



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

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July 9, 1980

Docket No. 50-309

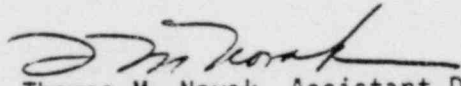
Mr. Robert H. Groce  
Senior Engineer - Licensing  
Maine Yankee Atomic Power Company  
25 Research Drive  
Westboro, Massachusetts 01581

Dear Mr. Groce:

We have completed our review of your Inservice Testing (IST) Program submitted by your letter dated September 4, 1979 and find that additional information is required. Please have draft responses to the enclosed questions ready for discussions during our working meeting scheduled with you during July 15 & 16, 1980 at Maine Yankee. You will note that the additional information requested was previously identified in the draft questions sent to you on July 1, 1980.

Your responses to this request, incorporating recommendations developed during the July 15 & 16, 1980 meeting should be transmitted before August 16, 1980.

Sincerely,

  
Thomas M. Novak, Assistant Director  
for Operating Reactors  
Division of Licensing

Enclosure:  
Request for Additional  
Information

cc w/enclosure:  
See next page

8007210020

Maine Yankee Atomic Power Company

cc:

E. W. Thurlow, President  
Maine Yankee Atomic Power Company  
Edison Drive  
Augusta, Maine 04336

Mr. Donald E. Vandenburg  
Vice President - Engineering  
Yankee Atomic Electric Company  
20 Turnpike Road  
Westboro, Massachusetts 01581

John A. Ritsher, Esquire  
Ropes & Gray  
225 Franklin Street  
Boston, Massachusetts 02110

Mr. John M. R. Paterson  
Assistant Attorney General  
State of Maine  
Augusta, Maine 04330

Mr. Nicholas Barth  
Executive Director  
Sheepscot Valley Conservation  
Association, Inc.  
P. O. Box 125  
Alan, Maine 04535

Wiscasset Public Library Association  
High Street  
Wiscasset, Maine 04578

Mr. Robert R. Radcliffe  
Office of Energy Resources  
55 Capitol Street  
Augusta, Maine 04330

Robert M. Lazo, Esq., Chairman  
Atomic Safety and Licensing Board  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Dr. Cadet H. Hand, Jr., Director  
Bodega Marine Laboratory  
University of California  
Bodega Bay, California 94923

Mr. Gustave A. Linenberger  
Atomic Safety and Licensing Board  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Mrs. L. Patricia Doyle, President  
SAFE POWER FOR MAINE  
Post Office Box 774  
Camden, Maine 04843

First Selectman of Wiscasset  
Municipal Building  
U. S. Route 1  
Wiscasset, Maine 04578

Director, Technical Assessment  
Division  
Office of Radiation Programs  
(AW-459)  
U. S. Environmental Protection Agency  
Crystal Mall #2  
Arlington, Virginia 20460

U. S. Environmental Protection Agency  
Region I Office  
ATTN: EIS COORDINATOR  
JFK Federal Building  
Boston, Massachusetts 02203

Stanley R. Tupper, Esq.  
Tupper and Bradley  
102 Townsend Avenue  
Boothbay Harbor, Maine 04538

David Santee Miller, Esq.  
213 Morgan Street, N. W.  
Washington, D. C. 20001

Mr. Paul Swetland  
Resident Inspector/Maine Yankee  
c/o U.S. NRC  
P. O. Box E  
Wiscasset, Maine 04578

Mr. Charles B. Brinkman  
Manager - Washington Nuclear  
Operations  
C-E Power Systems  
Combustion Engineering, Inc.  
4853 Cordell Ave., Suite A-1  
Bethesda, Maryland 20014

State Planning Officer  
Executive Department  
State of Maine  
189 State Street  
Augusta, Maine 04330

Enclosure

QUESTIONS AND COMMENTS CONCERNING  
THE MAINE YANKEE ATOMIC POWER COMPANY IN-SERVICE  
TESTING PROGRAM FOR THE MAINE YANKEE ATOMIC POWER STATION  
(Reference: Docket Number 50-309)

### PUMP TESTING PROGRAM

1. How is flow (Q) measured for Primary Component Cooling Pumps P-9A and B?
2. How is  $P_i$  and Q measured for the Secondary Component Cooling Pumps P-10A and B?
3. How is  $P_i$  measured for the Low Pressure Safety Injection Pumps P-12A and B?
4. How is  $P_i$  and dP or Q measured for the Charging Pump Main and Aux Lube Oil Pumps?
5. Provide a system flow diagram for the Charging Pump Speed Changing Gear Lube Oil Pump for our review at the working meeting.
6. How is  $P_i$  measured for the Charging/High Pressure Safety Injection Pumps P-14A, B, and S?
7. The Steam Driven Aux Feed Pump P-25B should be included in the IST program and tested in accordance with Section XI requirements.
8. How is  $P_i$ , Q, and V measured for the Service Water Pumps P-29A, B, C, and D?
9. How is  $P_i$  measured for the Containment Spray Pumps P-61A, B, and S?
10. Are the Boric Acid Transfer Pumps safety related?
11. Do the Diesel Fuel Oil Transfer Pumps have an emergency power supply?
12. Do the Spent Fuel Pool Cooling Pumps have an emergency power supply?

VALVE TESTING PROGRAM - QUESTIONS AND COMMENTS

A. General

1. All power operated valves in the IST program are required to be stroke timed in accordance with the requirements of Section XI unless specific relief is granted.
2. Are all Category A valves leak tested in accordance with the requirements of Section XI?
3. Provide the P&ID that shows all containment ventilation and purge penetration for our review at the working meeting.

B. Reactor Coolant

1. Provide the specific technical basis why valves SIA-M-11, 21, and 31 cannot be exercised during power operation and cold shutdowns.
2. Provide the specific technical basis why valves HSI-17, 27, and 37 cannot be exercised during power operation and cold shutdown. How are these valves full stroke exercised?
3. Review the safety related function of the following valves to determine if they should be included in the IST program and categorized as indicated.

<u>Category B</u>	<u>Location</u>
PR-M-16	(G-7)
PR-M-17	(G-7)
PR-S-14	(G-6)
PR-S-15	(G-6)

<u>Category C</u>	<u>Location</u>
RC-S-18	(H-5)
RC-S-28	(F-3)
RC-S-38	(H-3)

C. Chemical and Volume Control

1. Provide the specific technical basis why valves LD-M-2 and LD-T-5 cannot be exercised during power operation.
2. What is the safety related function of CH-72?

D. High Pressure Safety Injection

1. Provide the specific technical basis why valves LSI-12, 22, and 32 cannot be exercised during power operation or cold shutdown.
2. Provide the specific technical basis why valves HSI-15, 25, and 35 cannot be exercised during power operation and cold shutdown.
3. Provide the specific technical basis why valves SIA-A-12, 22, and 32 cannot be exercised during power operation or cold shutdown.
4. Review the safety related function of valves RH-M-2 and RH-M-4 to determine if they should be categorized A and A/E, respectively.
5. Provide the specific technical basis why valves RH-M-1 and 2 cannot be exercised during power operation and cold shutdown.

E. Main Steam

1. Provide more specific technical information why valves MS-M-10, 20, and 30 cannot be exercised during power operation. Are these valves stroke timed in accordance with the requirements of Section XI?
2. How are valves MS-11, 22, and 33 partial stroke exercised during power operation?
3. Are valves MS-59, 79, and 99 stop checks? Provide the specific technical basis why these valves cannot be exercised during power operation.
4. Review the safety related function of valve MS-A-162 to determine if it should be categorized A.
5. Review the safety related function of the following valves to determine if they should be included in the IST program and categorized as indicated.

<u>Category A</u>	<u>Location</u>
MS-50	(I-3)
MS-70	(I-4)
MS-90	(I-6)

6. Review the safety related function of valve MS-T-163 to determine if it should be categorized A.

F. Comp. Air and Cont. Leakage

1. Provide more specific technical information why valves IA-A-98, 101, 107, and 109 cannot be exercised during power operation.

2. Relief must be requested from exercising category A/E passive valve IA-135.
3. What is the safety related position of valve IA-137?
4. How is valve SA-139 exercised to its safety related position?

G. Chemical Feed and Secondary Sampling

1. What is the safety related function of valves FW-118, 218, 318, 119, 219, and 319 and CF-30, 32, and 34?
2. Review the safety related function of valves CF-29, 31, and 33 to determine if they should be categorized A/E.

H. Secondary H.P. Drain

1. Review the safety related function of valves HPD-A-96 and 17 to determine if they should be categorized A.
2. Review the safety related function of valve MS-160 (L-7) to determine if it should be included in the IST program and categorized A.

I. Steam Generator Blowdown

1. Provide the specific technical information why valves BD-T-12, 22, and 32 cannot be exercised during power operation.
2. Relief must be requested from exercising Category A/E passive valve BD-59.



J. Gas Piping

1. Provide the specific technical information why valves N-29 and N-A-66 cannot be exercised during power operation. How are these valve leak rate tested?

K. Reactor Coolant

1. Provide more specific technical information why valves PR-A-40 and 41, and PW-A-78 and PW-80 cannot be exercised during power operation.

L. Chemical and Volume Control and H.P. Safety Injection

1. Review the safety related function of valves LD-A-9 and 10 to determine if they should be categorized A. Provide the specific technical basis why these valves cannot be exercised during power operation.
2. Provide the specific technical basis why valves CH-M-1 and 87 cannot be exercised during power operation.
3. Provide the specific technical basis why valves CH-A-32 and 33 cannot be exercised during power operation.
4. Provide the specific technical basis why valves CH-F-38 and CH-40 cannot be exercised during power operation.
5. Is valve CH-F-70 ever open during power operation?
6. Provide the specific technical basis why valves SL-A-53 and SL-M-29, 40 and 51 cannot be exercised during power operation.
7. Review the safety related function of valves SL-M-29, 40 and 51 to determine if they should be categorized A.

8. How are valves SL-25, 36, and 47 full stroke exercised? Provide the specific technical basis why these valves cannot be exercised during power operation.
9. Review the safety related function of valve SL-P-3 to determine if it should be categorized A. Provide the specific technical basis why this valve cannot be exercised during power operation.
10. Review the safety related function of valve CH-85 (E-4) to determine if it should be included in the IST program and categorized A or A/E.
11. Provide the specific technical basis why valves HSI-M-11, 12, 21, 22, 31, and 32 cannot be exercised during power operation.
12. How are check valves HSI-52, 53, 56, 57, and 150 full stroke exercised?
13. Provide the specific technical basis why valves LSI-M-11, 21, and 31 cannot be exercised during power operation or cold shutdown.
14. What is the safety related function of check valves CH-2 and 3?
15. How are check valves CH-10, 19, and 26 full stroke exercised during power operation?
16. What is the safety related function of valve CH-M-55?
17. Review the safety related function of the following valves to determine if they should be included in the IST program and categorized as indicated.

<u>Category C</u>	<u>Location</u>
CH-149	(I-2)

<u>Category E</u>	<u>Location</u>
CH-M-86	(I-2)
CH-23	(I-2)
CH-6	(I-3)
CH-14	(I-5)
CH-7	(I-4)
CH-8	(I-3)
CH-11	(G-5)
CH-20	(G-3)
CH-27	(G-2)
CH-31	(G-3)
CH-30	(G-4)
HSI-48	(G-7)
HSI-49	(G-7)

18. What is the safety related function of valves CH-114, BA-38, and 39?

M. Residual Heat Removal, Containment Spray and L.P. Safety Injection

1. How are check valves LSI-42 and 43 full stroke exercised during power operation?
2. How are check valves LSI-44 and 45 full stroke exercised during power operation?
3. How are check valves LSI-50 and 51 full stroke exercised during power operation?
4. Is valve LSI-F-59 ever not locked full open during power operation?
5. Provide the specific technical basis why valves CS-M-1 and 2 cannot be exercised during power operation or cold shutdown.

6. How are check valves CS-3 and 4 full stroke exercised?
7. How are check valves CS-25, 26, 29, 30, 48, and 51 full stroke exercised?
8. Provide the specific technical basis why valves CS-M-91 and 92 cannot be exercised during power operation. Review the safety related function of these valves to determine if they should be categorized A. Are the position indicators for these valves checked in accordance with the requirements of Section XI?
9. How are check valves CS-93 and 94 full stroke exercised?
10. How are check valves SIA-10, 20, and 30 full stroke exercised? Provide the specific technical basis why these valves cannot be exercised during power operation or cold shutdown.
11. Provide the specific technical basis why valves SIA-A-47 and 49 cannot be exercised during power operation.
12. If either valve SIA-A-53 or SIA-A-54 failed shut while exercising could this result in a total loss of containment spray and L.P. injection systems function?
13. What is the safety related function of valve SIA-A-57?
14. Review the safety related function of the following valves to determine if they should be included in the IST program and categorized as indicated.

<u>Category C</u>	<u>Location</u>
CS-53	(F-2)
<u>Category A/E</u>	<u>Location</u>
RH-6	(J-7)
RH-7	(J-7)
<u>Category A</u>	<u>Location</u>
CS-A-55	(D-3)
CS-A-56	(D-3)
<u>Category A/C</u>	<u>Location</u>
CS-54	(D-3)
<u>Category E</u>	<u>Location</u>
SIA-56	(J-2)
CS-68	(I-3)
CS-73	(I-3)
CS-72	(I-3)
CS-67	(I-3)
CS-65	(H-3)
CS-22	(J-6)
LSI-67	(J-6)
LSI-68	(J-7)
CS-31	(G-4)
CS-15	(F-4)
CS-16	(F-4)
CS-13	(E-4)
CS-14	(E-6)
CS-5	(C-2)
CS-6	(C-2)
RH-10	(E-6)
RH-11	(E-6)
CPU-17	(F-7)
CPU-19	(F-7)

N. Primary Vent and Drain

1. Provide the specific technical basis why valves PV-A-10 and 12 cannot be exercised during power operation.

O. Primary Component Cooling

1. How are check valves PCC-185, 122, 243, 245, 259, 261, 278, and 28 exercised to their safety related position? Provide the specific technical basis why these valves cannot be exercised during power operation.
2. What is the safety related function of valves PCC-223 through 234?
3. Provide the specific technical basis why valves PCC-A-216, 238, 252, 254, 268, 270, 300, and 302 cannot be exercised during power operation.

P. Primary Sampling

1. Review the safety related function of valves PAP-1, 2, and 3 to determine if they should be categorized A/E.
2. Provide the specific technical basis why valves VP-A-3 and 4 cannot be exercised during power operation.
3. Review the safety related function of the following valves to determine if they should be included in the IST program and categorized as indicated.

<u>Category A/E</u>	<u>Location</u>
PAP-4	(C-8)

<u>Category A</u>	<u>Location</u>
VP-A-5	(B-8)
PS-A-3	(C-6)
PS-A-2	(C-6)
PS-A-1	(C-5)
PS-A-4	(C-5)
PS-A-8	(C-4)

Q. Miscellaneous

1. Relief must be requested from exercising Category A/E passive valves CPU-4 and 7.
2. Provide the specific technical basis why valves C-A-14 and 15 cannot be exercised during power operation.

R. Auxiliary Steam

1. Review the safety related function of valves MS-185, and MS-164 to determine if they should be included in the IST program and categorized E and C, respectively.
2. Review the safety related function of valves AS-540 and 542 to determine if they should be included in the IST program and categorized A/E.

S. Secondary Component Cooling

1. What is the safety related function of valves SCC-T-227, 315, and 257? Provide the specific technical basis why these valves cannot be exercised during power operation.
2. Review the safety related function of the following valves to determine if they should be included in the IST program and categorized as indicated.

P&ID FM-78A

<u>Category B</u>	<u>Location</u>
SCC-T-23	(H-7)
SCC-T-24	(H-7)
SCC-M-165	(D-4)

<u>Category C</u>	<u>Location</u>
SCC-7	(H-7)
SCC-14	(H-8)

<u>Category E</u>	<u>Location</u>
SCC-2	(J-7)
SCC-9	(J-9)
SCC-8	(H-7)
SCC-15	(H-8)
SCC-27	(G-5)
SCC-35	(G-6)
SCC-34	(G-5)
SCC-42	(G-6)
SCC-162	(D-4)
SCC-62	(B-4)
SCC-63	(A-2)
SCC-65	(A-3)
SCC-337	(A-4)

P&ID FM-78B

<u>Category B</u>	<u>Location</u>
SCC-T-292	(I-2)
SCC-T-301	(J-2)
SCC-T-294	(J-4)
SCC-T-303	(K-4)
SCC-T-296	(J-4)
SCC-T-305	(K-4)

<u>Category C</u>	<u>Location</u>
SCC-291	(I-2)
SCC-300	(K-2)
SCC-298	(J-5)
SCC-307	(K-5)

<u>Category E</u>	<u>Location</u>
SCC-290	(I-2)
SCC-299	(K-2)
SCC-297	(J-4)
SCC-306	(K-4)
FS-37	(I-2)



T. Chemical and Volume Control

1. What is the safety related function of valves BA-A-20 and 32?

U. Primary Component Cooling

1. Review the safety related function of the following valves to determine if they should be included in the IST program and categorized as indicated.

<u>Category B</u>	<u>Location</u>
PCC-T-20	(H-6)
PCC-T-19	(H-6)
<del>PCC-A-53</del>	(H-3)

<u>Category C</u>	<u>Location</u>
PCC-6	(F-6)
PCC-13	(F-5)

<u>Category E</u>	<u>Location</u>
PCC-9	(E-5)
PCC-2	(E-6)
PCC-14	(F-5)
PCC-7	(F-6)
PCC-29	(I-6)
PCC-21	(I-5)
PCC-24	(J-5)
PCC-32	(J-6)
PCC-39	(I-4)
PCC-44	(I-4)
PCC-49	(H-4)
PCC-51	(H-4)
PCC-50	(H-4)
PCC-52	(H-4)
PCC-55	(H-2)

2. Provide the specific technical basis why valve PCC-M-150 cannot be exercised during power operation.
3. Review the safety related function of the following valves to determine if they should be included in the IST program and categorized as indicated.

<u>Category E</u>	<u>Location</u>
PCC-82	(B-4)
PCC-87	(B-5)
PCC-83	(A-4)
PCC-84	(A-4)
PCC-88	(A-5)
PCC-89	(A-5)
PCC-146	(I-7)
PCC-147	(H-7)

4. What is the safety related function of valve PCC-M-29? Provide the specific technical basis why this valve cannot be exercised during power operation or cold shutdown.

V. Steam Generator Feedwater (P&ID FM-73A)

1. Review the safety related function of the following valves to determine if they should be included in the IST program and categorized as indicated.

<u>Category A</u>	<u>Location</u>
AFW-A-101	(G-7)
AFW-A-201	(H-7)
AFW-A-301	(G-7)
FW-A-112	(H-2)
FW-A-212	(H-4)
FW-A-312	(H-6)
FW-M-104	(G-2)
FW-M-204	(G-4)
FW-M-304	(G-6)

<u>Category A/C</u>	<u>Location</u>
FW-131	(J-2)
FW-231	(J-4)
FW-331	(J-6)
FW-104	(I-7)
FW-204	(I-7)
FW-304	(I-7)

<u>Category C</u>	<u>Location</u>
AFW-18	(D-7)
AFW-43	(E-7)
AFW-306	(E-8)
AFW-15	(F-7)
AFW-314	(F-8)
AFW-41	(E-7)

<u>Category E</u>	<u>Location</u>
AFW-1	(A-6)
AFW-37	(A-6)
AFW-4	(B-8)
AFW-2	(C-8)
AFW-26	(C-7)
AFW-20	(D-8)
AFW-3	(E-7)
AFW-42	(E-7)
AFW-315	(E-8)
AFW-307	(E-8)
AFW-311	(E-8)
AFW-312	(F-8)
AFW-316	(F-8)
AFW-21	(F-7)
AFW-17	(F-7)
AFW-300	(F-7)
AFW-302	(G-7)
AFW-100	(G-7)
AFW-102	(H-7)
AFW-200	(H-7)
AFW-202	(I-7)

W. Service Water (P&ID FM-77A)

1. Review the safety related function of the following valves to determine if they should be included in the IST program and categorized as indicated.

<u>Category C</u>	<u>Location</u>
SW-1	(H-7)
SW-4	(H-6)
SW-7	(H-4)
SW-10	(H-2)
SW-16	(F-6)
SW-17	(F-9)

<u>Category E</u>	<u>Location</u>
SW-2	(H-7)
SW-5	(H-6)
SW-8	(H-4)
SW-11	(H-2)
SW-13	(G-7)
SW-14	(G-1)
SW-15	(G-5)
SW-30	(F-7)
SW-31	(F-8)
SW-32	(F-7)
SW-21	(F-6)
SW-18	(F-7)
SW-27	(F-8)
SW-24	(F-9)
SW-36	(C-6)
SW-34	(C-7)
SW-40	(C-8)
SW-38	(C-9)

X. Fuel Oil (P&ID FM-80A)

1. Review the safety related function of the following valves to determine if they should be included in the IST program and categorized as indicated.

<u>Category C</u>	<u>Location</u>
FO-2	(B-7)
FO-7	(B-5)

<u>Category E</u>	<u>Location</u>
FO-4	(A-7)
FO-9	(A-5)
FO-3	(C-7)
FO-8	(C-5)
FO-40	(G-4)
FO-41	(G-6)
FO-42	(G-7)
FO-44	(I-5)
FO-45	(J-6)
FO-46	(J-7)

- Are there any safety related valves in the diesel starting air system?

Y. Primary Vents and Drains (P&ID FM-93B)

- Review the safety related function of the following valves to determine if they should be included in the IST program and categorized as indicated.

<u>Category A</u>	<u>Location</u>
PD-A-122	(D-7)
PD-A-124	(D-7)

<u>Category A/E</u>	<u>Location</u>
PV-8	(D-1)

- Does the special blind flange (E-1) perform as a containment boundary?

Z. Miscellaneous (P&ID FM-101A & B)

1. Review the safety related function of the following valves to determine if they should be included in the IST program and categorized as indicated.

Sheet 1

<u>Category E</u>	<u>Location</u>
PW-1	(J-6)
PW-14	(J-6)

Sheet 2

<u>Category B</u>	<u>Location</u>
CH-119-S	(I-5)
CH-120-S	(I-5)
CH-121-S	(J-5)
CH-122-S	(J-5)