April 3, 1985

Docket No. 50-305

Mr. D. C. Hintz
Manager - Nuclear Power
Wisconsin Public Service Corporation
Post Office Box 19002
Green Bay, Wisconsin 54307-9002

Dear Mr. Hintz:

Enclosed is the EG&G Idaho meeting minutes dated March 26, 1985, of our March 12 and 13, 1985 meeting on the Kewaunee Plant Inservice Testing Program (IST).

The meeting consisted of working sessions attended by WPSC cognizant personnel, the NRC reviewer and Kewaunee Project Manager and EG&G personnel; a list of attendees is enclosed. The purpose of the meeting was to perform an in-depth review of the Kewaunee IST program. The enclosed minutes delineate the remaining open issues in our review. we were promised a response to these open issues by about mid-May 1985. This review in part of our TAC No. 54739.

Sincerely,

/s/MBFairtile

Morton B. Fairtile, Project Manager
Operating Reactors Branch #1
Division of Licensing

cc:
J. Page w/o enclosure
F. Cherny w/o enclosure

Enclosure:
1) Attendance List
2) Meeting Minutes

ORB#1:DL MBF
MFairtile/ts
04/3/85

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

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Operating Reactors Branch #1
Division of Licensing

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F. Cherny w/o enclosure

Enclosure:
1) Attendance List
2) Meeting Minutes

cc: Steven E. Keane, Esquire
Foley and Lardner
777 East Wisconsin Avenue
Milwaukee, Wisconsin 53202

Stanley LaCrosse, Chairman
Town of Carlton
Route 1
Kewaunee, Wisconsin 54216

Mr. Donald L. Quistroff, Chairman
Kewaunee County Board
Kewaunee County Courthouse
Kewaunee, Wisconsin 54216

Chairman
Public Service Commission of Wisconsin
Hill Farms State Office Building
Madison, Wisconsin 53702

Attorney General
114 East, State Capitol
Madison, Wisconson 53702

U.S. Nuclear Regulatory Commission
Resident Inspectors Office
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Glen Ellyn, Illinois 60137

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Chief Engineer
Wisconsin Public Service Commission
P.O. Box 7854
Madison, Wisconsin 53707

EG&G Idaho

FORM EG&G-460A
(Rev. 05-84)

NOTEGRAM

TAC 54739

We keep our commitments.

Date March 26, 1985

To Joel D. Page

Org. Mechanical Engineering Branch

Address NRC-DE

From C. B. Ransom/H.C. Rockhold CBR HCR

Org. NRC Licensing Support Section

Address EG&G Idaho, Inc.

TRIP REPORT FOR THE PUMP AND VALVE INSERVICE TESTING PROGRAM WORKING MEETING FOR THE KEWAUNEE NUCLEAR POWER PLANT

On March 12 and 13, 1985 a working meeting was held at the NRC offices in Bethesda, Maryland with Wisconsin Public Service Corporation, NRC, and EG&G Idaho, Inc. representatives to discuss the questions resulting from the review of the Kewaunee Nuclear Power Plant pump and valve inservice testing (IST) program. Attached is a list of the meeting attendees, the questions that served as an agenda for the meeting, and the responses to those questions as taken from the meeting minutes. The utility representatives were given a brief introduction outlining the agenda and the methods used for the documentation of questions and responses. This was followed by detailed discussions concerning specific pumps and valves in the Kewaunee IST program.

Of the 43 questions and comments discussed at this working meeting, 8 remain as open items to be resolved at a later date. These open items are identified in this trip report. There are several additional items where the licensee has agreed to make corrections or changes to their IST program as indicated in the responses to the questions.

jm

Attachment:
As Stated

cc: R. J. Bosnak, NRC-DE
F. C. Cherny, NRC-DE
M. B. Fairtile
R. E. Lyon
P. E. MacDonald
C. F. Obenchain
C. B. Ransom File
H. C. Rockhold File

ATTENDANCE LIST

INSERVICE TESTING PROGRAM WORKING MEETING

PLANT: Kewaunee DATES: March 12 and 13, 1985

Name	Representing
Morton Fairtile	NRC-DL-ORB-1
Joel Page	NRC-NRR-DE-MEB
Herb Rockhold	EG&G Idaho, Inc.
Clair Ransom	EG&G Idaho, Inc.
Richard Pulec	Wisconsin Public Service Corp.
Dave Nalepka	Wisconsin Public Service Corp.
Dan Ropson	Wisconsin Public Service Corp.
George Ruiter	Wisconsin Public Service Corp.

MEETING MINUTES

KEWAUNEE NUCLEAR POWER PLANT

March 12 and 13, 1985

1. VALVE TESTING PROGRAM

A. General Questions and Comments

1. Are the full-stroke times measured for each power operated valve in the Kewaunee IST program? IWV-3413 requires that the limiting value of full-stroke time of each power operated valve shall be specified by the Owner. Limiting stroke times are not included in the Kewaunee IST program.

   Response:

   The licensee includes limiting values of full-stroke times for power operated valves in tables in the test procedures used to test the valves. All power operated valves in the Kewaunee IST program that are full-stroke exercised have their stroke times measured (except where relief has been requested). The licensee will provide the alert range and the limiting value of full-stroke times for the power operated valves in their IST program and will provide this information under a separate letter to be docketed. The licensee will determine a method of establishing minimum stroke time alert ranges for all power operated valves except those with normal stroke times of 2 seconds or less (rapid acting valves).

2. IWV-3412(a) states that valves that cannot be exercised during plant operation shall be specifically identified by the Owner and shall be full-stroke exercised during cold shutdowns. The NRC requires that a specific technical justification be provided for not testing these valves every 3 months during power operation. Also, the NRC differentiates between cold shutdowns and refueling outages for valve testing purposes. Valves that are identified to be tested during cold shutdowns in accordance with IWV-3412(a), should be tested both during cold shutdowns and refueling outages but not necessarily more frequently than once each 3 months. Valves exercised on a refueling outage frequency do not fall within the provisions of IWV-3412(a), as indicated in the Kewaunee IST program Note 1, and specific relief must be requested from the Code requirements.

The licensee has identified the following valves to be exercised on a cold shutdown or refueling outage frequency, however, the specific cold shutdown justification or specific relief request has not been provided for these valves.

Valves	Test Frequency
Reactor Coolant System	
PR-2A & B	Refueling
PR-33A & B	Refueling
RC-45A & B	Refueling
RC-49	Refueling
RC-46	Refueling
Residual Heat Removal System	
RHR-1A & B	Cold Shutdown
RHR-2A & B	Cold Shutdown
RHR-3A & B	Cold Shutdown
RHR-5A & B	Cold Shutdown
RHR-11	Cold Shutdown
Safety Injection System	
SI-21A & B	Refueling
SI-22A & B	Refueling
SI-13A & B	Refueling
SI-12A & B	Refueling
SI-16A & B	Refueling
SI-304A & B	Refueling
SI-303A & B	Refueling
SI-6A & B	Refueling
SI-301A & B	Refueling
Chemical and Volume Control System	
LD-6	Refueling
CVC-211	Refueling
CVC-212	Refueling
Service Water System	
SW-1300A & B	Refueling
Main and Auxiliary Steam Systems	
MS-1A & B	Cold Shutdown

Valves	Test Frequency
Feedwater System	
FW-12A & B	Cold Shutdown
FW-13A & B	Cold Shutdown
AFW-1A, B, & C	Cold Shutdown
AFW-4A & B	Cold Shutdown
Service Air System	
IA-101	Refueling

Response:

The licensee will provide the specific technical justification for all valves that are identified to be exercised during cold shutdowns in their IST program. Relief requests will be provided for all valves that are not exercised in accordance with the Code. This remains an OPEN ITEM for the licensee.

The following are the licensee's proposed justifications:

PR-2A & B - The pressurizer PORVs do not perform a function important to safety, however, the licensee will exercise these valves on a refueling outage frequency.

PR-33A & B, RC-45A & B, RC-46 & 49 - These pressurizer and reactor vessel head vent valves will be exercised at refueling outages. The licensee will determine the reason that these valves cannot be exercised during cold shutdowns (possibly valve burping problems) and provide a relief request for the valves.

RHR-1A & B, RHR-2A & B - The RHR suction valves are interlocked with RCS pressure and cannot be opened when RCS pressure is above ~450 psig and will, therefore, be exercised during cold shutdowns.

RHR-3A & B - The RHR pump suction check valves cannot be exercised during power operation since the only flow path involves taking a suction from the RCS hot legs and the suction isolation valves cannot be opened at normal operating RCS pressure.

RHR-5A & B - The RHR pump discharge check valves cannot be full-stroke exercised during power operations since the RHR pump head is not sufficient to overcome RCS pressure, and the minimum flow line is not large enough to allow full-stroke flow through these valves. The licensee will investigate to determine if these valves can be full-stroke exercised during cold shutdowns, if not, a relief request will be provided and the valves will be full-stroke exercised during refueling outages.

RHR-11 - The licensee indicated that this valve (RHR cool-down injection flow path isolation) does not perform a function important to safety, however, it will be exercised during cold shutdowns.

SI-21A & B - These valves (the accumulator discharge check valves)
SI-22A & B cannot be exercised during power operation since RCS pressure is greater than accumulator pressure. The valves will be partial-stroked open using the SI pumps during cold shutdowns. The licensee will investigate alternate means (possibly disassembly on a sampling plan) to full-stroke exercise these valves; they are not currently full-stroke exercised.

SI-13 A & B - These valves cannot be exercised during power operation
SI-12 A & B since the RCS pressure is greater than the SI pump head.
SI-16 A & B These valves cannot be full-stroke exercised using the
SI-6A & B SI pumps during cold shutdowns since this could result in low-temperature overpressurization of the RCS.

SI-303A & B -
SI-304A & B - These valves cannot be exercised during power operation since the RCS pressure is greater than the head of the RHR pumps. These valves will not be exercised during cold shutdowns since establishing RHR flow through them may cause cooling flow to by-pass the core and not remove decay heat.

SI-301A & B - These check valves in the RHR suction line from the RWST cannot be full-stroke exercised during power operation since the RHR pumps do not produce sufficient head to overcome RCS pressure. During cold shutdowns they cannot be exercised since there is not sufficient expansion volume in the RCS to allow flow to be established to test these valves.

LD-6 - Exercising this isolation valve in the letdown line during power operation could thermal shock the regenerative heat exchanger and charging piping, possibly causing premature failure. If the licensee cannot exercise this valve during cold shutdowns, a relief request will be provided.

CVC-211 & 212 - If the RCP seal return line containment isolation valves were placed in the closed position during power operation, it would challenge the seal return relief valve and cause a loss of RCS water to the pressurizer relief tank. If the reactor coolant pumps are stopped during cold shutdowns, these valves will be exercised at that time, otherwise they will be exercised during refueling outages. A relief request will be provided for these valves.

SW-1300A & B - Exercising these valves open during power operation would cause thermal cycling of the component cooling water system and the cooled components, which could result in premature equipment failure. The licensee will further evaluate to determine if these valves can be exercised during cold shutdowns or whether the resultant thermal cycle to the reactor coolant pumps would be a concern.

MS-1A & B - Exercising the main steam isolation valves (either full or partial-stroke) during power operation would cause a plant transient that could result in a plant trip. These valves are exercised during cold shutdowns.

FW-12A & B - Exercising these valves during power operation would result in a loss of feedwater to the steam generators which could cause a plant trip. These valves are exercised closed during cold shutdowns.

FW-13A & B - To exercise these valves closed requires stopping feedwater flow which could result in a reactor trip. These valves will be exercised and verified closed during cold shutdowns by comparing pressures in the steam generators with the pressures upstream of the valves.

AFW-1A, B, & C- Exercising these valves during power operation
AFW-4A & B could result in thermal cycling of feedwater nozzles and piping, which could result in premature component failure. These valves are exercised during cold shutdowns.

IA-101 - The licensee will investigate to determine if the instrument air isolation valve to containment can be exercised during cold shutdowns. If relief is required for this valve, the licensee will provide examples of equipment that would be affected by exercising the valve close.

3. All valves included in the IST program should be exercised in accordance with the Code unless specifically identified as passive valves in the program or unless specific relief is requested from the Code requirements. Are the following valves passive as defined in IWV-2100?

Valves	Category
Reactor Coolant System	
NG-304	A/C
MU-1011	A/C
Safety Injection System	
NG-108A & B	A
Chemical and Volume Control System	
CVC-9	A
Service Water System	
SW-6010	A
SW-6011	A/C
Service Air System	
SA-471	A
SA-472	A
SA-471-1	A
SA-472-2	A
Nitrogen System (P&ID M-219)	
NG-210, 220, 230, 240, 250, and 260	A
Containment Systems (P&ID M-403)	
SA-7004A & B	A/C
Containment Systems (P&ID M-539)	
WG-310	A
WG-311	A
CVC-54	A
CVC-55	A/C
MD(R)-323A & B	A
MD(R)-324	A/C

Containment Purge and Vent System (P&ID M-602)

VB-11A & B	A/C
RBV-1, 2, 3, and 4	A

Response:

The licensee will identify the applicable valves as passive in their IST program.

4. Are the valves in the Kewaunee IST program that have fail-safe actuators tested in accordance with IWV-3415 to verify proper fail-safe operation?

Response:

Placing the control switch in the proper position during normal exercising of the fail-safe valves would result in removing actuating power to these valves which would test their fail-safe feature. The licensee will include an explanation of fail-safe testing performed in their IST program. It is an OPEN ITEM for the licensee to verify that all safety related valves, as defined by IWV-1100, that have a required fail-safe position are included in the IST program and tested to verify their fail-safe function.

5. Are the valves in the Kewaunee IST program that have remote position indicators observed in accordance with IWV-3300 to verify that valve operation is accurately indicated?

Response:

During the current refueling outage the licensee initiated a program to verify the valve remote position indications. This will be performed on a two year frequency.

6. Are all valves that are Appendix J type C leak-rate tested included in the Kewaunee IST program and categorized A or A/C?

Response:

Every valve that is type C leak-rate tested in accordance with Appendix J is included in the IST program and categorized A or A/C.

7. The NRC has concluded that the applicable leak test procedures and requirements for containment isolation valves are determined by 10 CFR 50, Appendix J. Relief from Paragraphs IWV-3421 through -3425 for containment isolation valves presents no safety problem since the intent of IWV-3421 through -3425 is met by Appendix J requirements, however, the licensee shall comply with Paragraphs IWV-3426 and -3427 unless specific relief is requested from these paragraphs.

Response:

The licensee will modify relief request RR-G1 and will establish alert levels of leakage for containment isolation valves or groups of containment isolation valves in lieu of the trending requirements of IWV-3427(b).

8. Provide a listing and/or identify in the Kewaunee IST program resubmittal valves that are leak rate tested to verify their pressure boundary isolation function. Also, identify the valves that perform both a pressure boundary isolation function and a containment isolation function.

Response:

The following valves are identified as pressure boundary isolation valves in the Kewaunee Technical Specifications:

SI-303A and B
SI-304A and B
SI-22B

None of these valves are requied to be leak-rate tested as containment isolation valves under Appendix J.

The current NRC staff position on PIVs was explained to the licensee and a PIV Candidate List was provided by the NRC.

9. Are valves (if any) that perform both a containment isolation and a pressure isolation function leak-rate tested to both the Appendix J and the Section XI requirements?

Response:

There are currently no valves that perform both a PIV and CIV function at Kewaunee.

10. 10 CFR 50.55a(g)(6)(ii) states that the Commission may require the licensee to follow an augmented inservice inspection program for systems and components which it deems necessary. The current NRC position is that the emergency diesel generator air start system, fuel oil transfer system, and cooling water system (if applicable) perform a function important to safety and the appropriate system pumps and valves should be included in the IST program and be tested in accordance with the Code.

Response:

Kewaunee currently tests their emergency diesl generators at full load 4 hours each month. The air start motors are alternated each test which verifies operation of each individual air start valve at least once each quarter. The licensee will add the air start solenoid valves to the IST program and will provide a relief request that explains that the diesel start times are monitored instead of measuring valve stroke times, which cannot be measured. The diesel fuel oil transfer pumps will be included in the IST program and tested in accordance with the Code except where specific relief is requested. This remains an OPEN ITEM for the licensee.

11. Provide the current revision of the following Kewaunee P&IDs for our review.

Drawing No.

X-K100-10 (the copy provided does not show the PRT)
X-K100-131
M-213
M-216
M-219
M-403
M-539
M-547
M-602

Response:

These P&IDs were provided by the licensee.

B. Reactor Coolant System

1. Provide the specific technical justification for not exercising valves PR-2A and PR-2B during cold shutdowns.

Response:

Refer to the response to question A.2.

2. Are valves NG-304 (check valve in N_2 supply line to the PRT) and MU-1011 (check valve in the make-up supply to the PRT) periodically opened during power operation? If so, these valves cannot be categorized passive and should be exercised in accordance with the Code.

Response:

The licensee will reference the valve leak-rate test as the test that verifies valve closure on a refueling outage frequency and will provide a relief request.

3. Is credit taken for the operability of valves CVC-15 and 16 (auxiliary spray valves) to reduce plant pressure in order to meet Reactor Systems Branch Position 5.1? If so, these valves should be included in the IST program and be tested in accordance with the Code unless specific relief is requested.

Response:

The licensee does not take credit for the operability of auxiliary spray valves CVC-15 and 16. Kewaunee is not required to meet RSB Position 5.1.

C. Residual Heat Removal System

1. Review any functions important to safety for valves RHR-8A and 8B to determine if they should be included in the IST program as Category B valves.

Response:

These are normally open passive valves that are not required to change position for accident mitigation.

2. Is valve RHR-11 leak tested to verify its pressure boundary isolation function in accordance with Technical Specification 4.2.a.3?

Response:

No, this valve is not required to be tested as a PIV per Technical Specification 4.2.a.3.

D. Component Cooling System

1. Review any functions important to safety for valves CC-402A, and CC-402B to determine if they should be included in the IST program as Category B valves.

Response:

These are manual flow control valves that are throttled to their accident positions prior to startup and are not required to change position. No change is required to the IST program for these valves.

2. What is the function important to safety of valve CC-653?

Response:

There is no function important to safety for this valve, but the licensee elected to include it in the IST program and exercise it quarterly. CC-653 is exempted from Appendix J testing.

3. Are the following valves leak-rate tested per Appendix J?

CC-601A	CC-601B
CC-602A	CC-602B
CC-612A	CC-612B
CC-651	CC-653
CC-614	

Response:

No, these valves are exempted from Appendix J testing and, therefore, need not be included in the IST program.

E. Safety Injection System

1. How are valves SI-22A, 22B, 21A, and 21B full-stroke exercised each refueling outage? If these valves are exercised with flow, is design accident flow passed through the valves or is some other means used to demonstrate their ability to pass design accident flow?

Response:

Refer to the response for question A.2.

2. Review any functions important to safety for valves SI-302A, 302B, and 312 to determine if they should be included in the IST program.

Response:

SI-302A and B are passive valves that are normally open and remain open to perform their safety function. SI-312 is a thermal relief valve that does not perform a function important to safety. These valves will not be included in the IST program.

3. Are the following valves leak-rate tested per Appendix J?

SI-350A	SI-351B
SI-350B	SI-9A
SI-351A	SI-9B

Response:

These valves are exempted from the Appendix J leak-rate testing. SI-350A, 350B, 351A, and 351B are exempted because the sump suctions would be covered by water post accident. SI-9A and B are exempted because during an accident SI flow would be through these valves into the RCS.

4. Are valves SI-11A and 11B ever required to change position in order to perform any function important to safety? Is cold leg injection continued post-LOCA when boron precipitation becomes a concern?

Response:

It is not necessary to switch from cold leg injection to hot leg injection during an accident at Kewaunee. Analyses indicate that there is sufficient mixing in the RCS to prevent boron precipitation.

5. Is valve SI-3 ever closed during plant operation?

Response:

No, this valve remains open and power to the actuator is required to be removed by the technical specifications.

F. Chemical and Volume Control System

1. Valve stroke times are measured as a means of detecting valve degradation. Provide a more detailed justification for not measuring the stroke time for valve CVC-7 (see relief request RR-12).

Response:

This valve is a control valve that uses a manual controller which limits the stroking of the valve. It does not recieve an isolation signal and would remain normally open after an accident to control reactor coolant pump seal water flow. The licensee will investigate either removing this valve from the Appendix J and Section XI testing requirements or they will develop a means of determining that valve operation is smooth in order to detect valve degradation.

2. Is credit taken for any boric acid addition flow paths in the Kewaunee safety analyses? If so, are all of the appropriate pumps and valves in the flow paths for which credit is taken included in the Kewaunee IST program?

Response:

Credit is taken for the high head and low head safety injection flow paths. Although the Kewaunee FSAR analysis does not require a gravity flow path to the charging pump suction, valve CVC-440 has been added to the IST program. All required boric acid addition flow path components are included in the IST program.

G. Service Water System

1. Provide a more detailed technical justification for not exercising valves SW-1300A and 1300B during cold shutdowns.

Response:

The licensee will evaluate to determine if one component cooling water heat exchanger can handle all of the component cooling water loads to allow testing of SW-1300A and B without inducing damaging thermal cycles to the cooled components and heat exchangers in the component cooling water system. This is an OPEN ITEM for the licensee. Also, refer to the response for question A.2.

2. During the performance of the monthly diesel generator surveillance testing (see relief request RR-4) are all Section XI required tests performed on valves SW-301A and 301B (i.e.; measure valve stroke times to detect any valve degradation)? Also, are these valves verified to be fully open in order to permit diesel generator full load cooling flow?

Response:

These valves recieve an auto open signal based on diesel RPM during diesel generator start, and therefore, cannot be stroke timed. The valves are verified in the full open position by observing indication on the top of the valve. If a valve does not fully open during testing, an operator can manually fully open it. The licensee will expand relief request RR-4 to reflect this information. Also, see response A.10.

3. How is a full-stroke exercise verified for valves SW-1111A, 1111B, 1121A, and 1121B during the quarterly testing of the safety injection pumps (see relief request RR-5)?

Response:

There is a sight glass flow indicator available to verify flow through these valves; this flow is verified during the quarterly testing of the safety injection pumps. Therefore, these valves are tested in accordance with the Code and relief request RR-5 will be replaced by an explanatory note that will expand on how these valves are tested.

4. Are there any power operated valves or check valves on the service water lines downstream of the component cooling heat exchangers or the auxiliary feedwater pumps (the P&IDs provided for our review are not clear enough to allow us to make this determination). If so, review any function important to safety for these valves to determine if they should be included in the IST program.

Response:

There are no service water valves whose function is important to safety on the downstream side of the component cooling heat exchangers. All valves downstream of the auxiliary feedwater pumps that perform a function important to safety are included in the IST program.

5. How is it determined that valves SW-901A, B, C, and D will stroke open sufficiently to allow passage of design accident flow? These valves are not currently full-stroke exercised (see relief request RR-10).

Response:

These valves cannot be verified full open since there is no flow indication in the system. This will remain an OPEN ITEM for the licensee to establish a method and a frequency to verify full-stroke opening of these valves.

6. Do valves SW-10A and 10B perform any function important to safety?

Response:

No, SW-10A and B are normally open passive category B valves that are not required to change position during accident situations. These valves will not be included in the IST program.

H. Main and Auxiliary Steam Systems

1. Provide a more detailed technical justification for not measuring the stroke times for valves SD-3A and 3B.

Response:

These valves have been deleted from the Kewaunee IST program since they do not perform a function important to safety.

2. How are valves MS-101A and 101B individually verified to open during quarterly exercising? Do these valves perform a safety function in the closed position?

Response:

The two steam supply line isolation valves are alternately closed then re-opened during testing of the turbine driven auxiliary feedwater pump; this verifies steam flow through both steam supply lines and through MS-101A & B which partial-stroke exercises these valves. The licensee will modify their IST program to verify full auxiliary feedwater pump flow into the steam generators during cold shutdown and then alternately close and re-open the steam line isolation valves to full-stroke open valves MS-101A & B.

I. Feedwater Systems

1. When the following check valves are tested (see relief requests RR-13 and RR-6), how is a full-stroke exercise verified (to demonstrate that the valves open sufficiently to allow the passage of design accident flow)?

MU-311A	AFW-1A	AFW-4A
MU-311B	AFW-1B	AFW-4B
MU-311C	AFW-1C	MU-301

Response:

The licensee will modify the test procedure to establish full auxiliary feedwater flow into the steam generators during cold shutdowns which will establish full flow through all of the listed valves. The IST program will be modified to indicate a partial-stroke for MU-311A, 311B, 311C, and 301 quarterly during power operation and a full-stroke exercise of all of the valves during cold shutdowns.

2. When the motor driven auxiliary feedwater pumps receive an automatic initiation signal, do the air operated control valves on the pump discharge lines (coordinates G6 and G8) fully open or modulate to control system flow? Review the function important to safety for these valves to determine if they should be included in the IST program as Category B valves.

Response:

This is an OPEN ITEM for the NRC to determine whether there is a safety function for these valves. The licensee maintains that the valves are control valves that do not recieve a safety signal and are normally in their safety position (open) and are not required to change position to perform their function important to safety.

3. How are check valves FW-13A and 13B verified closed during cold shutdown testing?

Response:

Refer to the response to question A.2.

J. Internal Containment Spray System

1. It is the current NRC position that if check valves that perform a function important to safety cannot be full-stroke exercised with flow, an alternate means should be used to full-stroke exercise those valves. What alternate means have been considered to full-stroke exercise the following valves?

Valves	Relief Request
ICS-3A & B	RR-7
RHR-401A & B	RR-8
ICS-4A & B	RR-7

Response:

Currently there is no method of full-stroke exercising these valves with flow without spraying water into containment. This is an OPEN ITEM for the licensee to determine a method and a frequency for full-stroke exercising these valves or providing a more detailed technical justification for never full-stroke exercising these valves.

2. Provide a more detailed technical justification for not exercising valves RHR-401A and 401B quarterly during power operation and during cold shutdowns.

Response:

Relief request RR-8 will be rewritten to expand on the justification for not full or partial-stroke exercising these valves at the Code required frequency,

3. The current NRC position is that valve disassembly is an acceptable method of verifying valve operability and should be performed at each refueling outage for valves ICS-8A and 8B.

Response:

Refer to the response to question J.1.

2. PUMP TESTING PROGRAM

1. The 1980 Edition through the Winter of 1981 Addenda of the Code specifies that all parameters shown in Table IWP-3100-1 must be measured or observed unless specific relief is requested and approved. The current NRC position is that the lack of installed instrumentation is not an acceptable long term technical justification to be used as a basis for relief from making Code required measurements on pumps that perform a function important to safety.

   All of the pumps in the Kewaunee IST program that utilize Note 5 as a justification for not making required measurements are affected by this staff position.

   Response:

   Several of the licensee's pumps are tested quarterly in fixed flow by-pass lines which tap in prior to the installed system flow instrumentation which makes it so pump flow cannot be measured during the quarterly pump testing. These pumps are:

   High head safety injection pumps
   Residual heat removal pumps
   Auxiliary feedwater pumps
   Containment spray pumps

   The service water pumps are also tested in a fixed resistance flow path. The auxiliary feedwater pumps and the residual heat removal pumps can be tested in a configuration that allows flow measurement on a cold shutdown frequency. The high head safety injection pumps are tested in a configuration that allows flow measurement on a refueling outage frequency. The licensee will provide an augmented relief request for not performing this Code required measurement and will further evaluate alternate test methods or plant modifications. This remains an OPEN ITEM for the licensee.

2. Do the alert and required action ranges specified for differential pressure of the component cooling pumps (see relief request RR-11), exceed the limits specified by the Code in Table IWP-3100-2?

Response:

The licensee's alert and action ranges for these pumps are within the limits specified by the Code.

3. ADDITIONAL QUESTIONS AND COMMENTS

1. Are the spent fuel pool pumps on emergency power? Is any credit taken for the spent fuel pool cooling system performing a function important to safety?

Response:

The spent fuel pool pumps do recieve power from emergency power sources, however, the licensee said that their review of safety related systems indicated that this system is not important to safety.

2. The licensee commented that they would respond with revisions to the Kewaunee IST program by May 17, 1985.

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