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October 8, 2019 10 CFR 50.55a
NRC-19-0067

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555-0001

Fermi 2 Power Plant
NRC Docket No. 50-341
NRC License No. NPF-43

Subject: Submittal of Revised Valve Relief Request VRR-004 for the Inservice Testing Program Fourth 10-Year Interval

References:
1) DTE Electric Letter to NRC, "Submittal of Valve Relief Requests for the Inservice Testing Program Fourth 10-Year Interval," NRC-19-0047, dated June 14, 2019 (ML19165A134)
2) NRC Letter to DTE, "Supplemental Information Needed for Acceptance of Requested Licensing Action Re: Submittal of Valve Relief Requests for the Inservice Testing Program Fourth 10-Year Interval (EPID L-2019-LLR-0056 and L-2019-LLR 0058)," dated July 30, 2019 (ML19197A287)
3) DTE Electric Letter to NRC, "Withdrawal of the Inservice Testing Program Relief Requests VRR-004 and VRR-007 for the Fourth Ten-Year Interval," NRC-19-0061, dated August 7, 2019 (ML19219A104)
4) NRC Letter to DTE, "Withdrawal of Requested Licensing Action Re: Submittal of Valve Relief Requests for the Inservice Testing Program Fourth 10-Year Interval (EPID-L-2019-LLR-0056 and L-2019-LLR-0058)," August 14, 2019 (ML19219A775)

In Reference 1, DTE Electric Company (DTE) submitted relief requests VRR-004 and VRR-007 for the Fermi 2 Inservice Testing (IST) Program fourth 10-year interval. The Fermi 2 IST Program fourth 10-year interval begins on February 17, 2020 and ends on February 16, 2030.

By letter from Ms. Sujata Goetz dated July 30, 2019 (Reference 2), the NRC indicated that additional information was necessary to begin detailed technical review of relief requests VRR-004 and VRR-007. A clarification call was held between DTE and the NRC staff on July 24, 2019 to discuss and clarify the information requested by the NRC staff in Reference 2.

Following the clarification call and feedback from the NRC staff, DTE further reviewed the requirements of ASME OM Code, 2012 Edition, Subsection ISTC-3700, "Position Verification Testing," as well as 10 CFR 50.55a(b)(3)(xi), "OM condition: Valve Position Indication." The testing activities associated with each of the ASME code components (i.e. valves) listed in VRR-004 and VRR-007 were reviewed and DTE has determined that existing activities performed at Fermi 2 would meet the requirements for some of the valves without the need for relief under 10 CFR 50.55a(z). For the subset of valves that remained in scope and where relief was still required, it was determined that additional information would need to be gathered to address the specific NRC requests in Reference 2. For these reasons, DTE submitted a letter to withdraw VRR-004 and VRR-007 (Reference 3) so that a consolidated relief request could be prepared and submitted to the NRC at a later date.

In Reference 4, the NRC acknowledged the DTE request to withdraw VRR-004 and VRR-007. The NRC also noted that if DTE were to re-submit the requests, the revised relief requests would need to address the items listed in Reference 4, which were the same as those in Reference 2.

DTE has now prepared a revised relief request, VRR-004 Revision 1. The revised relief request consolidates the information previously contained in relief requests VRR-004 and VRR-007, reduces the scope of ASME code components in the relief request, and addresses the information requested by the NRC in References 2 and 4. The revised relief request is enclosed.

DTE requests NRC approval of the relief request VRR-004 Revision 1 by March 16, 2020 to support planned testing during the next refuel outage scheduled in the spring of 2020.

No new commitments are being made in this submittal.

Should you have any questions or require additional information, please contact Mr. Jason R. Haas, Manager – Nuclear Licensing, at (734) 586-1769.

Sincerely,

Paul Fessler, Senior Vice President Nuclear Generation, for
Peter Dietrich, Senior Vice President and CNO

Enclosure: Revised Relief Request VRR-004 for the IST Fourth 10-Year Interval

cc: NRC Project Manager
NRC Resident Office
Regional Administrator, Region III
Michigan Department of Environment, Great Lakes, and Energy

Enclosure 1 to
NRC-19-0067

Fermi 2 NRC Docket No. 50-341
Operating License No. NPF-43

Revised Relief Request VRR-004 for the IST Fourth 10-Year Interval

10 CFR 50.55a Relief Request VRR-004, Revision 1

Relief to Confirm Obturator Position at Seat Leakage Testing Frequency

Proposed Alternative in Accordance with 10 CFR 50.55a(z)(1)

Alternative Provides Acceptable Level of Quality and Safety

1. ASME Code Component(s) Affected

The ASME code components affected by this relief request are the 47 valves listed in Attachment 1 to this Enclosure.

2. Applicable Code Edition and Addenda

ASME OM Code 2012 Edition, No Addenda

10 CFR 50.55a(b)(3)(xi), OM condition: Valve Position Indication.

3. Applicable Code Requirement

10 CFR 50.55a(b)(3)(xi) states:

> *OM condition: Valve Position Indication. When implementing ASME OM Code, 2012 Edition, Subsection ISTC-3700, "Position Verification Testing," licensees shall verify that valve operation is accurately indicated by supplementing valve position indicating lights with other indications, such as flow meters or other suitable instrumentation, to provide assurance of proper obturator position.*

ASME OM Code, 2012 Edition, Subsection ISTC-3700, "Position Verification Testing," states:

> *Valves with remote position indicators shall be observed locally at least once every 2 yr to verify that valve operation is accurately indicated. Where practicable, this local position indication observation should be supplemented by other indications such as use of flow meters or other suitable instrumentation to verify obturator position. These observations need not be concurrent. Where local observation is not possible, other indications shall be used for verification of valve operation.*
>
> *Position verification for active MOVs shall be tested in accordance with Mandatory Appendix III of this Division.*

ASME OM Code, 2012 Edition, Mandatory Appendix III, "Preservice and Inservice Testing of Active Electric Motor Operated Valve Assemblies in Light-Water Reactor Power Plants," Subsection III-3300, paragraph (e) states:

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Remote position indication shall be verified locally during inservice testing or maintenance activities.

ASME OM Code, 2012 Edition, Mandatory Appendix III, Subsection III-3310 states:

The inservice test interval determination shall include the following:

(a) The inservice test interval shall be determined in accordance with para. III-6440.

(b) If insufficient data exist to determine the inservice test interval in accordance with para. III-6400, then MOV inservice testing shall be conducted every two refueling cycles or 3 yr (whichever is longer) until sufficient data exist, from an applicable MOV or MOV group, to justify a longer inservice test interval.

(c) The maximum inservice test interval shall not exceed 10 yr. MOV inservice tests conducted per para. III-3400 may be used to satisfy this requirement.

4. Reason for Request

Pursuant to 10 CFR 50.55a, "Codes and Standards," paragraph (z)(1), relief is requested from the requirements of ASME OM Code Subsections ISTC-3700 and III-3310 and 10 CFR 50.55a(b)(3)(xi), for the subject valves listed in Attachment 1. The proposed alternative is to perform the required verification of obturator position using seat leakage testing at the seat leakage testing frequency interval. The basis of the relief request is that the proposed alternative will provide an acceptable level of quality and safety.

For the purpose of this relief request, DTE will utilize the phrase "obturator verification" to denote the supplementing of valve position indicating lights with other conditions to confirm proper obturator position as described in ISTC-3700 and 10 CFR 50.55a(b)(3)(xi).

NRC Information Notice (IN) 2012-14, "Motor-Operated Valve Inoperable Due to Stem-Disc Separation," (Reference 1) highlighted the need to supplement valve position indicating lights with other indications to provide assurance of proper obturator position. ASME Code, 2012 Edition, included requirements for the use of other indications to supplement position indicating lights in Subsection ISTC-3700 "as practicable." At Fermi 2, obturator verification will be performed in both the open and closed directions to comply with 10 CFR 50.55a(b)(3)(xi).

A review of all In-Service Testing (IST) Program valves equipped with remote position indication was performed to identify a method to provide reasonable assurance of proper obturator position. The use of process parameters such as flow or pressure, seat leakage testing, and existing diagnostic testing were all considered as methods. For all the valves listed in Attachment 1, confirmation of obturator position in conjunction with seat leakage testing was identified as the most practical or only method of obturator verification. The seat leakage testing associated with the valves in Attachment 1 is currently performed at a

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Relief to Confirm Obturator Position at Seat Leakage Testing Frequency

frequency that is different than that prescribed in Subsections ISTC-3700 and III-3310. Combining the obturator verification with the seat leakage testing and performing them together will reduce labor and overall dose while also providing a highly reliable means to demonstrate proper obturator position.

DTE is requesting to perform obturator verification for certain valves as required by ISTC-3700 and 10 CFR 50.55a(b)(3)(xi) at a frequency commensurate with the 10 CFR 50 Appendix J, Option B performance-based leakage testing program at Fermi 2 instead of the two-year frequency required by ISTC-3700. This request applies to all the valves listed in Attachment 1, with two variations as listed below:

1) For one set of valves in Attachment 1 (i.e., two valves total), obturator verification as required by ISTC-3700 and 10 CFR 50.55a(b)(3)(xi) will be performed at a frequency commensurate with the seat leakage testing frequency referenced in NEI 13-02, "Industry Guidance for Compliance with Order EA-13-109," (Reference 2) instead of the two-year frequency required by ISTC-3700.

2) For active motor operated valves in Attachment 1, position indication testing requirements are identified in Mandatory Appendix III as described in ISTC-3700. Per Subsections III-3300 and III-3310, position indication testing is performed with inservice testing, which itself is performed at a variable frequency. The minimum frequency specified in Subsection III-3310 for inservice testing is every two refueling cycles or 3 years (whichever is longer, although the two options are currently equal for Fermi 2 given the current 18 month refueling cycles). As a result, the requested relief from the code required frequency for obturator verification of active motor operated valves is from the three-year minimum frequency in Mandatory Appendix III Subsection 3310 rather than from the two-year frequency in ISTC-3700. Seat leakage testing, at the Appendix J frequency, will also be utilized as the method for performing obturator verification of these Mandatory Appendix III valves.

5. Proposed Alternative and Basis for Use

The proposed alternative is to perform the required verification of obturator position using seat leakage testing at the seat leakage testing frequency interval specified by either 10 CFR 50 Appendix J or the guidance in NEI 13-02 as described below.

For most of the valves in Attachment 1, the proposed alternative is to supplement valve position indication to confirm obturator position during the existing seat leakage testing performed in accordance with 10 CFR 50 Appendix J. The frequency of this obturator verification will be aligned to the frequency of the seat leakage testing frequency commensurate with the 10 CFR 50 Appendix J, Option B performance-based leakage testing program at Fermi 2, which incorporates NEI 94-01, Revision 3-A (ADAMS Accession No.

10 CFR 50.55a Relief Request VRR-004, Revision 1

Relief to Confirm Obturator Position at Seat Leakage Testing Frequency

ML12221A202), and the conditions and limitations specified in NEI 94-01, Revision 2-A (ML100620847).

In 1996, Fermi 2 received approval of License Amendment 108 (ADAMS Accession No. ML020730597) to implement Option B of the 10 CFR 50 Appendix J Program. This program permits the extension of the Appendix J seat leakage testing to a frequency corresponding to the specific valve performance. Valves whose leakage test results indicate good performance may have their interval of testing increased based on these test results.

On March 9, 2017, Fermi 2 received approval of License Amendment No. 205 (ADAMS Accession No. ML16351A460) to implement NEI 94-01, Revision 3-A and the conditions and limitations specified in NEI 94-01, Revision 2-A, to implement the performance-based leakage-testing program in accordance with 10 CFR 50 Appendix J, Option B. This License Amendment increased the containment isolation valves leakage test intervals (i.e., Type C tests) from 60 months to 75 months.

The Fermi 2 program which implements Appendix J, Option B requires individual containment isolation valves to pass three successful seat leakage tests before they can be placed on extended seat leakage testing frequency.

In addition, for one set of valves in Attachment 1 (i.e., two valves total), valve position indication will be supplemented to confirm obturator position by utilizing the existing seat leakage testing performed in accordance with the NEI 13-02, "Industry Guidance for Compliance with Order EA-13-109." Valves T4600F420 & T4600F421 are the Torus Hardened Vent Isolation Valves which are credited for compliance with NRC Order EA-13-109. Section 6.2 of NEI 13-02 identifies that leak rate testing of hardened containment vent system valves should be performed at a frequency of once every three operating cycles. Consistent with the NEI 13-02 guidance, valves T4600F420 & T4600F421 will be leak tested at a maximum frequency of every three operating cycles. Therefore, the obturator verification of valves T4600F420 & T4600F421 will be performed in conjunction with this seat leakage testing at a maximum frequency of every three operating cycles.

To support the use of seat leakage testing at the Appendix J or NEI 13-02 frequency, Attachment 1 identifies testing or maintenance activities, such as position indication testing, stroke timing, actuator maintenance, and valve diagnostic testing, that will also provide reasonable assurance of overall valve health including indication. Note that this relief request is not proposing to alter the frequency of position indication testing itself, as required by Subsection ISTC-3700 (or Subsection III-3300(e) for active motor operated valves). Therefore, position indication testing of the valves in Attachment 1 will continue to be performed at a frequency of two years in accordance with ISTC-3700 (or at the frequency in accordance with Subsection III-3310 for active motor operated valves).

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Relief to Confirm Obturator Position at Seat Leakage Testing Frequency

For all the valves in Attachment 1, seat leakage testing is the most practical or only method to validate the obturator is in the proper open or closed position as required. Seat leakage testing would identify problems with obturator integrity. Any identified issues would then be repaired using the Corrective Action Program.

In conclusion, the ability to detect degradation and ensure the operational readiness of the subject valves to perform their intended function is not jeopardized by performing the obturator verification at the same frequency as the seat leakage testing specified by 10 CFR 50 Appendix J or the guidance in NEI 13-02. This frequency of testing provides reasonable assurance of the operational readiness of the subject valves, as well as that the indicating system accurately reflects the valve disc position. Thus, the proposed alternative provides an acceptable level of quality and safety.

6. Duration of Proposed Alternative

This proposed alternative will be utilized for the entire fourth 10-year interval. The fourth interval begins on February 17, 2020 and ends on February 16, 2030.

7. Precedent

No precedent was identified for this relief request.

8. References

1. NRC Information Notice (IN) 2012-14, "Motor-Operated Valve Inoperable Due to Stem-Disc Separation," dated July 24, 2012 (ML12150A046).
2. NEI 13-02, "Industry Guidance for Compliance with Order EA-13-109: BWR Mark I & II Reliable Hardened Containment Vents Capable of Operation Under Severe Accident Conditions," Revision 1, dated April 2015 (ML15120A360).

9. Attachments

1. Affected Components and Bases for Using Seat Leakage Testing to Confirm Obturator Position [5 pages]

ATTACHMENT 1 TO ENCLOSURE 1 OF NRC-19-0067 (VRR-004, Revision 1)

Affected Components and Bases for Using Seat Leakage Testing to Confirm Obturator Position

Valve ID (PIS) Nos.	Valve Description	Code Class	OM Valve Category	Valve Type*	Actuator Type*	IST Program Classification	Safety Direction	Function of Valve	Method of Obturator Verification / Relief Requested	Testing / Maintenance**
B2100F076A B2100F076B	Feedwater Supply Check Air Operated Valves	1	A/C	CHK	AO	Active	Closed	These check valves open to allow feedwater flow to the reactor pressure vessel (RPV) during power operation. The safety function is to close to isolate primary containment.	Verification of obturator in the open position will be performed using feedwater flow and at a frequency in accordance with the ASME OM code Subsection ISTC-3700 and 10 CFR 50.55a(b)(3)(xi). Therefore, no relief is required for the open position. There is no practical method to validate valve closure other than seat leakage testing. Verification of obturator in the closed position will be performed during seat leakage testing. Relief is requested to align the frequency of the closed position verification to the Appendix J seat leakage testing frequency.	1, 2, & 4
C4100F006	Standby Liquid Control (SLC) Outboard Check Valve	1	A/C	CHK	N/A	Active	Open / Closed	The open safety function of this valve is to open to provide a flow path from the SLC tank to the RPV. The closed safety function of this valve is to close to isolate primary containment.	Verification of obturator in the open position will be performed during SLC pump testing and at a frequency in accordance with the ASME OM code Subsection ISTC-3700 and 10 CFR 50.55a(b)(3)(xi). Therefore, no relief is required for the open position. There is no practical method to validate valve closure other than seat leakage testing. Verification of obturator in the closed position will be performed during seat leakage testing. Relief is requested to align the frequency of the closed position verification to the Appendix J seat leakage testing frequency.	1, 2, & 10
E1150F022 E1150F023	Residual Heat Removal (RHR) RPV Head Spray Inboard and Outboard Containment Isolation Motor Operated Valves	2	A	GA	MO	Passive	Closed	The RHR RPV head spray piping has been cut and capped inside the primary containment. This motor operated valve has a safety function in the closed position to isolate primary containment. This valve is normally closed and maintained closed for isolation of penetration X-17.	Since the head spray piping is cut and capped, there is no method to use process indicators to validate obturator position. Seat leakage testing is the only practical method to validate position. Verification of obturator in both the open and closed positions will be performed during seat leakage testing. Relief is requested to align the frequency of both the open and closed position verification to the Appendix J seat leakage testing frequency.	1 & 2

ATTACHMENT 1 TO ENCLOSURE 1 OF NRC-19-0067 (VRR-004, Revision 1)

Affected Components and Bases for Using Seat Leakage Testing to Confirm Obturator Position

Valve ID (PIS) Nos.	Valve Description	Code Class	OM Valve Category	Valve Type*	Actuator Type*	IST Program Classification	Safety Direction	Function of Valve	Method of Obturator Verification / Relief Requested	Testing / Maintenance**
E4150F007 E5150F012	High Pressure Coolant Injection (HPCI) and Reactor Core Isolation Cooling (RCIC) Pump Discharge Isolation Motor Operated Valves	2	A	GA	MO	Active	Open / Closed	These normally open valves have a safety function to allow HPCI and RCIC injection to the RPV. These valves have a closed safety function to serve as pressure isolation valves.	Verification of obturator in the open position will be performed during HPCI and RCIC pump testing and at a frequency in accordance with the ASME OM code Subsection ISTC-3700 and 10 CFR 50.55a(b)(3)(xi). Therefore, no relief is required for the open position. There is no practical method to validate valve closure other than seat leakage testing. Verification of obturator in the closed position will be performed during seat leakage testing. Relief is requested to align the frequency of the closed position verification to the Appendix J seat leakage testing frequency.	1, 2, 4, 11, & 12
G1100F003 G1100F019	Radwaste Drywell Sump Pumps Outboard Containment Isolation Air Operated Valves	2	A	GA	AO	Active	Closed	These valves are normally open to provide a flow path for water from the drywell sumps to be transferred to collector tanks. These air operated valves have a safety function in the closed position. These valves isolate penetrations X-18 and X-19 to maintain containment integrity.	Verification of obturator in the open position will be performed during sump pump operation and at a frequency in accordance with the ASME OM code Subsection ISTC-3700 and 10 CFR 50.55a(b)(3)(xi). Therefore, no relief is required for the open position. There is no practical method to validate valve closure other than seat leakage testing. Verification of obturator in the closed position will be performed during seat leakage testing. Relief is requested to align the frequency of the closed position verification to the Appendix J seat leakage testing frequency.	1, 2, 3, & 7
T2300F409 T2300F410	Primary Containment Suppression Chamber Reactor Building Vacuum Breaker Valves	2	A	BF	AO	Active	Open / Closed	These air operated butterfly valves have a safety function in the open position. The function of these normally closed reactor building-to-suppression chamber isolation valves is to relieve vacuum when primary containment depressurizes below reactor building pressure. These air operated butterfly valves also have a safety function in the closed position. T2300F409 is the penetration X-205B containment inboard isolation valve. T2300F410 is the penetration X-205A containment inboard isolation valve.	There is no practical method to use process indicators to validate obturator position. Verification of obturator in both the open and the closed position will be performed during seat leakage testing. Relief is requested to align the frequency of both the open and closed position verification to the Appendix J seat leakage testing frequency.	1, 2, 3, & 7

ATTACHMENT 1 TO ENCLOSURE 1 OF NRC-19-0067 (VRR-004, Revision 1)

Affected Components and Bases for Using Seat Leakage Testing to Confirm Obturator Position

Valve ID (PIS) Nos.	Valve Description	Code Class	OM Valve Category	Valve Type*	Actuator Type*	IST Program Classification	Safety Direction	Function of Valve	Method of Obturator Verification / Relief Requested	Testing / Maintenance**
T4600F420 T4600F421	Standby Gas Treatment System (SGTS) Torus Hardened Vent Secondary Containment Inboard and Outboard Isolation Air Operated Valves	Aug. B	NC	BF	AO	Passive	Closed	These air-operated butterfly valves are normally locked closed to maintain the secondary containment boundary for SGTS. The valves can be opened for venting primary containment. The valves have a safety function to remain closed to maintain secondary containment.	This valve is not routinely operated under system operation where system parameters could be used to validate obturator position. Seat leakage testing is the only practical method to validate position. Verification of obturator in both the open and the closed position will be performed during seat leakage testing. Relief is requested to align the frequency of both the open and closed position verification to the seat leakage testing frequency in accordance with NEI 13-02 Industry Guidance for Compliance with Order EA-13-109.	1, 2, 7, & 8
T4800F416 T4800F417 T4800F418 T4800F419 T4800F420 T4800F421 T4800F422 T4800F423 T4800F424 T4800F425 T4800F426 T4800F427	Containment Atmospheric Control (CAC) N_2 Inerting to Vacuum Breaker Valves (T2300F400A – T2300F400M) N_2 Supply Isolation Air Operated Valves	2	A	GL	AO	Passive	Closed	These valves are normally locked closed and remain closed to isolate control N_2 to the drywell-to-torus vacuum breaker. These valves close to isolate the applicable penetration to maintain containment integrity and isolate the nitrogen inerting system and the reactor building from the drywell.	Validation of obturator position using process parameters would require the nitrogen supply to be isolated during vacuum breaker testing, which could result in equipment risk to the vacuum breakers. Verification of obturator in both the open and the closed position will be performed during seat leakage testing. Relief is requested to align the frequency of both the open and closed position verification to the Appendix J seat leakage testing frequency.	1, 2, & 7
T4800F456 T4800F457 T4800F458	CAC N_2 Inerting to SGTS N_2 Supply Bypass Air Operated Valves	2	A	GL	AO	Active	Closed	These valves are normally closed and open to allow inerting of the drywell with N_2 gas, purging for personnel entry into containment, and treatment of the containment atmosphere prior to its release to the environment. The valves close to isolate containment penetration X-205D.	There is no practical method to use process indicators to validate obturator position. Verification of obturator in both the open and the closed position will be performed during seat leakage testing. Relief is requested to align the frequency of both the open and closed position verification to the Appendix J seat leakage testing frequency.	1, 2, 3, & 7
T4804F601A T4804F601B T4804F602A T4804F602B T4804F603A T4804F603B T4804F604A T4804F604B T4804F605A T4804F605B T4804F606A T4804F606B	H_2 Recombiner Isolation Valves	2	A	BF	MO	Active	Closed	These normally closed valves are opened to provide a return flow path to the torus when the hydrogen recombiner is in service. The safety function of these valves is to provide containment isolation for penetrations.	The hydrogen recombiner Technical Specification requirements were removed by License Amendment 159, dated March 15, 2004. There is no routine event to run the system which would create an opportunity to validate obturator position using process variables. Seat leakage testing is the only practical method to validate closure. Verification of obturator in both the open and the closed position will be performed during seat leakage testing. Relief is requested to align the frequency of both the open and closed position verification to the Appendix J seat leakage testing frequency.	2, 4, & 6

ATTACHMENT 1 TO ENCLOSURE 1 OF NRC-19-0067 (VRR-004, Revision 1)

Affected Components and Bases for Using Seat Leakage Testing to Confirm Obturator Position

Valve ID (PIS) Nos.	Valve Description	Code Class	OM Valve Category	Valve Type*	Actuator Type*	IST Program Classification	Safety Direction	Function of Valve	Method of Obturator Verification / Relief Requested	Testing / Maintenance**
T4901F465 T4901F468	Primary Containment (PC) Pneumatic Supply Outboard PC Isolation Air Operated Valves	2	A	GL	AO	Active	Open / Closed	These valves are normally open to supply: control nitrogen from the Nitrogen Inerting System; or to supply control air from the Non-Interruptible Air Supply (NIAS) system; or to provide control nitrogen from the nitrogen back-up bottles. The pneumatic pressure is used for air operated valves located in the drywell. The valves have a safety function in the closed direction to isolate primary containment penetrations X-22 and X-36. The valves have a safety function in the open direction to allowing for re-opening following containment isolation to provide a long-term safety-related pneumatic supply to the Automatic Depressurization System (ADS) Safety Relief Valves (SRVs) following a design basis accident.	Verification of obturator in the open position will be performed by monitoring pneumatic pressure and at a frequency in accordance with the ASME OM code Subsection ISTC-3700 and 10 CFR 50.55a(b)(3)(xi). Therefore, no relief is required for the open position. Validation of obturator in the closed position using process parameters would result in pneumatic pressure being lost to the drywell. Seat leakage testing is the only practical method to validate closure. Verification of obturator in the closed position will be performed during seat leakage testing. Relief is requested to align the frequency of the closed position verification to the Appendix J seat leakage testing frequency.	1, 2, 7, & 9
T4901F601 T4901F602	PC Pneumatic Supply Inboard PC Isolation Motor Operated Valves	2	A	GL	MO	Active	Open / Closed	These valves are normally open to supply: control nitrogen from the Nitrogen Inerting System; or to supply control air from the Non-Interruptible Air Supply (NIAS) system; or to provide control nitrogen from the nitrogen back-up bottles. The pneumatic pressure is used for air operated valves located in the drywell. The valves have a safety function in the closed direction to isolate primary containment penetrations. The valves have a safety function in the open direction to allowing for re-opening following containment isolation to provide a long-term safety-related pneumatic supply to the Automatic Depressurization System (ADS) Safety Relief Valves (SRVs) following a design basis accident.	Verification of obturator in the open position will be performed by monitoring pneumatic pressure and at a frequency in accordance with the ASME OM code Subsection III-3310 and 10 CFR 50.55a(b)(3)(xi). Therefore, no relief is required for the open position. Validation of obturator in the closed position using process parameters would result in pneumatic pressure being lost to the drywell. Seat leakage testing is the only practical method to validate closure. Verification of obturator in the closed position will be performed during seat leakage testing. Relief is requested to align the frequency of the closed position verification to the Appendix J seat leakage testing frequency.	2, 5, & 6

ATTACHMENT 1 TO ENCLOSURE 1 OF NRC-19-0067 (VRR-004, Revision 1)

Affected Components and Bases for Using Seat Leakage Testing to Confirm Obturator Position

Valve ID (PIS) Nos.	Valve Description	Code Class	OM Valve Category	Valve Type*	Actuator Type*	IST Program Classification	Safety Direction	Function of Valve	Method of Obturator Verification / Relief Requested	Testing / Maintenance**
T5000F420A T5000F420B	Primary Containment Atmosphere Monitoring (PCAM) Outboard Sample Valves	2	A	BA	AO	Active	Open / Closed	These valves are normally open to allow monitoring of drywell pressure during normal operations and following a design basis accident. The valves are closed to isolate primary containment penetrations.	Verification of obturator in the open position will be performed by monitoring drywell pressure and at a frequency in accordance with the ASME OM code Subsection ISTC-3700 and 10 CFR 50.55a(b)(3)(xi). Therefore, no relief is required for the open position. Validation of obturator in the closed position using process parameters would require bleed-off of pressure during power operation. Seat leakage testing is the only practical method to validate closure. Verification of obturator in the closed position will be performed during seat leakage testing. Relief is requested to align the frequency of the closed position verification to the Appendix J seat leakage testing frequency.	1, 2, 3, & 7
T5000F455	PCAM PC Radiation Monitor Rack H21P284 Secondary Isolation Air Operated Valves	2	A	BA	AO	Active	Closed	This valve is normally open to allow radiation monitoring of primary containment atmospheric conditions. This valve closes to isolate primary containment penetrations.	Verification of obturator in the open position will be performed during radiation sample pump operation and at a frequency in accordance with the ASME OM code Subsection ISTC-3700 and 10 CFR 50.55a(b)(3)(xi). Therefore, no relief is required for the open position. Validation of obturator in the closed position using process parameters would trip the radiation sample pump. Seat leakage testing is the only practical method to validate closure. Verification of obturator in the closed position will be performed during seat leakage testing. Relief is requested to align the frequency of the closed position verification to the Appendix J seat leakage testing frequency.	1, 2, & 3

* AO = air operated, BA = ball, BF = butterfly, CHK = check, GA = gate, GL = globe, MO = motor operated

**Table footnotes for information regarding testing/maintenance performed on the subject valves:

1: The standard method for performing position indication test will be performed every two years in accordance with the ISTC-3700 frequency requirements.
2: Seat leakage testing is currently performed on the subject valve. Leakage testing for the hardened vent isolation valves T4600F420 & F421 will be performed in accordance with NEI 13-02.
3: Quarterly stroke timing test is to be performed during the 4th IST Interval.
4: Exercise test is to be performed during the 4th IST Interval at two-year (or less) frequency.
5: Two-year exercise and stroke time are to be performed during the 4th IST Interval.
6: MOV Mandatory Appendix III diagnostic and position indication testing is to be performed during the 4th IST Interval.
7: A recurring preventive maintenance (PM) event exists for AOV diagnostic testing / actuator re-build.
8: Stroke timing is to be performed every operating cycle.
9: Stroke timing is to be performed during cold shutdown.
10: Exercise test is to be performed within the Check Valve Condition Monitoring Program.
11: Position indication of these active motor operated valves will follow more restrictive ISTC-3700 frequency requirement (2 year) instead of Mandatory Appendix III due to in-progress valve re-classification.
12: These pressure isolation valves will be aligned with the 10 CFR 50 Appendix J frequency per 4th Interval Fermi 2 Relief Request VRR-003 (ML19149A329).