

10 CFR 50.90  
10 CFR 50.91(a)(5)

October 4, 2019

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

James A. FitzPatrick Nuclear Power Plant  
Renewed Facility Operating License No. NPF-59  
NRC Docket No. 50-333

**SUBJECT:** Emergency License Amendment Request – One Time Extension to the TS 3.8.1 Action A.3 Completion Time for an Inoperable Offsite Source

Pursuant to 10 CFR 50.90, "Application for amendment of license, construction permit, or early site permit," Exelon Generation Company, LLC (Exelon) is requesting approval for proposed changes to the Technical Specifications (TS), Appendix A of Renewed Facility Operating License No. NPF-59 for James A. FitzPatrick Nuclear Power Plant (JAF). The proposed changes are being requested on an emergency basis pursuant to 10 CFR 50.91(a)(5).

The proposed change modifies the completion time for JAF TS 3.8.1, "AC Sources-Operating," Action A.3 from 7 days to 21 days.

TS 3.8.1 was entered at 0715 on October 3, 2019 due to a rapidly degrading trend in total dissolved combustible gas concentration (TDCG) in the 71T-3 Reserve Station Service Transformer (RSST) that is one of the station's qualified offsite circuits. The total time to allow for troubleshooting and repairs and, if necessary, transition to and complete a transformer replacement is twenty-one (21) days, including post-maintenance testing. This results in the requested Completion Time ending at 0714 on October 24, 2019. Without approval of the extension, JAF will need to shutdown on October 10, 2019.

At this time, the most likely cause of the degrading trend is an overheating condition due to a high resistance mechanical connection internal to the transformer. A bounding schedule for a transformer replacement has been developed should discovery determine the extent of repairs warrant a complete replacement. The replacement transformer has limited functionality as compared to the existing transformer. It is desired to make every effort to repair the existing transformer prior to making the decision to replace the transformer.

This submittal was developed using the guidance provided in NUREG 0800 Standard Review Plan Branch Technical Position 8-8. Deviations from this guidance are documented in section 4.0 Technical Evaluation.

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Exelon has concluded that the proposed changes present no significant hazards consideration under the standards set forth in 10 CFR 50.92, "Issuance of amendments."

The proposed changes have been reviewed by the JAF Plant Operations Review Committee in accordance with the requirements of the Exelon Quality Assurance Program.

Attachment 1 provides the evaluation of the proposed changes and justification for the need for the emergency LAR per 10 CFR 50.91(a)(6). Attachment 2 provides a copy of the marked-up TS pages that reflect the proposed changes.

Exelon requests approval of this emergency LAR by October 9, 2019 to support the currently planned repairs and restoration of the offsite source to Operable status.

In accordance with 10 CFR 50.91, "Notice for public comment; State consultation," paragraph (b), Exelon is notifying the State of New York of this application for license amendment by transmitting a copy of this letter and its attachments to the designated State Official.

If you have any questions or require additional information, please contact Christian Williams at (610) 765-5729.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 4<sup>th</sup> day of October 2019.

Respectfully,

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David T. Gudger  
Acting Director, Licensing & Regulatory Affairs  
Exelon Generation Company, LLC

Attachments:   1. Evaluation of Proposed Changes  
                  2. Markup of Proposed Technical Specifications Pages  
                  3. List of Affected Surveillance Requirements  
                  4. Assessment of Equipment affected by Surveillance Suspension  
                  5. Summary of Normal and Enhanced Compensatory Measures

cc:   Regional Administrator – NRC Region I                               w/ attachments  
      NRC Senior Resident Inspector – JAF                               “  
      NRC Project Manager, NRR – JAF                                 “  
      A.L. Peterson, NYSERDA   “

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bcc:	Senior Vice President – Mid-Atlantic Operations	w/o attachments
	Site Vice President – JAF	“
	Vice President, Licensing and Regulated	“
	Plant Manager – JAF	“
	Director, Operations – JAF	“
	Director, Site Engineering – JAF	“
	Director, Site Training – JAF	“
	Manager, Regulatory Assurance – JAF	w/ attachments
	Senior Manager, Licensing, KSA	“
	Manager, Fuels, KSA	“
	C. Williams, KSA	“
	Commitment Coordinator – KSA	“
	Correspondence Control Desk – KSA	“

## **ATTACHMENT 1**

### **Emergency License Amendment Request**

**James A. FitzPatrick Nuclear Power Plant  
Renewed Facility Operating License No. DPR-59  
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### **EVALUATION OF PROPOSED CHANGES**

**Subject: Emergency License Amendment Request – One Time Extension to the TS 3.8.1  
Action A.3 Completion Time for an Inoperable Offsite Source**

#### **1.0 SUMMARY DESCRIPTION**

#### **2.0 DETAILED DESCRIPTION**

#### **3.0 TECHNICAL EVALUATION**

#### **4.0 REGULATORY EVALUATION**

##### **4.1 Applicable Regulatory Requirements/Criteria**

##### **4.2 Precedent**

##### **4.3 No Significant Hazards Consideration**

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## Evaluation of Proposed Changes

### 1.0 SUMMARY DESCRIPTION

Pursuant to 10 CFR 50.90, "Application for amendment of license, construction permit, or early site permit," Exelon Generation Company, LLC (Exelon) is requesting approval for proposed changes to the Technical Specifications (TS), Appendix A of Renewed Facility Operating License No. NPF-59 for James A. FitzPatrick Nuclear Power Plant (JAF).

The proposed changes are being requested on an emergency basis pursuant to 10 CFR 50.91(a)(5). The reason that this License Amendment Request (LAR) is being submitted on an emergency basis and the justification why this situation could not be avoided is further discussed in Section 2 below.

The proposed change provides for a one-time modification of the completion time for JAF TS 3.8.1, "AC Sources-Operating," Action A.3 from 7 days to 21 days. This one-time extension is requested to facilitate repair and, if necessary, replacement of the 71T-3 transformer. The change also includes a request for a one-time suspension of the affected surveillances associated with protected equipment.

Exelon requests approval of this emergency LAR by October 9, 2019 to support the currently planned repairs and restoration of the offsite source to Operable status.

### 2.0 DETAILED DESCRIPTION

The JAF Reserve Station Service Transformers 71T-2 and 71T-3 are the preferred independent offsite power sources to the redundant emergency buses 10600 and 10500 respectively. Each Reserve Station Service Transformer (RSST) is fed from the cross-tied 115 KV power lines Lighthouse Hill Line #3 and Nine Mile Point Line #4. Each of these offsite 115KV sources are capable of providing power to either division 1 or 2 busses through the respective RSST. The RSSTs are classified as non-safety related equipment. While connected to the emergency buses, each of these offsite AC sources must be capable of maintaining rated frequency and voltage and accepting required loads during an accident.

Loss or degradation of normal AC power at the 4 KV level results in an automatic fast transfer or automatic residual transfer to the offsite AC power sources through the RSSTs 71T-2 and 71T-3. These transformers contain an On-Load Tap Changer to maintain the 4KV Bus voltages under various analyzed scenarios.

Upon loss of offsite power or failure of an RSST, the emergency bus undervoltage signal will start the Emergency Diesel Generators (EDGs) and the redundant EDG subsystems would automatically energize their respective emergency buses. Each of the EDGs have a continuous rating of 2600 kW and each of the diesel engines have a continuous brake horsepower rating of 3600 hp. Each diesel generator unit has an independent fuel oil system capable of providing fuel for seven (7) days of continuous operations.

The proposed change addresses a condition related to one of JAF's two offsite AC power sources. On 9/27/2019, it was identified that one of the Reserve Station Service Transformers, 71T-3, was exhibiting elevated Total Dissolved Combustible Gas levels.

## Evaluation of Proposed Changes

Both the installed Kelman Gas Analyzer and laboratory analysis of transformer oil samples confirmed the elevated TDCG levels were rising. Between September 27 and October 2, this trend rapidly degraded requiring the transformer to be removed from service and subsequently entry into JAF TS LCO 3.8.1 Required Action A.3. The required Completion Time to restore the offsite circuit to OPERABLE is 7 days.

Implementation of this one-time TS change will support the expected duration of 21 days to replace the failed RSST 71T-3.

### Description of Events

The 71T-3 Reserve Station Service Transformer is used for outage and accident scenarios to supply power to safety related loads. This can feed the 10100, 10300, and 10500 bus. If this transformer were to fail, while loaded the 'A' and 'C' EDGs would start on loss of offsite power.

On 09/27/2019, the 71T-3 Reserve Station Service Transformer's Kelman Gas Analyzer indicated abnormal gas parameters. This is captured in the site Corrective Action Program under condition report (IR) 04282868. Subsequent to feedback received from the vendor, external temperatures on 71T-3 were obtained using an FLIR camera for comparison to the external temperatures on the opposite transformer, 71T-2. No obvious difference in temperatures were noted between the two transformers and no apparent thermal abnormalities existed.

An oil sample was taken on 9/27/2019 and analyzed on 9/28/2019 which confirmed an elevated TDCG level of 615 ppm, which is within the IEEE C57.104 Standards for Condition 1 TDCG parameters of less than or equal to 720 ppm. For comparison, TDCG in June of 2019 was 46 ppm. Over several hours during the evening of 10/2/2019 and into the morning of 10/3/2019, TDCG rate of change increased rapidly and reached a peak of 2900 ppm. Based on the increased rate of change of the TDCG concentration, the transformer was required to be removed from service as OPERABILITY could no longer be assured. Operators entered LCO 3.8.1 at 0715 on 10/3/2019.

### Reason the Amendment is Requested on an Emergency Basis

JAF entered TS LCO 3.8.1 Action Statement A.3 at 0715 in October 3, 2019 due to a rapidly degrading trend which called into question the OPERABILITY of one of the credited offsite circuits. The completion time of 7 days requires that JAF shut down at 0714 on October 10, 2019. The Station does not have a ready spare to complete a replacement and thus initial restoration efforts are focused on fixing the installed transformer. In the event that these efforts are unsuccessful, restoration of the offsite circuit will require replacing the 71T-3 RSST.

This change is needed sooner than can be issued under exigent circumstances and this license amendment request is considered timely considering the unplanned and rapidly degrading nature of the event.

### Reason Emergency Situation Has Occurred

## Evaluation of Proposed Changes

The rapidly degrading TDCG concentration resulted in the INOPERABILITY of the 71T-3 RTTS which required entry in the LCO. The station began developing a repair and replacement plan as well as an Exigent TS Amendment as soon as the initial trend was identified however the trend rapidly degraded driving entry into the LCO prior to finalizing preparations for replacement.

JAF does not have a ready replacement of the 71T-3 RSST and in order to replace the 71T-3 RSST corrective maintenance is required on the available transformer. Based on the vintage of the spare transformer some important replacement components were not yet available and thus, the work to replace the transformer could not begin.

### Reason the Situation Could Not Have Been Avoided

This transformer has been in service since 2012. There has been no indication during testing or maintenance to indicate that a degrading gas trend would occur. Gas trending has been identified as a leading performance monitoring predictor of transformer failure.

### Current TS:

Technical Specification (TS) Limiting Condition for Operation (LCO) 3.8.1 requires two (2) qualified circuits between the offsite transmission network and the plant Class 1E electrical power distribution system and two (2) emergency diesel generator (EDG) subsystems. Action Statement A.3 requires that if an offsite source is lost, it shall be returned to service within seven (7) days AND 21 days from discovery of failure to meet LCO.

### Proposed TS Changes:

Exelon is requesting a one-time extension of the A.3 Required Action to restore the offsite source from seven (7) days AND 21 days from discovery of failure to meet LCO to fourteen (14) days AND 21 days from failure to meet LCO. This will be reflected as a footnote to TS LCO 3.8.1 A.3 Required Action.

The proposed footnote will read as follows:

*“\* For the Division 1 offsite circuit only, the Completion Time that the subsystem can be inoperable as specified by Required Action A.3 may be extended beyond 7 days to 21 days to support repair and restoration of 71T-3 RSST. This extension is allowed only when Compensatory Measures described in attachment 5 of License Amendment Requested Dated October 4, 2019 and reviewed and approved by the NRC are in place. Upon completion of the repair and restoration, this footnote is no longer applicable and will expire at 0714 on October 24, 2019”*

In addition, affected Surveillance Requirements (SRs) associated with other in-service but protected equipment are requested to be suspended until completion of the required repairs. The specific surveillances as well as an assessment of the

## Evaluation of Proposed Changes

equipment is documented in attachments 3 and 4. The affected SRs will be annotated by a footnote as follows:

*“\*\*Following return to service of the 71T-3 Reserve Station Service Transformer, the past due Surveillances will be completed before the end of the next available Divisional window.”*

### 3.0 TECHNICAL EVALUATION

The AC Sources for the plant Class 1E AC Electrical Power Distribution System consist of the Main Generator (normal), 115 kV transmission network (reserve), 345 kV transmission network (backfeed, which is only available with the main generator offline and the links removed), and emergency diesel generators (EDGs) A, B, C, and D (onsite). As required by JAFNPP design criteria, the design of the AC electrical power system provides independence and redundancy to ensure an available source of power to the Engineered Safeguards systems.

The offsite power source consists of two qualified circuits between the transmission network and the plant class 1E distribution system. 71T-3, “Reserve Station Service Transformer T3” is a non-safety-related element of one of these circuits which allows connection of either incoming 115 kV transmission line with the safety-related 10500 4 kV emergency bus. The 10500 bus is one of two emergency buses, either of which will power all equipment required for safe shutdown of the plant or mitigation of an accident up to and including the design basis loss of coolant accident. The lines connecting the RSSTs to the 115kV transmission lines are arranged so that a failure of either line does not result in the loss of the other line. If the offsite sources were providing power to the emergency busses and were to fail, the EDG subsystems would automatically energize their respective buses. A qualified offsite circuit consists of all breakers, transformers, switches, interrupting devices, cabling, and controls required to transmit power from the 115-kV transmission network source to the plant Class 1E emergency bus or buses.

Upon loss of offsite power or failure of an RSST, the emergency bus undervoltage signal will start the Emergency Diesel Generators (EDGs) and the redundant EDG subsystems would automatically energize their respective emergency buses. Installation of the replacement transformer meets Technical Specification 3.3.8.1 Loss of Power (LOP) Instrumentation and does not affect the ability of the EDG to supply the emergency buses.

With 71T-3 out of service for maintenance, redundancy of the emergency power system is reduced, and compliance with the intent of General Design Criteria requiring demonstration of the ability to maintain certain safety functions solely with offsite power and accommodating a single failure of safety-related equipment is not assured.

The limiting analyzed Loss of Coolant Accident for JAF is a double-ended guillotine break of a Reactor Water Recirculation system suction line with a passive failure of a Station Battery (Design Basis Accident Loss of Coolant Accident, DBA LOCA). For a DBA LOCA with only offsite power available through the remaining transformer, 71T-2, “Reserve Station Service Transformer T2,” the LOCA analysis is dependent on the full complement of equipment served by the 10600 bus. Therefore, the intent of GDCs which include both



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a power source dependence (offsite or onsite) and accommodation of single failure are not satisfied. This configuration exists any time that condition A or B of LCO 3.8.1 is in effect. With these conditions, a single failure of the other offsite circuit or the other EDG subsystem results in an inability to satisfy the GDC requirement that certain functions be maintained by the offsite power source acting alone or the onsite power source acting alone. The requirements for electric power sources within these criteria are independent of the requirement for single-failure. Although the GDC intent are not met, there is significant redundancy in the plant design. With 71T-3 out of service, the 10500 bus may be supplied by the pair of 93EDG-A and 93EDG-C and the 10600 bus may be supplied by either the pair of 93EDG-B and 93EDG-D or by either offsite 115kV source through 71T-2.

For an event other than a LOCA, there is additional redundancy since only a single Residual Heat Removal (RHR) pump is required for Reactor Pressure Vessel (RPV) injection after the vessel is depressurized and a single RHR Service Water pump required to transfer decay heat to the Ultimate Heat Sink as a limiting case with a substantial reduction in loading of the emergency buses and manual, rather than automatic sequencing of loads. In this case any of the four EDGs may supply the loads necessary for RPV injection and decay heat removal along with associated supporting system loads (cooling for safety related pumps and Standby Gas Treatment system operation to control Secondary Containment parameters). Prior to RPV depressurization, the Reactor Core Isolation Cooling (RCIC) system or the High Pressure Core Injection system may be used for RPV water level control, and RHR for decay heat removal as heat from the fuel is transferred to the suppression pool by the HPCI or RCIC exhaust and operation of Main Steam Safety Relief Valves (SRVs).

With the plant in power operation, electrical loads are normally supplied from the Main Generator through 71T-4, "Normal Station Service Transformer T4." In the event of plant shutdown with 71T-3 out of service, loads will be manually or automatically transferred to 71T-2, and if the transfer fails, select loads will be placed on the EDGs. A similar sequence occurs for a LOCA, except in this instance, the EDGs automatically start on the LOCA signal in anticipation of being loaded if the bus transfer to the reserve transformers fails. With the plant is out of service and 71T-3 de-energized, only half of the normal buses are energized (the 10100 and 10300 buses are powered from 71T-3 and will also be out of service). While no manual or automatic transfer to offsite power is required since available electrical buses will already be shifted to an offsite supply through 71T-2, the emergency power system will be in an abnormal lineup. In this case, the 10500 bus must either be supplied by the associated EDGs or maintained de-energized. If energized by the EDGs, safety-related 10500 bus loads would require operation to ensure reliable engine operation. This abnormal operating condition may be precluded by maintaining the plant on-line with power supplied through 71T-4 during the period that 71T-3 is maintained.

Plant response to a Station Blackout (SBO) is not significantly affected by removal of 71T-3 from service. JAF does not credit any offsite power source or the EDGs for maintaining plant safety during its four-hour coping time. The only effect is the number of potential sources of AC power available at the end of the coping period. With 71T-3 out of service, 71T-2 is required to restore AC power from either of the 115 kV lines serving the

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station. There is no impact on any of the four EDGs that may be available to restore power to required safe shutdown loads. If the SBO was caused by a fault in 71T-2, restoration of an EDG is required to restore power to the station. The EDGs and their supporting equipment will be protected during the extended completion time, further assuring their availability to mitigate this event.

A completion time of 14 days to restore 71T-3 to service following maintenance is analogous to the currently permitted completion time for restoration of one pair of EDGs (TS 3.8.1 Required Action B.4) with the exceptions that the reserve transformer is not a safety-related component and power from the transformer is passed through an additional bus (10300) prior to reaching the emergency bus and thus marginally less resilient.

### Compliance with NUREG 0800 Standard Review Plant, Branch Technical Position:

NUREG-0800, "Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants: LWR Edition," Branch Technical Position (BTP) 8-8, "Onsite (Emergency Diesel Generators) and Offsite Power Sources Allowed Outage Time Extensions," specifically discusses the DID aspects for onsite power sources from a deterministic perspective for proposed Allowed Outage Time (AOT) or Completion Time extensions. No changes are being proposed to the current AOTs for the onsite DGs. The following is a list of critical BTP 8-8 guidance and an explanation of how JAF complies with the guidance criteria, with the plant configuration described above:

- a) *The supplemental source must have the capacity to bring a unit to safe shutdown (cold shutdown) in case of a loss of offsite power (LOOP) concurrent with a single failure during plant operation (Mode 1).*

JAF Does not have a credited Alternate AC Source. Defense in Depth is discussed in Section 4.

- b) *The permanent or temporary power source can be either a diesel generator, gas or combustion turbine, or power from nearby hydro units. This source can be credited as a supplemental source, that can be substituted for an inoperable EDG during the period of extended AOT in the event of a LOOP, provided the risk-informed and deterministic evaluation supports the proposed AOT and the power source has enough capacity to carry all LOOP loads to bring the unit to a cold shutdown.*

JAF Does not have a credited Alternate AC Source. Defense in Depth is discussed in Section 4.

- c) *Multi-unit sites that have installed a single AAC power source for SBO cannot substitute it for the inoperable diesel when requesting AOT extensions unless the AAC source has enough capacity to carry all LOOP loads to bring the unit to a cold shutdown as a substitute for the EDG in an extended AOT and carry all SBO loads for the unit that has an SBO event without any load shedding.*

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JAF Does not have a credited Alternate AC Source. Defense in Depth is discussed in Section 4.

- d) *For plants using Alternate Alternating Current (AAC) or supplemental power sources discussed above, the time to make the AAC or supplemental power source available, including accomplishing the cross-connection, should be approximately one hour to enable restoration of battery chargers and control reactor coolant system inventory.*

JAF Does not have a credited Alternate AC Source. Defense in Depth is discussed in Section 4.

- e) *The availability of AAC or supplemental power source should be verified within the last 30 days before entering extended AOT by operating or bringing the power source to its rated voltage and frequency for 5 minutes and ensuring all its auxiliary support systems are available or operational.*

JAF Does not have a credited Alternate AC Source. Defense in Depth is discussed in Section 4.

- e) *To support the one-hour time for making this power source available, plants must assess their ability to cope with loss of all AC power for one hour independent of an AAC power source.*

JAF Does not have a credited Alternate AC Source. Defense in Depth is discussed in Section 4.

- f) *The plant should have formal engineering calculations for equipment sizing and protection and have approved procedures for connecting the AAC or supplemental power sources to the safety buses.*

JAF Does not have a credited Alternate AC Source. Defense in Depth is discussed in Section 4.

- h) *The EDG or offsite power AOT should be limited to 14 days to perform maintenance activities. The licensee must provide justification for the duration of the requested AOT (actual hours plus margin based on plant-specific past operating experience).*

JAF is requesting a temporary one-time 21-day Completion Time period. Reference Attachment 6 of this LAR for a schedule of the major milestones associated with this out of service window. It is estimated that up to 21 days is required to complete preparation of the spare transformer and implement the replacement should corrective actions prove unsuccessful. The preferred resolution is to restore the installed transformer to service based on the age and limited functionality of the replacement transformer. The duration of the requested 21 days Completion Time period is justified.

### Evaluation of Proposed Changes

- i) *The Tech Specs (TS) must contain Required Actions and Completion Times to verify that the supplemental AC source is available before entering extended AOT.*

JAF Does not have a credited Alternate AC Source. Defense in Depth is discussed in Section 4.

- j) *The availability of the AAC or supplemental power source shall be checked every 8-12 hours (once per shift).*

JAF Does not have a credited Alternate AC Source. Defense in Depth is discussed in Section 4.

- k) *The extended AOT will be used no more than once in a 24-month period (or refueling interval) on a per diesel basis to perform EDG maintenance activities, or any major maintenance on offsite power transformer or bus.*

The planned one-time extended 21-day Completion Time will be used once to support replacement of 71T-3 Transformer out-of-service window.

- l) *The preplanned maintenance will not be scheduled if severe weather conditions are anticipated.*

Replacement of the 71T-3 Transformer cannot be preplanned due to the emergent nature of the gassing event.

In the event of severe weather, including tornado/high wind events, all work associated with the equipment impacted by the changes proposed in the LAR will be suspended and the station procedures for High Risk Evolutions during severe weather will be used to control work processes.

- m) *The system load dispatcher will be contacted once per day to ensure no significant grid perturbations (high grid loading unable to withstand a single contingency of line or generation outage) are expected during the extended AOT.*

JAF Operations has notified the grid operator to request to restrict maintenance and switching operations on the following lines to emergency operations only:

- 115kV Lighthouse Hill Line #3
- 115kV Nine Mile Point Lines #1 and #4
- 345kV lines #1 and #10

Additionally, the grid operator (Load Dispatcher) will be contacted once per day during the extended 21-day Completion Time period to ensure no significant grid disturbances are expected during the extended Completion Time period.

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- n) *Component testing or maintenance of safety systems and important non-safety equipment in the offsite power systems that can increase the likelihood of a plant transient (unit trip) or LOOP will be avoided. In addition, no discretionary switchyard maintenance will be performed.*

JAF will not conduct any discretionary testing or maintenance, which can increase the likelihood of a plant transient (unit trip) or LOOP, on safety systems and important non-safety equipment in the offsite power systems while in the extended 21-day Completion Time period.

In addition, no discretionary switchyard maintenance will be performed on protected equipment. Equipment will be protected in accordance with procedure OP-AA-108- 117, "Protected Equipment Program."

- o) *TS required systems, subsystems, trains, components, and devices that depend on the remaining power sources will be verified to be operable and positive measures will be provided to preclude subsequent testing or maintenance activities on these systems, subsystems, trains, components, and devices.*

See response to requirement Item n above. The remaining operable offsite circuit and EDGs will be controlled as protected equipment. JAF will continue to operate the facility in accordance with approved technical specifications.

- p) *BWR Steam-driven emergency feedwater pump(s) (in the case of PWR units) and Reactor Core Isolation Cooling and High-Pressure Coolant injection systems (in case of BWR units) will be controlled as "protected equipment".*

JAF is a Boiling Water Reactor (BWR) unit. HPCI and RCIC pumps on the operating units will be controlled as protected equipment for the duration of the Completion Time period.

### Status of 71T-2, Reserve Station Service Transformer:

A review of all past, present and future Work Orders (WOs) associated with the 71T-2 RSST as listed in Passport was conducted. The results show that all WO's that were not Cancelled or Closed were either associated with installation of a Station Modification or a Preventive Maintenance Activity. These results support there are no outstanding Corrective Maintenance Work Orders to resolve a deficiency with 71T-2 and there is no adverse trend in prior maintenance history for 71T-2.

A review of the Corrective Action Program database was performed over the past 2 years and there were no conditions adverse to quality identified.

A review of PDS data for the 71T-2 Kelman Gas Analyzer was conducted and identified that there are no adverse trends. There have been no indications that are in alarm or alert range and all the oil-immersed gases are well below IEEE C57.104 standard levels of concern and are stable.

## Evaluation of Proposed Changes

Based upon the review of maintenance history, corrective action program and available trending there is reasonable assurance of the health of 71T-2.

### Summary of Surveillances affected:

During the extended period of the TS 3.8.1, Required Action A.3, there are ten (10) surveillance test procedures that would be required to be performed on protected equipment per the current frequency. Exelon is requesting that these surveillances be suspended during the extended period. Attachment 2 contains a markup of the TS Surveillance Requirement (SR) Pages, annotated with a note stating when the past due Surveillances will be completed.

A review of the test procedures was conducted, looking back at two (2) years of data. Several tests will use the provisions of TS SR 3.0.2 for applying 25% grace to schedule testing outside of the extended duration, when needed. A number of these surveillance tests do not affect the operability of the equipment during the performance of the testing. Other scheduled surveillance tests will require declaring the tested Structure, System, and Component (SSC) inoperable during performance of the tests. All of the surveillance tests required to be completed during this extended duration have applied the 25% grace period allowed by SR 3.0.2.

A list of the affected SRs is provided in Attachment 3.

A review of condition reports written in the past 24 months was performed to assess the overall health of the equipment affected by the suspended surveillances. This assessment is documented in Attachment 4.

### RISK INSIGHTS:

This license amendment request is not a risk-informed request and, therefore, a risk evaluation is not required. However, to provide additional information, EGC is providing risk insights related to the proposed change.

Although this technical analysis is based on a deterministic evaluation, a risk analysis was performed that demonstrated with reasonable assurance that the proposed TS changes are within the current risk acceptance guidelines in RG 1.177 for one-time changes with substantial margin. This ensures that the TS change meets the intent of the incremental conditional core damage probability (ICCDP) and incremental conditional large early release probability (ICLERP) acceptance guidelines of 1.0E-05 and 1.0E-06 established for compatibility with the ICCDP and ICLERP limits of RG 1.177, which is applicable for configuration changes that require normal work controls. This acceptance guideline requires compensatory measures be implemented during the extended CT, which are discussed below. The risk analysis was based on the ICCDP and ICLERPs for the unavailability of the 71T-3 Reserve Station Service Transformer, which represents the plant configuration during the repair and/or replacement of the transformer. No credit for additional proposed risk management actions (RMAs) was given in the risk analysis. All work will be performed within normal Work Control risk activities.

## Evaluation of Proposed Changes

The identification of the RMAs was derived from a detailed review of the results of the risk assessment. None of the RMAs were credited in the base risk analysis; the identified compensatory actions would further lessen the overall risk incurred during the extended periods. The additional compensatory actions that are outlined below provide additional assurance that the risk during the extended allowed outage time will be minimized.

### COMPENSATORY MEASURES:

A summary of normal and enhance compensatory measures is provided in Attachment 5. Normal compensatory measures are controlled and implemented under existing plant processes as required by 10 CFR 50.65 (a)(4).

The enhanced compensatory measures are being incorporated into Technical Specifications by reference via the footnote described in this submittal.

## **4.0 REGULATORY EVALUATION**

### **4.1 Applicable Regulatory Requirements/Criteria**

The proposed change has been evaluated to determine whether applicable regulations and requirements continue to be met. Exelon has determined that the proposed change does not require any exemptions or relief from regulatory requirements from following current applicable regulatory requirements, which were reviewed in making this determination:

#### 10 CFR 50.36, Technical Specifications:

10 CFR, Section 50.36, "Technical specifications," in which the Commission established its regulatory requirements related to the contents of the TS. Specifically, 10 CFR 50.36(c)(2) states, in part, "Limiting conditions for operation are the lowest functional capability or performance levels of equipment required for safe operation of the facility." The proposed change does not affect compliance with these regulations.

#### 10 CFR 50.63. Loss of all alternating current:

10 CFR 50.63 requires that light-water-cooled nuclear power plants licensed to operate be able to withstand for a specified duration and recover from an SBO. The proposed changes do not alter JAFs duration (coping time) nor affect its compliance with the intent of 10 CFR 50.63.

#### 10 CFR 50.65, Requirements for monitoring the effectiveness of maintenance at nuclear power plants:

10 CFR 50.65 requires that performing maintenance activities (including but not limited to surveillance), the licensee shall assess and manage the increase in risk that may result from the proposed maintenance activities. The scope of the assessment may be limited

## Evaluation of Proposed Changes

to structured, systems, and components that a risk-informed evaluation process has shown to be significant to public health and safety. The proposed maintenance activities associated with this project will be assessed and the increased risk will be managed in accordance with 10 CFR 50.65 (a)(4). The proposed changes do not affect JAFs compliance with the intent of 10 CFR 50.65.

### 10 CFR 50 Appendix A:

The applicable 10 CFR Part 50, Appendix A, “General Design Criteria for Nuclear Power Plants,” was considered as follows:

### General Design Criterion 17 – Electric Power Systems:

GDC 17 requires an onsite electric power system and an offsite electric power system shall be provided to permit the functioning of structures, systems, and components important to safety. The safety function for each system (assuming the other system is not functioning) shall be to provide sufficient capacity and capability to assure that (1) specified acceptable fuel design limits and design conditions of the reactor coolant pressure boundary are not exceeded as a result of anticipated operational occurrences and (2) the core is cooled and containment integrity and other vital functions are maintained in the event of postulated accidents.

The onsite electric power supplies, including the batteries, and the onsite electric distribution system shall have sufficient independence, redundancy, and testability to perform their safety functions assuming a single failure.

Electric power from the transmission network to the onsite electric distribution system shall be supplied by two physically independent circuits (not necessarily on separate rights of way) designed and located so as to minimize to the extent practical the likelihood of their simultaneous failure under operating and postulated accident and environmental conditions. A switchyard common to both circuits is acceptable. Each of these circuits shall be designed to be available in sufficient time following a loss of all onsite alternating current power supplies and the other offsite electric power circuit, to assure that specified acceptable fuel design limits and design conditions of the reactor coolant pressure boundary are not exceeded. One of these circuits shall be designed to be available within a few seconds following a loss-of-coolant accident to assure that core cooling, containment integrity, and other vital safety functions are maintained. Provisions shall be included to minimize the probability of losing electric power from any of the remaining supplies as a result of, or coincident with, the loss of power generated by the nuclear power unit, the loss of power from the transmission network, or the loss of power from the onsite electric power supplies.

The impact of this change on the intent of GDC-17 is discussed in the Technical Evaluation of this document.

## 4.2 Precedent



## Evaluation of Proposed Changes

1. Letter from NRC to Palo Verde Nuclear Generating Station, Unit 3, Issuance of Amendment Regarding Revision to Technical Specification 3.8.1, "AC [Alternating Current] Sources – Operating" (Emergency Circumstances), dated December 23, 2016, (ADAMS Accession Number ML16358A676)
2. Brunswick Steam Electric Plant, Unit Nos. 1 and 2 Renewed Facility Operating License Nos. DPR-71 and DPR-62 Docket Nos. 50-325 and 50-324 Request for Emergency License Amendment – Technical Specification 3.8.1, AC Sources – Operating, One-Time Extension of Emergency Diesel Generator Completion Times and Suspension of Surveillance Requirements (ADAMS accession number ML17326B619)

### 4.3 No Significant Hazards Consideration

Exelon Generation Company, LLC (Exelon) requests a one-time change to the Completion Time for TS 3.8.1, Action A.3. The proposed change increases the Completion Time from 7 days to 14 days to allow for required repairs to the JAF 71T-3 Reserve Transformer.

Exelon has evaluated whether or not a significant hazards consideration is involved with the proposed amendment(s) by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of amendment," as discussed below:

- a. Does the proposed amendment involve a significant increase in the probability or consequences of an accident previously evaluated?

Response: No.

The proposed changes involve a one-time extension to the Completion Time for Technical Specification 3.8.1, Action.A.3 to allow necessary time to repair Reserve Station Service Transformer (RSST) 71T-3.

With 71T-3 out of service for non-elective maintenance as an initial condition, the only accident with a changed probability of occurrence is the Loss of Power to Auxiliaries. In this case, a single fault in the remaining RSST (71T-2) will result in a loss of offsite power (LOOP). The use of compensatory measures such as protecting 71T-2 and the 115 kV switchyard will preclude a significant increase in the probability of total loss of the offsite power source. The proposed amendment has no effect on the consequences of a LOOP, since the emergency diesel generators (EDG's) provide power to safety related equipment following a LOOP. The design and function of the EDG's are not affected by the proposed change.

The probability of other previously evaluated accidents is not affected, since initiation of these events is not dependent on changes in status of the electrical power supply (these are events such as positive reactivity insertion or breaks in the Reactor Coolant Pressure Boundary). As discussed previously, 71T-3 maintenance eliminates redundancy in the emergency power system when it is supplied from offsite sources. Sufficient capacity is available in the redundant 10600 bus supplied by 71T-2 to

## Evaluation of Proposed Changes

mitigate the consequences of all analyzed accidents.

- b. Does the proposed amendment create the possibility of a new or different kind of accident from any accident previously evaluated?

Response: No.

The proposed amendment involves maintenance of an electrical transformer that provides offsite power to safety-related equipment for accident mitigation. The proposed change does not alter the design, physical configuration, or mode of operation of any other plant structure, system, or component. No physical changes are being made to any other portion of the plant, so no new accident causal mechanisms are being introduced. The proposed change to the completion time for 71T-3 maintenance does not result in any new mechanisms that could initiate damage to the reactor or its principal safety barriers (i.e., fuel cladding, reactor coolant system, or primary containment).

Therefore, the proposed changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.

- c. Does the proposed amendment involve a significant reduction in a margin of safety?

Response: No.

The proposed amendment increasing the completion time for 71T-3 maintenance reduces the margin of safety for accident mitigation by removing redundancy in the offsite power source (i.e., only one emergency power bus may be supplied from offsite sources during this maintenance window). There is no reduction in margin available in each power supply since they are not altered by this change. As stated previously the reduction in margin is not significant due to compensatory measures that will be in place during the extended completion time.

Therefore, the proposed changes do not involve a significant reduction in a margin of safety.

## 4.4 Conclusions

Based upon the above, Exelon concludes that the proposed amendment presents no significant hazards consideration under the standards set forth in 10 CFR 50.92©, and, accordingly, a finding of “no significant hazards consideration” is justified.

## 5.0 ENVIRONMENTAL CONSIDERATION

A review has determined that the proposed amendment would change a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, or would change an inspection or surveillance requirement. However, the proposed amendment does not involve (i) a significant hazards

## Evaluation of Proposed Changes

consideration, (ii) a significant change in the types or significant increase in the amounts of any effluent that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed amendment meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22©(9). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed amendment.

## 6.0 REFERENCES

1. FE-1F "4160V One Line Diagram Bus 10300"
2. FE-1G "4160V One Line Diagram Bus 10400"
3. JAF Drawing 1.22-101 "Reserve Station Service Transformer Nameplate 71T-2 Drawing"
4. JAF Drawing 1.22-106 "Reserve Station Service Transformer Schematic Output Signals"
5. JAF Drawing 1.22-117 "Reserve Station Service Transformer Nameplate 71T-3 Drawing"
6. JAF Drawing 1.22-118 "Reserve Station Service Transformer Bill of Material Drawing"
7. Siemens Instruction Manual S838-0001 "Vendor Manual for JAF Reserve Station Service Transformers"
8. JAF Operating Procedure OP-44 "115kV System"
9. JAF Operating Procedure OP-46A "4160V and 600V Normal AC Power Distribution"
10. JAF Technical Specifications Bases
11. JAF Technical Specifications
12. IEEE C57.104 IEEE Guide for the Interpretation of Gases Generated in Oil-Immersed Transformers

**ATTACHMENT 2**

**Emergency License Amendment Request**

**James A. FitzPatrick Nuclear Power Plant  
Renewed Facility Operating License No. DPR-59  
NRC Docket No. 50-333**

**Emergency License Amendment Request – One Time Extension to the TS 3.8.1  
Action A.3 Completion Time for an Inoperable Offsite Source**

**Markup of Proposed Technical Specifications Pages**

**TS LCO Page**

3.8.1-2

**TS SR Pages**

3.3.5.1-7

3.4.7-2

3.4.8-1

3.5.1-3

3.5.1-4

3.5.1-5

3.5.1-6

3.5.2-5

3.5.2-6

3.5.3-2

3.6.1.3-8

3.6.1.9-2

3.6.2.1-3

3.6.2.3-2

3.7.1-2

3.7.2-4

3.8.1-5

3.8.1-6

3.8.3-2

3.8.3-3

3.8.4-3

3.8.5-2

3.8.6-2

3.9.7-2

3.9.8-2

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. (continued)	A.3 Restore offsite circuit to OPERABLE status.	7 days * <u>AND</u> 21 days from discovery of failure to meet LCO
B. One EDG subsystem inoperable.	B.1 Perform SR 3.8.1.1 for OPERABLE offsite circuit(s).  <u>AND</u> B.2 Declare required feature(s), supported by the inoperable EDG subsystem, inoperable when the redundant required feature(s) are inoperable.  <u>AND</u> B.3.1 Determine OPERABLE EDG subsystem is not inoperable due to common cause failure.  <u>OR</u> B.3.2 Perform SR 3.8.1.2 for OPERABLE EDG subsystem.  <u>AND</u>	1 hour <u>AND</u> Once per 8 hours thereafter  4 hours from discovery of Condition B concurrent with inoperability of redundant required feature(s)  24 hours  24 hours  (continued)

\* For the Division 1 offsite circuit only, the Completion Time that the subsystem can be inoperable as specified by Required Action A.3 may be extended beyond 7 days to 21 days to support repair and restoration of 71T-3 RSST. This extension is allowed only when Compensatory Measures described in attachment 5 of License Amendment Requested Dated October 4, 2019 and reviewed and approved by the NRC are in place. Upon completion of the repair and restoration, this footnote is no longer applicable and will expire at 0714 on October 24, 2019

**SURVEILLANCE REQUIREMENTS**

-----NOTES-----

1. Refer to Table 3.3.5.1-1 to determine which SRs apply for each ECCS Function.
  2. When a channel is placed in an inoperable status solely for performance of required Surveillances, entry into associated Conditions and Required Actions may be delayed as follows: (a) for up to 6 hours for Functions 3.c, 3.f, and 3.g; and (b) for up to 6 hours for Functions other than 3.c, 3.f, and 3.g provided the associated Function or the redundant Function maintains ECCS initiation capability.
- 

SURVEILLANCE		FREQUENCY
SR 3.3.5.1.1	Perform CHANNEL CHECK.	In accordance with the Surveillance Frequency Control Program
SR 3.3.5.1.2	Perform CHANNEL FUNCTIONAL TEST.	In accordance with the Surveillance Frequency Control Program
SR 3.3.5.1.3	Perform CHANNEL CALIBRATION.	In accordance with the Surveillance Frequency Control Program *
SR 3.3.5.1.4	Calibrate the trip units.	In accordance with the Surveillance Frequency Control Program
SR 3.3.5.1.5	Perform CHANNEL CALIBRATION.	In accordance with the Surveillance Frequency Control Program
SR 3.3.5.1.6	Perform LOGIC SYSTEM FUNCTIONAL TEST.	In accordance with the Surveillance Frequency Control Program *

\*Following return to service of 71T-3 Reserve Station Service Transformer, the past due Surveillances will be completed before the end of the next available Divisional Window

**SURVEILLANCE REQUIREMENTS**

SURVEILLANCE	FREQUENCY
<p>SR 3.4.7.1</p> <p>----- NOTE-----                      Not required to be met until 2 hours after reactor steam dome pressure is less than the RHR cut in permissive pressure.                      -----</p> <p>Verify each required RHR shutdown cooling subsystem manual, power operated, and automatic valve in the flow path that is not locked, sealed, or otherwise secured in position, is in the correct position, or can be aligned to the correct position.</p>	<p>In accordance with the Surveillance Frequency Control Program</p> <p>*</p>

\* Following return to service of 71T-3 Reserve Station Service Transformer, the past due Surveillances will be completed before the end of the next available Divisional Window

3.4 REACTOR COOLANT SYSTEM (RCS)

3.4.8 Residual Heat Removal (RHR) Shutdown Cooling System – Cold Shutdown

LCO 3.4.8 Two RHR shutdown cooling subsystems shall be OPERABLE.

----- NOTE -----  
One RHR shutdown cooling subsystem may be inoperable for up to 2 hours for the performance of Surveillances.  
-----

APPLICABILITY: MODE 4.

ACTIONS

----- NOTE -----  
Separate Condition entry is allowed for each shutdown cooling subsystem.  
-----

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or two RHR shutdown cooling subsystems inoperable.	A.1 Verify an alternate method of decay heat removal is available for each inoperable RHR shutdown cooling subsystem.	1 hour  AND  Once per 24 hours thereafter

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.4.8.1 Verify each RHR shutdown cooling subsystem manual, power operated, and automatic valve in the flow path that is not locked, sealed, or otherwise secured in position, is in the correct position, or can be aligned to the correct position.	In accordance with the Surveillance Frequency Control Program *

\* Following return to service of 71T-3 Reserve Station Service Transformer, the past due Surveillances will be completed before the end of the next available Divisional Window



ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>G. Required Action and associated Completion Time of Condition C, D, E, or F not met.</p> <p><u>OR</u></p> <p>Two or more required ADS valves inoperable.</p>	<p>G.1 Be in MODE 3.</p> <p><u>AND</u></p>	12 hours
	<p>G.2 Reduce reactor steam dome pressure to ≤ 150 psig.</p>	36 hours
<p>H. Two or more low pressure ECCS injection/spray subsystems inoperable for reasons other than Condition A.</p> <p><u>OR</u></p> <p>HPCI System and one or more required ADS valves inoperable.</p>	<p>H.1 Enter LCO 3.0.3.</p>	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
<p>SR 3.5.1.1 Verify, for each ECCS injection/spray subsystem, the piping is filled with water from the pump discharge valve to the injection valve.</p>	<p>In accordance with the Surveillance Frequency Control Program *</p>

(continued)

\* Following return to service of 71T-3 Reserve Station Service Transformer, the past due Surveillances will be completed before the end of the next available Divisional Window

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
<p>SR 3.5.1.2</p> <p>Verify each ECCS injection/spray subsystem manual, power operated, and automatic valve in the flow path, that is not locked, sealed, or otherwise secured in position, is in the correct position.</p>	<p>In accordance with the Surveillance Frequency Control Program *</p>
<p>SR 3.5.1.3</p> <p>Verify ADS pneumatic supply header pressure is <math>\geq 95</math> psig.</p>	<p>In accordance with the Surveillance Frequency Control Program</p>
<p>SR 3.5.1.4</p> <p>Verify the RHR System cross tie valves are closed and power is removed from the electrical valve operator.</p>	<p>In accordance with the Surveillance Frequency Control Program</p>
<p>SR 3.5.1.5</p> <p>Cycle open and closed each LPCI motor operated valve independent power supply battery charger AC input breaker and verify each LPCI inverter output voltage is <math>\geq 576</math> V and <math>\leq 624</math> V while supplying the respective bus.</p>	<p>In accordance with the Surveillance Frequency Control Program</p>

(continued)

\* Following return to service of 71T-3 Reserve Station Service Transformer, the past due Surveillances will be completed before the end of the next available Divisional Window

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY																
SR 3.5.1.6	<p>-----NOTE----- Not required to be performed if performed within the previous 31 days. -----</p> <p>Verify each recirculation pump discharge valve cycles through one complete cycle of full travel or is de-energized in the closed position.</p>	Once each startup prior to exceeding 25% RTP																
SR 3.5.1.7	<p>Verify the following ECCS pumps develop the specified flow rate against a system head corresponding to the specified reactor pressure above primary containment pressure.</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>SYSTEM</th> <th>FLOW RATE</th> <th>NO. OF PUMPS</th> <th>SYSTEM HEAD CORRESPONDING TO A REACTOR PRESSURE ABOVE PRIMARY CONTAINMENT PRESSURE OF</th> </tr> </thead> <tbody> <tr> <td>Core</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Spray</td> <td>≥ 4265 gpm</td> <td>1</td> <td>≥ 113 psi</td> </tr> <tr> <td>LPCI</td> <td>≥ 7700 gpm</td> <td>1</td> <td>≥ 20 psi</td> </tr> </tbody> </table>	SYSTEM	FLOW RATE	NO. OF PUMPS	SYSTEM HEAD CORRESPONDING TO A REACTOR PRESSURE ABOVE PRIMARY CONTAINMENT PRESSURE OF	Core				Spray	≥ 4265 gpm	1	≥ 113 psi	LPCI	≥ 7700 gpm	1	≥ 20 psi	<p>In accordance with the Inservice Testing Program</p> <p>*</p>
SYSTEM	FLOW RATE	NO. OF PUMPS	SYSTEM HEAD CORRESPONDING TO A REACTOR PRESSURE ABOVE PRIMARY CONTAINMENT PRESSURE OF															
Core																		
Spray	≥ 4265 gpm	1	≥ 113 psi															
LPCI	≥ 7700 gpm	1	≥ 20 psi															
SR 3.5.1.8	<p>-----NOTE----- Not required to be performed until 12 hours after reactor steam pressure and flow are adequate to perform the test. -----</p> <p>Verify, with reactor pressure ≤ 1040 psig and ≥ 970 psig, the HPCI pump can develop a flow rate ≥ 3400 gpm against a system head corresponding to reactor pressure.</p>	<p>In accordance with the Inservice Testing Program</p> <p>*</p>																

(continued)

\* Following return to service of 71T-3 Reserve Station Service Transformer, the past due Surveillances will be completed before the end of the next available Divisional Window

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
<p>SR 3.5.1.9</p> <p style="text-align: center;"><del>NOTE</del></p> <p>Not required to be performed until 12 hours after reactor steam pressure and flow are adequate to perform the test.</p> <hr/> <p>Verify, with reactor pressure <math>\leq 165</math> psig, the HPCI pump can develop a flow rate <math>\geq 3400</math> gpm against a system head corresponding to reactor pressure.</p>	<p>In accordance with the Surveillance Frequency Control Program *</p>
<p>SR 3.5.1.10</p> <p style="text-align: center;"><del>NOTE</del></p> <ol style="list-style-type: none"> <li>1. For the HPCI System, not required to be performed until 12 hours after reactor steam pressure and flow are adequate to perform the test.</li> <li>2. Vessel injection/spray may be excluded.</li> </ol> <hr/> <p>Verify each ECCS injection/spray subsystem actuates on an actual or simulated automatic initiation signal.</p>	<p>In accordance with the Surveillance Frequency Control Program</p>
<p>SR 3.5.1.11</p> <p style="text-align: center;"><del>NOTE</del></p> <p>Valve actuation may be excluded.</p> <hr/> <p>Verify the ADS actuates on an actual or simulated automatic initiation signal.</p>	<p>In accordance with the Surveillance Frequency Control Program</p>
<p>SR 3.5.1.12</p> <p>Verify each LPCI motor operated valve independent power supply inverter capacity is adequate to supply and maintain in OPERABLE status the required emergency loads for the design duty cycle.</p>	<p>In accordance with the Surveillance Frequency Control Program</p>

\* Following return to service of 71T-3 Reserve Station Service Transformer, the past due (continued)  
Surveillances will be completed before the end of the next available Divisional Window

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.5.2.3	<p>Verify, for a required Core Spray (CS) subsystem, the:</p> <p>a. Suppression pool water level is <math>\geq</math> 10.33 ft; or</p> <p>b. The water level in each condensate storage tank is <math>\geq</math> 324 inches</p>	In accordance with the Surveillance Frequency Control Program
SR 3.5.2.4	<p>Verify, for the required ECCS injection/spray subsystem, the piping is filled with water from the pump discharge valve to the injection valve.</p>	In accordance with the Surveillance Frequency Control Program *
SR 3.5.2.5	<p>Verify, for the required ECCS injection/spray subsystem, each manual, power operated, and automatic valve in the flow path, that is not locked, sealed or otherwise secured in position, is in the correct position.</p>	In accordance with the Surveillance Frequency Control Program *

(continued)

\* Following return to service of 71T-3 Reserve Station Service Transformer, the past due Surveillances will be completed before the end of the next available Divisional Window

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.5.2.6	Operate the required ECCS injection/spray subsystem through the recirculation line for $\geq 10$ minutes	In accordance with the Surveillance Frequency Control Program *
SR 3.5.2.7	Verify each valve credited for automatically isolating a penetration flow path actuates to the isolation position on an actual or simulated isolation signal.	In accordance with the Surveillance Frequency Control Program
SR 3.5.2.8	<p>-----NOTE-----  Vessel injection/spray may be excluded.  -----</p> <p>Verify the required ECCS injection/spray subsystem can be manually operated.</p>	In accordance with the Surveillance Frequency Control Program

\* Following return to service of 71T-3 Reserve Station Service Transformer, the past due Surveillances will be completed before the end of the next available Divisional Window

**SURVEILLANCE REQUIREMENTS**

SURVEILLANCE		FREQUENCY
SR 3.5.3.1	Verify the RCIC System piping is filled with water from the pump discharge valve to the injection valve.	In accordance with the Surveillance Frequency Control Program *
SR 3.5.3.2	Verify each RCIC System manual, power operated, and automatic valve in the flow path, that is not locked, sealed, or otherwise secured in position, is in the correct position.	In accordance with the Surveillance Frequency Control Program *
SR 3.5.3.3	<p>----- NOTE -----                      Not required to be performed until 12 hours after reactor steam pressure and flow are adequate to perform the test.                      -----</p> <p>Verify, with reactor pressure <math>\leq 1040</math> psig and <math>\geq 970</math> psig, the RCIC pump can develop a flow rate <math>\geq 400</math> gpm against a system head corresponding to reactor pressure.</p>	In accordance with the Surveillance Frequency Control Program
SR 3.5.3.4	<p>----- NOTE -----                      Not required to be performed until 12 hours after reactor steam pressure and flow are adequate to perform the test.                      -----</p> <p>Verify, with reactor pressure <math>\leq 165</math> psig, the RCIC pump can develop a flow rate <math>\geq 400</math> gpm against a system head corresponding to reactor pressure.</p>	In accordance with the Surveillance Frequency Control Program

(continued)

\* Following return to service of 71T-3 Reserve Station Service Transformer, the past due Surveillances will be completed before the end of the next available Divisional Window

**SURVEILLANCE REQUIREMENTS (continued)**

<b>SURVEILLANCE</b>		<b>FREQUENCY</b>
SR 3.6.1.3.3	<p style="text-align: center;"><del>NOTE</del></p> <ol style="list-style-type: none"> <li>1. Valves and blind flanges in high radiation areas may be verified by use of administrative means.</li> <li>2. Not required to be met for PCIVs that are open under administrative controls.</li> </ol> <hr/> <p>Verify each primary containment manual isolation valve and blind flange that is located inside primary containment and not locked, sealed or otherwise secured and is required to be closed during accident conditions is closed.</p>	<p>Prior to entering MODE 2 or 3 from MODE 4 if primary containment was de-inerted while in MODE 4, if not performed within the previous 92 days</p>
SR 3.6.1.3.4	<p>Verify continuity of the traversing incore probe (TIP) shear isolation valve explosive charge.</p>	<p>In accordance with the Surveillance Frequency Control Program</p>
SR 3.6.1.3.5	<p>Verify the isolation time of each power operated, automatic PCIV, except for MSIVs, is within limits.</p>	<p>In accordance with the Inservice Testing Program *</p>
SR 3.6.1.3.6	<p>Verify the isolation time of each MSIV is <math>\geq 3</math> seconds and <math>\leq 5</math> seconds.</p>	<p>In accordance with the Inservice Testing Program</p>

(continued)

\* Following return to service of 71T-3 Reserve Station Service Transformer, the past due Surveillances will be completed before the end of the next available Divisional Window



**SURVEILLANCE REQUIREMENTS**

SURVEILLANCE		FREQUENCY
SR 3.6.1.9.1	Verify each RHR containment spray subsystem manual, power operated, and automatic valve in the flow path that is not locked, sealed, or otherwise secured in position, is in the correct position or can be aligned to the correct position.	In accordance with the Surveillance Frequency Control Program *
SR 3.6.1.9.2	Verify each required RHR pump develops a flow rate of $\geq 7750$ gpm through the associated heat exchanger while operating in the suppression pool cooling mode.	In accordance with the Inservice Testing Program *
SR 3.6.1.9.3	Verify each spray nozzle is unobstructed.	In accordance with the Surveillance Frequency Control Program

\* Following return to service of 71T-3 Reserve Station Service Transformer, the past due Surveillances will be completed before the end of the next available Divisional Window

Suppression Pool Average Temperature  
3.6.2.1

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
E. Suppression pool average temperature > 120°F.	E.1      Depressurize the reactor vessel to < 200 psig.	12 hours
	<u>AND</u>	
	E.2      Be in MODE 4.	36 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.6.2.1.1      Verify suppression pool average temperature is within the applicable limits.	In accordance with the Surveillance Frequency Control Program *  <u>AND</u>  5 minutes when performing testing that adds heat to the suppression pool

\* Following return to service of 71T-3 Reserve Station Service Transformer, the past due Surveillances will be completed before the end of the next available Divisional Window

**SURVEILLANCE REQUIREMENTS**

SURVEILLANCE		FREQUENCY
SR 3.6.2.3.1	Verify each RHR suppression pool cooling subsystem manual, power operated, and automatic valve in the flow path that is not locked, sealed, or otherwise secured in position, is in the correct position or can be aligned to the correct position.	In accordance with the Surveillance Frequency Control Program *
SR 3.6.2.3.2	Verify each required RHR pump develops a flow rate $\geq 7700$ gpm through the associated heat exchanger while operating in the suppression pool cooling mode.	In accordance with the Inservice Testing Program *

\* Following return to service of 71T-3 Reserve Station Service Transformer, the past due Surveillances will be completed before the end of the next available Divisional Window

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. Both RHRSW subsystems inoperable for reasons other than Condition B.	<hr/> NOTE <hr/> Enter applicable Conditions and Required Actions of LCO 3.4.7 for RHR shutdown cooling made inoperable by RHRSW System. <hr/>	8 hours
	D.1 Restore one RHRSW subsystem to OPERABLE status.	
E. Required Action and associated Completion Time not met.	E.1 Be in MODE 3.	12 hours
	AND E.2 Be in MODE 4.	36 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.7.1.1 Verify each RHRSW manual, power operated, and automatic valve in the flow path, that is not locked, sealed, or otherwise secured in position, is in the correct position or can be aligned to the correct position.	In accordance with the Surveillance Frequency Control Program *

\* Following return to service of 71T-3 Reserve Station Service Transformer, the past due Surveillances will be completed before the end of the next available Divisional Window

**SURVEILLANCE REQUIREMENTS (continued)**

SURVEILLANCE		FREQUENCY
SR 3.7.2.6	<p style="text-align: center;"><u>NOTE</u></p> <p>Not required to be met if UHS temperature is &gt; 37°F.</p> <hr/> <p>Verify the required deicing heater resistance to ground is within limits for each division of deicing heaters.</p>	<p>In accordance with the Surveillance Frequency Control Program</p>
SR 3.7.2.7	<p>Verify each ESW subsystem actuates on an actual or simulated initiation signal.</p>	<p>In accordance with the Surveillance Frequency Control Program *</p>

\* Following return to service of 71T-3 Reserve Station Service Transformer, the past due Surveillances will be completed before the end of the next available Divisional Window

**SURVEILLANCE REQUIREMENTS (continued)**

SURVEILLANCE	FREQUENCY
<p>SR 3.8.1.2</p> <p>----- NOTE----- All EDG subsystem starts may be preceded by an engine prelube period and followed by a warmup period prior to loading. -----</p> <p>Verify each EDG subsystem starts from standby conditions, force parallels, and achieves:</p> <ul style="list-style-type: none"> <li>a. In <math>\leq 10</math> seconds, voltage <math>\geq 3900</math> V and frequency <math>\geq 58.8</math> Hz; and</li> <li>b. Steady state voltage <math>\geq 3900</math> V and <math>\leq 4400</math> V and frequency <math>\geq 58.8</math> Hz and <math>\leq 61.2</math> Hz.</li> </ul>	<p>In accordance with the Surveillance Frequency Control Program *</p>
<p>SR 3.8.1.3</p> <p>----- NOTE-----</p> <ul style="list-style-type: none"> <li>1. EDG loadings may include gradual loading as recommended by the manufacturer.</li> <li>2. Momentary transients outside the load range do not invalidate this test.</li> <li>3. This Surveillance shall be conducted on only one EDG subsystem at a time.</li> <li>4. This SR shall be preceded by and immediately follow, without shutdown, a successful performance of SR 3.8.1.2.</li> </ul> <p>-----</p> <p>Verify each EDG subsystem is paralleled with normal, reserve, or backfeed power and each EDG is loaded and operates for <math>\geq 60</math> minutes at a load <math>\geq 2340</math> kW and <math>\leq 2600</math> kW.</p>	<p>In accordance with the Surveillance Frequency Control Program *</p>

(continued)

\* Following return to service of 71T-3 Reserve Station Service Transformer, the past due Surveillances will be completed before the end of the next available Divisional Window

**SURVEILLANCE REQUIREMENTS (continued)**

SURVEILLANCE		FREQUENCY
SR 3.8.1.4	Verify each day tank contains $\geq 327$ gal of fuel oil.	In accordance with the Surveillance Frequency Control Program *
SR 3.8.1.5	Check for and remove accumulated water from each day tank.	In accordance with the Surveillance Frequency Control Program *
SR 3.8.1.6	Verify that each EDG fuel oil transfer system operates to automatically transfer fuel oil from its storage tank to the associated day tank.	In accordance with the Surveillance Frequency Control Program *
SR 3.8.1.7	<p>----- NOTE-----</p> <p>Only required to be met for each offsite circuit that is not energizing its respective 4.16 kV emergency bus.</p> <p>-----</p> <p>Verify automatic and manual transfer of plant power supply from the normal station service transformer to each offsite circuit.</p>	In accordance with the Surveillance Frequency Control Program
SR 3.8.1.8	<p>----- NOTE-----</p> <p>If performed with the EDG subsystem paralleled with normal, reserve, or backfeed power, it shall be performed within the power factor limit. However, if grid conditions do not permit, the power factor limit is not required to be met. Under this condition, the power factor shall be maintained as close to the limit as practicable.</p> <p>-----</p> <p>Verify each EDG subsystem rejects a load greater than or equal to its associated single largest post-accident load, and following load rejection, the frequency is <math>\leq 66.75</math> Hz.</p>	In accordance with the Surveillance Frequency Control Program

(continued)

\* Following return to service of 71T-3 Reserve Station Service Transformer, the past due Surveillances will be completed before the end of the next available Divisional Window

**ACTIONS (continued)**

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. One or more EDGs with new fuel oil properties not within limits.	D.1 Restore stored fuel oil properties to within limit.	30 days
E. One or more EDGs with required starting air receiver pressure < 150 psig and ≥ 110 psig.	E.1 Restore required starting air receiver pressure to within limits.	48 hours
F. Requires Action and associated Completion Time of Condition A, B, C, D, or E not met.  <u>OR</u>  One or more EDGs with diesel fuel oil, lube oil, or starting air subsystem not within limits for reasons other than condition A, B, C, D, or E.	F.1 Declare associated EDG inoperable.	Immediately

**SURVEILLANCE REQUIREMENTS**

SURVEILLANCE	FREQUENCY
SR 3.8.3.1 Verify each fuel oil storage tank contains ≥ a 7 day supply of fuel.	In accordance with the Surveillance Frequency Control Program *

(continued)

\* Following return to service of 71T-3 Reserve Station Service Transformer, the past due Surveillances will be completed before the end of the next available Divisional Window



**SURVEILLANCE REQUIREMENTS (continued)**

SURVEILLANCE		FREQUENCY
SR 3.8.3.2	Verify lube oil inventory of each EDG is $\geq$ a 7 day supply.	In accordance with the Surveillance Frequency Control Program *
SR 3.8.3.3	Verify fuel oil properties of new and stored fuel oil are tested in accordance with, and maintained within the limits of, the diesel Fuel Oil Testing Program.	In accordance with the Diesel Fuel Oil Testing Program
SR 3.8.3.4	Verify Each EDG required air start receiver pressure is $\geq$ 150 psig.	In accordance with the Surveillance Frequency Control Program *
SR 3.8.3.5	Check for and remove accumulated water from each fuel oil storage tank.	In accordance with the Surveillance Frequency Control Program

\* Following return to service of 71T-3 Reserve Station Service Transformer, the past due Surveillances will be completed before the end of the next available Divisional Window

**SURVEILLANCE REQUIREMENTS**

SURVEILLANCE		FREQUENCY
SR 3.8.4.1	<p>Verify battery terminal voltage on float charge is:</p> <p>a. <math>\geq 127.8</math> VDC for 125 VDC batteries, and</p> <p>b. <math>\geq 396.2</math> VDC for 419 VDC LPCI MOV independent power supply batteries.</p>	In accordance with the Surveillance Frequency Control Program *
SR 3.8.4.2	<p>Verify each 125 VDC battery charger supplies <math>\geq 270</math> amps at <math>\geq 128</math> VDC for <math>\geq 4</math> hours.</p> <p><u>OR</u></p> <p>Verify each 125 VDC battery charger can recharge the battery to the fully charged state within 24 hours while supplying the largest combined demands of the various continuous steady state loads, after a battery discharge to the bounding design basis event discharge state.</p>	In accordance with the Surveillance Frequency Control Program *
SR 3.8.4.3	<p>----- NOTE -----</p> <p>This Surveillance shall not normally be performed in MODE 1, 2, or 3 for the 125 VDC batteries. However, portions of the Surveillance may be performed to reestablish OPERABILITY provided an assessment determines the safety of the plant is maintained or enhanced. Credit may be taken for unplanned events that satisfy this SR.</p> <p>-----</p> <p>Verify battery capacity is adequate to supply, and maintain in OPERABLE status, the required emergency loads for the design duty cycle when subjected to a battery service test or a modified performance discharge test.</p>	In accordance with the Surveillance Frequency Control Program

(continued)

\* Following return to service of 71T-3 Reserve Station Service Transformer, the past due Surveillances will be completed before the end of the next available Divisional window.

ACTIONS

CONDITIONS	REQUIRED ACTION	COMPLETION TIME
A. (continued)	A.2.3 Initiate action to restore required DC electrical power subsystem to OPERABLE status.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
<p>SR 3.8.5.1 -----NOTE-----                      The following SRs are not required to be performed: SR 3.8.4.2, SR 3.8.4.3, and SR 3.8.4.4.                      -----</p> <p>For DC electrical power subsystem required to be OPERABLE the following SRs are applicable:                      SR 3.8.4.1, SR 3.8.4.2, SR 3.8.4.3, and SR 3.8.4.4.</p>	In accordance with applicable SRs *

\*Following return to service of 71T-3 Reserve Station Service Transformer, the past due Surveillances will be completed before the end of the next available Divisional window.

**ACTIONS (continued)**

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. (continued)	A.3 Restore battery cell parameters to Category A and B limits of Table 3.8.6-1.	31 days
<p>B. Required Action and associated Completion Time of Condition A not met.</p> <p><u>QR</u></p> <p>One or more batteries with average electrolyte temperature of the representative cells not within limits.</p> <p><u>QR</u></p> <p>One or more batteries with one or more battery cell parameters not within Category C limits.</p>	B.1 Declare associated battery inoperable.	Immediately

**SURVEILLANCE REQUIREMENTS**

SURVEILLANCE	FREQUENCY
SR 3.8.6.1 Verify battery cell parameters meet Table 3.8.6-1 Category A limits.	In accordance with the Surveillance Frequency Control Program *

(continued)

\*Following return to service of 71T-3 Reserve Station Service Transformer, the past due Surveillances will be completed before the end of the next available Divisional window.

**ACTIONS (continued)**

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. (continued)	<b>B.3</b> Initiate action to restore one standby gas treatment subsystem to OPERABLE status.	Immediately
	<u>AND</u> <b>B.4</b> Initiate action to restore isolation capability in each required secondary containment penetration flow path not isolated.	Immediately

**SURVEILLANCE REQUIREMENTS**

SURVEILLANCE	FREQUENCY
<b>SR 3.9.7.1</b> Verify each required RHR shutdown cooling subsystem manual, power operated, and automatic valve in the flow path that is not locked, sealed, or otherwise secured in position, is in the correct position, or can be aligned to the correct position.	In accordance with the Surveillance Frequency Control Program *

\* Following return to service of 71T-3 Reserve Station Service Transformer, the past due Surveillances will be completed before the end of the next available Divisional Window

**ACTIONS**

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. (continued)	<b>B.3</b> Initiate action to restore isolation capability in each required secondary containment penetration flow path not isolated.	Immediately

**SURVEILLANCE REQUIREMENTS**

SURVEILLANCE	FREQUENCY
<b>SR 3.9.8.1</b> Verify each RHR shutdown cooling subsystem manual, power operated, and automatic valve in the flow path that is not locked, sealed, or otherwise secured in position, is in the correct position, or can be aligned to the correct position.	In accordance with the Surveillance Frequency Control Program *

\* Following return to service of 71T-3 Reserve Station Service Transformer, the past due Surveillances will be completed before the end of the next available Divisional Window

List of Affected Surveillance Requirements

## **ATTACHMENT 3**

### **Emergency License Amendment Request**

**James A. FitzPatrick Nuclear Power Plant  
Renewed Facility Operating License No. DPR-59  
NRC Docket No. 50-333**

### **Emergency License Amendment Request – One Time Extension to the TS 3.8.1 Action A.3 Completion Time for an Inoperable Offsite Source**

#### **List of Affected Surveillance Requirements**

For the following surveillance tests and associated surveillance requirements coming due that require testing or declaring protected SSCs inoperable, Exelon requests a suspension beyond their required surveillance interval:

Procedures Impacted:

- ISP-6A RHR/LPCI PUMP DISCHARGE PRESSURE INTERLOCK INSTRUMENT CHANNEL A FUNCTIONAL TEST/CALIBRATION
- ST-9BA EDG A AND C FULL LOAD TEST AND ESW PUMP OPERABILITY TEST
- ST-9AA EDG SYSTEM A FUEL/LUBE OIL MONTHLY TEST
- ST-24A RCIC MONTHLY OPERABILITY TEST
- ST-3AA CORE SPRAY LOOP A MONTHLY OPERABILITY TEST
- ST-2AM RHR LOOP B QUARTERLY OPERABILITY TEST
- ST-2AN RHR LOOP A MONTHLY OPERABILITY TEST
- ST-4N HPCI QUICK-START, INSERVICE, AND TRANSIENT MONITORING TEST
- MST-071.10 LPCI BATTERY SURVEILLANCE TEST
- MST-071.12 125VDC STATION BATTERY AND CHARGER WEEKLY SURVEILLANCE TEST

Technical Specification (TS) Surveillance Requirements (SRs) Impacted:

- SR 3.3.5.1.3 (ISP-6A) Perform CHANNEL CALIBRATION every 92 days for Table 3.3.5.1-1, Emergency Core Cooling System Instrumentation, Functions 4.e and 5.e
- SR 3.3.5.1.6, Function 3.f, 3.g (ST-4N) Perform LOGIC SYSTEM FUNCTIONAL TEST.
- SR 3.4.7.1 (ST-2AN) Verify each required RHR shutdown cooling subsystem manual, power operated, and automatic valve in the flow path that is not locked, sealed, or otherwise secured in position, is in the correct position, or can be aligned to the correct position.

#### List of Affected Surveillance Requirements

- SR 3.4.8.1 (ST-2AN) Verify each RHR shutdown cooling subsystem manual, power operated, and automatic valve in the flow path that is not locked, sealed, or otherwise secured in position, is in the correct position, or can be aligned to the correct position.
- SR 3.5.1.1 (ST-3AA, ST-2AN, ST-4N(HPCI), ST-2AM) Verify, for each ECCS injection/spray subsystem, the piping is filled with water from the pump discharge valve to the injection valve.
- SR 3.5.1.2 (ST-3AA, ST-2AN, ST-4N(HPCI), ST-2AM) Verify each ECCS injection/spray subsystem manual, power operated, and automatic valve in the flow path, that is not locked, sealed, or otherwise secured in position, is in the correct position.
- SR 3.5.1.7 (ST-2AM) Verify the following ECCS pumps develop the specified flow rate against a system head corresponding to the specified reactor pressure above primary containment pressure.
- SR 3.5.1.8 (ST-4N) Verify, with reactor pressure  $\leq 1040$  psig and  $\geq 970$  psig, the HPCI pump can develop a flow rate  $\geq 3400$  gpm against a system head corresponding to reactor pressure.
- SR 3.5.1.9 (ST-4N) Verify, with reactor pressure  $\leq 165$  psig, the HPCI pump can develop a flow rate  $\geq 3400$  gpm against a system head corresponding to reactor pressure.
- SR 3.5.2.4 (ST-3AA, ST-2AN, ST-2AM) Verify, for the required ECCS injection/spray subsystem, the piping is filled with water from the pump discharge valve to the injection valve.
- SR 3.5.2.5 (ST-3AA, ST-2AN, ST-2AM) Verify, for the required ECCS injection/spray subsystem, each manual, power operated, and automatic valve in the flow path, that is not locked, sealed or otherwise secured in position, is in the correct position.
- SR 3.5.2.6 (ST-2AM) Operate the required ECCS injection/spray subsystem through the recirculation line for  $> 10$  minutes
- SR 3.5.3.1 (ST-24A) Verify the RCIC System piping is filled with water from the pump discharge valve to the injection valve.
- SR 3.5.3.2 (ST-24A) Verify each RCIC System manual, power operated, and automatic valve in the flow path, that is not locked, sealed, or otherwise secured in position, is in the correct position.
- SR 3.6.1.3.5 (ST-2AM, ST-4N(HPCI)) Verify the isolation time of each power operated, automatic PCIV, except for MSIVs, is within limits.
- SR 3.6.1.9.1 (ST-2AN) Verify each RHR containment spray subsystem manual, power operated, and automatic valve in the flow path that is not locked, sealed, or otherwise



### List of Affected Surveillance Requirements

secured in position, is in the correct position or can be aligned to the correct position.

- SR 3.6.1.9.2 (ST-2AM) Verify each required RHR pump develops a flow rate of  $\geq 7750$  gpm through the associated heat exchanger while operating in the suppression pool cooling mode.
- SR 3.6.2.1.1 (ST-4N) Verify suppression pool average temperature is within the applicable limits.
- SR 3.6.2.3.1 (ST-2AN, ST-2AM) Verify each RHR suppression pool cooling subsystem manual, power operated, and automatic valve in the flow path that is not locked, sealed, or otherwise secured in position, is in the correct position or can be aligned to the correct position.
- SR 3.6.2.3.2 (ST-2AM) Verify each required RHR pump develops a flow rate  $\geq 7700$  gpm through the associated heat exchanger while operating in the suppression pool cooling mode.
- SR 3.7.1.1 (ST-2AN) Verify each RHRSW manual, power operated, and automatic valve in the flow path, that is not locked, sealed, or otherwise secured in position, is in the correct position or can be aligned to the correct position.
- SR 3.7.2.7 (ST-9BA) Verify each ESW subsystem actuates on an actual or simulated initiation signal.
- SR 3.8.1.2 (ST-9BA) Verify each EDG subsystem starts from standby conditions, force parallels, and achieves:
  - In  $\leq 10$  seconds, voltage  $\geq 3900$  V and frequency  $\geq 58.8$  Hz; and
  - Steady state voltage  $\geq 3900$  V and  $\leq 4400$  V and frequency  $\geq 58.8$  Hz and  $\leq 61.2$  Hz.
- SR 3.8.1.3 (ST-9BA) Verify each EDG subsystem is paralleled with normal, reserve, or backfeed power and each EDG is loaded and operates for  $\geq 60$  minutes at a load  $\geq 2340$  kW and  $\leq 2600$  kW.
- SR 3.8.1.4 (ST-9AA) Verify each day tank contains  $\geq 327$  gal of fuel oil.
- SR 3.8.1.5 (ST-9AA) Check for and remove accumulated water from each day tank
- SR 3.8.1.6 (ST-9BA) Verify that each EDG fuel oil transfer system operates to automatically transfer fuel oil from its storage tank to the associated day tank.
- SR 3.8.3.1 (ST-9AA) (for EDG Fuel Oil Storage Volume) Verify each fuel oil storage tank contains  $\geq$  a 7-day supply of fuel.
- SR 3.8.3.2 (ST-9AA) Verify lube oil inventory of each EDG is  $\geq$  a 7-day supply.
- SR 3.8.3.4 (ST-9BA) Verify Each EDG required air start receiver pressure is  $\geq 150$  psig.

#### List of Affected Surveillance Requirements

- SR 3.8.4.1 (MST-071.10, MST-071.12) Verify battery terminal voltage on float charge is:
  - a.  $\geq 127.8$  VDC for 125 VDC batteries, and
  - b.  $\geq 396.2$  VDC for 419 VDC LPCI MOV independent power supply batteries.
- SR 3.8.4.2 (MST-071.12) Verify each 125 VDC battery charger supplies  $\geq 270$  amps at  $\geq 128$  VDC for  $\geq 4$  hours. OR Verify each 125 VDC battery charger can recharge the battery to the fully charged state within 24 hours while supplying the largest combined demands of the various continuous steady state loads, after a battery discharge to the bounding design basis event discharge state.
- SR 3.8.6.1 (MST-071.12) Verify battery cell parameters meet Table 3.8.6-1 Category A limits
- SR 3.9.7.1 (ST-2AN) Verify each required RHR shutdown cooling subsystem manual, power operated, and automatic valve in the flow path that is not locked, sealed, or otherwise secured in position, is in the correct position, or can be aligned to the correct position.
- SR 3.9.8.1 (ST-2AN) Verify each RHR shutdown cooling subsystem manual, power operated, and automatic valve in the flow path that is not locked, sealed, or otherwise secured in position, is in the correct position, or can be aligned to the correct position.

List of Affected Surveillance Requirements

Surveillance Requirements Procedure	Surveillance Frequency	Last Performed	125% Grace Date (LED)	Complete No Later than:	Maximum Days Past LED
(ISP-6A) Emergency Core Cooling System Instrumentation <ul style="list-style-type: none"> <li>• SR 3.3.5.1.3</li> </ul>	92 days	06/17/2019	10/10/2019	11/10/2019	31 days
(ST-9BA) EDG A AND C FULL LOAD TEST AND ESW PUMP OPERABILITY TEST <ul style="list-style-type: none"> <li>• SR 3.8.1.2</li> <li>• SR 3.8.1.3</li> <li>• SR 3.8.1.6</li> <li>• SR 3.8.3.4</li> <li>• SR 3.7.2.7</li> </ul>	31 days	9/03/2019	10/11/2019	11/10/2019	30 days
(ST-9AA) EDG SYSTEM A FUEL/LUBE OIL MONTHLY TEST <ul style="list-style-type: none"> <li>• SR 3.8.1.4</li> <li>• SR 3.8.1.5</li> <li>• SR 3.8.3.1 for EDG Fuel Oil Storage Volume</li> <li>• SR 3.8.3.2</li> </ul>	31 days	9/03/2019	10/11/2019	11/10/2019	30 days
(ST-24A) RCIC MONTHLY OPERABILITY TEST <ul style="list-style-type: none"> <li>• SR 3.5.3.1</li> <li>• SR 3.5.3.2</li> </ul>	31 days	9/06/2019	10/14/2019	11/10/2019	27 days

List of Affected Surveillance Requirements

(ST-3AA) CORE SPRAY LOOP A MONTHLY OPERABILITY TEST <ul style="list-style-type: none"> <li>• SR 3.5.1.1</li> <li>• SR 3.5.1.2</li> <li>• SR 3.5.2.4</li> <li>• SR 3.5.2.5</li> </ul>	31 days	9/09/2019	10/17/2019	11/10/2019	24 days
(ST-2AM) - RHR LOOP B QUARTERLY OPERABILITY TEST <ul style="list-style-type: none"> <li>• SR 3.5.1.1</li> <li>• SR 3.5.1.2</li> <li>• SR 3.5.1.7</li> <li>• SR 3.5.2.4</li> <li>• SR 3.5.2.5</li> <li>• SR 3.5.2.6</li> <li>• SR 3.6.1.9.2</li> <li>• SR 3.6.2.3.1</li> <li>• SR 3.6.2.3.2</li> </ul>	92 days	06/27/2019	10/20/2019	11/24/2019	35 days
(ST-2AN)- RHR LOOP A MONTHLY OPERABILITY TEST <ul style="list-style-type: none"> <li>• SR 3.4.7.1</li> <li>• SR 3.4.8.1</li> <li>• SR 3.5.1.1</li> <li>• SR 3.5.1.2</li> <li>• SR 3.5.2.4</li> <li>• SR 3.5.2.5</li> <li>• SR 3.6.1.9.1</li> <li>• SR 3.6.2.3.1</li> <li>• SR 3.7.1.1</li> <li>• SR 3.9.7.1</li> <li>• SR 3.9.8.1</li> </ul>	31 days	9/12/2019	10/20/2019	11/10/2019	21 days

List of Affected Surveillance Requirements

(ST-4N)- HPCI QUICK-START, INSERVICE, AND TRANSIENT MONITORING TEST (IST) <ul style="list-style-type: none"> <li>• SR 3.3.5.1.6, Function 3.f, 3.g</li> <li>• SR 3.5.1.1 (for HPCI)</li> <li>• SR 3.5.1.2 (for HPCI)</li> <li>• SR 3.5.1.8</li> <li>• SR 3.5.1.9</li> <li>• SR 3.6.1.3.5 (for HPCI)</li> <li>• SR 3.6.2.1.1</li> </ul>	92 days	07/24/2019	10/24/2019	11/24/2019	31 days
(MST-071.10)- Inspection and surveillance of 71BAT-3A/B <ul style="list-style-type: none"> <li>• SR 3.8.4.1</li> <li>• SR 3.8.6.1</li> </ul>	7 days	9/30/2019	10/08/2019	11/10/2019	33 days
(MST-071.12)- Inspection of 71SB-1 and 71BS-2 <ul style="list-style-type: none"> <li>• SR 3.8.4.1</li> <li>• SR 3.8.4.2</li> <li>• SR 3.8.6.1</li> </ul>	7 days	9/30/2019	10/08/2019	11/10/2019	33 days

Assessment of Equipment affected by Surveillance Suspension

## **ATTACHMENT 4**

### **Emergency License Amendment Request**

**James A. FitzPatrick Nuclear Power Plant  
Renewed Facility Operating License No. DPR-59  
NRC Docket No. 50-333**

### **Emergency License Amendment Request – One Time Extension to the TS 3.8.1 Action A.3 Completion Time for an Inoperable Offsite Source**

#### **Assessment of Equipment affected by Surveillance Suspension**

**ISP-6A:** No IR's written in the past 24 months and no adjustments required.

**ST-9BA:** One IR written for one for no reading displayed for 93PYRO-1A IR 4222368. This equipment is not required for OPERABILITY or to meet a required Tech Spec surveillance.

One IR written 4/18/19 for C EDG Cylinder exhaust Temp Differential Reading out of spec IR 4241252 The condition described has no adverse effect on the safety-related design function of the C-EDG. This temperature indicator provides indication only. There are no automatic actions or protective features provided by this indicator. Per the vendor manual, the maximum allowed cylinder temperature is 1256F, and that value was not approached. The maximum values for channels 12, 13, and 14 have not risen since the previous IR4162122 was initiated. The differential limit of 200F is a combination of Channel 12 at 1058F and Channel 5 at 844 F (Nominal Range 800F-1000F; Max= 1075F). Proper C-EDG operation was noted for the duration of the one hour, fully loaded EDG run during performance of ST-9BA. The surveillance met all Level 1 and Level 2 Acceptance Criteria. This does not impact the reasonable assurance to meet the requested extension for SR 3.8.1.2, 3.8.1.3, 3.8.1.6, 3.8.3.4, or 3.7.2.7.

One IR 4207510 written 1/2/19 During performance of ST-9BA EDG A and C full load test. Annunciator HV-9A-09 supply fan FN-1C trouble, alarmed numerous times. Operators verified that 92FN-1C was in-service and EDG room temperature was <120 degF. Actual room temp was 78 deg F. Repeat occurrence reference IR 03997501, 4098281, 4072267 and CR-JAF-2016-5255. Acceptance Criteria step 10.1.8 were met based on the following description: the ventilation system remains operable even upon receipt of a ventilation trouble alarm as long as the white vibration light for the supply fan remains clear, the associated room temperature remains below 120 deg F, and Air was flowing into the EDG room from the associated supply fan. These conditions remained met throughout the performance of the test. The 'C' EDG Ventilation system performed its design function to support the 'C' EDG Subsystem. This does not impact the reasonable assurance to meet the requested extension for SR 3.8.1.2, 3.8.1.3, 3.8.1.6, 3.8.3.4, or 3.7.2.7.

One IR 4171161 written 9/9/18 Upstream flange of 46RO-102A EMERGENCY DIESEL GENERATOR A JACKET WATER COOLER ESW OUTLET RESTRICT Orifice west side bolt

### Assessment of Equipment affected by Surveillance Suspension

has a 5 drop per minute leak when the system is in operation. The deficiency described, 5 dpm leak on ESW to A EDG, does not render the EDG or ESW inoperable as the leak is small relative to the normal pump and system capacity. The leak is on a mechanical joint, not a through wall leak, thereby ensuring that a rapid degradation is unlikely. This does not impact the reasonable assurance to meet the requested extension for SR 3.8.1.2, 3.8.1.3, 3.8.1.6, 3.8.3.4, or 3.7.2.7.

**ST-9AA:** One IR written to document A EDG lube oil sump level not meeting level 2 acceptance criteria. On 3/18/19 during ST-9AA A EDG lube oil sump level was discovered to be -1.5". level 2 acceptance criteria require greater than or equal to -1". IR 4230569 This was following a one hour loaded run. Lube oil levels are monitored during runs and lube oil can be added to a running EDG if required. This does not impact the reasonable assurance to meet the requested extension for SR 3.8.3.2.

One IR written to document A EDG lube oil sump level not meeting level 2 acceptance criteria. On 10/11/18 during ST-9AA C EDG lube oil sump level was discovered to be -1.5". level 2 acceptance criteria require greater than or equal to -1". IR 4182558. This was following a one hour loaded run. Lube oil levels are monitored during runs and lube oil can be added to a running EDG if required. This does not impact the reasonable assurance to meet the requested extension for SR 3.8.3.2.

**ST-24A:** One IR written when credited to ST-24J under WO 4652731 for unable to obtain vibration data due to failure of test equipment that does not impact the ability to meet SR 3.5.3.1 or SR 3.5.3.2.

One IR written when credited to ST-24J under WO 4753562 for unable to obtain vibration data due to failure of test equipment that does not impact the ability to meet SR 3.5.3.1 or SR 3.5.3.2.

One IR written when credited to ST-24J under WO 4680827 for discharge piping vent per section 8.1.6 a vent time of 4.0 seconds was recorded as stated in IR 4082609. The vented volume was mostly water and the time reflects intermittent bubbles until a clear continuous flow was observed. The 4 seconds of air venting identified is less than both Level 1 Acceptance Criteria (11.3 sec.) and Level 2 Acceptance Criteria (9.0 sec.); therefore, no degraded condition exists. This IR was initiated for trending only and does not impact the reasonable assurance to meet for the requested extension for SR 3.5.3.1 or SR 3.5.3.2.

**ST-3AA:** Only one IR documented in 24 months when credited to ST-3PA for not completing section 8.3 for the hold pump. Section 8.3 does not impact SR 3.5.1.1, 3.5.1.2, 3.5.2.4, or 3.5.2.5. and failure to perform that section only impact level 2 acceptance criteria for ST-3PA only.

#### Assessment of Equipment affected by Surveillance Suspension

**ST-4N:** – IR 4229270, 4252619 and 4266619 - Speed deviation on HPCI flow controller more than 100 RPM. As required in level 2 acceptance criteria of ST-4N this IR is being generated to evaluate the speed deviation that occurred during the transfer in step 8.4.31M. This condition is observed when shifting from manual to automatic and does not challenge operability of the system. Work to correct is scheduled in the next outage and tracked by WO 80461689

**MST-071.10:** IR 4166504 was written on August 22, 2018 to document that equalizing charges were not working. It was determined that the equalizing charge setpoint was below the lower limit for equalizing voltage. Procedure was lacking in clarity on what to set equalizing voltage.

**MST-071.12:** IR 4248526 was written on May 12, 2019 to document a particle in station battery B, cell #59. Based on review of particle it was determined to be a normal process that occurs in battery based on vendor input.



Summary of Normal and Enhanced Compensatory Measures

**ATTACHMENT 5 Emergency License Amendment Request**

**James A. FitzPatrick Nuclear Power Plant  
Renewed Facility Operating License No. DPR-59  
NRC Docket No. 50-333**

**Emergency License Amendment Request – One Time Extension to the TS 3.8.1  
Action A.3 Completion Time for an Inoperable Offsite Source**

**Summary of Normal and Enhanced Compensatory Measures**

Protecting systems and components is to provide additional administrative barriers to guard against inadvertently rendering a component or system, which is important to unit risk and nuclear safety, inoperable or unavailable. For extent of protection, the barriers are extended back at least one component for the protected components. The following equipment has been protected via barrier rope or tag that establishes a boundary around the protected equipment with applicable warnings to warn personnel of vital information regarding protected equipment status.

<b>Normal Compensatory Measures</b>
The RESERVE STATION SERVICE TRANSFORMER 71T-2 including the 115 KV off-site power lines Lighthouse Hill Line #3 and Nine Mile Point Line #4 and associated cross-tie disconnect will be protected. Associated MCR switches include robust barriers.
The A, B, C and D Emergency Diesel Generator subsystems and their associated cooling water pumps with their respective power supplies will be protected.
The 4160V emergency buses 10500 and 10600 will be protected.
125 VDC station batteries and associated battery chargers will be protected
<b>Enhanced Compensatory Measures</b>
The grid operator has been requested to restrict maintenance and switching operations on the following lines to emergency operations only: <ul style="list-style-type: none"><li>• 115kV Lighthouse Hill Line #3</li><li>• 115kV Nine Mile Point Lines #1 and #4</li><li>• 345kV lines #1 and #10</li></ul> If significant grid perturbations are expected, station managers will assess the conditions and determine the best course for the plant.
HPCI and RCIC will be protected.

Summary of Normal and Enhanced Compensatory Measures

LPCI batteries, inverters and associated battery chargers will be protected.
The NORMAL STATION SERVICE TRANSFORMER 71T-4 will be protected
Both trains of RHR and CSP will be protected their respective power supplies will be protected.
Risk Significant Fire Zones as described in Table 5.1 will be toured by plant operators a minimum of three times per shift (once per 4 hours) to ensure adequate controls are in place for transient combustibles, hotwork, and ignition sources. Additionally, operators will review readiness and accessibility of fixed fire suppression systems, fire barriers including fire doors and dampers, and manual fire suppression features.
Discretionary switchyard maintenance shall not be allowed during the extended completion times authorized by the proposed licensed amendment.
Component testing or maintenance of safety systems in the off-site power systems and important non-safety equipment in the off-site power systems which can which can increase the likelihood of a plant transient or LOOP, as determined by plant management, will be avoided during the extended completion times authorized by the proposal license amendment.
FLEX Diesel Generators N & N+1 Buildings will be protected.
During the extended completion times authorized by the proposed license amendment, the operating crew will brief and review the following Abnormal Operating Procedures (AOPs) <ul style="list-style-type: none"><li>• APO-8 UNEXPECTED CHANGE IN CORE FLOW</li><li>• APO-16 LOSS OF 10300 BUS</li><li>• AOP-18 LOSS OF 10500 BUS</li><li>• AOP-31 LOSS OF CONDENSER VACUUM</li><li>• AOP-49 STATION BLACKOUT</li><li>• AOP-72 115KV GRID LOSS, INSTABILITY, OR DEGRADATION</li><li>• AOP-72A COMPLETE LOSS OF NON-VITAL BUS POWER</li></ul>

Summary of Normal and Enhanced Compensatory Measures

Table 5.1: Risk Significant Fire Zones:

<b>Fire Zone</b>	<b>Description</b>
CS-1	Cable Spreading Room
RR-1	Relay Room
CR-1	Main control room or control room
RB-1B	Reactor building westside (elevation 272) and southwest quadrant (elevation 300)
EG-1, EG-2, EG-5	Trains "A" and "C" EDG switchgear room south (elevation 272)
RB-1E	Reactor building east crescent (elevations 227 and 242)
CT-1	West cable tunnel
TB-1	Turbine building
EG-3, EG-4, EG-6	Trains "B" and "D" EDG switchgear room north (elevation 272)
CT-3	South cable tunnel