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United States Nuclear Regulatory Commission
ATTN: Document Control Desk
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Washington, DC 20555

Subject: James A FitzPatrick Nuclear Power Plant
Docket No. 50-333
Proposed Relief Request No. VRR-08 to the
JAFNPP In-Service Testing Program

Dear Sir:

This submittal forwards proposed JAFNPP In-Service Testing (IST) Program Valve Relief Request VRR-08 for your review and approval. Within the scope of the current JAFNPP IST Program, certain Category C check valves are disassembled and inspected during each refueling outage in accordance with the provisions of ASME/ANSI OM-10, Inservice Testing of Valves in Light Water Reactor Power Plants, Paragraphs 4.3.2.2(e) and 4.3.2.4(c). VRR-08 requests relief from the refueling outage restriction of Paragraphs 4.3.2.2(e) and 4.3.2.4(c) for these valves, permitting disassembly and inspection at a frequency of "at least once per operating cycle."

ASME/ANSI OM-10, Paragraph 4.3.2 requires check valves to be exercised to their safety position(s) quarterly, if practical, otherwise at cold shutdowns. If this, too, is impracticable, the Code allows testing to be deferred to refueling outages. Paragraph 4.3.2.2(e) states, "If exercising is not practicable during plant operation or cold shutdowns, it may be limited to full-stroke during refueling outage." Paragraph 4.3.2.4 addresses methods that may be used to perform these IST activities. Paragraph 4.3.2.4(c) states, "As an alternative to the testing in (a) or (b) above, disassembly every refueling outage to verify operability of check valves may be used."

Within the context of the approved JAFNPP Third Interval IST Program, testing of the following valves exercises the OM-10, Paragraph 4.3.2.4(c) disassemble and inspect option. These valves share the characteristic of having no position indication provision for the valve disc. Excerpts from the JAFNPP Third Interval IST Program Plan are provided in Attachment 1 which describe valve function and additional testing considerations for each of the listed valves.

15RBC-214	PASS Cooling Water Emerg Supply Check Valve
23HPI-13	HPCI Drain Pot Drain To Torus Stop Check Valve
23HPI-130	HPCI Gland Seal Cooling Return Check Valve
23HPI-131	HPCI Condensate Pump P-141 Disch Check Valve
23HPI-32	HPCI Booster Pump P-1B Suct From CST 33TK-12A and B Check Valve
23HPI-56	HPCI Drain Pot Drain To Torus Check Valve
23HPI-61	HPCI Booster Pump P-1B Suct From Suppression Pool Check Valve
23HPI-62	HPCI Min Flow Line To RHR Check Valve

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As stated, Paragraphs 4.3.2.2(e) and 4.3.2.4(c) of OM-10 limit the performance of check valve IST including disassembly and inspection activities to refueling outages. VRR-08 proposes as an alternative that the activities associated with Paragraphs 4.3.2.2(e) and 4.3.2.4(c) of OM-10 for the identified valves be performed on a frequency of at least once per operating cycle. The FitzPatrick staff considers this alternative acceptable for the following reasons:

1. Performance of these IST activities on a refueling outage frequency is currently acceptable in accordance with ASME/ANSI OM-10. By specifying testing activities on a frequency commensurate with each refueling outage, OM-10 recognizes and establishes an acceptable time period between testing. Historically, the refueling outages have provided a convenient and defined time period in which testing activities could be safely and efficiently performed. However, an acceptable testing frequency can be maintained separately without being tied directly to a refueling outage. IST performed on a frequency that maintains the acceptable time period between testing activities during the operating cycle is consistent with the intent of OM-10.

2. Over time, approximately the same number of tests would be performed using the proposed operating cycle test frequency as would be performed using the current refueling outage frequency. Thus, IST activities performed during the proposed operating cycle test frequency provide an equivalent level of quality and safety as IST performed at a refueling outage frequency.

3. A program for performing on-line maintenance is in place at FitzPatrick that complies with the requirements of 10 CFR50.65(a)(4), "Requirements for monitoring the effectiveness of maintenance at nuclear power plants." This program assures that, prior to performing a system outage on-line, its effect on risk is evaluated. Appropriate controls are implemented based on this evaluation. Within the context of this program, FitzPatrick has initiated efforts to perform additional maintenance, surveillance, and testing activities during normal operation. Planned activities are evaluated utilizing risk insights to determine the impact on safe operation of the plant and ability to maintain associated safety margins. Individual system components, a system train, or a complete system may be planned to be out of service to allow maintenance, or other activities, during normal operation.

   As experience in performing on-line maintenance activities at FitzPatrick has increased, it has become evident that selected refueling outage IST activities could be performed during system outages on-line without sacrificing level of quality or safety. The disassembly and inspection activities required by OM-10 are examples of IST activities that can be performed safely and effectively on-line within the provisions of existing programmatic controls for on-line maintenance. The requested relief would permit these IST activities to be performed on-line, consistent with the performance of other on-line maintenance and testing activities, at no compromise to quality or safety.

Approval of the requested relief will remove a refueling outage constraint, allowing scheduling flexibility for inspection of these valves without compromising safety and without reduction of inspection frequency. Approval of the request will allow this work to be controlled in the same manner as other similar work within the affected systems. Similar relief has recently been approved for Entergy's River Bend Station Unit 1 (TAC NO. MB5834)

Attachment 1 provides excerpts from the approved JAFNPP Third Interval IST Program Plan as previously discussed. Attachment 2 contains the proposed relief request. If you have any questions, please contact Mr. John Hoddy at (315) 349-6538.

Very truly yours,

T.A. Sullivan
Site Vice President

cc:

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Attachment 1 to JAFP-03-0096

Excerpts from

James A. Fitzpatrick Nuclear Power Plant

Inservice Testing Program For Pumps And Valves

Third Interval Plan

JAMES A. FITZPATRICK NUCLEAR POWER PLANT
INSERVICE TESTING PROGRAM FOR PUMPS AND VALVES
JAF-RPT-MULTI-03385 Rev. 5
VALVE TABLE

SYSTEM:

DRAWING: FM-18C

VALVE ID	DWG CO-ORD	CLASS	VALVE CATEGORY	SIZE (IN)	VALVE TYPE	ACTUATOR TYPE	SAFETY FUNCTION	TEST REQTS	CSJ/ROJ	RELIEF REQUEST	ALTERNATE TEST	REMARKS
15RBC-214	E-7	3	C	1.00	CK	SA	C	RFC-1	ROJ-11		DIS-3	
15SOV-215	E-7	3	B	1.00	GL	SO	C	PIT-5				PASSIVE

JAMES A. FITZPATRICK NUCLEAR POWER PLANT
INSERVICE TESTING PROGRAM FOR PUMPS AND VALVES
JAF-RPT-MULTI-03365 Rev. 5
VALVE TABLE

SYSTEM:

DRAWING: FM-25A

VALVE ID	DWG CO-ORD	CLASS	VALVE CATEGORY	SIZE (IN)	VALVE TYPE	ACTUATOR TYPE	SAFETY FUNCTION	TEST REQTS	CSJ/ROJ	RELIEF REQUEST	ALTERNATE TEST	REMARKS
23AOV-42	G-2	2	B	1.00	GA	AO	C	STC-1 FSC-1 PIT-5				FAST ACTING VALVE
23EFV-01A	G-6	1	A/C	1.00	BK	SA	C	ETC-1 LKO-5	ROJ-01	VRR-07	ETC-3 LKO-3	VALVE ISOLATES ON EXCESS FLOW
23EFV-01B	G-7	1	A/C	1.00	BK	SA	C	ETC-1 LKO-5	ROJ-01	VRR-07	ETC-3 LKO-3	VALVE ISOLATES ON EXCESS FLOW
23EFV-02A	G-7	1	A/C	1.00	BK	SA	C	ETC-1 LKO-5	ROJ-01	VRR-07	ETC-3 LKO-3	VALVE ISOLATES ON EXCESS FLOW
23EFV-02B	G-7	1	A/C	1.00	BK	SA	C	ETC-1 LKO-5	ROJ-01	VRR-07	ETC-3 LKO-3	VALVE ISOLATES ON EXCESS FLOW
23HOV-1	F-3	2	B	10.00	GA	HO	O/C	STO-1 STC-1 PIT-5				FAST ACTING VALVE
23HPI-12	C-6	2	A/C	16.00	LK	SA	O/C	FFT-1 RFC-1 LKJ-6	ROJ-12		RFC-3	
→ 23HPI-13	C-7	2	C	2.00	SC	SA, MA	O/C	FFT-1 RFC-1	ROJ-13 CSJ-09		DIS-3 RFC-2	
→ 23HPI-130	C-5	2	C	2.00	SK	SA	O/C	FFT-1 RFC-1	ROJ-17		DIS-3 PFT-1	
→ 23HPI-131	C-6	2	C	2.00	SK	SA	C	RFC-1	ROJ-16		DIS-3	
23HPI-18	F-7	1	C	14.00	CK	SA	O	FFT-1	CSJ-10		MME-2	
→ 23HPI-32	G-5	2	C	16.00	CK	SA	C	RFC-1	ROJ-14		DIS-3	
23HPI-402	E-7	2A	C	2.00	CK	SA	O/C	FFT-1 RFC-1	CSJ-11	VRR-04	FFT-2 RFC-2	AUGMENTED COMPONENT VERIFIED CLOSED AS PAIR WITH 23HPI-403
23HPI-403	E-7	2A	C	2.00	CK	SA	O/C	FFT-1 RFC-1	CSJ-11	VRR-04	FFT-2 RFC-2	AUGMENTED COMPONENT VERIFIED CLOSED AS PAIR WITH 23HPI-402

JAMES A. FITZPATRICK NUCLEAR POWER PLANT
INSERVICE TESTING PROGRAM FOR PUMPS AND VALVES
JAF-RPT-MULTI-03365 Rev. 5
VALVE TABLE

SYSTEM:

DRAWING: FM-25A

	VALVE ID	DWG CO-ORD	CLASS	VALVE CATEGORY	SIZE (IN)	VALVE TYPE	ACTUATOR TYPE	SAFETY FUNCTION	TEST REQTS	CSJ/ROJ	RELIEF REQUEST	ALTERNATE TEST	REMARKS
→	23HPI-56	C-6	2	C	2.00	SK	SA	O	FFT-1 RFC-1	ROJ-13 ROJ-13		DIS-3 DIS-3	
→	23HPI-61	B-7	2	C	16.00	CK	SA	O	FFT-1 RFC-1	ROJ-15 ROJ-15		DIS-3 PFT-3 DIS-3	
→	23HPI-62	F-4	2	C	4.00	CK	SA	O	FFT-1 RFC-1	ROJ-16 ROJ-16		DIS-3 DIS-3	
	23HPI-65	C-6	2	A/C	20.00	LK	SA	O/C	FFT-1 RFC-1 LKJ-6	ROJ-12		RFC-3	
	23MOV-14	F-3	2	B	10.00	GA	MO	O	STO-1 PIT-5				
	23MOV-15	F-8	1	A	10.00	GA	MO	O/C	STO-1 STC-1 PIT-5 LKJ-6				
	23MOV-16	F-7	1	A	10.00	GA	MO	O/C	STO-1 STC-1 PIT-5 LKJ-6				
	23MOV-17	G-5	2	B	16.00	GA	MO	C	STC-1 PIT-5				
	23MOV-19	F-6	1	A	14.00	GA	MO	O/C	STO-1 STC-1 PIT-5 LKJ-6				
	23MOV-20	F-6	2	B	14.00	GA	MO	O	STO-1 PIT-5				
	23MOV-21	G-6	2	B	6.00	GL	MO	C	STC-1 PIT-5				
	23MOV-25	F-5	2	B	4.00	GL	MO	O/C	STO-1 STC-1 PIT-5				
	23MOV-57	F-5	2	B	16.00	GA	MO	O	STO-1 PIT-5				

APPENDIX B

Refueling Outage Justifications

ROI-10

SYSTEM:	CORE SPRAY (CSP)
COMPONENTS:	14CSP-62A,B CATEGORY: C
SAFETY FUNCTION:	These valves close to prevent reverse flow from the torus.
JUSTIFICATION:	There are no position indicators or other means to verify closure of these valves. As a result, valve closure must be verified by back-leakage testing. Performing such a test during plant operations would require setting up for and performing a hydrostatic test. As discussed in NUREG 1482, section 4.1.4, the NRC has determined that the need to set up test equipment is adequate justification to defer backflow testing of a check valve until a refueling outage. During cold shutdown, the system lineup changes and the effort involved with setting up test equipment would constitute an unreasonable burden on the plant staff.
ALTERNATE TEST	These valves will be verified close each refueling outage in accordance with OM-10 Section 4.3.2.2(e) and (h) during a hydrostatic leak rate test.

ROI-11

SYSTEM:	REACTOR BUILDING CLOSED LOOP COOLING (RBC)
COMPONENTS:	15RBC-214 CATEGORY: C
SAFETY FUNCTION:	This valve closes to prevent flow diversion when the Emergency Service Water system is supplying cooling water to RBC heat loads.
JUSTIFICATION:	There is no provision on this valve that provides position indication of the disc. There are no test taps and block valves to enable a back-leakage test to verify closure.
ALTERNATE TEST	OM-10, Section 4.3.2.4(c) allows disassembly each refueling outage to verify operability as an alternative to quarterly testing.

APPENDIX B

Refueling Outage Justifications

ROI-13

SYSTEM:	**HIGH PRESSURE COOLANT INJECTION (HPCI)**
COMPONENTS:	23HPI-13 and 23HPI-56 CATEGORY: C
SAFETY FUNCTION:	These valves open to permit HPCI turbine condensate to drain to the Torus and close on cessation of flow.
JUSTIFICATION:	There are no means for exercising these valves to the open position where positive indication of acceptable valve performance is verified. There is no provision that provides position indication of the disc. There are no test taps and block valves to enable a back-leakage test to verify closure.
ALTERNATE TEST	OM-10, Section 4.3.2.4(c) allows disassembly each refueling outage to verify operability as an alternative to quarterly testing.

ROI-14

SYSTEM:	**HIGH PRESSURE COOLANT INJECTION (HPCI)**
COMPONENTS:	23HPI-32 CATEGORY: C
SAFETY FUNCTION:	This valve closes during the suction swap from the Condensate Storage Tank to the torus to prevent diversion of the torus flow from the HPCI pump suction.
JUSTIFICATION:	There is no provision on this valve that provides position indication of the disc. There are no block valves between this valve and the suction of the HPCI pump to enable a back-leakage test to verify closure.
ALTERNATE TEST	OM-10, Section 4.3.2.4(c) allows disassembly each refueling outage to verify operability as an alternative to quarterly testing.

APPENDIX B

Refueling Outage Justifications

ROI-15

SYSTEM:	**HIGH PRESSURE COOLANT INJECTION (HPCI)**
COMPONENTS:	23HPI-61 CATEGORY: C
SAFETY FUNCTION:	This valve opens to provide a flowpath from the torus to the suction of the HPCI booster pump. It closes on cessation of flow.
JUSTIFICATION:	The only practical method available to full flow exercise this valve is to pump water from the torus into the reactor vessel. Due to the lack of suitable water quality in the torus, this option is not practical. There is no provision on this valve that provides position indication of the disc. There are no test taps and block valves to enable a back-leakage test to verify closure.
ALTERNATE TEST	OM-10, Section 4.3.2.4(c) allows disassembly each refueling outage to verify operability as an alternative to quarterly testing. In addition, this valve will be partial-flow tested once per operating cycle.

ROI-16

SYSTEM:	**HIGH PRESSURE COOLANT INJECTION (HPCI)**
COMPONENTS:	23HPI-62 CATEGORY: C
SAFETY FUNCTION:	This valve opens to provide a flowpath for minimum flow from the HPCI main pump. It closes on cessation of flow.
JUSTIFICATION:	Due to the configuration of the minimum flow motor operated valve control logic, fully developed flow cannot be achieved through this check valve. Additionally, full-stroke exercising cannot be verified with existing instrumentation. There is no provision on this valve that provides position indication of the disc. There are no test taps and block valves to enable a back-leakage test to verify closure.
ALTERNATE TEST	OM-10, Section 4.3.2.4(c) allows disassembly each refueling outage to verify operability as an alternative to quarterly testing.

APPENDIX B

Refueling Outage Justifications

ROI-17

SYSTEM:	**HIGH PRESSURE COOLANT INJECTION (HPCI)**
COMPONENTS:	23HPI-130 CATEGORY: C
SAFETY FUNCTION:	This valve opens to provide a flowpath for cooling water circulation through the HPCI turbine lube oil cooler and closes to prevent flow diversion.
JUSTIFICATION:	This valve has no means of determining disc position or flowrate and, thus there is no mechanism for verifying full accident flow. In addition, there are no test taps and block valves to enable a back-leakage test to verify closure.
ALTERNATE TEST	OM-10, Section 4.3.2.4(c) allows disassembly each refueling outage to verify operability as an alternative to quarterly testing. In addition, this valve will be partial-flow tested once per operating cycle.

ROI-18

SYSTEM:	**HIGH PRESSURE COOLANT INJECTION (HPCI)**
COMPONENTS:	23HPI-131 CATEGORY: C
SAFETY FUNCTION:	This valve closes to prevent flow diversion from the HPCI booster pump.
JUSTIFICATION:	There is no provision on this valve that provides position indication of the disc. There are no test taps and block valves to enable a back-leakage test to verify closure.
ALTERNATE TEST	OM-10, Section 4.3.2.4(c) allows disassembly each refueling outage to verify operability as an alternative to quarterly testing.

Proposed VRR-08

APPENDIX B

Valve Relief Requests

VRR-08

SYSTEM: Various Safety Related Check Valves (Listed Below)

15RBC-214	PASS Cooling Water Emerg Supply Check Valve
23HPI-13	HPCI Drain Pot Drain To Torus Stop Check Valve
23HPI-130	HPCI Gland Seal Cooling Return Check Valve
23HPI-131	HPCI Condensate Pump P-141 Disch Check Valve
23HPI-32	HPCI Booster Pump P-1B Suct From CST 33TK-12A and B Check Valve
23HPI-56	HPCI Drain Pot Drain To Torus Check Valve
23HPI-61	HPCI Booster Pump P-1B Suct From Suppression Pool Check Valve
23HPI-62	HPCI Min Flow Line To RHR Check Valve

CATEGORY: C

CLASS: 2, 3

FUNCTION: Various

TEST REQUIREMENT: OM-10, Inservice Testing of Valves in Light Water Reactor Power Plants, section 4.3, "Inservice Tests for Category C Valves", requires these valves to be tested nominally every 3 months, except as specified by paragraphs 4.3.2.2, 4.3.2.3, 4.3.2.4, and 4.3.2.5. For the listed valves, the FitzPatrick IST program exercises the provisions of OM-10, Sections 4.3.2.2(e) and 4.3.2.4(c) which together establish that: "As an alternative to the testing in [4.3.2.4] (a) or (b) above, disassembly every refueling outage to verify operability of check valves may be used." Thus, these valves are currently disassembled and inspected during each refueling outage.

RELIEF REQUESTED: Relaxation of the "refueling outage" restriction of OM-10, Sections 4.3.2.2(e) and 4.3.2.4(c) for testing of the listed valves to a test frequency of "at least once per operating cycle."

BASIS FOR RELIEF:

Performance of these IST activities on a refueling outage frequency is currently acceptable in accordance with ASME/ANSI OM-10. By specifying testing activities on a frequency commensurate with each refueling outage, OM-10 recognizes and establishes an acceptable time period between testing. Historically, the refueling outages have provided a convenient and defined time period in which testing activities could be safely and efficiently performed. The specific restriction of these activities to a refueling outage is unnecessarily restrictive, however, as an acceptable testing frequency can be maintained separately without being tied directly to a refueling outage while still managing plant risk in accordance with 10 CFR 50.65(a)(4). IST performed on a frequency that maintains the acceptable time period between testing activities during the operating cycle is consistent with the intent of OM-10.

Over time, approximately the same number of tests would be performed using the proposed operating cycle test frequency as would be performed using the current refueling outage frequency. Thus, IST activities performed during the proposed operating cycle test frequency provide an equivalent level of quality and safety as IST performed at a refueling outage frequency.

Any on-line IST activities associated with this relief will be performed subject to the FitzPatrick program for compliance with the requirements of 10 CFR 50.65(a)(4), "Requirements for monitoring the effectiveness of maintenance at nuclear power plants."

ALTERNATE TESTING:

OM-10, Section 4.3.2.4(c) allows disassembly each refueling outage to verify operability as an alternative to quarterly testing. This testing will be performed, with the exception that testing will at a frequency of at least once per operating cycle in lieu of during each refueling outage.