

A 03/16/78

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50-269/270/287

EC: CASE E G
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DUKE PWR

DOC DATE: 03/06/78
DATE RCVD: 03/14/78

OBJECT: LETTER NOTARIZED: NO
SUBJECT:

COPIES RECEIVED
LTR 1 ENCL 1

RESPONSE TO NRC'S LTR DTD 01/26/78... FURNISHING RESPONSES TO THE REQUEST FOR
DDL INFO ON SUBJECT FACILITY'S INSERVICE INSPECTION AND TESTING PROGRAMS.

PLANT NAME: O'CONNOR - UNIT 1
O'CONNOR - UNIT 2
O'CONNOR - UNIT 3

REVIEWER INITIAL: XJM
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M. CUNNINGHAM - ALL AMENDMENTS TO FSAR AND CHANGES TO TECH SPECS

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SIZE: 1P+35P

CONTROL NBR: 780740041

***** THE END *****

DUKE POWER COMPANY

POWER BUILDING

422 SOUTH CHURCH STREET, CHARLOTTE, N. C. 28242

March 6, 1978

WILLIAM O. PARKER, JR.
VICE PRESIDENT
STEAM PRODUCTION

TELEPHONE: AREA 704
373-4083

Mr. Edson G. Case, Acting Director
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Attention: Mr. R. Reid, Chief
Operating Reactors Branch #4

Reference: 50-269
50-270
50-287



Dear Mr. Case:

With regard to Mr. A. Schwencer's letter of January 26, 1978, please find attached responses to the requests for additional information on the Oconee Nuclear Station Inservice Inspection and Testing Programs.

Very truly yours,

William O. Parker, Jr.
William O. Parker, Jr. *By [Signature]*

RLG:ge
Attachment

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REQUEST FOR ADDITIONAL INFORMATION

OCONEE UNIT 1

I. Inservice Examination

Item 1: Your reply to our request #1 "Attachment 1 Comments", implies that additional requests for relief in this area of your program may be forthcoming. Indicate when such requests will be made in order that the completeness of your program may be established.

Response: Requests for relief from portions of ASME Section XI, Inservice Examination will be identified and transmitted, to the extent determinable at least 90 days before the start of the applicable inspection period. Currently, the only components for which specific relief has been requested is the examination of the reactor vessel nozzles.

Item 2: Paragraph IWA-1400 (f) of the ASME Code Section XI requires the owner to have an arrangement with an Authorized Inspection Agency to provide inspection services. In your response to our request #2 you reply that the required inservice examinations will not be witnessed by a third party inspector. Justify this apparent noncompliance with the code requirements.

Response: Oconee Nuclear Station is located in South Carolina, a State which has not endorsed Section XI of the ASME Code. The Administrative organization and controls such as "Enforcement Authority", "Authorized Inspection", and "Authorized Inspection Agency" are not provided by the State.

Duke Power Company does however, have a corporate level quality assurance program which was established to comply with various regulations and standards as well as the ASME Code.

The duties of the Authorized Inspector, as stated in ASME Code Section XI, IWA-2120, are performed to the full extent by personnel within the Quality Assurance Department. This department of Duke Power Company is organizationally separate from those persons responsible for performing engineering, construction, or operating functions.

The personnel within the Quality Assurance Department have the required independence and authority to effectively carry out the quality assurance program without undue influence from those directly responsible for costs and schedules. (A complete description of this program is contained in Topical Report, "Quality Assurance Program", Duke - 1A.)

In this regard, the required inservice examinations will be witnessed by Quality Assurance Department personnel in lieu of inspectors provided by an Authorized Inspection Agency. The independence and authority inherent in a third party inspector are thereby assured and the requirement of an outside inspector is unnecessary.

II. Inservice Testing of Pumps

Item 1: For the boric acid and low pressure Boric Acid pumps, request for relief from flow measurement is made with no alternative means to verify proper flow. Clarify how flow deterioration will be established so that the safety of these systems can be assured.

Response: The low pressure boric acid pump flow rate will be calculated from Boric Acid Mix Tank level changes and pumping time.

The boric acid pump is normally run in a recirculation mode. Transfer of sufficient fluid to produce a measurable tank level change cannot be done routinely without generation of excessive waste. However, an annual flow verification can be performed in conjunction with the refueling shutdown.

Item 2: For the HPI, CBAT and LP boric acid pumps, request for relief from lube oil level measurement is made with no alternative means to verify the lube oil level. Indicate how the oil level will be maintained without surveillance.

Response: The HPI pumps are lubricated by the pumped fluid. Lube oil verification is not applicable.

The CBAT and LP boric acid pump require partial disassembly to verify lube oil level. Due to time requirements, radiation dose to workers, and increased possibility of lubricant contamination, the lube oil level will be inspected semi-annually in conjunction with regularly performed pump surveillance tests.

Item 3: Justify your request for relief from maintaining the instrument nominal tolerances listed in Table IWP-4110-1 for the instruments having tolerances greater than $\pm 2\%$ of full scale.

Response: Exemption is requested because instruments currently installed do not have the required nominal tolerances. Replacement of existing instruments to obtain the slight increase in accuracy is neither cost-justified nor required by 10CFR 50.55a (g)(4) in that compliance is required as practical within the limitations of design, geometry, or materials of construction.

III. Proposed Technical Specification Revision

Item 1: With regard to your response to our request #2, revisions to your ISI program which concern additional requests for relief from certain examinations or testing which are identified after the approval of your original submittal should be made within 30 days of the discovery and should be included in the next 20 or 40 month period submittal and not at the end of the 120 month interval.

Response: Revisions to the ISI program which concern additional requests for relief from certain examinations or testing will be made within 30 days of the discovery and included in the next 20 or 40 month period submittal.

REQUEST FOR ADDITIONAL INFORMATION

OCONEE UNITS 2 AND 3

Item 1: Justify the application of Section XI of the 1970 Edition of the ASME Boiler and Pressure Vessel Code, including the Winter 1970 Addenda in your request for relief of the following items rather than application of the 1974 Edition including the Summer 1975 Addenda:

- 1) Core Flood and Decay Heat Removal System - Attachment Welds 53A and 10ZA.
- 2) High Pressure Injection System - Attachment Welds 93Z and 89C.

Response: At the time of the submittal, September 21, 1977, the ASME Code in effect for Oconee Unit 2 was the 1970 Edition (including the Winter 1970 Addenda). The relief requested was for inservice inspection requirements in effect at that time. The alternate examinations proposed were performed during the 1977 refueling outage. Relief is still requested for the performance of those examinations.

Under the application of the 1974 Edition including the Summer 1975 Addenda, the High Pressure Injection System Welds are exempt Class 2 components. However, the Core Flood System Welds remain Class 1 and still require relief as requested.

Item 2: Provide the basis for concluding that flow measurements for the concentrated boric acid low pressure pumps and auxiliary service water pumps is not required to demonstrate operability. Indicate why a station modification is not considered to be necessary.

Response: The low pressure boric acid pump flow rate will be calculated from Boric Acid Mix Tank level changes and pumping time.

The boric acid pump is normally run in a recirculation mode. Transfer of sufficient fluid to produce a measurable tank level change cannot be done routinely without generation of excessive waste. However, an annual flow verification can be performed in conjunction with the refueling shutdown.

The auxiliary service water pump has no instrumentation installed to measure flow. The system is designed for decay heat removal following a concurrent loss of main feedwater system, auxiliary feedwater system, and decay heat removal system. There is no design minimum flow. By 10 CFR 50.55a, an exemption is requested due to the design of this system. A modification to install flow instrumentation is

not justifiable. Alternate means of measuring flow are impossible in that this is an open fluid flow system with suction taken from a CCW intake pipe and discharge to an auxiliary feedwater leader where it goes to the steam generators and eventually cools them by evaporation.

Item 3: Propose a schedule for the periodic alternation of operating and stand-by pumps for the purpose of measuring Pi.

Response: The request for exemption of this item is withdrawn. Further investigation has revealed that pump-off suction pressure Pi can be recorded.

Item 4: State the alternate methods of verification of proper lube oil level for the CVAP, the LB boric acid pumps and the auxiliary service water pump you have considered. Has an augmented bearing temperature verification program been considered? Discuss the feasibility of modifying these pumps or the feasibility of conducting lube oil level verifications through disassembly of the pumps.

Response: The HPI pumps are lubricated by the pumped fluid. Lube oil verification is not applicable.

The CBAT and LP boric acid pump require partial disassembly to verify lube oil level. Due to time requirements, radiation dose to workers, and increased possibility of lubricant contamination, the lube oil level will be inspected semi-annually in conjunction with regularly performed pump surveillance tests.

The auxiliary service water pump oil level will be verified by an installed oil level sight glass.

Item 5: Provide an alternative schedule for the testing of all valves that cannot be tested during power operation.

Response: All valves will be tested at the interval specified in the appropriate sections of the ASME Code. Exemption to testing at power are provided on the attached pages. The following valves will be tested when shutdown:

HP -5, -21, -26

LP -1, -2, -47, -48, -103, -104

FDW -33, -36, -38, -42, -45, -47

LPSW -6, -15

CC -8

Item 6: Provide information for all valves that cannot be leak tested to support the determination that this requirement is impractical. Provide an alternate plan by which the safety function of the untested system can be confirmed.

Response: Specific exemptions for all valves that cannot be leak tested are requested on attached pages.

Item 7: For each valve that cannot be exercised, provide the basis for concluding that the valve can be demonstrated operable and the system can perform its intended safety function.

Response: Specific exemptions for all valves that cannot be exercised are requested on attached pages.

Item 8: Provide information to justify a five year inspection interval for valves 2BS-19, 2BS-14, 3BS-14 and 3BS-19, rather than the interval specified in IWV-3520.

Response: Specific exemption for valves 2BS-19, 2BS-14, 3BS-14 and 3BS-19 are requested on an attached page.

RELIEF REQUEST BASIS

1. Valve(s): 2HP-101, 2HP-102, 3HP-101, 3HP-102

Category: C

Drawing Number/Coordinates: PO-101A-2/E-7, B-7
PO-101A-3/E-7, B-7

Function: Normally prevents backflow from HPI Pump Suction header to BWST. In emergency, check valve opens to provide flow from BWST to HPI pumps.

Test Requirement: IWV-3520, check valve exercise test at power or at shutdown.

Bases for relief: The piping served by these valves contain highly borated water from the BWST. Exercising these valves, either at power or in a normal cold shutdown condition, would cause injection of highly borated water into the RC System, possibly causing a shutdown and/or requiring extensive feed and bleed prior to restart of the unit. This effect on station waste processing and unit availability exerts an unwarranted burden on our operations.

Alternate Testing: These valves shall be tested during refueling shutdowns only.

2. Valve(s): 2LP-55, 2LP-57, 3LP-55, 3LP-57

Category: C

Drawing Number/Coordinates: PO-101A-2/H-6, B-8
PO-101A-3/H-6, B-8

Function: Supply HPI pump suction from R.B. Emergency Sump via LPI/Decay Heat Removal System.

Test Requirement: 1WV-3520(b), Testing at power or at cold shutdown

Bases for relief: The piping served by these valves contain highly borated water from the BWST. Exercising these valves either at power or in a normal cold shutdown condition would cause injection of highly borated water into the R.C. System, possibly causing a shutdown or requiring extensive feed and bleed prior to restart of the unit. The effect on station waste processing and unit availability exerts an unwarranted burden on our operations.

Alternate Testing: These valves shall be tested during refueling shutdowns only.

3. Valve(s): 2HP-3, 2HP-4, 3HP-3, 3HP-4

Category: A-B

Drawing Number/Coordinates: PO-101B-2/L-8, K-8
PO-101B-2/L-8, K-8

Function: Let down cooler "A" and "B" outlets valves and penetration isolation valves.

Test Requirement: IWV-3420, Valve Leak Rate Test.

Bases for Relief: These lines do not have adequate test connections on the upstream (building) side of the valve. A station modification (NSM-0899) is being processed to add necessary test connections after implementation, leak rate tests in the direction specified by IWV-3420 (c) can be performed.

Alternate Testing: Until completion of NSM-0899 testing will be performed with pressure on the penetration side of the valve.

4. Valve(s): 2HP-20, 3HP-20

Category: A-B

Drawing Number/Coordinates: PO-010B-2/I-7
PO-101B-3/I-7

Function: R. C. pump seal return penetration isolation

Test Requirement: IWV-3420, Valve Leak Rate Test

Bases for Relief: Piping on the seal side (upstream) of the valve does not contain adequate pressurization and test connections for test in proper flow direction per IWV-3420 (c).

Alternate Testing: Valve is being tested by pneumatic leak rate test from the penetration side, annually at refueling.

5. Valve(s): 2HP-188, 2HP-152, 2HP-153, 3HP-188, 3HP-182, 3HP-153

Category: C

Drawing Number/Coordinates: PO-101B-2/B-9, B-8, B-8
PO-101B-3/B-9, B-8, B-8

Function: HPI "B Loop" check valves to prevent backflow from the RCS

Test Requirement: IWV-3520 Check Valve Exercise Test, at power or at cold shutdown.

Bases for Relief: HPI "B Loop" is an emergency make-up line and is normally filled with highly borated water from the BWST. Testing at power or during normal cold shutdowns would inject this water into the R. C. System, requiring possible shutdown and definite waste generation. Additionally HP-152 and HP-153 are parallel stop-check valves such that proper testing at power would require personnel entry into areas inaccessible at power due to high radiation.

Alternate Testing: These valves shall be tested at refueling shutdown only.

6. Valve(s): 2HP-126, 2HP-127, 2HP-194, 3HP-126, 3HP-127, 3HP-194

Category: C

Drawing Number/Coordinates: PO-101B-2/G-8, G-8, G-4
PO-101B-3/G-8, G-8, G-9

Function: HPI "A Loop" (normal makeup) check valves to prevent backflow from the RCS.

Test Requirement: IWV-3520 Check Valve Exercise Test, at power or at cold shutdown.

Bases for Relief: HPI "A Loop" is the normal makeup line to the RC System. Therefore the valves are opened intermittently by makeup flow. HP-126, and HP-127 are parallel stop-check valves in an area inaccessible due to high radiation at power. Testing at power would require manual closing of one valve at a time, which cannot be done. However, since adequate make up flow can be established at power, testing during each cold shutdown is not required.

Alternate Testing: These valves shall be tested fully at refueling shutdowns.

7. Valve(s): 2CF-3, 2CF-4, 2CF-7, 2CF-19, 3CF-3, 3CF-4, 3CF-7, 3CF-19

Category: A

Drawing Number/Coordinates: PO-102A-2/J-2, J-5, J-6, J-6
PO-102A-3/J-2, J-5, J-6, J-6

Function: A & B Core flood tank sample and drain line isolation valves.

Test Requirement: IWV-3420

Bases for Relief: Adequate vent connections do not exist to properly test these valves. Sample and tell-tale connections are located too far downstream to adequately detect valve leakage other than gross failure which would also be detectable by tank level change. These valves are normally closed during power operation except for sample acquisition. Therefore these valves could be excluded per IWV-1300.

Alternate Testing: None proposed.

8. Valve(s): 2CF-11, 2CF-12, 2CF-13, 2CF-14, 3CF-11, 3CF-12, 3CF-13, 3CF-14

Category: C

Drawing Number/Coordinates: PO-102A-2/H-2, H-2, H-4, H-4
PO-102A-3/H-2, H-2, H-4, H-4

Function:

Normal: Prevent backflow from RC System to core flood tanks.

Emergency: Open to permit flow from core flood tanks and/or LPI System.

Test Requirement: IWV-3520, Check Valve Exercise Test at power.

Bases for Relief: Check valves cannot be subjected to greater than RC System pressure during power operation. At least one valve in each line is shown to be closed by ability to maintain less than RC System pressure in core flood tanks.

Alternate Testing: During each heatup from cold shutdown the check valves are "burped" open by opening CF-1, and CF-2 slightly when system pressure is slightly less than core flood tank pressure.

9. Valve(s): 2CF-33, 3CF-33

Category: A

Drawing Number/Coordinates: PO-102A-2/K-3; PO-102A-3/K-3

Function: Core flood tank vent to vent header penetration isolation valve.

Test Requirement: IWV-3420, Valve Leak Rate Test.

Bases for Relief: Piping on the upstram side of valve lacks adequate test connections. This valve is normally closed during power operation.

Alternate Testing: Valve is tested by Pneumatic Leak Rate Test from the penetration side annually during refueling.

10. Valve(s): 2BS-14, 2BS-19, 3BS-14, 3BS-19

Category: C

Drawing Number/Coordinates: PO-103A-2/E-4, I-4
PO-103A-3/E-4, I-4

Function: Open to allow RB Spray flow to header.

Test Requirement: IWV-3520, Check Valve Exercise Test.

Bases for Relief: Current technical specifications require testing at 5 year intervals. Due to the difficulty in verifying instrument air flow through the spray nozzles, it is considered that this test is not practical at more frequent intervals. Since these valves are not subjected to liquids or a corrosive atmosphere, it is considered that 5 years is a satisfactory test interval.

Alternate Testing: Test at 5 year intervals per existing technical specifications.

11. Valve(s): 2SF-60, 2SF-61, 3SF-60, 3SF-61

Category: A

Drawing Number/Coordinates: PO-104A-1/F-9, F-12
PO-104A-3/F-3, F-3

Function: Fuel transfer canal fill line penetration isolation.

Test Requirement: IWV-3420, Valve Leak Rate Test.

Bases for Relief: Adequate test connections do not exist in the associate piping. These valves are normally closed while at power and are not expected to be operated during or after an accident.

Alternate Testing: Any leakage through this line would be included in the integrated leak rate test performed per 10CFR50, App. J. No other testing is proposed.

12. Valve(s): 2FW-64, 2FW-65, 2DW-59, 2DW-60, 3FW-64, 3FW-65, 3DW-59, 3DW-60

Category: A

Drawing Number/Coordinates: PO-106E-2/D-7, D-8, A-7, A-7
PO-106E-3/D-7, D-8, A-7, A-7

Function: Filtered water and demineralized water lines building penetration isolation valves.

Test Requirement: IWV-3420, Valve Leak Rate Test.

Bases for Relief: These lines do not have adequate isolation and test provisions. Also, these valves are normally closed during power operation and are not required to be used for an accident.

These valves could be excluded per IWV-1300.

Alternate Testing: None proposed.

13. Valve(s): 2CS-5, 2GWD-12, 3CS-5, 3GWD-12

Category: A/B

Drawing Number/Coordinates: PO-107A-2/D-7, J-7
PO-107A-3/D-7, J-7

Function: Reactor building penetration isolation valves for quench tank drain and vent lines.

Test Requirement: IWV-3420, Valve Leak Rate Test.

Bases for Relief: Lines involved do not have adequate isolation, vent, and/or test lines to perform leak rate test from the building (upstream) side of valve.

Alternate Testing: These valves are pneumatically leak tested in the reverse direction (i.e. from penetration side) annually during refueling.

14. Valve(s): 2CS-11, 2CS-12, 3CS-11, 3CS-12

Category: A-C

Drawing Number/Coordinates: PO-107A-2/H-10, H-8
PO-107A-3/H-10, H-8

Function: Quench tank recirculation line penetration check valves.

Test Requirement: IWV-3410 (a), IWV-3520 (a)

Bases for Relief: These check valves can be shown to open by normal periodic recirculation of the Quench tank. However, their emergency function is to close on reversal of pressure. This could only be tested during a cold shutdown, would require extensive draining and venting of the line, and would require a pneumatic leak test to verify closure. Since an annual pneumatic leak test is performed during refueling, that test is sufficient considering the time, waste generation, and radiation dose incurred by more frequent testing.

Alternate Testing: Annual pneumatic leak rate test during refueling shutdowns only.

15. Valve(s): 2LWD-1, 3LWD-1

Category: A-B

Drawing Number/Coordinates: PO-107B-1/D-13
PO-107B-3/D-4

Function: Normal sump drain line penetration isolation valve.

Test Requirement: IWV-3420, Valve Leak Rate Test.

Bases for Relief: Line does not have adequate isolation and/or test connections to perform Leak Rate Test from building side as specified by IWV-3420 (c).

Alternate Testing: Valve is pneumatically leak rate tested from opposite direction during refueling.

16. Valve(s): 2LWD-97, 3LWD-97

Category: A

Drawing Number/Coordinates: PO-107D-1/L-6
PO-107D-3/L-3

Function: Reactor building emergency sump to waste tank penetration isolation valve.

Test Requirement: IWV-3420, Valve Leak Rate Test.

Bases for Relief: This line does not have adequate isolation and test provisions. The valve is normally closed at power and is not required to change position in an emergency. These valves could be excluded from the inservice test program per IWV-1300.

Alternate Testing: Any leakage through this line would be included in the Integrated Leak Rate Test performed per 10CFR50, App. J. No other testing is proposed.

17. Valve(s): 2FDW-93, 2FDW-95, 2FDW-101, 2FDW-99

Category: C

Drawing Number/Coordinates: PO-121A-2/I-9, I-9
PO-121B-2/D-3, F-3

Function:

Normal: Prevent back flow from feedwater line to Emergency Feedwater Pump.

Emergency: Open to allow flow from Emergency Feedwater Pump to Normal and Emergency Feedwater Nozzles.

Test Requirement: IWP-3520, Check Valve Functional Test.

Bases for Relief: The Emergency Feedwater Pump supplies unheated condensate to the steam generators. At power or during a short shutdown, this could cause additional thermal stress on the OTSG tubes. Due to the tube leak problem at Oconee, any unnecessary stressing on these tubes should be avoided.

Alternate Testing: These check valves will be tested during refueling only.

18. Valve(s): 3FDW-93, 3FDW-15, 3FDW-101, 3FDW-99

Category: C

Drawing Number/Coordinates: PO-121A-3/I-9, I-9
PO-121B-3/D-3, F-3

Function:

Normal: Prevent backflow from Feedwater line to Emergency Feedwater Pump.

Emergency: Open to allow flow from Emergency Feedwater Pump to Normal and Emergency Feedwater Nozzles.

Test Requirement: IWP-3520, Check Valve Functional Test.

Bases for Relief: The Emergency Feedwater Pump supplies unheated condensate to the steam generators. At power or during a short shutdown, this could cause additional thermal stress on the OTSG tubes. Due to the tube leak problem at Oconee, any unnecessary stressing on these tubes should be avoided.

Alternate Testing: These check valves will be tested during refueling only.

19. Valve(s): 2FDW-103, 2FDW-104, 3FDW-103, 3FDW-104, associated "G-23" valves.

Category: A and A/B

Drawing Number/Coordinates: PO-121B-2/D-8, C-8, C-7, E-7
PO-121B-2/C-7, E-7, D-8, C-8

Function: Steam Generator drain line penetration isolation valves.

Test Requirement: IWV-3420, Valve Leak Rate Test.

Bases for Relief: Adequate isolation and test connections do not exist. The valves are closed during power operation and are not required to change position for an emergency.

These valves could be excluded per IWV-1300.

Alternate Testing: None proposed.

20. Valve(s): 2N-106, 2N-107, 2N-116, 2N-119, 3N-106, 3N-107, 3N-116, 3N-119

Category: A

Drawing Number/Coordinates: PO-127B

Function: Nitrogen Blanketing Header isolation lines.

Test Requirement: IWV-3420, Valve Leak Rate Test.

Bases for Relief: No adequate test connections exist in these lines. Nitrogen supply outside building is normally at greater pressure than Reactor Building peak accident pressure.

Alternate Testing: Any leakage through these lines would be included in the Integrated Leak Rate Test performed per 10CFR50, App. J. No other testing is proposed.

21. Valve(s): 2N-129, 2N-131, 3N-129, 3N-131

Category: A

Drawing Number/Coordinates: PO-127B/B-9, C-9, B-13, C-13

Function: Check valves in Nitrogen Blanket Line to Core Flood Tanks and Pressurizer. Prevent backflow into nitrogen supply header.

Test Requirement: IWV-3410W, IWV-3520 (a)

Bases for Relief: These valves are normally closed, have associated normally closed manual valves, and are normally subjected to pressure from the nitrogen system greater than building peak accident pressure. There are no test connections upstream to verify non-leakage.

Alternate Testing: None proposed.

22. Valve(s): 2CA-27, 2CA-29, 3CA-27, 3CA-29

Category: A

Drawing Number/Coordinates: PO-127B/B-9, C-9, B-13, C-13

Function: Fill and make up from chemical addition system to core flood tanks.

Test Requirement: IWV-3420, Valve Leak Rate Test.

Bases for Relief: Inadequate isolation and test provisions in existing lines. These valves are normally closed and are not required to operate in an emergency.

Alternate Testing: None possible.

23. Valve(s): 2N-129, 2N131, 3N-129, 3N-131

Category: A

Drawing Number/Coordinates: PO-127B/B-9, C-9, B-13, C-13

Function: Check valves in Nitrogen Blanket Line to Core Flood Tanks and Pressurizer.

Test Requirement: IWV-3420, Valve Leak Rate Test

Bases for Relief: These lines do not have adequate isolation and test provisions. These valves are normally closed, have associated normally closed manual valves, and are normally subjected to an opposite pressure from the nitrogen system greater than building peak pressure after an accident.

Alternate Testing: Any leakage through these lines would be included in the Integrated Leak Rate Test performed per 10CFR50, App. J. No other testing is proposed.

25. Valve(s): 2CC-20, 2CC-24, 2CC-76, 2CC-77, 3CC-20, 3CC-24, 3CC-76, 3CC-77

Category: A-C

Drawing Number/Coordinates: PO-144A-2/L-5, L-8, J-8, J-6
PO-144A-3/L-5, L-8, J-8, J-6

Function: Component Cooling Lines to R. C. Pumps, Letdown Coolers, and Control Rod Drive Service Structure, Penetration Isolation Check Valves.

Test Requirement: IWV-3410 (a), IWV-3520 (a) Exercise Tests.

Bases for Relief: These valves are normally open at power. Their emergency function is to seal on reversal of flow/ ΔP . The serviced components cannot be isolated at power for exercise tests. Testing at shutdown would require extensive liquid waste generation due to draining and venting the piping. Due to this waste generation, time required, and personnel radiation exposure, frequent testing is not practical.

Alternate Testing: These check valves are pneumatically Leak Rate Tested annually during refueling. This verifies leak tight closure of the valve and is sufficient to meet the intent of IWV Testing.

24. Valve(s): 2BA-5, 2BA-33, 3BA-5, 3BA-33

Category: A

Drawing Number/Coordinates: PO-137/D-6, D-6, D-10, D-10

Function: Breathing Air Line Building isolation valves.

Test Requirement: IWV-3420, Valve Leak Rate Test.

Bases for Relief: These lines do not have adequate isolation and/or test provisions. In addition, these valves are normally closed at power and are not required to perform any emergency action.

These valves could be excluded per IWV-1300.

Alternate Testing: Any leakage through this system would be included in the Integrated Leak Rate Test performed per 10CFR50, App. J. No other testing is proposed.

26. Valve(s): 2CC-7, 3CC-7

Category: A/B

Drawing Number/Coordinates: PO-144A-2/G-7
PO-144A-3/G-7

Function: Component cooling system return line penetration isolation (E.S.)

Test Requirement: IWV-3420, Valve Leak Rate Test.

Bases for Relief: Adequate isolation and test provisions do not exist on the reactor building (upstream) side of the valve. Therefore this valve cannot be tested in the direction specified by IWV-3420 (c).

Alternate Testing: Valve is pneumatically leak rate tested from the penetration side annually during refueling.

27. Valve(s): 2IA-90, 2IA-91, 3IA-90, 3IA-91

Category: A

Drawing Number/Coordinates: O-1472/E-9, E-8
O-2472/E-9, E-8

Function: Instrument Air Supply line to reactor building penetration isolation valves.

Test Requirement: IWV-3420, Valve Leak Rate Test.

Bases for Relief: Adequate test and isolation provisions do not exist for these valves. They are normally closed while unit is at power, and are not required to change position for an emergency.

These valves could be excluded from the test program per IWV-1300.

Alternate Testing: None proposed.

s): 2LRT-17, 2LRT-24, 2LRT-25, 3LRT-17, 3LRT-24, 3LRT-25

gory: A

wing Number/Coordinates: O-1472/E-9, E-9, E-9
O-2472/E-9, E-9, E-9

unction: 2LRT-17, 3LRT-17; Leak Rate Test instrumentation,
line penetration isolation valve.
2LRT-24, 2LRT-25, 3LRT-24, 3LRT-25; Leak Rate Test instrumentation,
line penetration isolation valve.

Test Requirement: IWV-3420, Valve Leak Rate Test.

Bases for Relief: Adequate isolation and test provisions do not exist for these valves. All are closed during power operation and are not required to change position for an emergency. Additionally, the lines with 2LRT-17 and 3LRT-17 have blank flange installed except during the Integrated Leak Rate Test.

These valves could be excluded from the program per IWV-1300.

Alternate Testing: None proposed.