discussion of options (a) and (b) should include a cost comparison in terms of dollars per KgU stored. The discussion of (c) should include the cost for providing replacement power either from within or outside the licensee's generating system.

- 4) Provide data on the empty weight of the new storage racks and the associated neutron absorbing racks if any are used. Discuss the kinds and quantities of materials that would be used in the proposed modification, for example, the amounts of stainless steel or boral.
- 5) What would be the additional time period that spent fuel assemblies could be stored onsite as a result of the proposed expansion?
- 6) What would be the additional heat load and the anticipated maximum temperature of the water in the SFP which would result from the proposed expansion?
- 7) How much additional solid waste would result from the proposed expansion?
- 8) Provide data on the quantities of Krypton-85, Tritium, and Iodine-131 that have been measured as releases to the environment from the fuel building ventilation system during each year from the last three years. If data are not available from the ventilation system, provide data measured from the overall plant.

- 9) What would be the maximum radionuclide concentration ( $\mu\text{Ci/cc}$ ) in the SFP as a result of the proposed expansion? Estimate the incremental dose rate above the surface of the SFP that would result from the proposed modification. Estimate the increased annual occupational man/rem exposure based on operations performed by personnel in the pool vicinity.
- 10) Discuss the effect of the proposed modification on the efficiency of the filter system in the fuel storage building.
- 11) Discuss potential fuel handling and fuel cask accidents and address the resultant doses that could ensue from such accidents relative to the expanded SFP.
- 12) Discuss the way in which the original spent fuel storage racks would be removed and disposed of or stored.