Robert E. Schuetz
Columbia Generating Station
P.O. Box 968, PE23
Richland, WA 99352-0968
Ph. 509.377.2425 | F. 509.377.4150
reschuetz@energy-northwest.com

April 15, 2020
GO2-20-052

10 CFR 50.90

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

Subject: **COLUMBIA GENERATING STATION, DOCKET NO. 50-397**
EXIGENT LICENSE AMENDMENT REQUEST FOR ONE-TIME CHANGE TO COMPLETION TIMES FOR INOPERABLE ELECTRICAL DISTRIBUTION SYSTEMS

Dear Sir or Madam:

Pursuant to 10 CFR 50.90 and 10 CFR 50.91(a)(6), Energy Northwest hereby requests a license amendment to revise the Columbia Generating Station (Columbia) Technical Specification (TS) 3.8.4 DC (Direct Current) Sources – Operating and TS 3.8.7 Distribution Systems – Operating. This request adds a one-time extension of the Completion Time of TS required actions 3.8.4.G.1, 3.8.7.A.1 and 3.8.7.B.1 specifically associated with Division 2 4160 V AC (Alternating Current) and 125 V DC electrical power distribution inoperability. Additionally, the change removes an existing one-time note to TS 3.8.7.A, which has expired.

This License Amendment Request (LAR) is a necessary contingency to support a potential emergent repair of a degraded cooling system supporting Division 2 electrical distribution subsystems. Repair work would involve replacing a starter coil or bucket, which houses a control power transformer subject to a known 10 CFR Part 21 issue. Failure of the starter coil would render essential cooling inoperable with a 2-hour action statement to restore the Division 2 125 V DC distribution system to operable.

Repair estimates indicate a minimum of 2 hours of work in the field to perform the replacement, however, since the mechanism of failure is unpredictable, additional restoration time would be needed since the total inoperability time would exceed 2 hours and due to the potential need to mobilize repair crews from offsite may also exceed a less restrictive 8-hour action statement to restore the Division 2 4160 V AC distribution subsystem. The additional time would prevent the need to perform a unit

shutdown within 12 hours. The extended restoration time would be effective until June 30, 2021 to allow final resolution of the Part 21 issue during Columbia's next refueling outage.

The proposed change has been evaluated in accordance with 10 CFR 50.91(a)(1) using criteria in 10 CFR 50.92(c) and it has been determined that this change involves no significant hazards considerations. The bases for these determinations are included in Enclosure 1 of this submittal. This submittal contains a commitment to maintain the compensatory measures documented in Attachment 1 of Enclosure 1. Markups and clean versions of TS pages are included in Enclosures 2 & 3, respectively.

In accordance with 10 CFR 50.91, Energy Northwest is notifying the State of Washington of this amendment request by transmitting a copy of this letter and enclosures to the designated state official.

Energy Northwest requests that the proposed TS change be reviewed and approved within 28 calendar days of this letter, to ensure Columbia could remain online while addressing emergent repairs to the Division 2 critical switchgear cooling system. Maintaining the plant online ensures the stability and reliability of the Northwest power grid during the ongoing novel coronavirus disease (COVID-19) related National Emergency. The proposed extension for TS required actions 3.8.4.G.1, 3.8.7.A.1 and 3.8.7.B.1 will expire on June 30, 2021 which represents the first opportunity to resolve the 10 CFR 21 issue for this component in a minimally impacting manner. This LAR will be implemented within 5 days of date of approval.

If there are any questions or if additional information is needed, please contact Mr. R.M. Garcia, Licensing Supervisor, at 509-377-8463.

I declare under penalty of perjury that the foregoing is true and correct.

Executed this 15 day of April, 2020.

Respectfully,

R. E. Schuetz
Site Vice President

Enclosures: As stated

cc: NRC NRR Division of Policy and Rulemaking Director
NRC RIV Regional Administrator
NRC Senior Resident Inspector/988C
CD Sonoda – BPA
E Fordham – WDOH
L Albin – WDOH
NRC NRR Project Manager
NRC NRR Plant Licensing Branch Chief
EFSECutc.wa.gov – EFSEC
R Brice – WDOH

Evaluation of Proposed Technical Specification Change

1.0 SUMMARY DESCRIPTION

This evaluation supports an exigent License Amendment Request (LAR) for Columbia Generating Station (Columbia) Technical Specification (TS) 3.8.4 DC (Direct Current) Sources – Operating and TS 3.8.7 Distribution Systems – Operating. This TS change will add one-time extensions of the Completion Time (CT) of TS required actions 3.8.4.G.1, 3.8.7.A.1 and 3.8.7.B.1 specifically associated with Division 2 electrical power distribution subsystem inoperabilities caused by loss of radwaste mixed air fan WMA-FN-53B due to a failure of the starter coil on WMA-42-8F1E.

Implementation of this LAR will result in no physical modification to the plant. The proposed change has no adverse effect on the plant or plant safety.

2.0 DETAILED DESCRIPTION

2.1 System Design and Operation

Critical Switchgear Heating Ventilation and Air Conditioning (HVAC) System

The critical switchgear area HVAC system maintains temperatures between 55°F and 104°F during normal operations and less than maximum qualification limits for critical switchgear components during emergency cooling mode. The system also removes combustible fumes generated by emergency batteries. Division 1 and 2 critical switchgear rooms are served by separate cooling systems consisting of an air-handling unit, battery room exhaust fans and associated ductwork and controls. Air supplied to the battery rooms is continuously exhausted only and not recirculated. Each cooling system receives Class 1E power from its respective division including supply from the division's diesel generator as necessary.

Onsite Class 1E Alternating Current (AC) Power

The onsite Class 1E AC electrical power distribution system is divided by division into three independent AC electrical power distribution subsystems consisting of 4160, 480, 120/240, and 120/208 volt buses described in the table below. Each division is considered a "subsystem" of the Class 1E AC and DC electrical power distribution system.

VOLTAGE	DIVISION 1	DIVISION 2	DIVISION 3
4160 V	SM-7	SM-8	SM-4
480 V	SL-71 and SL-73 Motor Control Centers 7A, 7AA, 7B, 7BA, 7BB, and 7F Power Panel PP-7AB	SL-81 and SL-83 Motor Control Centers 8A, 8AA, 8B, 8BA, 8B-B, and 8F Power Panel PP-8AB	3 Phase Engine and Generator Auxiliary Loads Power Panel Motor Control Center 4A
120/240 V	1 Phase Power Panels PP-7AA, PP-7AF, PP-7AE, and PP-7A	1 Phase Power Panels PP-8AA PP-8AF, PP-8AE, and PP-8A	1 Phase Power Panel PP-4A
120/208 V	3 Phase Power Panels PP-7AG and PP-7AAA	3 Phase Power Panels PP-8AG and PP-8AAA	

The required AC power distribution subsystems listed in the table above ensure the availability of AC electrical power for the systems required to shut down the reactor and maintain it in a safe condition after an anticipated operational occurrence (AOO) or a postulated design basis accident (DBA). Maintaining the Division 1, 2, and 3 AC (and DC) electrical power distribution subsystems operable ensures that the redundancy incorporated into the design of Engineered Safety Features (ESF) is not defeated. Any two of the three divisions of the distribution system are capable of providing the necessary electrical power to the associated ESF components. The defense in depth design of the AC power system ensures a single failure within any system or within the electrical power distribution subsystems does not prevent safe shutdown of the reactor.

SM-8 is the 4160 V AC electrical bus required to be operable to support Division 2 AC subsystem operability. WMA-FN-53B provides necessary cooling for this critical switchgear. Lack of adequate cooling for SM-8 could result in temperatures on the bus exceeding equipment qualification limits rendering the entire bus inoperable. The TS 4160 V AC systems supported by SM-8 include Residual Heat Removal (RHR) B and C trains as well as Standby Service Water (SW) Division 2.

Onsite Class 1E DC Power

The onsite Class 1E DC electrical power distribution system provides control power for the onsite AC emergency power system and motive and control power to selected safety related equipment. The 125 V DC electrical power system consists of three independent Class 1E DC electrical power subsystems, Divisions 1, 2, and 3. A single 250 V DC battery provides Class 1E power to Division 1.

The Division 2 safety related DC power source consists of a 125 V battery bank and two full capacity chargers, one of which is normally in service and the other is normally electrically isolated from the distribution system. This DC power source provides the control power for its associated Class 1E AC power load group, 4.16 kV switchgear and 480 V load centers. Also, this DC power source provides DC power to the emergency lighting system, Diesel Generator (DG) auxiliaries and the DC control power for the Division 2 DG.

The DC electrical power subsystems are required to be operable to ensure the availability of the required power to shut down the reactor and maintain it in a safe condition after an AOO or a postulated DBA. Defense in depth integral to the design of the DC power system ensures that the loss of any single DC electrical power subsystem does not prevent the minimum safety function from being performed.

2.2 Current Technical Specifications Requirements

Limiting Condition for Operation (LCO) 3.8.4 DC Sources - Operating

This LCO requires Division 1, 2 and 3 DC electrical power distribution subsystems to be operable whenever Columbia is in mode 1, 2 or 3. With either Division 1 or Division 2 125 V DC subsystem inoperable for reasons other than a battery or battery charger issue, TS Condition 3.8.4.G requires restoration of the subsystem within 2 hours. If the required action of TS Condition 3.8.4.G cannot be met, the plant must be in mode 3 within an additional 12 hours in accordance with TS Condition 3.8.4.J.

LCO 3.8.7 Distribution Systems – Operating

This LCO requires Division 1, 2 and 3 AC electrical power distribution subsystems to be operable whenever Columbia is in mode 1, 2 or 3. With one subsystem (Division) inoperable, TS Condition 3.8.7.A currently requires restoration of the subsystem within 8 hours. If the required action of TS Condition 3.8.7.A cannot be met, the plant must be in mode 3 within an additional 12 hours in accordance with TS Condition 3.8.7.C. The “and 16 hours from discovery of failure to meet LCO 3.8.7.a or b,” applies if another subsystem (Division) becomes inoperable during the 8 hour CT of the first inoperable subsystem (Division).

This LCO also requires Division 1, 2 and 3 DC electrical power distribution subsystems to be operable whenever Columbia is in mode 1, 2 or 3. With the Division 2 DC subsystem inoperable, TS Condition 3.8.7.B currently requires restoration of the subsystem within 2 hours. If the required action of TS Condition 3.8.7.B cannot be met, the plant must be in mode 3 within an additional 12 hours in accordance with TS Condition 3.8.7.C. The “and 16 hours from discovery of failure to meet LCO 3.8.7.a or b,” applies if another AC or DC subsystem (Division) becomes inoperable during the 2 hour CT of the first inoperable subsystem (Division).

2.3 Reason for the Proposed the Change

This request is being made to serve as a bridging strategy to resolve a known Title 10 of the Code of Federal Regulations (10 CFR) Part 21 issue involving the control power transformer on the motor control center cubicle (bucket) for the Division 2 vital island cooling system. The defective control power transformer (CPT) may cause a failure of the associated starter coil. Station procedures specify that supported AC and DC electrical distribution subsystems be declared inoperable when cooling is lost. Formal Part 21 notification was communicated to the NRC via letter dated September 3, 2019 (ML19247C581).

The short time allowed for restoration of the AC and DC electrical distribution systems supported by the susceptible cooling system does not lend itself to an online repair of the system. The total time required to replace the failed component and restore vital island cooling would exceed the TS allowed time to restore the inoperable electrical distribution subsystem. Additional details on the time required to perform repairs are outlined in section 2.4.1 below. The additional time to restore inoperable electrical subsystems proposed by this request allows for repair work to be performed without needing to enter one or more shutdown action statements.

The current timeline for ultimate resolution of the Part 21 issue involves bucket replacement to be performed during the Spring 2021 refueling outage (R-25). In the event that the starter coil failed prior to the planned outage bucket replacement, Division 2 vital island cooling would be lost.

<u>Exigent Circumstances</u>

Energy Northwest is requesting approval on an exigent basis. Exigent approval would ensure Columbia could remain online while addressing emergent repairs to the Division 2 critical switchgear cooling system. Maintaining the plant online ensures the stability and reliability of the Northwest power grid during the ongoing novel coronavirus disease (COVID-19) related National Emergency. This action is also in keeping with Washington State guidance to maintain critical infrastructure, and supported by Bonneville Power Administration (BPA) as detailed in Section 3.4 below.

The CPT installed in WMA-42-8F1E was identified to be defective as part of the extent of condition review which led to submittal of the Part 21 notification. Two failures of identical components installed on the diesel mixed air system were identified after approximately 2 years and 9 years in service due to overheating effects. The installed component on WMA-42-8F1E has been in service since June of 2013. This represents an installed lifetime of over 6.5 years. The service lifetime to run until R-25 with the currently installed component would require an additional 1.25 years of installed runtime. The variability in component lifetime previously experienced does require consideration that the installed component may not continue to operate until R-25. The

extended completion times would prevent an unnecessary plant shutdown without a corresponding health and safety benefit.

2.4 Description of the Proposed the Change

The proposed change would revise CTs for required actions TS 3.8.4.G.1, 3.8.7.A.1 and 3.8.7.B.1 by adding a note above the completion time for restoring the inoperable electrical distribution subsystems to OPERABLE status to allow a one-time, 16-hour completion time. This note will state:

> *Until June 30, 2021, a Completion Time of 16 hours is applicable for replacement of WMA-42-8F1E or its failed starter coil*.

The existing note to TS 3.8.7.A.1 would be deleted to ensure the proposed note above can be clearly understood.

The markups to TS 3.8.4.G, 3.8.7.A and 3.8.7.B are provided in Enclosure 2 of this letter.

2.4.1 Bases for Extension to 16 Hours

Sixteen hours was selected as the total allowed completion time based on regulatory considerations as well as maintenance estimates of the time the major steps in a bucket replacement activity should take. A bucket replacement bounds a starter coil replacement which is expected to take 2 hours of field work.

The selection of a 16-hour total completion time for this change aligns with the existing secondary completion time used in TS required actions 3.8.7.A.1 and 3.8.7.B.1. The existing 16-hour time in required actions 3.8.7.A.1 and 3.8.7.B.1 begins at the time the LCO was initially not met instead of when the particular condition was entered. It functions to limit the overall time which may be spent in LCO 3.8.7 Condition A, Condition B or any combination thereof for a single contiguous occurrence. The bases for required actions A.1 and B.1 of LCO 3.8.7 states that 16 hours is an acceptable limitation on the potential to fail to meet the LCO. While there is no secondary completion time applicable to LCO 3.8.4.G.1, the 16 hours requested by this LAR leverages the acceptability of the existing 16 hours total time of failing to meet LCO 3.8.7 due to Condition A or Condition B issues. By selecting 16 hours, no substantial additional justification is required.

Under normal conditions, replacement of WMA-42-8F1E would be done during an outage when LCOs 3.8.4 and 3.8.7 do not apply. Other similar 42 devices which have been worked online have longer TS allowed outage times and thus may not be worked as expeditiously and also do not require extended completion times. Regardless, the combination of maintenance operating experience from previous change out of WMA-42-8F1E and similar 42 devices has been assessed and determined that a bucket could

be changed in approximately 12 hours once proficient staff are ready to work. This estimate includes the following approximate tasks and durations, 2 hours to verify job conditions and establish clearance order control, 6 hours for the actual electrical work, 2 hours of job closeout and removal of clearances and 2 hours of post modification testing. Against the requested 16-hour total completion time, this leaves approximately 4 hours for discovery and staff mobilization. This does represent an aggressive but achievable schedule; it is presented here as a representative timeline for informational purposes only.

3.0 TECHNICAL EVALUATION

3.1 Deterministic Evaluation

While WMA-FN-53B is out of service, the supported Division 2 electrical distribution subsystems are considered inoperable due to inability to maintain equipment in these areas below their upper qualification temperature in transient scenarios. Loss of WMA-FN-53B could challenge the ability for Division 2 electrical distribution subsystems to remain within their equipment qualification temperature however, they would remain available to provide service until the temperature in the rooms actually rises above the equipment qualification limit.

During the proposed extension, the unit will be online with normal online room heat loads in Division 2 critical switchgear areas. During normal operation, the temperature in the Division 2 critical switchgear rooms are maintained at approximately 80 degrees Fahrenheit (°F). Station analyses for loss of critical switchgear cooling indicates that the most limiting heat up from an 80°F starting point is loss of Division 2 cooling during a plant transient with no compensatory measures taken. Under this scenario, the Division 2 AC distribution system would exceed equipment qualification limit at approximately 24 hours. Compensatory actions to establish alternate cooling extend this most limiting time to over 62 hours.

Establishment of alternate cooling consists of propping doors and installing temporary fans. These actions are already proceduralized and understood by equipment operators. Equipment to implement the compensatory measure is located in the vicinity of the critical switchgear rooms and it is estimated that alternate cooling can be established within less than 2 hours from discovery of loss of cooling.

Loss of WMA-FN-53B was also considered for impact towards the ability of Division 2 critical switchgear HVAC to prevent accumulation of combustible gasses. Ventilation of the battery room is provided by a separate exhaust fan (WEA-FN-53B) which is not susceptible to the Part 21 issue. Airflow through the battery room would be through open fire dampers via the suction provided by the exhaust fan to maintain normal design flow of approximately 700 cfm through the battery rooms, which has been established as sufficient to prevent accumulation of combustible gasses. No

compensatory measures are required to maintain the function of removing combustible gasses.

On the basis of the amount of time following loss of cooling before equipment qualification limits are challenged, defense in depth in the overall electrical system which preserves safety functions on non-impacted Divisions (see discussion in section 2.0 above), and no changes to the ability to vent combustible gasses, the proposed completion time extension is determined to be acceptable.

3.2 Probalistic Risk Assessment (PRA) Evaluation

3.2.1 Introduction

Regulatory Guide (RG) 1.177 specifies an approach and acceptance guidelines for the evaluation of plant licensing basis changes. This RG identifies a three-tiered approach for the evaluation of the risk associated with a proposed TS change:

- Tier 1 addresses risk metric requirements for one-time TS CT changes of incremental conditional core damage probability (ICCDP) less than 1E-06 and incremental conditional large early release probability (ICLERP) less than 1E-07.
- Tier 2 identifies and evaluates any potential risk-significant plant equipment outage configurations associated with the proposed plant change.
- Tier 3 provides for the establishment of a configuration risk management program.

3.2.2 Technical Adequacy

The integrated Columbia PRA model of record is Revision 8.0.1 for internal events, fire and seismic. Revision 8.0.1 was completed in February 2019. The Columbia PRA modeling is highly detailed, including a wide variety of initiating events, modeled systems, operator actions, and common cause.

3.2.2.1 Full Power Internal Events Model

The Columbia full power internal events (FPIE) PRA model meets the Capability Category II of Addendum A of the ASME ANS Standard, ASME/ANS RA-Sa-2009, as clarified by RG 1.200, Rev.2.

In 2009, the Columbia PRA Rev 7.0 received a full scope review against the ASME/ANS PRA Standard RA-Sa-2009, as clarified by Regulatory Guide 1.200, Rev 2. Since Rev 7.0, there have been many updates to the PRA, to incorporate plant design changes, data updates, findings and observations (F&O) dispositions and self-assessments. The Columbia PRA underwent an F&O closure review in 2018 and all findings from the 2009 peer review were closed. The Columbia PRA has undergone a

focused scope peer review. All findings from the focused scope peer review have been closed.

Columbia maintains a PRA Configuration Control Program to ensure that the current PRA model remains technically adequate and reflects the as-built, as operated plant.

As part of ongoing model maintenance, the PRA configuration control program ensures routine updates are made to the model to reflect the as-built and as-operated plant. The most recent of these updates was completed in January of 2019 to correct basic event data. A review of pending changes that may impact the proposed changes in this LAR was conducted. A single design change, which reduces the scenarios where steam tunnel cooling is load shed was identified and considered. The assessment determined that the design change reduces risk of the base core damage frequency (CDF) results. Changes to base risk are expected to have similar impact with WMA-FN-53B unavailable.

Based on these considerations, the Columbia PRA is therefore technically adequate to address PRA applications that require Capability Category II, including this one-time completion time extension request. Additionally, the review of modeling assumptions, uncertainties, and PRA quality, identified no model limitations that would significantly impact this one-time CT extension application.

3.2.2.2 Fire Model

The fire PRA model is based upon the internal plant examination of external events (IPEEE). The Fire PRA does not meet all aspects of RG 1.200, however, the insights derived for the WMA-FN-53B CT LAR are judged to be reasonable and applicable based upon the IPEEE development and subsequent updates of the PRA model. Updates to the fire PRA model were performed in 2002, 2004 and 2006 and the model utilizes the current internal events model. All findings from previous fire PRA peer review in January 2004 have been addressed. The fire PRA is being upgraded to meet all aspects of the ASME/ANS PRA standard at capability category II level. The existing fire PRA model has supported previous risk-informed requested licensing actions including a permanent change to allowed outage times for diesel generators and a one-time completion time extension for Residual Heat Removal A. Additionally, the spatial relationship of risk significant equipment to plant fire areas is sufficiently detailed to identify risk. Therefore, the fire PRA model is judged to be of sufficient quality to provide risk insights for this application.

3.2.2.3 Seismic Model

The seismic PRA model is based upon the internal plant examination of external events (IPEEE). The Seismic PRA does not meet all aspects of RG 1.200, however, the insights derived for the WMA-FN-53B CT LAR are judged to be reasonable and applicable based upon the IPEEE development and subsequent updates of the PRA model. Updates to the seismic PRA model were performed in 2004 and 2007 and the

model utilizes the current internal events model. No peer review of the seismic PRA has been performed. Quantitative results used in this application are well within ICCDP and ICLERP acceptance criteria and are supplemented by qualitative insights. WMA-FN-53B fragility is not explicitly modeled due to it having significant seismic capacity and insignificant impact on CDF and large early release frequency (LERF). Two basic event scenarios evaluate failure of WMA-FN-53B and have insignificant impact in overall seismic risk, which is primarily dominated by seismic induced failures of key buildings. Upgrades to the seismic PRA are being performed in response to Fukushima Near Term Task Force Recommendation 2.1; however, the official model of record has not yet been updated. Similar to the fire PRA, the existing seismic model has supported previous permanent and one-time risk informed changes. For the low overall contribution of seismic risk to the overall risk spectrum, the existing seismic model is deemed technically adequate for this application.

3.2.3 Risk Evaluation

The average maintenance PRA Rev 8.0.1 model was used to calculate ICCDP and ICLERP to extend all TS required actions for an inoperable WMA-FN-53B to 16 hours. Loss of WMA-FN-53B could challenge the ability for Division 2 electrical distribution subsystems to remain within their equipment qualification temperature. Station analyses for loss of vital island cooling indicates that the most limiting heatup, consisting of loss of Division 2 vital island cooling during a plant transient with no compensatory measures taken, would result in the Division 2 AC distribution system exceeding equipment qualification limit at approximately 24 hours. The same compensatory actions discussed in Section 3.1 above to establish alternate cooling allows for both the 125 V DC and 4160 V AC distribution subsystems to be considered available. The redundant Division 1 vital island cooling is not susceptible to the 10 CFR Part 21 condition and thus the common cause term did not require adjustment for this analysis.

The ICCDP and ICLRP are computed using the definitions in RG 1.177. The formulas are as follows:

$$ICCDP(YOOS) = (CDFYOOS - CDFBASELINE) * \Delta T$$

Where:

ICCDP(YOOS) is the ICCDP with train Y out of service,
CDFYOOS is the CDF computed with train Y out of service,
CDFBASELINE is the baseline, average-maintenance case CDF, and
ΔT is the total duration of the CT converted to units consistent with the CDF frequency units (16 hours * 1 day / 24 hours * 1 yr / 365 days = 1.83E-3 yr).

Similarly, ICLERP is computed as follows:

$$ICLERP(YOOS) = (LERFYOOS - LERFBASELINE) * \Delta T$$

Where:

ICLERP(YOOS) is the ICLERP with train Y out of service,
LERFYOOS is the LERF computed with train Y out of service, and
LERFBASELINE is the LERF baseline, average-maintenance case LERF.

3.2.3.1 Results

The ICCDP and ICELERP results are:

CDF	Baseline CDF	New CDF	Delta CDF	ICCDP	Criteria
FPIE	2.35E-6	2.99E-6	6.4E-7	1.2E-9	
Fire	4.90E-6	4.94E-6	4.0E-8	7.3E-11	
Seismic	4.34E-6	4.34E-6	0	0	
Total	1.2E-5	1.2E-5	6.8E-7	1.2E-9	1.00E-06
LERF	Baseline LERF	New LERF	Delta LERF	ICLERP	
FPIE	1.60E-7	1.64E-7	4.0E-9	7.3E-12	
Fire	2.43E-7	2.45E-7	2.0E-9	3.7E-12	
Seismic	2.43E-6	2.43E-6	0	0	
Total	2.8E-6	2.8E-6	6.0E-9	1.1E-11	1.00E-07

ICCDP and ICLERP are both less than the acceptance criteria.

3.2.3.2 Risk-Significant Configurations and Insights

The CDF for two accident sequences were shown to be most affected by WMA-FN-53B being unavailable, both of these sequences begin with a manual shutdown initiating event and contain the basic event alternate heating ventilation and air conditioning (HVAC) unavailable after loss of WMA-FN-53A or WMA-FN-53B lost. This loss of alternate HVAC basic event has a significant change in Fussell-Vesely (FV) between the base case (FV 0.0) and the extended completion time considered in this LAR (FV 0.2). As shown in the sensitivity study, the establishment of alternate cooling will reduce the risk during the extended completion time period.

Establishment of alternate cooling is a commitment that will be implemented whether the station is in pandemic response protocol or normal operations. Under the current pandemic response staffing limitations, the actual maintenance on site is less than the average PRA maintenance used for this analysis. Based on these two considerations, the PRA results using the average maintenance model presented in support of this request are applicable under both normal and pandemic conditions.

Significant equipment with WMA-FN-53B are limited to Division 3 components (High Pressure Core Spray (HPCS) and Division 3 DG (DG-3)) and Reactor Core Isolation Cooling (RCIC) only. This equipment will be protected while the extend completion time is being used to further reduce risk.

The risk associated with weather events and external hazards other than seismic and fire (which are considered quantitatively as noted above) was considered qualitatively and determined to be similar or lower in magnitude to that portrayed in the IPEEE. Plant vulnerabilities related to weather conditions are explicitly treated on an average basis through modeling of weather-related impacts to the frequency of offsite power loss. The proposed changes are judged to have a negligible effect on the risk profiles from other external events and weather.

3.2.3.3 Configuration Risk Management Program

Columbia has a configuration risk management program. Plant risk is assessed and managed in accordance with station procedure 1.5.14, Risk Assessment and Management for Maintenance/Surveillance Activities. Paragon is the software tool used to assess risk and to aid in establishing appropriate risk management actions including additional actions when risk increases above established thresholds. Contingency work for emergent starter coil or bucket replacement will be performed in accordance with this process. The configuration risk management program satisfies 10 CFR 50.65(a)(4) Maintenance rule requirements and ensures the risk of plant trips, probabilistic risk and safety function degradation from online work is evaluated and risk mitigative actions are used when appropriate.

In accordance with plant procedure 1.5.14, removing the critical switchgear room cooler (WMA-AH-53A or B) for on-line maintenance would result in significant risk increase. To control the risk increase, compensatory actions to establish alternate cooling will be taken in accordance with ABN-HVAC. The resulting Plant Risk Level would be considered Yellow and adherence to the schedule is required. If the work is not completed as scheduled, the Work Week Manager should revise the Plant Risk Report to reflect the schedule changes.

3.3 Compensatory Measures

Based on the risk-significant contributors, as well as the deterministic considerations, the following compensatory measures will be taken as prudent measures during the 16 hour CT for online replacement of WMA-42-8F1E or its failed starter coil. These actions are captured as a regulatory commitment in Attachment 1 of this enclosure.

- Alternate cooling will be established per ABN-HVAC
- DG-3, HPCS and RCIC will be protected

Protection of the risk significant equipment noted above would be in addition to the normal protections (i.e. the opposite trains and equipment providing cooling to redundant Division 1 equipment) that would be established for work on WMA-FN-53B.

3.4 Additional Considerations for COVID-19 and Exigent LARs

Keeping Columbia in operation during the pandemic will help to support the public need for reliable electricity supply to cope with the pandemic. Obtaining this extended completion time will ensure Columbia is well positioned to maintain full power operations for the remainder of the current operating cycle and the unknown duration of the National Emergency and state pandemic response under Proclamation 20-25 Stay Home – Stay Healthy by Washington State Governor Inslee. In the Appendix to Proclamation 20-25, nuclear power facilities are recognized as part of the critical Energy Sector profile, and as such continuity of operations is to be maintained to protect the health and well-being of all Washingtonians. Columbia operates principally as baseload electrical generation and is an important part of the overall generation portfolio of BPA. If the plant is forced to shut down, particularly during very high demand periods typical of summer and winter, the likely result would be significant challenges to supplying regional electrical needs. As such, and in recognition that pandemic related impacts to the regional grid are uncertain, BPA supports this effort to ensure continued reliable operation of Columbia.

Online work to replace a failed starter coil only would restore WMA-FN-53B to operable status but the replacement starter coil would be susceptible to premature failure due to the defective CPT still being present in the bucket. Based on previous actual failures of starter coils however, the shortest time to failure was approximately 2 years. An online starter coil replacement would thus be expected to allow the Division 2 HVAC system to continue operating for the remaining portion of the current operating cycle. A full bucket replacement during the next refueling outage (R25) would resolve the 10 CFR Part 21 issue on this system.

3.5 Conclusions

The following conclusions were reached as a result of this analysis:

- The deterministic analyses have concluded that sufficient margin will remain to equipment operability temperature limits during the extended CT.
- Loss of WMA-FN-53B for the extended CT does not result in concerns regarding accumulation of combustible gasses in the Division 2 battery room.
- The quantitative results for ICCDP and ICLERP for the CT extension are less than the guidance thresholds with WMA-FN-53B unavailable.
- Additional compensatory measures consisting of protecting risk significant systems are proposed and have not been credited in the PRA model, but are judged to further reduce the risk for this plant configuration.
- None of the PRA uncertainties identified for this application were found to be key uncertainties that influence this WMA-FN-53B CT extension, based on the guidance provided by the Electric Power Research Institute.
- The PRA models are adequate to support this risk assessment and the resulting risk is acceptable and consistent with the NRC safety goals.

3.6 Impact on Submittals under Review by NRC

The NRC is presently reviewing Energy Northwest's LARs for the following Technical Specification Task Force (TSTF) travelers

- TSTF-529 – Clarify Use and Application Rules
- TSTF-563 – Revise Instrument Testing Definitions to Incorporate Surveillance Frequency Control Program (SFCP)
- TSTF-564 – Safety Limit Mean Critical Power Ratio (MCPR)
- TSTF-566 – Revise Actions for Inoperable RHR Shutdown Cooling Subsystems

There is no impact on any of the TSTFs under NRC review by this LAR. While it is possible that an unexpected failure of the starter coil in WMA-42-8F1E could occur in the short period between the start of R-25 and the actual repair work, the actions in the applicable Mode 4 and 5 LCOs do not require modification to support a coil or bucket replacement task. This is true with the current LCOs as well as the LCOs as they would be modified by TSTF-566, which is expected to be implemented prior to the start of R-25.

4.0 REGULATORY EVALUATION

The proposed TS amendment:

- Does not result in any change in the qualifications of any component; and
- Does not result in the reclassification of any component's status in the areas of shared, safety-related, independent, redundant, and physically or electrically separated.

Removal of the existing note on required action 3.8.7.A.1, which is expired, is an administrative change only.

4.1 Applicable Regulations

Section 182a of the Atomic Energy Act (Act) requires applicants for nuclear power plant operating licenses to include TS as part of the license. These TS are derived from the plant safety analyses. In Section 50.36, "Technical specifications," of 10 CFR, the NRC established its regulatory requirements related to the content of TS.

Pursuant to 10 CFR 50.36, TS are required to include items in the following five specific categories related to station operation: (1) safety limits, limiting safety system settings, and limiting control settings; (2) limiting conditions for operation (LCOs); (3) surveillance requirements; (4) design features; and (5) administrative controls. The rule does not specify the particular requirements to be included in a plant's TS. The regulation in 10 CFR 50.36(c)(2) states that LCOs are the lowest functional capability or performance level of equipment required for safe operation of the facility and when LCOs are not

met, the licensee shall shut down the reactor or follow any remedial action permitted by the TS until the LCO can be met.

The proposed change will be less restrictive than the current requirements contained in LCOs 3.8.4 Condition G, and 3.8.7 Conditions A & B, but as detailed in this request still affords adequate assurance of safety.

Per the requirements of 10 CFR 50.63(a) Energy Northwest has defined station response to station blackout (SBO). Columbia's SBO strategy incorporates aspects of both the alternate AC and AC-independent approaches in a hybrid approach deemed acceptable by the NRC. The strategy relies on the Division 1 and 2 125 V DC batteries to provide DC power to their respective 125 V DC systems for the required 4-hour coping period without load shedding.

Section 8A.2.5.4 of the updated Final Safety Analysis report explicitly considers effects of loss of ventilation for the 4 hour coping period. The approach consists of identifying dominant areas of concern (DAC). A DAC contains equipment needed for one or more of the following:

- functions within 1 hour of SBO initiation to remove decay heat,
- has significant heat generation sources after AC power is lost, or
- results in loss of capability to remove heat without operator action during the SBO.

For each DAC, reasonable assurance of operability (RAO) is established.

The DACs for Columbia's SBO response are limited to the control room and primary containment. However, SBO temperature analysis was also performed for other components with important SBO response functions. For the electrical distribution subsystems, which would be impacted by loss of WMA-FN-53B, the SBO analyses considered only the Division 2 switchgear room since it contains breakers essential to restoration of AC power. Analysis results show that Division 2 switchgear temperatures do not exceed the equipment qualification temperature at the end of the 4-hour coping period. As such, no specific action was required to provide reasonable assurance of operability for Division 2 switchgear under SBO conditions.

The SBO coping analysis only considers 4 hours and RAO is established when accounting for a total loss of HVAC. Additionally, station blackout does not assume a concurrent single failure or design basis accident. Therefore, extending the time to restore WMA-FN-53B for a total time, which exceeds the duration of the SBO, does not result in any changes to the SBO coping strategy.

Applicable 10 CFR 50 Appendix A General Design Criteria (GDC)

The relevant GDCs are discussed below:

GDC Criterion 17—Electric power systems

> *An onsite electric power system and an offsite electric power system shall be provided to permit 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*.

Columbia's compliance with GDC 17 is described in section 3.1.2.2.8 of Columbia's Final Safety Analysis Report (FSAR), as updated. Neither the extension of the allowed completion time nor the scope of the repair work would alter Columbia's compliance with this GDC. Defense in depth inherent to Columbia's electrical power system preserves key safety functions. Furthermore, the additional time requested for this one-time change is shorter than the time in which equipment qualification would be challenged. Thus, the ability of the electrical subsystem to allow important to safety structures, systems and components to perform their required functions is preserved.

4.2 Applicable Regulatory Guidance

The regulatory guidance used in developing the risk information submitted in support of this LAR consisted of the following:

- Regulatory Guide (RG) 1.200, An Approach for Determining the Technical Adequacy of Probabilistic Risk Assessment Results for Risk-Informed Activities," Revision 2, March 2009 describes an acceptable approach for determining whether the quality of the PRA, in total or the parts that are used to support an application, is sufficient to provide confidence in the PRA results, such that the PRA can be used in regulatory decision-making. The Columbia full power internal events (FPIE) PRA model meets the requirements of RG 1.200 Revision 2. The fire and seismic PRA models do not meet all aspects of the RG 1.200 guidance, but the PRA models are judged to be of sufficient quality for this application and provide insights into dominant risk contributors for fire and seismic events as discussed above.
- Regulatory Guide 1.174, "An Approach for Using Probabilistic Risk Assessment [PRA] in Risk-Informed Decisions on Plant-Specific Changes to the Licensing Basis," Revision 3, January 2018, specifies an approach and acceptance guidelines for use of PRA in risk informed activities for permanent changes. Since this LAR is for a one-time TS change, the ΔCDF and the ΔLERF criteria of RG 1.1.74 do not specifically apply and are therefore, not evaluated in this assessment.
- Regulatory Guide 1.177, "An Approach for Plant-Specific, Risk-Informed Decision making: Technical Specifications," Revision 1, May 2011, describes methods acceptable to the NRC for assessing the nature and impact of proposed one-time TS changes. Acceptance guidelines in RG 1.177 represent a reasonable set of acceptance guidelines for this application. The technical evaluation provided in this LAR follows the method described in RG 1.77 for assessing the nature and impact of the proposed TS change completion time by considering engineering issues and applying risk insights. These acceptance guidelines combined with effective compensatory measures to further reduce the risk will ensure that these temporary changes to the TS meet the intent of small risk increases consistent with the Commission's Safety Goal Policy Statement.

5.0 PRECEDENT

In September 2018, Vistra Operations Company LLC requested an exigent amendment to extend TS 3.8.4 completion times for Comanche Peak Nuclear Power Plant (Agencywide Documents Access and Management System (ADAMS) Accession No. ML 18250A186). The change was granted by the NRC in October 2018 (ADAMS Accession No. ML18267A384).

The changes approved for Comanche Peak involved the temporary extension of 2-hour completion times on an exigent basis for LCO 3.8.4 to address emergent repairs on

safety related batteries. This application differs from Comanche in that it involves additional completion time extensions in LCO 3.8.7 actions and that a shorter overall duration is requested. Additionally, the placement and wording of the note are different for this application. The notes proposed in this request are consistent with the Improved TS Writer's Guide acceptable format.

On August 15, 2019, Energy Northwest requested an exigent Amendment to extend TS required action 3.8.7.A (ML 19227A370). The change was approved by the NRC on August 26, 2019 (ML 19234A016). The changes requested in this application are risk informed by updated versions of the PRA models discussed in the docketed correspondence supporting the August 2019 TS change.

6.0 SIGNIFICANT HAZARDS CONSIDERATION

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

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

   Response: No.

   The proposed amendment does not increase the probability of an accident because neither the onsite Class 1E alternating current (AC) nor direct current (DC) electrical power distribution subsystem can initiate an accident. The onsite Class 1E AC and DC electrical power distribution subsystems ensure the availability of electrical power for the systems required to shut down the reactor and maintain it in a safe condition after an anticipated operational occurrence or a postulated design basis accident.

   The proposed one-time extension to allow a total 16-hour completion time (CT) does not alter the conditions, operating configurations, or minimum amount of operating equipment assumed in the safety analysis for accident mitigation. No changes are proposed in the manner in which the electrical power distribution provides plant protection or which create new modes of plant operation. In addition, a probabilistic risk assessment (PRA) evaluation concluded that the risk contribution of the increased CT is a very small increase in risk. The proposed change in CT will not affect the probability of any event initiators. There will be no degradation in the performance of, or an increase in the number of challenges imposed on, safety related equipment assumed to function during an accident situation. There will be no change to normal plant operating parameters or accident mitigation performance.

   Therefore, there is no significant increase in the probability or consequences of an accident previously evaluated.

2) Does the proposed amendment create the possibility of a new or different kind of accident from any accident previously analyzed?

   Response: No.

   The proposed amendment will not create the possibility of a new or different kind of accident because inoperability of Division 2 AC and DC electrical power distribution subsystem are not accident precursors. There are no hardware changes nor are there any changes in the method by which any plant system performs a safety function. This request does not affect the normal method of plant operation. The proposed amendment does not introduce new equipment, or new way of operation of the system, which could create a new or different kind of accident. No new external threats, release pathways, or equipment failure modes are created. No new accident scenarios, transient precursors, failure mechanisms, or limiting single failures are introduced as a result of this request.

   Therefore, the implementation of the proposed amendment will not create a possibility for an accident of a new or different type than those previously evaluated.

3) Does the proposed amendment involve a significant reduction in a margin of safety?

   Response: No.

   Columbia's AC and DC electrical power distribution subsystems are designed with sufficient redundancy such that any one division may be removed from service for maintenance or testing and the remaining subsystems are capable of providing electrical loads to satisfy the final safety analysis report requirements for accident mitigation or plant shutdown. A PRA evaluation concluded that the risk contribution of the CT extension is within allowable limits. There will be no change to the manner in which safety limits or limiting safety system settings are determined nor will there be any change to those plant systems necessary to assure the accomplishment of protection functions. For these reasons, the proposed amendment does not involve a significant reduction in a margin of safety.

   Therefore, the proposed amendment does not involve a significant reduction in the margin of safety.

Based on the above, Energy Northwest concludes that the proposed amendment does not involve a significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and, accordingly, a finding of "no significant hazards consideration" is justified.

7.0 CONCLUSIONS

Based on the considerations discussed above: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the applicable regulations as identified herein, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

8.0 ENVIRONMENTAL CONSIDERATION

Energy Northwest has determined that the proposed amendment would change requirements with respect to installation or use of a facility component located within Columbia's restricted area, as defined in 10 CFR 20, or would change an inspection or surveillance requirement. Energy Northwest has evaluated the proposed change and has determined that the change does not involve, (i) a significant hazards consideration, (ii) a significant change in the types or a significant increase in the amounts of any effluents that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed change meets the eligibility criteria for categorical exclusion in accordance with 10 CFR 51.22(c)(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.

9.0 REFERENCES

1. President Donald J. Trump, Proclamation on Declaring a National Emergency Concerning the Novel Coronavirus Disease (COVID-19) Outbreak, dated March 13, 2020, https://www.whitehouse.gov/presidential-actions/proclamation-declaring-national-emergency-concerning-novel-coronavirus-disease-covid-19-outbreak/ (accessed 4/8/2020)

2. Governor Jay Inslee, Proclamation 20-25 Stay Home – Stay Healthy, dated March 23, 2020, https://www.governor.wa.gov/office-governor/official-actions/proclamation (accessed 4/8/2020)

3. Governor Jay Inslee, Appendix to Proclamation 20-25 Stay Home – Stay Healthy, dated March 23, 2020, https://www.governor.wa.gov/sites/default/files/WA%20Essential%20Critical%20Infrastructure%20Workers%20(Final).pdf (accessed 4/8/2020)

List of Regulatory Commitments

The following table identifies the regulatory commitments in this document. Any other statements in this submittal regarding intended or planned actions, are provided for information purposes, and are not considered to be regulatory commitments.

COMMITMENT	TYPE SCHEDULED		COMPLETION DATE
	one-time	continuing compliance	
Compensatory measures outlined in section 3.2.3.4 of this letter will be implemented during the extended completion time allowed for repair or replacement of WMA-42-8F1E.	X		To be in effect within 2 hours of any entry into LCOs 3.8.4 or 3.8.7 to replace a failed WMA-42-8F1E or its starter coil, and maintained for the shorter of the duration of the repair or 16 hours from initial LCO entry.

Enclosure 2

Proposed Columbia Technical Specification Changes (Mark-Up)

ACTIONS

CONDITION	REQUIRED ACTION		COMPLETION TIME
C. One required Division 1 250 V DC battery charger inoperable.	C.1	Restore battery terminal voltage to greater than or equal to the minimum established float voltage.	2 hours
	AND		
	C.2	Verify battery float current ≤ 2 amps.	Once per 12 hours
	AND		
	C.3	Restore required battery charger to OPERABLE status.	72 hours
D. One required Division 1 or 2 125 V DC battery inoperable.	D.1	Restore battery to OPERABLE status.	2 hours
E. One required Division 3 125 V DC battery inoperable.	E.1	Restore battery to OPERABLE status.	2 hours
F. One required Division 1 250 V DC battery inoperable.	F.1	Restore battery to OPERABLE status.	2 hours
G. Division 1 or 2 125 V DC electrical power subsystem inoperable for reasons other than Condition A or D.	G.1	Restore Division 1 and 2 125 V DC electrical power subsystems to OPERABLE status.	2 hours

----------NOTE----------
Until June 30, 2021, a Completion Time of 16 hours is applicable for replacement of WMA-42-8F1E or its failed starter coil.

3.8 ELECTRICAL POWER SYSTEMS

3.8.7 Distribution Systems - Operating

LCO 3.8.7 The following AC and DC electrical power distribution subsystems shall be OPERABLE:

a. Division 1 and Division 2 AC electrical power distribution subsystems;

b. Division 1 and Division 2 125 V DC electrical power distribution subsystems;

c. Division 1 250 V DC electrical power distribution subsystem; and

d. Division 3 AC and DC electrical power distribution subsystems.

APPLICABILITY: MODES 1, 2, and 3.

----------NOTE----------
Until June 30, 2021, a Completion Time of 16 hours is applicable for replacement of WMA-42-8F1E or its failed starter coil.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Division 1 or 2 AC electrical power distribution subsystem inoperable.	A.1 Restore Division 1 and 2 AC electrical power distribution subsystems to OPERABLE status.	8 hours[1] AND 16 hours from discovery of failure to meet LCO 3.8.7.a or b
B. Division 1 or 2 125 V DC electrical power distribution subsystem inoperable.	B.1 Restore Division 1 and 2 125 V DC electrical power distribution subsystems to OPERABLE status.	2 hours AND 16 hours from discovery of failure to meet LCO 3.8.7.a or b

Delete Existing Note

[1] ~~The CT for Required Action A.1 may be extended up to 16 hours to support restoration of E-PP-7AF following work to repair/replace its supply transformer E-TR-7A/2. Upon successful restoration of E-PP-7AF following the repair of E-TR-7A/2, this footnote is no longer applicable and will expire at 0800 PST on September 14, 2019.~~

Enclosure 3

Proposed Columbia Technical Specification Changes (Re-Typed)

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. One required Division 1 250 V DC battery charger inoperable.	C.1 Restore battery terminal voltage to greater than or equal to the minimum established float voltage. AND C.2 Verify battery float current $\leq$ 2 amps. AND C.3 Restore required battery charger to OPERABLE status.	2 hours Once per 12 hours 72 hours
D. One required Division 1 or 2 125 V DC battery inoperable.	D.1 Restore battery to OPERABLE status.	2 hours
E. One required Division 3 125 V DC battery inoperable.	E.1 Restore battery to OPERABLE status.	2 hours
F. One required Division 1 250 V DC battery inoperable.	F.1 Restore battery to OPERABLE status.	2 hours
G. Division 1 or 2 125 V DC electrical power subsystem inoperable for reasons other than Condition A or D.	G.1 Restore Division 1 and 2 125 V DC electrical power subsystems to OPERABLE status.	----------NOTE---------- Until June 30, 2021, a Completion Time of 16 hours is applicable for replacement of WMA-42-8F1E or its failed starter coil. 2 hours

3.8 ELECTRICAL POWER SYSTEMS

3.8.7 Distribution Systems - Operating

LCO 3.8.7 The following AC and DC electrical power distribution subsystems shall be OPERABLE:

a. Division 1 and Division 2 AC electrical power distribution subsystems;

b. Division 1 and Division 2 125 V DC electrical power distribution subsystems;

c. Division 1 250 V DC electrical power distribution subsystem; and

d. Division 3 AC and DC electrical power distribution subsystems.

APPLICABILITY: MODES 1, 2, and 3.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Division 1 or 2 AC electrical power distribution subsystem inoperable.	A.1 Restore Division 1 and 2 AC electrical power distribution subsystems to OPERABLE status.	----------NOTE---------- Until June 30, 2021, a Completion Time of 16 hours is applicable for replacement of WMA-42-8F1E or its failed starter coil. ---------- 8 hours <u>AND</u> 16 hours from discovery of failure to meet LCO 3.8.7.a or b

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. Division 1 or 2 125 V DC electrical power distribution subsystem inoperable.	B.1 Restore Division 1 and 2 125 V DC electrical power distribution subsystems to OPERABLE status.	----------NOTE---------- Until June 30, 2021, a Completion Time of 16 hours is applicable for replacement of WMA-42-8F1E or its failed starter coil. ---------- 2 hours AND 16 hours from discovery of failure to meet LCO 3.8.7.a or b
C. Required Action and associated Completion Time of Condition A or B not met.	C.1 ----------NOTE---------- LCO 3.0.4.a is not applicable when entering MODE 3. _____ Be in MODE 3.	 12 hours
D. Division 1 250 V DC electrical power distribution subsystem inoperable.	D.1 Declare associated supported feature(s) inoperable.	Immediately
E. One or more Division 3 AC or DC electrical power distribution subsystems inoperable.	E.1 Declare High Pressure Core Spray System inoperable.	Immediately
F. Two or more divisions with inoperable electrical power distribution subsystems that result in a loss of function.	F.1 Enter LCO 3.0.3.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.8.7.1	Verify correct breaker alignments and indicated power availability to required AC and DC electrical power distribution subsystems.	In accordance with the Surveillance Frequency Control Program