

April 21, 1981

Pocket No. 50-29
LS05-81-04-043



Mr. James A. Kay
Senior Engineer-Licensing
Yankee Atomic Electric Company
25 Research Drive
Westborough, Massachusetts 01581

Dear Mr. Kay:

SUBJECT: SEP TOPIC III-6, SEISMIC DESIGN CONSIDERATIONS
YANKEE ROWE

Our letter to you dated August 4, 1980 requested in accordance with 10 CFR 50.54(f) of the Commission's regulations that you submit plans and proceed with a seismic reevaluation program for the Yankee Rowe facility and that you provide justification for your conclusion that continued operation is justified in the interim until the seismic reevaluation program is complete. We have reviewed your seismic reevaluation program forwarded by your letter dated February 4, 1981. We have determined that your program is deficient with respect to scope of structures, systems and components to be evaluated.

Our August 4, 1980 10 CFR 50.54(f) letter specified as a minimum, that your program should provide for an evaluation of:

1. The integrity of the reactor coolant pressure boundary,
2. The integrity of fluid and electrical distribution systems related to safe shutdown and engineered safety features, and
3. The integrity and functionability of mechanical and electrical equipment and engineered safety feature systems (including containment).

We have reviewed the systems at the Yankee Rowe facility which are important to safety and should be included in your seismic reevaluation program. These systems are identified in Enclosure (1).

You are requested to revise and resubmit within 30 days of receipt of this letter your seismic reevaluation program. Your revised program should include the systems identified in Enclosure (1) and their related structures and components. A schedule for completion of seismic reevaluations, submittal of analysis results for NRC review and the installation of any necessary modifications should be included in your revised program.

OFFICE				
DATE				

POOR ORIGINAL

P

8104290455

OFFICIAL RECORD COPY

FORM 887-100

Your schedule, if different from our August 4, 1980 request, should be justified and should be consistent with your conclusion that continued operation is justified in the interim until the seismic reevaluation program is complete and any necessary modifications are implemented.

Sincerely,

Dennis M. Crutchfield, Chief
Operating Reactors Branch No. 5
Division of Licensing

Enclosure:
As stated

cc w/enclosure:
See next page

DL
AD:SA:DL
GLainas
4/23/81

OFFICE >	SEP B:DL	SEP B:DL	SEP B:DL	SEP B:DL <i>DL</i>	SEP B:DL <i>DL</i>	ORB#5:DL:PM	ORB#5:DL:C
EXTENSION >	<i>pyc</i> PYChen:dk	RHermann	EMcKenna	CBerlinger	WRussell	RCaruso	DCrutchfield
DATE >	4/15/81	4/16/81	4/15/81	4/16/81	4/16/81	4/21/81	4/22/81



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555
April 24, 1981

Docket No. 50-29
LS05-81-04-043

Mr. James A. Kay
Senior Engineer-Licensing
Yankee Atomic Electric Company
25 Research Drive
Westborough, Massachusetts 01581

Dear Mr. Kay:

SUBJECT: SEP TOPIC III-6, SEISMIC DESIGN CONSIDERATIONS
YANKEE ROWE

Our letter to you dated August 4, 1980 requested in accordance with 10 CFR 50.54(f) of the Commission's regulations that you submit plans and proceed with a seismic reevaluation program for the Yankee Rowe facility and that you provide justification for your conclusion that continued operation is justified in the interim until the seismic reevaluation program is complete. We have reviewed your seismic reevaluation program forwarded by your letter dated February 4, 1981. We have determined that your program is deficient with respect to scope of structures, systems and components to be evaluated.

Our August 4, 1980 10 CFR 50.54(f) letter specified as a minimum, that your program should provide for an evaluation of:

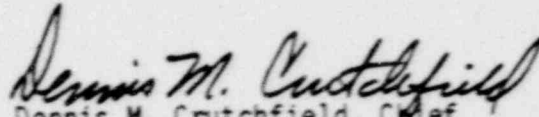
1. The integrity of the reactor coolant pressure boundary,
2. The integrity of fluid and electrical distribution systems related to safe shutdown and engineered safety features, and
3. The integrity and functionability of mechanical and electrical equipment and engineered safety feature systems (including containment).

We have reviewed the systems at the Yankee Rowe facility which are important to safety and should be included in your seismic reevaluation program. These systems are identified in Enclosure (1).

You are requested to revise and resubmit within 30 days of receipt of this letter your seismic reevaluation program. Your revised program should include the systems identified in Enclosure (1) and their related structures and components. A schedule for completion of seismic reevaluations, submittal of analysis results for NRC review and the installation of any necessary modifications should be included in your revised program.

Your schedule, if different from our August 4, 1980 request, should be justified and should be consistent with your conclusion that continued operation is justified in the interim until the seismic reevaluation program is complete and any necessary modifications are implemented.

Sincerely,


Dennis M. Crutchfield, Chief
Operating Reactors Branch No. 5
Division of Licensing

Enclosure:
As stated

cc w/enclosure:
See next page

ENCLOSURE (1)

SAFETY RELATED SYSTEMS, STRUCTURES AND COMPONENTS YANKEE ROWE PLANT

The scope of review for the seismic re-evaluation program should include the systems, structures, and components (including emergency power supply and distribution, instrumentation, and actuation systems) with the following functions:

1. The reactor coolant pressure boundary as well as the core and vessel internals. This should also include those portions of the steam and feedwater system extending from and including the secondary side of the steam generator up to and including the outermost containment isolation valve and connected piping of 2½ inch or larger nominal pipe size, up to and including the first valve that is either normally closed or is capable of automatic closure during all modes of normal reactor operation.
2. Systems or portions of systems that are required for safe shutdown as identified in the SEP safe shutdown review (SEP Topic VII-3). The system boundary includes those portions of the system required to perform the safety function and connected piping up to and including the first valve that is either normally closed or capable of automatic closure when the safety function is required.
3. Systems or portions of systems that are required to mitigate design basis events, i.e., accidents and transients (SEP Topics XV-1 to XV-24). The functions to be provided include emergency core cooling, post-accident containment heat removal, post-accident containment atmosphere cleanup, as well as support systems, such as cooling water, needed for proper functioning of these systems.
4. Systems and structures required for fuel storage (SEP Topic IX-1). Integrity of the spent fuel pool structure including the racks is needed. Failure of the liner plate due to the safe shutdown earthquake must not result in significant radiological releases, or in loss of ability to keep the fuel covered. Failure of cooling water systems or other systems connected to the pool should not permit draining of the fuel pool. Means to supply make-up to the pool as needed must be provided.
5. Structures that house the above equipment.

For the Yankee Rowe plant, the scan considers the following systems, and associated structures, and components should be addressed:

- a) Reactor Coolant System (RCS)
- b) Portions of Main Steam System
- c) Portions of Main Feedwater System

- d) Portions of other systems directly connected to RCS up to and including isolation Valves
- e) Control Rod Drives
- f) Auxiliary Feedwater System
- g) Shutdown Cooling System
- h) Portions of the Chemical and Volume Control System
- i) Portions of the Component Cooling Water System
- j) Portions of the Service Water System
- k) Portions of the Pressure Control and Relief
- l) Accumulators
- m) High Pressure Safety Injection System
- n) Low Pressure Safety Injection System
- o) Containment Air Recirculation (Post Accident) Fans
- p) Spent Fuel Pool and Makeup

As discussed above, a "system" also includes the power supply, instrumentation and actuation systems.