

REGULATORY DOCKET FILE COPY

OCT 30 1980

Docket No. 50-271

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REGISTRATION SERVICES DIVISION

1980 NOV 6 PM 12 58

Mr. Robert L. Smith
Licensing Engineer
Vermont Yankee Nuclear Power Corporation
25 Research Drive
Westboro, Massachusetts 01581

Dear Mr. Smith:

We have identified the enclosed additional information as being required so that we can complete our evaluation of the Vermont Yankee reload No. 7 submittal of August 19, 1980.

Please provide this information as soon as possible so that our review can proceed. On October 9, 1980 we discussed the need for this information by telephone with representatives of Vermont Yankee, and we understand that efforts are already underway to prepare a response to our questions.

Sincerely,

Original Signed by
T. A. Ippolito

Thomas A. Ippolito, Chief
Operating Reactors Branch #2
Division of Licensing

Enclosure:
Request for Additional
Information

cc: w/encl:
See next page

POOR ORIGINAL

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OFFICE	DL:ORB#2	DL:ORB#2			
SURNAME	VRooney	T. Ippolito			
DATE	10/30/80	10/30/80			

Mr. Robert L. Smith

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October 30, 1980

cc:

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Mr. Robert L. Smith

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October 30, 1980

cc:
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490.0 REACTOR FUELS SECTION, CORE PERFORMANCE BRANCH

490.1 Waterside Corrosion

In March 1979, Vermont Yankee underwent an interim refueling outage during which over 30 leaking bundles were identified by sipping (including six leaker bundles that had been identified in September 1978). In presentations made to NRC in December 1979, the failures were attributed to waterside corrosion associated with high conductivity (i.e., high metal ion concentration) in the core coolant. More recently, we have learned that General Electric has offered several recommendations to its BWR customers regarding how to avoid fuel waterside corrosion problems (Ref. 1). However, we have not received any submittal from Vermont Yankee Nuclear Power Corporation (VYNPC) presenting (a) VYNPC's analysis and conclusions regarding the cause of the failures (including why over 90% of the failed rods were gadolinia poison rods) or (b) what VYNPC will do to assure that like failures will not recur with Reload 7 fuel; e.g., will VYNPC commit to following GE's recommendations (in Ref. 1) or will some other action be taken?

490.2 Water Rod End Plug Wear

In October 1979, VYNPC reported observance of lower end plug wear on the water rods in two 8x8 R demonstration assemblies. Subsequent analyses by GE identified the likely cause of the wear and addressed the potential for, and consequences of (a) loss of positive spacer positioning, and (b) loose parts (Ref. 2). While GE has discussed water rod end plug surveillance results from Vermont Yankee and a few other operating BWRs, we are unaware of VYNPC's conclusions with regard to this problem. Therefore, please provide the following information:

- (a) Will there be a design change for Cycle 7 (later?) to eliminate the end plug wear?
- (b) If no design change is planned, does VYNPC conclude that the expected end plug wear will be of an acceptable magnitude?
- (c) State the basis for any such conclusions.
- (d) What surveillance will VYNPC perform to verify that continued wear is consistent with the assumptions used in any conclusions of acceptability?

A response to these questions should be provided as part of the Reload 7 submittal.

POOR ORIGINAL

References

1. R. E. Engel (GE), Letter to M. Tokar (NRC). Subject: Corrosion Product Control, October 3, 1980.
2. Warren P. Murphy (VYNPC), Letter to Boyce H. Grier (NRC), (with GE proprietary attachment), June 25, 1980.
3. J. S. Charnley (GE), Letter to T. A. Ippolito (NRC), (with GE proprietary attachment), July 28, 1980.