UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

October 3, 2019

Mr. Paul Fessler
Senior Vice President and
Chief Nuclear Officer
DTE Electric Company
Fermi 2 – 260 TAC
6400 North Dixie Highway
Newport, MI 48166

SUBJECT: FERMI 2 - PROPOSED ALTERNATIVE TO THE REQUIRED EXAMINATION ASSOCIATED WITH VALVES (EPID L-2019-LLR-0047 AND EPID L-2019-LLR-0050)

Dear Mr. Fessler:

By letter dated May 29, 2019, DTE Electric Company (DTE, the licensee), submitted two alternative requests, VRR-001 and VRR-005, to the U.S. Nuclear Regulatory Commission (NRC). For both, VRR-001 and VRR-005, the licensee requested alternative test plans in lieu of certain inservice testing (IST) requirements of the 2012 Edition of the American Society of Mechanical Engineers *Code for Operation and Maintenance of Nuclear Power Plants* for the IST program at Fermi 2 Power Plant during the fourth 10-year IST program interval.

Specifically, pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, Section 50.55a(z)(1), the licensee requested to use proposed alternatives VRR-001 and VRR-005 on the basis that the alternatives provide an acceptable level of quality and safety.

The NRC staff has reviewed requests VRR-001 and VRR-005, and concludes, as set forth in the enclosed safety evaluation, that they both provide an acceptable level of quality and safety for components listed in Tables 1 and 2 of the enclosed safety evaluation. Accordingly, the NRC staff concludes that the licensee has adequately addressed all of the regulatory requirements set forth in 10 CFR 50.55a(z)(1). Therefore, the NRC staff authorizes the proposed alternatives in VRR-001 and VRR-005 for the fourth 10-year IST interval at Fermi 2, which is currently scheduled to start on February 17, 2020, and end on February 16, 2030.

If you have any questions, please contact the Project Manager, Sujata Goetz at 301-415-8004 or via e-mail at Sujata.Goetz@nrc.gov.

Sincerely,

/RA/

Lisa M. Regner, Acting Branch Chief
Plant Licensing Branch III
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No.: 50-341

Enclosure: Safety Evaluation

cc: Listserv

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

ALTERNATIVE REQUESTS VRR-001 AND VRR-005

RELATED TO THE INSERVICE TESTING PROGRAM FOURTH 10-YEAR INTERVAL

DTE ELECTRIC COMPANY

FERMI 2

DOCKET NO. 50-341

1.0 INTRODUCTION

By letter dated May 29, 2019 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML19149A329), DTE Electric Company (DTE, the licensee), submitted two alternative requests, VRR-001 and VRR-005, to the U.S. Nuclear Regulatory Commission (NRC). For both, VRR-001 and VRR-005, the licensee requested alternative test plans in lieu of certain inservice testing (IST) requirements of the 2012 Edition of the American Society of Mechanical Engineers *Code for Operation and Maintenance of Nuclear Power Plants* for the IST program at Fermi 2 Power Plant during the fourth 10-year IST program interval.

Specifically, pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, Section 50.55a(z)(1), the licensee requested to use proposed alternatives VRR-001 and VRR-005, on the basis that the alternatives provide an acceptable level of quality and safety.

2.0 REGULATORY EVALUATION

Regulation 10 CFR 50.55a(f)(4), "Inservice testing standards requirement for operating plants," requires, in part, that IST of certain ASME Code Class 1, 2, and 3 components must meet the requirements of the ASME OM Code and applicable addenda, except where alternatives have been authorized pursuant to paragraphs 10 CFR 50.55a(z)(1) or 10 CFR 50.55a(z)(2).

In proposing alternatives, a licensee must demonstrate that the proposed alternatives provide an acceptable level of quality and safety per 10 CFR 50.55a(z)(1) or compliance would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety per 10 CFR 50.55a(z)(2).

3.0 TECHNICAL EVALUATION

3.1 Applicable ASME OM Code

The requests, VRR-001 and VRR-005, are alternative test plans in lieu of certain IST requirements of the ASME OM Code 2012, No Addenda, for the IST program at Fermi 2 for the fourth 10-year interval, which is currently scheduled to start on February 17, 2020, and end on February 16, 2030.

3.1.1 Licensee's Relief Request VRR-001

ASME OM Code Requirements:

ISTC-3522, "Category C Check Valves," part (c), states that "If exercising is not practicable during operation at power and cold shutdowns, it shall be performed during refueling outages."

ISTC-3700, "Position Verification Testing," states, in part, that "Valves with remote position indicators shall be observed locally at least once every 2-yr to verify that valve operation is accurately indicated."

ISTC-3510 "Exercising Test Frequency" states, in part, that "Active Category A, Category B, and Category C check valves shall be exercised nominally every 3 months."

Regulation 10 CFR 50.55a(b)(3)(xi), 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.

Alternative testing is requested for the valves listed in Table 1 below.

Table 1

Valve ID	Class	Cat		Valve ID	Class	Cat
B21F501A	1	A/C		B21F515U	1	A/C
B21F501B	1	A/C		B21F516A	1	A/C
B21F501C	1	A/C		B21F516B	1	A/C
B21F501D	1	A/C		B21F516C	1	A/C
B21F502A	1	A/C		B21F517A	1	A/C
B21F502B	1	A/C		B21F517B	1	A/C
B21F502C	1	A/C		B21F517C	1	A/C
B21F502D	1	A/C		B21F517D	1	A/C
B21F503A	1	A/C		B31F501A	1	A/C
B21F503B	1	A/C		B31F501B	1	A/C
B21F503C	1	A/C		B31F501C	1	A/C
B21F503D	1	A/C		B31F501D	1	A/C
B21F504A	1	A/C		B31F502A	1	A/C
B21F504B	1	A/C		B31F502B	1	A/C
B21F504C	1	A/C		B31F502C	1	A/C
B21F504D	1	A/C		B31F502D	1	A/C
B21F506	1	A/C		B31F503A	1	A/C
B21F507	1	A/C		B31F503B	1	A/C
B21F508	1	A/C		B31F504A	1	A/C
B21F509	1	A/C		B31F504B	1	A/C
B21F5010	1	A/C		B31F505A	1	A/C
B21F5011	1	A/C		B31F505B	1	A/C
B21F5012	1	A/C		B31F506A	1	A/C
B21F513A	1	A/C		B31F506B	1	A/C
B21F513B	1	A/C		B31F510A	1	A/C
B21F513C	1	A/C		B31F510B	1	A/C
B21F513D	1	A/C		B31F511A	1	A/C
B21F514A	1	A/C		B31F511B	1	A/C
B21F514B	1	A/C		B31F512A	1	A/C
B21F514C	1	A/C		B31F512B	1	A/C
B21F514D	1	A/C		B31F515A	1	A/C
B21F515A	1	A/C		B31F515B	1	A/C
B21F515B	1	A/C		B31F516A	1	A/C
B21F515C	1	A/C		B31F516B	1	A/C
B21F515D	1	A/C		E21F500A	1	A/C
B21F515E	1	A/C		E21F500B	1	A/C
B21F515F	1	A/C		E41F500	1	A/C
B21F515G	1	A/C		E41F501	1	A/C
B21F515H	1	A/C		E41F502	1	A/C
B21F515L	1	A/C		E41F503	1	A/C
B21F515M	1	A/C		E51F50	1	A/C
B21F515N	1	A/C		E51F5054	1	A/C
B21F515P	1	A/C		E51F506	1	A/C
B21F515R	1	A/C		G33F583	1	A/C
B21F515S	1	A/C		N21F539A	1	A/C
B21F515T	1	A/C		N21F539B	1	A/C

The licensee states, in part:

Reason for Request

Relief is requested from performing ISTC-3522(c) on a refueling frequency.

Relief is requested from performing the position indication verification test (PIT) on a 2 year frequency as required by ISTC-3700. Position indication and obturator verification will be performed at a frequency commensurate with testing prescribed in Technical Specification (TS) Surveillance Requirement (SR) 3.6.1.3.9. The SR 3.6.1.3.9 states "Verify a representative sample of reactor instrumentation line EFCVs actuates on a simulated instrument line break to restrict flow."

Relief is requested from performing obturator verification on a 2 year (PIT) frequency as required by 10 CFR 50.55a(b)(3)(xi). Obturator verification will be

performed at a frequency commensurate with testing prescribed in TS SR 3.6.1.3.9.

Per Regulatory Guide (RG) 1.97, check valve remote position indication is excluded as a required parameter for evaluating containment isolation. The remote position indication is verified accurate at the same frequency as the exercise test prescribed in TS SR 3.6.1.3.9.

The testing described above requires removal of the associated instrument or instruments from service. Since these instruments are in use during plant operation, removal of any of these instruments from service may cause a spurious signal, which could result in a plant trip or an unnecessary challenge to safety systems. Additionally, process liquid will be contaminated to some degree, requiring special measures to collect flow from the vented instrument side and also will contribute to an increase in personnel radiation exposure.

Testing on a cold shutdown frequency is impractical considering the large number of valves to be tested and the condition that reactor pressure greater than 500 psig [pounds per square inch gauge] is needed for testing. In this instance, considering the number of valves to be tested and the conditions required for testing, it is also a hardship to test all these valves during refueling outages.

The appropriate time for performing excess flow check valve test is during refueling outages in conjunction with vessel hydrostatic pressure testing. As a result of shortened outages, decay heat levels during hydrostatic pressure tests are higher than in the past. If the hydrostatic pressure test were extended to test all EFCVs [excess flow check valves], the vessel could require depressurization several times to avoid exceeding the maximum bulk coolant temperature limit. This is an evolution that challenges the reactor operators and thermally cycles the reactor vessel and should be avoided if possible. Also, based on past experience, excess flow check valve testing during hydrostatic pressure testing becomes an outage critical path activity and could possibly extend the outage if all EFCVs were to be tested during this timeframe.

Proposed Alternative and Basis for Use

Functional testing with verification that flow is checked will be performed per TS SR 3.6.1.3.9 during refueling outages. SR 3.6.1.3.9 allows a "representative sample" of EFCVs to be tested every 18 months, such that each EFCV will be tested at least once every ten years (nominal). The six sample groups contain approximately 15 EFCVs each and are selected from different plant locations and operating conditions. The basis for this alternative is that testing a sample of EFCVs each refueling outage provides a level of safety and quality equivalent to that of the Code-required testing.

The EFCVs have position indication in the control room. Check valve remote position indication is excluded from RG 1.97 as a required parameter for evaluating containment isolation. The remote position indication will be verified accurate at the same frequency as the exercise test prescribed in TS SR 3.6.1.3.9. Although inadvertent actuation of an EFCV during operation is highly unlikely due to the spring poppet design, Fermi 2 checks the EFCV indications on a daily basis as part of the Operations Routines Checklist #26. Corrective Action Program documents are initiated for any EFCVs with abnormal position indication displays and repairs are scheduled for the next refueling outage.

EFCVs are provided in each instrument process line that is part of the reactor coolant pressure boundary. The excess flow check valve is designed so that it will not close accidentally during normal operation, will close if a rupture of the instrument line occurs downstream of the valve, and can be reopened, when appropriate, after closure from a local panel. These valves have both local position indication and position indication in the control room.

The design and installation of the EFCVs at Fermi 2 follows the guidance of RG 1.11. As detailed in the Fermi 2 Updated Final Safety Analysis Report (UFSAR), DTE has incorporated into the design of each EFCV source line the equivalent of a 0.25-inch restricting orifice. This was done by either the installation of a 0.25-inch orifice, the tap size of the source line being 0.25-inch, or in the case of the feedwater pressure-sensing lines, taking credit for an inboard containment isolation valve. Additionally, the design of each EFCV contains an internal 0.25-inch main body orifice. The restrictions in the source lines of the EFCVs limit leakage, in case of a failure to close, to a level where the integrity and functional performance of secondary containment and associated safety systems are maintained. The coolant loss is well within the capabilities of the reactor coolant makeup system, and the potential offsite exposure is substantially below the guidelines of 10 CFR 100.

EFCVs are required to be tested in accordance with ISTC-3522, which requires exercising check valves nominally every three months to the positions required to perform their safety functions. ISTC-3522(c) permits deferral of this requirement to every reactor refueling outage. EFCVs are also required to be tested in accordance with ISTC-3700 and 10 CFR 50.55a(b)(3)(xi), which requires remote position indication, including obturator verification at least once every 2 years.

The EFCVs are classified as ASME Code Category A/C and are also containment isolation valves. However, these valves are excluded from 10 CFR 50 Appendix J Type C leak rate testing, due to the size of the instrument lines and upstream orifices.

The excess flow check valve is a simple and reliable device. The major components are a poppet and spring. The spring holds the poppet open under static conditions. The valve will close upon sufficient differential pressure across the poppet. Functional testing of the valve is accomplished by venting the instrument side of the valve. The resultant increase in flow imposes a differential pressure across the poppet, which compresses the spring and decreases flow through the valve. System design does not include test taps upstream of the EFCV. For this reason, the EFCVs cannot be isolated and tested using a pressure source other than reactor pressure.

Industry experience as documented in the NRC-approved GE [General Electric] Nuclear Energy topical report NEDO-32977-A, "Excess Flow Check Valve Testing Relaxation," ([ADAMS]Accession No. ML003729011) indicates the EFCVs have a very low failure rate. The report indicates similarly that many reported test failures at other plants were related to test methodologies and not actual EFCV failures. The technology for testing these valves is simple and has been demonstrated effectively during the operating history of Fermi 2. Test history at Fermi 2 shows a very low failure rate and no evidence of common mode failure, which is consistent with the findings of NEDO-32977-A. The EFCVs at Fermi 2, consistent with the industry, have exhibited a high degree of reliability, availability, and provide an acceptable level of quality and safety.

In conclusion, the Fermi 2 TS detail what frequency is required to maintain a high degree of reliability and availability, and provide an acceptable level of quality and safety. Therefore, DTE requests relief pursuant to 10 CFR 50.55a (z)(1) to test excess flow check valves on a representative sample basis and at the frequency specified in Fermi 2 TS SR 3.6.1.3.9.

In accordance with 10 CFR 50.55a(b)(3)(xi) associated with obturator verification, the valves listed in this relief request would require the obturator verification to be performed at the stated frequency within ISTC-3700 (2 years). However, these valves are all tested in accordance with Fermi 2 TS SR 3.6.1.13.9. The relief from this requirement has been added to the current relief request for the third 10-year interval which was approved for use of SR 3.6.1.3.9 to satisfy ISTC-3522(c) and ISTC-3700. The current methodology used for functional testing of the EFCVs will be credited to meet the obturator verification requirements. During the functional test, the closed obturator position is confirmed visually with no leakage through an open drain valve and compared to indication. The check valve is then reset to the open position and compared to indication. The obturator open position is further confirmed by Operations during plant operation by observing indication and functionality of the related TS instrumentation.

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.

3.1.2 NRC Staff Evaluation

The EFCVs are installed on instrument lines to limit the release of fluid in the event of an instrument line break. Examples of EFCV installations include: reactor pressure vessel level and pressure instrumentation, main steam line flow instrumentation, recirculation pump suction pressure, and HPCI/RCIC instrumentation. EFCVs are not required to close in response to a containment isolation signal and are not required to operate under post loss-of-coolant accident conditions.

The EFCVs are required to be tested in accordance ASME OM Code ISTC-3510 which states, in part, that "Active Category A, Category B, and Category C check valves shall be exercised nominally every 3 months." For those active valves that are not practicable to be tested every three months, ASME OM Code ISTC-3522 states, that "If exercising is not practicable during operation at power and cold shutdowns, it shall be performed during refueling outages." In addition, the EFCVs have remote position indication. ASME OM Code ISTC-3700 states, in part that valves with remote position indicators shall be observed locally at least once every two years.

The licensee has requested to use the TS SR 3.6.1.3.9 test interval in lieu of the requirements of 2012 Edition of the ASME OM Code ISTC-3522(c) and ISTC-3700. The proposed change revises the test frequency by allowing a "representative sample" of EFCVs to be tested every refueling outage. The "representative sample" is based on approximately equal number of EFCVs being tested such that each valve is tested at least once every 10 years. As noted in the licensee's proposal, this alternative request was previously approved by the NRC for the third IST interval (ADAMS Accession No. ML102360570). There have been no substantive changes to the alternative or the basis for use.

The licensee's justification for the relief request is based on General Electric (GE) Topical Report (TR) NEDO-32977-A "Excess Flow Check Valve Testing Relaxation." The TR provided: (1) an estimate of steam release frequency (into the reactor building) due to a break in an instrument line concurrent with an EFCV failure to close, and (2) assessment of the radiological consequences of such a release. The NRC staff reviewed the GE TR and issued its evaluation on March 14, 2000 (ADAMS Accession No. ML003691722). In its evaluation, the NRC staff found that the test interval could be extended up to a maximum of 10 years. In conjunction with this finding, the NRC staff noted that each licensee that adopts the relaxed test interval program for EFCVs must have a failure feedback mechanism and corrective action program to ensure EFCV performance continues to be bounded by the topical report results. Also, each licensee is required to perform a plant specific radiological dose assessment, EFCV failure analysis, and release frequency analysis to confirm that they are bounded by the generic analyses of the TR.

The NRC staff reviewed the licensee's current proposal and previous alternative requests for its applicability to GE TR NEDO-32977-A. The NRC staff verified that the request conformed with the guidance in the GE TR safety evaluation regarding radiological dose assessment, EFCV failure rate, release frequency, the proposed failure feedback mechanism and corrective action program. Based on the staff's review of these documents, the staff concludes that the radiological consequences of an EFCV failure are sufficiently low and acceptable, and that the

alternative testing in conjunction with the corrective action plan provides a high degree of valve reliability and operability. Therefore, the NRC staff finds that the licensee's proposed test alternative provides an acceptable level of quality and safety.

3.2.1 Licensee's Relief Request VRR-005

ASME OM Code Section I-1350, Test Frequency, Classes 2 and 3 Pressure Relief Valves requires that the10 year test interval, with the exception of pressure water reactor main steam safety valves, shall be tested every 10 years, starting with initial electric power generation. No maximum limit is specified for the number of valves that should be tested during any single plant operating cycle; however, a minimum of 20 percent of the valves from each valve group shall be tested within any 48 month interval. This 20 percent shall consist of valves that have not been tested during the current 10 year test interval, if they exist. The test interval for any install valve shall not exceed 10 year. The 10 year IST interval shall begin from the date of the as-left set pressure test for each valve. The pressurized-water reactor main steam safety valves shall be tested in accordance with paragraph I-1320.

The licensee requested alternative testing for the following valves:

Table 2

Valve ID	Function	ASME Code Class	OM Valve Category
E1100F029	Residual Heat Removal (RHR) Shutdown Cooling Relief Valve	2	C
E4100F020	HPCI Booster Pump Inlet Pressure Relief Valve	2	C
E4100F050	HPCI Lube Oil Cooler Inlet Pressure Relief Valve	2	C

The licensee states, in part:

> **Applicable Code Requirement**
>
> I-1350, Test Frequency, Classes 2 and 3 Pressure Relief Valves:
>
> "(a) 10-Yr test interval. Classes 2 and 3 pressure relief valves, with the exception of PWR main steam safety valves, shall be tested every 10 yr, starting with initial electric power generation. No maximum limit is specified for the number of valves to be tested during any single plant operating cycle; however, a minimum of 20% of the valves from each valve group shall be tested within any 48-mo interval. This 20% shall consist of valves that have not been tested during the current 10-yr test interval, if they exist. The test interval for any installed valve shall not exceed 10 yr. The 10-yr test interval shall begin from the date of the as-left set pressure test for each valve. PWR main steam safety valves shall be tested in accordance with para. I-1320."
>
> **Reason for Request**
>
> [Valves] E1100F029, E4100F020, and E4100F050 are currently tested individually and are not grouped (i.e. there is only one relief valve in the group). As such, I-1350(a) requires testing of each of these valves every 48 months. Recently developed ASME OM Code Case OMN-24 allows ASME Class 2 and 3

Relief Valves where there is only one valve in a group to have the test frequency extended out from 48 months by 24 months with good performance. This extension may be repeated with continued good performance until the valve is tested every 120 months. OMN-24 Code Case applicability is for ASME OM Code 2001 Edition through the 2017 Edition.

Proposed Alternative and Basis for Use

Fermi 2 relief valves E1100F029, E4100F020, and E4100F050 are each in a group of only one valve. Fermi 2 would implement the alternative methods of ASME OM Code Case OMN-24 for the relief valve test frequencies for E1100F029, E4100F020 and E4100F050. Each of the items (a) through (f) of the Code Case are addressed as follows:

> The relief valves will be tracked by plant identification number as provided by its manufacturer or as applied by Fermi 2.
>
> Upon adoption of this Code Case, the initial test interval shall not exceed 48 months since the last set-pressure test. A 12 month period is allowed to complete testing once any of these relief valves are removed from the system.
>
> Each of these relief valve that satisfies the as-found set-pressure test criterion may have its test interval extended by up to 24 months; not to exceed 120 months. The test interval shall begin from the date of the as-left set-pressure test for the installed valve.
>
> Any of these relief valves that fails the as-found set-pressure test shall have its test interval reduced by 24 months. The minimum required test frequency for this circumstance is a 24 month interval.
>
> The test interval for any individual relief valve shall not exceed 120 months except that a six month grace period is allowed to coincide with refueling outages to accommodate extended operation or shutdown periods.
>
> Fermi 2 may satisfy testing requirements by installing a pretested valve to replace the valve that had been in service provided that the valve removed from service shall be tested within 12 months of removal from the system.
>
> In conclusion, using the provisions of this relief request as an alternative to the specific requirements of I-3150 will provide adequate indication of valve performance and continue to provide an acceptable level of quality and safety. Therefore, pursuant to 10 CFR 50.55a(z)(1), Fermi 2 requests relief from the specific requirements identified in this request.

3.2.2 NRC Staff Evaluation

The NRC staff notes that the license made an editorial error in requesting relief from I-3150. The NRC staff recognizes I-1350 as the correct section reference. Both I-1350 and I-3150 are

applicable to the testing of pressure relief valves and the licensee's error has no impact on the staff's review and conclusions in this safety evaluation.

ASME OM Code, Section I-1350, requires Class 2 and 3 pressure relief valves to be tested on a 10-year interval, with the exception of PWR main steam safety valves, and that a minimum of 20 percent of a valve group be tested within any 48-month interval. A valve group is defined in Section I-1200, "Definitions" as "Valves of the same manufacturer, type, system application, and service media." A valve that has been determined to be one of a kind and cannot be grouped is required to be tested every 48 months.

The Board of Nuclear Codes and Standards (BNCS)-Approved Code Case OMN-24, "Alternative Rules for Testing Class 2 and 3 Pressure Relief Valves," was approved by the ASME Operations and Maintenance Standards Committee on May 17, 2018 with the NRC representative voting in the affirmative on this proposed Code Case. The licensee proposed to adopt the language of the BNCS-Approved Code Case OMN-24 in its entirety.

Code Case OMN-24 allows valves that are considered to be a group of one to be initially tested at a 48-month interval and if the as-found test is within acceptance criteria the next scheduled test may be extended 24 months. This may be repeated until the valve reaches a maximum test interval of 10 years. Any valve that fails the as-found test shall have its test interval reduced by 24 months. The minimum required test frequency for this circumstance is a 24 month interval.

The NRC staff finds that extending the test interval of Class 2 and 3 safety relief valves in 2-yr steps per interval with a maximum final interval of 10 years to be acceptable. Extending or reducing the test interval in small increments is a sensible approach in evaluating a component's performance over time. It will also help determine the best test interval for that component. The NRC staff finds that the licensee's proposed alternative to apply ASME OM Code Case OMN-24 provides an acceptable level of quality and safety.

4.0 CONCLUSION

As set forth above, the NRC staff finds that the proposed alternatives described in requests VRR-001 and VRR-005 provide an acceptable level of quality and safety for components listed in Tables 1 and 2. Accordingly, the NRC staff concludes that the licensee has adequately addressed all the regulatory requirements set forth in 10 CFR 50.55a(z)(1). Therefore, the NRC staff authorizes the proposed alternatives in VRR-001 and VRR-005 for the fourth 10-year IST interval at Fermi 2 which is currently scheduled to start on February 17, 2020, and end on February 16, 2030.

All other ASME OM Code requirements for which relief was not specifically requested and approved in the subject requests for relief remain applicable.

Principle Contributor: Michael Farnan, NRR

Date: October 3, 2019

SUBJECT: FERMI 2 - PROPOSED ALTERNATIVE TO THE REQUIRED EXAMINATION ASSOCIATED WITH VALVES EXAMINATION (EPID L-2019-LLR-0047 AND EPID L-2019-LLR-0050) DATED OCTOBER 3, 2019

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