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ND-20-0464
10 CFR 50.90

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

Southern Nuclear Operating Company
Vogtle Electric Generating Plant Units 3 and 4
Request for License Amendment:
Technical Specification 3.3.13 for Main Control Room Emergency Habitability System (VES) Instrumentation Applicability Change and Include Undervoltage Actuation (LAR-20-003)

Ladies and Gentlemen:

Pursuant to 10 CFR 52.98(c) and in accordance with 10 CFR 50.90, Southern Nuclear Operating Company (SNC) requests an amendment to the combined licenses (COLs) for Vogtle Electric Generating Plant (VEGP) Units 3 and 4 (License Numbers NPF-91 and NPF-92, respectively). The requested amendment proposes changes to COL Appendix A, Technical Specifications (TS) and Updated Final Safety Analysis Report (UFSAR).

The license amendment request (LAR) proposes changes to UFSAR information that involve the following proposed COL Appendix A TS changes:

- TS 3.3.13, Engineered Safety Feature Actuation System (ESFAS) Main Control Room Isolation, Air Supply Initiation, and Electrical Load De-energization Applicability is revised to exclude operability of the Main Control Room Air Supply Iodine or Particulate Radiation - High 2 function when the Main Control Room (MCR) envelope is isolated and the MCR emergency habitability system (VES) is operating.

- TS 3.3.13, Engineered Safety Feature Actuation System (ESFAS) Main Control Room Isolation, Air Supply Initiation, and Electrical Load De-energization is revised to include Class 1E 24-Hour Battery Charger Input Undervoltage actuation signals for VES actuation and de-energization of the MCR air supply radiation monitoring sample pumps.

- TS 3.8.1, DC Sources – Operating, and TS 3.8.2, DC Sources – Shutdown are revised to include a Surveillance Requirement to verify the MCR air supply radiation monitoring sample pump de-energizes on an actual or simulated actuation signal.

These changes were previously discussed with the NRC Staff at technical exchange conference call on April 9, 2020 (ADAMS Accession Number ML20105A010).

Enclosure 1 provides the description, technical evaluation, regulatory evaluation (including the Significant Hazards Consideration Determination) and environmental considerations for the proposed changes.

Enclosure 2 identifies the requested changes and provides markups depicting the requested changes to the VEGP Units 3 and 4 licensing basis documents.

Enclosure 3 provides the information-only changes to the VEGP Units 3 and 4 Technical Specifications Bases document.

This letter contains no regulatory commitments. This letter has been reviewed and determined not to contain security-related information.

SNC requests NRC staff review and approval of this license amendment request (LAR) no later than September 30, 2020 to support the associated procedure and training updates prior to fuel load. Delayed approval of this license amendment could result in a delay in training updates and subsequent dependent activities. SNC expects to implement the proposed amendment within 30 days of approval of the LAR.

In accordance with 10 CFR 50.91, SNC is notifying the State of Georgia by transmitting a copy of this letter and its enclosures to the designated State Official.

Should you have any questions, please contact Ms. Amy Chamberlain at (205) 992-6361.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 7th of May 2020.

Respectfully submitted,

for BHW

Brian H. Whitley
Director, Regulatory Affairs
Southern Nuclear Operating Company

Enclosures
1) Vogtle Electric Generating Plant (VEGP) Units 3 and 4 – Request for License Amendment: Technical Specification 3.3.13 for Main Control Room Emergency Habitability System (VES) Instrumentation Applicability Change and Include Undervoltage Actuation (LAR-20-003)

2) Vogtle Electric Generating Plant (VEGP) Units 3 and 4 – Proposed Changes to Licensing Basis Documents (LAR-20-003)

3) Vogtle Electric Generating Plant (VEGP) Units 3 and 4 – Conforming Changes to the Technical Specifications Bases (For Information Only) (LAR-20-003)

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Southern Nuclear Operating Company

ND-20-0464
Enclosure 1

Vogtle Electric Generating Plant (VEGP) Units 3 and 4

Request for License Amendment: Technical Specification 3.3.13 for Main Control Room Emergency Habitability System (VES) Instrumentation Applicability Change and Include Undervoltage Actuation

(LAR-20-003)

(Enclosure 1 consists of 22 pages, including this cover page.)

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Pursuant to 10 CFR 52.98(c) and in accordance with 10 CFR 50.90, Southern Nuclear Operating Company (SNC) hereby requests an amendment to Combined License (COL) Nos. NPF-91 and NPF-92 for Vogtle Electric Generating Plant (VEGP) Units 3 and 4, respectively.

1. SUMMARY DESCRIPTION

The license amendment request (LAR) includes two topics.

A. The first change would revise the following COL Appendix A, Technical Specifications (TS):

- TS 3.3.13, Engineered Safety Feature Actuation System (ESFAS) Main Control Room Isolation, Air Supply Initiation, and Electrical Load De-energization Applicability is revised to exclude operability of the Main Control Room Air Supply Iodine or Particulate Radiation - High 2 function when the Main Control Room (MCR) envelope is isolated and the MCR emergency habitability system (VES) is operating.

B. The second change would revise the following Updated Final Safety Analysis Report (UFSAR) changes, which are involved with the following COL Appendix A, TS:

- UFSAR Figure 7.2-1 (Sheet 13 of 21), Functional Diagram Containment and Other Protection to revise the functional block “DE-ENERGIZE MCR RADIATION MONITORS” to “DE-ENERGIZE MCR AIR SUPPLY RADIATION MONITOR SAMPLE PUMPS.”

- UFSAR subsection 7.3.1.2.17, Main Control Room Isolation, Air Supply Initiation, and Electrical Load De-energization, to clarify the Class 1E 24-Hour Battery Charger Input Undervoltage actuation logic, the load that is de-energized, and to further describe the protection provided by undervoltage actuation signal.

- UFSAR Table 7.3-1, Engineered Safety Features Actuation Signals, Sheet 6 and Sheet 9, to revise the application of Note (8) and add a new Note (13) stating “De-energization of Main Control Room air supply radiation monitor sample pumps occurs on an extended undervoltage to Class 1E 24-hour battery chargers coincident with Main Control Room Isolation, Air Supply Initiation, and Electrical Load De-energization actuation signal.”

- TS 3.3.13, Engineered Safety Feature Actuation System (ESFAS) Main Control Room Isolation, Air Supply Initiation, and Electrical Load De-energization is revised to include Class 1E 24-Hour Battery Charger Input Undervoltage actuation signals for VES actuation and de-energization of the MCR air supply radiation monitoring sample pumps.

- TS 3.8.1, DC Sources – Operating, and TS 3.8.2, DC Sources – Shutdown are revised to include a Surveillance Requirement to verify the MCR air supply radiation monitoring sample pump de-energizes on an actual or simulated actuation signal.

2. DETAILED DESCRIPTION and TECHNICAL EVALUATION

Design Function Related to the Activity

The habitability systems that collectively provide the habitability functions for the plant are described in UFSAR Subsection 6.4, Habitability Systems and Subsection 9.4.1, Nuclear Island Nonradioactive Ventilation System. When a source of ac power is available, the nuclear island non-radioactive ventilation (VBS) provides normal and abnormal HVAC service to the main control room (MCR), control support area (CSA), instrumentation and control rooms, dc equipment rooms, battery rooms, and the nuclear island nonradioactive ventilation system equipment room. In addition, VBS is designed to control the radiological habitability in the main control room within the guidelines presented in Standard Review Plan (SRP) 6.4 and NUREG-0696, when ac power is available. If ac power is unavailable for more than 10 minutes, if main control room differential pressure is below the “Low” setpoint for more than 10 minutes, or if “High-2” particulate or iodine radioactivity is detected in the main control room supply air duct, the protection and safety monitoring system (PMS) automatically isolates the MCR and operator habitability requirements are then met by the main control room emergency habitability system (VES).

The Radiation Monitoring System (RMS), described in UFSAR Subsection 11.5, Radiation Monitoring, provides the means to monitor radiation in the MCR supply air duct and provides initiation signals to the PMS for control room isolation and actuation of the VES. Each MCR supply air duct radiation monitor package, APP-VBS-JS-01A and APP-VBS-JS-01B is comprised of a sample pump, a particulate detector, an iodine detector and a noble gas detector to continuously measure and record the concentration of radioactive materials in the air supplied to the MCR by the VBS air handling units. The sample pump is used to pull the MCR air past the radiation detectors. The air duct radiation monitors are used to maintain the MCR habitability by initiating ventilation systems following Design Basis Accidents (DBAs) which could lead to exceeding GDC 19, “Control Room,” operator dose limits (5 rem total effective dose equivalent [TEDE]). These monitors also serve as RG 1.97 Category E3 and F3 post-accident monitors. The radioactive measurements are used to initiate the supplemental air filtration (non-safety related) on high gaseous, particulate, or iodine concentration when a High-1 alarm is detected. On a Main Control Room Air Supply Iodine or Particulate Radiation – High 2 signal, the MCR air supply and exhaust pathways (safety-related) will be isolated and VES emergency air supply will be initiated. Alarms are also provided in the MCR for these high concentrations.

When MCR Isolation “AND” Class 1E 24-hour battery charger undervoltage signals from the PMS are both present for greater than 600 seconds, then a hardware output signal is sent to de-energize (i.e., load shed) the sample pumps (one per skid) on the MCR air supply radiation monitor skids. Division B outputs a signal to APP-VBS-JS-01A and Division C outputs a signal to APP-VBS-JS-01B. This requirement exists to conserve the plant Class 1E DC and Uninterruptible Power Supply System (IDS) while the MCR is isolated coincident with loss of offsite power. De-energizing the MCR radiation monitor sample pumps are also credited for maintaining I&C room temperature below equipment qualification limits and maintaining the assumed heat load for MCR habitability during and extended loss of ac event.

The VES is described in UFSAR Subsection 6.4.2, System Description. The VES system includes a compressed air supply contained in a set of storage tanks to supply the required air flow to the MCR, equipment to provide electrical load de-energization, and passive heat sinks to maintain

the temperature in the MCR within limits for human performance. VES operation in conjunction with automatic PMS actuation of load shedding provides the means for limiting the Main Control Room Envelope (MCRE) air temperature to a maximum average wet bulb globe temperature index for the MCR of less than 90°F during the first 72 hours following the loss of VBS operation. The PMS provides a phased load-shed (Stage 1 and Stage 2) of identified nonsafety-related MCR heat loads (miscellaneous loads at 0 minutes and wall panel information system displays and workstation equipment at 180 minutes after VES actuation) to achieve the design basis safety-related MCR heat load profiles for events.

As described in UFSAR Subsection 7.3.1.2.17, Main Control Room Isolation, Air Supply Initiation, and Electrical Load De-energization, either the High-2 main control room air supply radioactivity level signal, the Class 1E 24-hour battery charger undervoltage signal (loss of ac power), low main control room differential pressure signal, or manual initiation initiates the isolation of the main control room, initiates the VES air supply, initiates the main control room pressure relief isolation valves to open, and de-energizes nonessential main control room electrical loads. In addition, the loss of ac power sources coincident with main control room isolation signal will de-energize the main control room air duct radiation monitor sample pumps.

The IDS provides electrical power for safety related and vital control instrumentation loads, including monitoring equipment and main control room emergency lighting. It also provides power for safe shutdown when all the onsite and offsite AC power sources are lost and cannot be recovered for up to 72 hours. As required by 10 CFR 50, Appendix A, GDC 17, the IDS is designed to have sufficient independence, redundancy, and testability to perform its safety functions, assuming a single failure. The IDS consists of four independent safety related Class 1E DC electrical power subsystems (Division A, B, C, and D). Divisions A and D each consist of one battery bank, one battery charger, and the associated control equipment and interconnecting cable. Divisions B and C each consist of two battery banks, two battery chargers, and the associated control equipment and interconnecting cabling. The first battery bank in each of the four divisions, designated as the "24 hour" battery bank, provides power to the loads required for the first 24 hours following an event. The second battery bank in Divisions B and C, designated as the "72 hour" battery bank, is used for those loads requiring power for 72 hours following an event. The loads on the battery banks (including those on the associated inverters) are grouped according to their role in response to a Design Basis Accident (DBA). Loads which are a one time or limited duration load (engineered safety features (ESF) actuation cabinets and reactor trip function) required within the first 24 hours following an accident are connected to the “24 hour” battery bank. Loads which are continuous or required beyond the first 24 hours following an accident (emergency lighting, post-accident monitoring, and Qualified Data Processing System) are connected to the “72 hour” battery bank.

The purpose of the battery charger input undervoltage relays is to detect loss of ac power, which is an indication of a station blackout (SBO). To accomplish this, the PMS logic requires both undervoltage relays for a given Division to drop out, and (with time delay) for this to occur in Division A or Division C, concurrent with Division B or Division D to generate the associated Engineered Safety Features Actuation System (ESFAS) signal.

Detailed Description and Technical Evaluation of Each Change

Due to the addition of the Class 1E 24-Hour Battery Charger Undervoltage Function (addressed in change "B" below) and its differences in Applicability, Actions, and Surveillance Requirements (SRs) from the existing Functions in TS 3.3.13, the format of TS 3.3.13 is revised to include proposed Table 3.3.13-1 to identify three Functions, the two existing Functions: Main Control Room Air Supply Iodine or Particulate Radiation – High 2 (now identified as Function 1) and Main Control Room Differential Pressure-Low (now identified as Function 2), and the new Function 3 - Class 1E 24-Hour Battery Charger Undervoltage. Table 3.3.13-1 identifies their Applicability, Required Channels, Conditions, and the applicable Surveillance Requirements. The overall format change is an editorial change to TS 3.3.13.

With respect to Function 1 - Main Control Room Air Supply Iodine or Particulate Radiation – High 2 and Function 2 - Main Control Room Differential Pressure-Low originally included in TS 3.3.13, although the format has changed, there is no change to the Required Actions and Completion Times or Surveillance Requirements for these Functions.

A. TS 3.3.13, "ESFAS Main Control Room Isolation, Air Supply Initiation, and Electrical Load De-energization," governs operability of the Main Control Room (MCR) Air Supply Iodine or Particulate Radiation channels. In the event that there is no process flow where the monitors take a sample (i.e., no VBS flow to the MCR), these radiation monitors would no longer be able to perform their safety function to monitor radiation in the MCR supply air duct and provide input from the particulate and iodine channels to the PMS for the isolation of the MCR and initiation of VES operation in the event of reaching the High 2 setpoint for iodine or particulate radiation. However, on loss of VBS flow, the Main Control Room Differential Pressure – Low signal will actuate VES. As currently written, TS 3.3.13 Actions for inoperable Iodine or Particulate Radiation monitors would require an immediate plant shutdown and suspension of irradiated fuel movement, even though in the case of no VBS flow the MCR is being protected by the differential pressure channels.

   On a High-2 MCR Air Supply Iodine or Particulate Radiation signal, the MCRE isolation valves close. The MCR radiation monitoring packages provide initiation signals to the VES via the PMS for VES actuation. As described in TS Bases 3.3.13, each MCR Air Supply Iodine or Particulate Radiation monitoring channel requires both the iodine radiation monitor and the particulate radiation monitor to be OPERABLE for the MCR Air Supply Iodine or Particulate Radiation channel to be OPERABLE. Therefore, with loss of VBS flow, or the MCR radiation monitor sample pumps de-energized, the MCR Air Supply Iodine or Particulate Radiation High 2 function cannot be OPERABLE, and therefore would require actions to be in MODE 5 within 36 hours (TS 3.3.13, Action C).

   Whenever both the MCRE is isolated and the VES is providing pressurization and breathing air to the MCRE, the safety function of the MCR air supply radiation monitoring packages and the High 2 MCR Air Supply Iodine or Particulate Radiation signal has already been achieved. Therefore, it is not necessary to require operability of the Main Control Room Air Supply Iodine or Particulate High 2 channel function when the MCRE is isolated and VES is in operation.

The Applicability of TS 3.3.13 is changed to include a note (in new proposed Table 3.3.13-1) that the Main Control Room Air Supply Iodine or Particulate Radiation – High 2 Function is not required to be operable when the MCRE is isolated and the VES is operating.

The change to TS 3.3.13, Applicability, for the Main Control Room Air Supply Iodine or Particulate Radiation – High 2 channels addresses an unnecessary operability restriction. The change is the addition of Note "a" to the new, proposed Table 3.3.13-1. For the Main Control Room Air Supply Iodine or Particulate Radiation – High 2 channel to be OPERABLE, both the iodine radiation monitor and the particulate radiation monitor are required to be OPERABLE. As presented in UFSAR Subsection 7.3.1.2.17, in the event of a Main Control Room Air Supply Iodine or Particulate Radiation High 2 signal, Class 1E 24-hour Battery Charger Undervoltage signal, low main control room differential pressure, or by manual initiation, MCRE isolation is actuated, VES operation is actuated, and de-energization of nonessential MCR electrical loads is initiated. In the event of a Class 1E 24-hour Battery Charger Undervoltage signal (loss of ac power sources), the radiation monitor sample pumps are also de-energized (to conserve battery power) and therefore would result in the Main Control Room Air Supply Iodine or Particulate Radiation – High 2 function inoperable for both channels, requiring the plant to shutdown to MODE 5 within 36 hours by TS 3.3.13. With the MCRE isolated and the VES tanks providing the air supply to the MCR, there is no flow to the control room through the VBS air supply duct that the radiation monitors sample for the Main Control Room Air Supply Iodine or Particulate Radiation – High 2 signal.

UFSAR Figure 7.2-1, Sheet 13 of 21, Functional Diagram, Containment and Other Protection, depicts the PMS actuation logic following a MCR Air Supply Iodine or Particulate Radiation High-2 signal. The MCR Air Supply Iodine or Particulate Radiation High-2 signal results in the following: Actuate MCR Pressure Relief Valves, MCR Isolation Actuation, Actuate VES Air Storage Tanks, De-Energize MCR Electrical Loads, and De-Energize MCR Radiation Monitors (when coincident with Class 1E 24-hour Battery Charger Undervoltage). As stated in Note 2 of UFSAR Figure 7.2-1, Sheet 13 of 21, the components are all individually sealed in (latched) so that loss of the actuation signal will not cause these components to return to the condition held prior to the advent of the actuation signal. Therefore, once these actions are initiated by the MCR Air Supply Iodine or Particulate Radiation High-2 signal, they will be performed even if the MCR Air Supply Iodine or Particulate Radiation High-2 signal is not operable after their initiation by the signal. The "De-Energize MCR Electrical Loads" signal from the PMS provides a two-phased load shed (Stage 1 and Stage 2) of identified nonsafety-related MCR heat loads (miscellaneous loads at 0 minutes and wall panel information system displays and workstation equipment at 180 minutes after VES actuation) to achieve the design basis safety-related MCR heat load profiles for events. This load shed capability, as well as the other PMS initiated actions from a MCR Air Supply Iodine or Particulate Radiation High-2 signal, are not impacted by the change to LCO 3.3.13.

The changes remain consistent with the design function of the MCR air duct radiation monitors as described in UFSAR Subsections 11.5 and 7.3.1.2.17.

There are no adverse impacts to safety as a result of the change to TS 3.3.13 for the Applicability of the Main Control Room Air Supply Iodine or Particulate Radiation – High 2 channels. Whenever both the MCR has been isolated (VBS cannot supply air flow to the

MCR) and the VES is providing pressurization and breathing air to the MCRE, the safety function of the MCR supply duct radiation monitoring packages and the MCR Air Supply Iodine or Particulate Radiation High - 2 signal is already accomplished, and therefore, the assumed safety function is maintained. The MCR environment will continue to be able to meet the habitability and equipment qualification requirements, as described in UFSAR Subsection 6.4, Habitability Systems, since the MCR will be isolated from the VBS air supply duct, the VES will provide the air supply, and load shedding of MCR non-safety loads will be performed.

B. The Function, "Class 1E 24-hour battery charger undervoltage" signal, does not have any Technical Specification requirements to confirm OPERABILITY of the safety function. UFSAR Table 7.3-1, Function 16.c, Note 8, incorrectly identified this Function as not meeting 10 CFR 50.36 criteria for inclusion into Technical Specifications; however, the Function preserves an assumption made in the battery load profile analyses that is necessary to ensure the batteries can support the primary success path / safety functions for a loss of ac event. This Function also preserves an assumption made in the room heatup analyses for maintaining Instrumentation and Control (I&C) room temperature limits below equipment qualification temperatures and for maintaining the assumed heat load for MCR habitability. Since this safety-related function is an important assumption for a primary success path for mitigating design basis accidents, the function meets 10 CFR 50.36(c)(2)(ii)(C) Criterion 3 to be included in Technical Specifications to ensure OPERABILITY of the signal path. However, this function is currently not contained within the Technical Specifications. Therefore, Technical Specification and UFSAR Chapter 7 changes are necessary to address the Class 1E 24-hour battery charger undervoltage signal.

There is a new Condition A added to TS 3.3.13. Condition A addresses one or more Functions with one or more channels(s) inoperable. In this case, the Required Action is to enter the Condition referenced in Table 3.3.13-1 immediately. Table 3.3.13-1 then identifies the applicable Conditions for each Function. The original Condition A has been changed to Condition B and continues to address the Required Actions for the case where one channel of either or both Functions 1 and 2 is inoperable in Modes 1, 2, 3, or 4. The original Condition B has been changed to Condition C and continues to address the Required Actions for the case where one channel of either or both Functions 1 and 2 is inoperable during movement of irradiated fuel assemblies in the same way as in the original TS 3.3.13. The original Conditions C and D have been changed to Conditions D and E respectively and continue to address the Required Actions for the case prior Required Actions are not met within the associated Completion Times. In the event two channels of either or both Functions 1 and 2 are inoperable, in lieu of expressing the Condition in new Conditions D and E, new Required Actions B.1 and C.1 provide a direct verification that only one channel is inoperable. If two channels in either Function 1 or 2 were inoperable, failing the new Required Action(s) would also require entering Conditions D and/or E. The re-format provides a more direct human factored presentation for the operator to follow and simplifies the Actions format given the addition new Actions for new Function 3.

In Table 3.3.13-1, Function 3 is the Class 1E 24-Hour Battery Charger Undervoltage. The Applicability for operability for Function 3 is MODES 1, 2, 3, 4, 5, and 6, and during movement of irradiated fuel because in the result of a loss of ac power event, the main control room air supply radiation monitor sample pumps are required to be de-energized to

conserve battery capacity and reduce equipment room heat loads. The channel requirements are two required channels per 24-hour battery charger. Two undervoltage sensors are provided on the input to each of the four 24-hour battery charger inputs. The logic is based on a (with time delay) two-out-of-two undervoltage to the battery charger for divisions A or C coincident with an undervoltage to the battery chargers for divisions B or D. When the undervoltage to Class 1E 24-hour battery chargers signal is present coincident with a main control room isolation, air supply initiation, and electrical load de-energization actuation signal, the main control room air supply radiation monitor sample pumps are de-energized to conserve battery capacity and reduce equipment room heat loads.

For the Class 1E 24-Hour Battery Charger Undervoltage (Function 3), a new Action F is added. A note is included that separate Condition entry is allowed for each channel for Function 3 since the Required Actions provide appropriate compensatory actions for each inoperable channel. Complying with the Required Actions may allow for continued operation, and subsequent inoperable channels are governed by subsequent Condition entry and application of associated Required Actions. The Completion Time(s) of the inoperable Function will be tracked separately for each Function starting from the time the Condition was entered for that Function. Required Action F.1 is to place an inoperable channel in trip with a Completion Time of 6 hours. The Completion Time of 6 hours to place the inoperable channel in trip is reasonable considering the time required to complete this action. Once an inoperable channel is placed in trip, no additional action is required for the inoperable channel since it is performing its intended safety function within the actuation logic.

If more than one channel is inoperable at a time, the configuration of inoperable channels in the trip condition may generate an undesired Main Control Room Isolation, Air Supply Initiation, and Electrical Load De-energization and de-energize the MCR radiation monitor sample pumps. Therefore, an alternative to Required Action F.1 is provided in Required Actions F.2.1 and F.2.2, which can be performed in lieu of Required Action F.1 to verify that actuation capability for Function 3 is maintained within 6 hours and require restoration the channel to operable status within 7 days. In order to verify actuation capability is maintained, the combination of channels either in trip or maintained OPERABLE must be able to perform the actuation with an undervoltage to the battery chargers for divisions A or C coincident with an undervoltage to the battery chargers for divisions B or D. By Required Action F.2.2, restoring the channel to OPERABLE status within 7 days reflects a reasonable time to effect restoration of the Class 1E 24-Hour Battery Charger Undervoltage channels.

A new Action G is added to address the condition when the Required Actions of Condition F are not completed within the associated Completion Time. The Required Action G.1 is to de-energize the MCR air supply radiation monitor pumps within 6 hours. This Required Action G.1 accomplishes the safety function of removing the battery load to protect the assumed battery load profile. This Completion Time of 6 hours is reasonable considering the required time to complete this action.

In Table 3.3.13-1, the sole Surveillance required for Function 3 is SR 3.3.13.1 for channel calibration in accordance with the Setpoint Program. Channel calibration is required to maintain the appropriate calibration of the actuation setpoint. The 24 month Frequency is consistent with the setpoint uncertainty calculations for this function. For Function 3,

response time testing is not required as the time response of the function is not explicitly modeled in the safety analysis.

Channel check and Channel Operational Test (COT) are typical requirements of engineered safety feature (ESF) functions in Technical Specifications. An evaluation was performed (consistent with the methodology presented in SNC LAR-19-001 and approved in VEGP Units 3 and 4 Amendments 168 and 166, respectively [ML19297C791]) and concludes that the PMS self-diagnostics cover the intent of the manual surveillances, and therefore, channel check and COT manual surveillances for this Function are not necessary. Therefore, the proposed change continues to impose periodic testing consistent with current PMS requirements, which will be performed in accordance with written test procedures.

A note is added to TS 3.3.13 Surveillance Requirements referring to Table 3.3.13-1 to determine which SRs apply for each Function. With the addition of the Class 1E 24-Hour Battery Charger Undervoltage Function, which does not invoke all the Surveillance Requirements, the Note directs the applicable Surveillances for each Function.

With the addition of the Class 1E 24-Hour Battery Charger Undervoltage Function to TS 3.3.13, TS 3.8.1 and TS 3.8.2 are revised to include a new Surveillance Requirement to verify that the main control room air supply radiation monitor sample pump de-energizes upon receipt of an actual or simulated actuation signal at a frequency of 24 months. Verification that de-energization of the main control room air supply sample pump actuates on an actual or simulated signal from PMS is required every 24 months to verify the safety function of removing the sample pump battery load functions to protect the assumed battery load profile and to maintain equipment temperature limits. This new Surveillance Requirement includes a Note that it is only required to be met when the main control room air supply radiation monitor sample pump is energized because with the main control room air supply radiation monitor sample pump de-energized, the safety function to protect the battery load profile and maintain equipment temperature limits is accomplished. The 24 month Frequency is acceptable, given the unit conditions required to perform the test and the other administrative controls existing to ensure adequate charger performance during these 24 month intervals. In addition, this Frequency is intended to be consistent with expected fuel cycle lengths.

The proposed changes do not result in a change to the VES design or radiological dose rates to the MCR operators for the duration of a DBA. The MCRE remains habitable for the duration of a DBA. There is no adverse impact to safety as a result of the changes to TS 3.3.13, TS 3.8.1, and TS 3.8.2 to include operability requirements for the Class 1E 24-Hour Battery Charger Undervoltage Function and testing of the capability to de-energize the main control room air supply radiation monitor sample pumps. This change is necessary in that the function meets 10 CFR 50.36(c)(2)(ii)(C) Criterion 3 and is required to be included in Technical Specifications to verify OPERABILITY of the signal paths and the de-energization of the main control room air supply radiation monitor sample pumps. These changes support testing of the operability and functional performance of the assumed battery load profile, do not impact the physical configuration of hardware on site, and do not impact safety-related software implementation.

UFSAR Chapter 7 is changed to correctly identify what is de-energized by the Class 1E 24-hour battery charger undervoltage function. The UFSAR Chapter 7 currently describes the PMS output as “de-energize MCR Radiation Monitors.” However, the design documentation and implementation is such that the function de-energizes the MCR air supply radiation monitor sample pumps; the MCR radiation monitors and associated central processing unit (CPU) remain energized. Therefore, UFSAR Chapter 7, including Figure 7.2-1 Sheet 13, subsection 7.3.1.2.17, and Table 7.3-1, requires changes to correctly identify the de-energization of the MCR air supply radiation monitor sample pumps. In addition, UFSAR subsection 7.3.1.2.17 and Table 7.3-1 are clarified by the removal of reference to “two-out-of-four” logic for an undervoltage to the battery chargers for divisions A or C coincident with an undervoltage to the battery chargers for divisions B and D. This clarification is consistent with the logic in UFSAR Figure 7.2-1 Sheet 15 since the logic is not specifically any “two-out-of-four” divisions.

The software and hardware implementation align with the current design requirement to de-energize just the sample pumps. The electronics on the skid, including the radiation monitors, will remain energized after the sample pumps is de-energized. The electronics are not a significant load on the IDS batteries and were considered in the sizing of the batteries; the sample pumps need to be de-energized to conserve battery margin and limit heat input into the room.

UFSAR Figure 7.2-1 (Sheet 13 of 21) is updated to change the output description “DE-ENERGIZE MCR RADIATION MONITORS” to “DE-ENERGIZE MCR AIR SUPPLY RADIATION MONITOR SAMPLE PUMPS”, as the undervoltage to the Class 1E battery chargers Function de-energizes the MCR radiation monitor sample pumps.

UFSAR Subsection 7.3.1.2.17 is updated to clarify the MCR isolation output signal de-energizes the MCR air supply radiation monitor sample pumps, not the MCR radiation monitors. It is also updated to state that the de-energization of the sample pumps is not only credited in the safety analysis to conserve the battery capacity but is also to maintain room temperature below the equipment qualification limits and to maintain the assumed heat load for MCR habitability.

UFSAR Table 7.3-1 (Sheet 6 of 9) is updated to remove Note 8 from Actuation Signal 16.b and add a new note to clarify interlocks on 16 and 16.b. Note 8 stated that the “Extended undervoltage to Class 1E 24-hour battery chargers” actuation signal did not meet the 10 CFR 50.36(c)(2)(ii) criteria and was not included in the Technical Specifications; however, this is not correct, and therefore Note 8 is removed. A new Note 13 is added to “Main Control Room Isolation Air Supply Initiation, and Electrical Load De-energization” and the “Extended undervoltage to Class 1E 24-hour battery chargers” signal to state that “De-energization of Main Control Room air supply radiation monitor sample pumps occurs on undervoltage to Class 1E 24-hour battery chargers coincident with Main Control Room Isolation, Air Supply Initiation, and Electrical Load De-energization actuation signal,” which is consistent with the PMS logic in UFSAR Figure 7.2-1 (Sheet 13 of 21).

There is no adverse impact to safety due to the changes to UFSAR Chapter 7. This provides a correction that the Undervoltage on input of Class 1E 24-hour battery charger signal de-energizes the main control room air supply radiation monitor sample pumps, that this

de-energization is to conserve battery capacity and MCR habitability, and it meets the requirement of 10 CFR 50.36(c)(2)(ii) criteria to be included in the Technical Specifications. In addition, de-energizing the main control room air supply radiation monitor sample pumps maintains the room temperature for equipment qualification limits. These changes do not impact the physical configuration of hardware on site and do not impact safety-related software implementation.

Proposed Licensing Basis Changes

Proposed changes include the following UFSAR subsections:

- UFSAR Figure 7.2-1 (Sheet 13 of 21) change the functional block "DE-ENERGIZE MCR RADIATION MONITORS" to "DE-ENERGIZE MCR AIR SUPPLY RADIATION MONITOR SAMPLE PUMPS."

- UFSAR subsection 7.3.1.2.17, Main Control Room Isolation, Air Supply Initiation, and Electrical Load De-energization, change 3rd paragraph, last sentence, to delete "two-out-of-four."

- UFSAR subsection 7.3.1.2.17, Main Control Room Isolation, Air Supply Initiation, and Electrical Load De-energization, change 5th paragraph to be: "In addition, the loss of all ac power sources coincident with main control room isolation will de-energize the main control room air supply radiation monitor sample pumps in order to conserve the battery capacity, maintain room temperature below the equipment qualification limitation, and to maintain the assumed heat load for MCR habitability."

- UFSAR Table 7.3-1, Engineered Safety Features Actuation Signals:

  - Sheet 6, Function 16 title change to add note "(13)"

  - Sheet 6, Function 16.a title change from "supply air" to "air supply"

  - Sheet 6, Function 16.b change Actuation Signal nomenclature from "Class 1E battery chargers" to "Class 1E 24-hour battery chargers"

  - Sheet 6, Function 16.b change Note "(8)" to note "(13)"

  - Sheet 9, change Note 5 to remove "two-out-of-four"

  - Sheet 9 add a new Note (13) stating: "De-energization of Main Control Room air supply radiation monitor sample pumps occurs on an extended undervoltage to Class 1E 24-hour battery chargers coincident with Main Control Room Isolation, Air Supply Initiation, and Electrical Load De-energization actuation signal."

Proposed changes include the following COL Appendix A, TS changes:

- TS 3.3.13, Engineered Safety Feature Actuation System (ESFAS) Main Control Room Isolation, Air Supply Initiation, and Electrical Load De-energization:
  - Limiting Condition for Operation (LCO) and Applicability reformatted into new Table 3.3.13-1;
  - In Table 3.3.13-1, Applicability for Main Control Room Air Supply Iodine or Particulate Radiation – High 2 includes note "(a)" for each MODE, with note (a) added stating: "Not applicable for the Main Control Room Air Supply Iodine or Particulate Radiation - High 2 function when the Main Control Room Envelope is isolated and the Main Control Room Emergency Habitability System is in operation";
  - New Table 3.3.13-1 includes new Function "Class 1E 24-Hour Battery Charger Undervoltage" with:
    - Applicable MODES or Other Specified Conditions stated as "1,2,3,4,5,6, (b)" where new note (b) is stated as "During movement of irradiated fuel assemblies"
    - Required Channels stated as "2/24-hour battery charger"
    - Conditions referencing "F"
    - Surveillance Requirements referencing "SR 3.3.13.1"
  - New Action A added with:
    - Condition stating: "One or more Functions with one or more channels inoperable"
    - Required Action A.1 stating: "Enter the Condition referenced in Table 3.3.13-1 for the channel(s)" with a Completion Time of "Immediately"
  - Current Action A re-numbered B:
    - Condition revised to "As required by Required Action A.1 and referenced in Table 3.3.13-1
    - New Required Action B.1 added stating "Verify one channel OPERABLE" with a Completion Time of "Immediately"
    - Current Required Action A.1 and A.2 re-numbered as B.2 and B.3

- Current Action B re-numbered C:
  - Condition revised to “As required by Required Action A.1 and referenced in Table 3.3.13-1
  - New Required Action C.1 added stating “Verify one channel OPERABLE” with a Completion Time of “Immediately”
  - Current Required Action B.1 re-numbered as C.2
- Current Action C re-numbered D:
  - First Condition revised the reference to “Condition A” to become “Condition B”
  - Second Condition stating “OR One or more Functions with two channels inoperable in MODE 1 ,2 ,3, or 4” is deleted
  - Current Required Actions C.1 and C.2 re-numbered as D.1 and D.2
- Current Action D re-numbered E:
  - First Condition revised the reference to “Condition B” to become “Condition C”
  - Second Condition stating “OR One or more Functions with two channels inoperable during movement of irradiated fuel assemblies” is deleted
  - Current Required Action D.1 re-numbered as E.1
- New Action F is added with:
  - Condition stating: “As required by Required Action A.1 and referenced in Table 3.3.13-1” with a Note stating: “Separate Condition entry is allowed for each channel”
  - Required Action F.1 stating: “Place inoperable channel in trip” with a Completion Time of “6 hours”
  - Required Action F.2.1 stating: “Verify actuation capability is maintained” with a Completion Time of “6 hours”
  - Required Action F.2.2 stating: “Restore channel to OPERABLE status” with a Completion Time of “7 days”
- New Action G added with:
  - Condition stating: “Required Action and associated Completion Time of Condition F not met”
  - Required Action G.1 stating: “De-energize both MCR air supply radiation monitor sample pumps” with a Completion Time of “6 hours”

  - New Surveillance Requirements Note is added stating: "Refer to Table 3.3.13-1 to determine which SRs apply for each ESFAS Main Control Room Isolation, Air Supply Initiation, and Electrical Load De-energization Function."

- TS 3.8.1, DC Sources – Operating, is revised in include new Surveillance Requirement SR 3.8.1.4

  - Stating: "Verify main control room air supply radiation monitor sample pump de-energizes on an actual or simulated actuation signal"

  - Modified by a Note stating: "Only required to be met when the main control room air supply radiation monitor sample pump is energized"

  - With the Frequency "24 months"

- TS 3.8.2, DC Sources – Shutdown Surveillance Requirement SR 3.8.2.1

  - Revised from "For DC sources required to be OPERABLE, the following SRs are applicable" to "The following SRs are applicable"

  - The listed SRs revised to include "SR 3.8.1.4"

Conforming TS Bases changes will be incorporated following NRC approval of the license amendment request in accordance with TS 5.5.6, Technical Specification Bases Control Program. The markups showing these changes are provided in Enclosure 3 for information only.

Summary

The proposed changes would revise UFSAR information involved with proposed changes to COL Appendix A TS information concerning (a) TS 3.3.13 Applicability to exclude operability requirements of the Main Control Room Air Supply Iodine or Particulate Radiation - High 2 function when the MCR Envelope is isolated and the VES is operating; and (b) Class 1E 24-Hour Battery Charger Undervoltage as a credited actuation of VES and de-energization of MCR air supply radiation monitor sample pumps.

The proposed changes will not adversely affect safety-related equipment or function, design function, radioactive material barrier or safety analysis. Additionally, the proposed changes have no adverse impact on the emergency plan or the physical security plan implementation because there is no change to physical access to credited equipment inside the Nuclear Island and no adverse impact on the ability to monitor plant parameters post-accident.

3. TECHNICAL EVALUATION (Included in Section 2)

4. REGULATORY EVALUATION

4.1 Applicable Regulatory Requirements/Criteria

10 CFR 50.36, *Technical specifications*, paragraph (c) Technical specifications, requires including items in the following categories: (1) Safety limits, limiting safety system settings, and limiting control settings; (2) Limiting conditions for operation; and (3) Surveillance requirements. The safety limits, the limiting safety system settings, and limiting control settings are not affected with this proposed amendment. In addition, the proposed changes to the plant specific Technical Specifications limiting conditions for operation, applicability, actions, and surveillance requirements, as justified by this license amendment request, continue to meet the scope required by 10 CFR 50.36(c).

10 CFR 52.98(c) requires NRC approval for any modification to, addition to, or deletion from the terms and conditions of a Combined License (COL). This activity involves changes to plant-specific Technical Specifications (COL Appendix A). Additional changes are proposed to the UFSAR for consistency with the involved Technical Specification changes. Therefore, this activity requires a proposed amendment to the COL.

10 CFR 52, Appendix D, Section VIII.B.5.a allows an applicant or licensee who references this appendix to depart from Tier 2 information, without prior NRC approval, unless the proposed departure involves a change to or departure from Tier 1 information, Tier 2* information, or the Technical Specifications, or requires a license amendment under paragraphs B.5.b or B.5.c of the section. The proposed changes to UFSAR (plant-specific Design Control Document) involve a revision to COL Appendix A Technical Specifications information. Therefore, NRC approval is required for the Tier 2 and the Technical Specifications changes.

10 CFR 52, Appendix D, VIII.C.6 states that after issuance of a license, “Changes to the plant-specific TS (Technical Specifications) will be treated as license amendments under 10 CFR 50.90.” 10 CFR 50.90 addresses the applications for amendments of licenses, construction permits and early site permits. As discussed above, changes to plant-specific Technical Specifications (COL Appendix A) are requested. Therefore, NRC approval is required for these plant-specific TS changes.

10 CFR 50.49, “*Environmental qualification of electric equipment important to safety for nuclear power plants*,” requires that licensees establish a program for qualifying specific electrical equipment. The proposed changes acknowledge the existing design that controls the heat loads in the zones containing safety-related equipment within auxiliary building rooms outside the MCRE to less than the limits used in qualifying the equipment for their required operating times following a DBA, thus this regulation remains satisfied.

The proposed changes have been evaluated to determine whether applicable 10 CFR 50 Appendix A General Design Criteria (GDC) continue to be met. It was determined that the proposed changes do not affect conformance with the GDC differently than described in the plant-specific DCD or UFSAR, as described below.

- GDC 4, *Environmental and Dynamic Effects Design Bases*, "Structures, systems, and components important to safety shall be designed to accommodate the effects of and to be compatible with the environmental conditions associated with normal operation, maintenance, testing, and postulated accidents, including loss-of-coolant accidents." The proposed changes acknowledge the existing design for maintaining I&C room temperature below equipment qualification limits and maintaining the assumed heat load for MCR habitability during an extended loss of ac event, thus this criterion remains satisfied.

- GDC 13, *Instrumentation and control*, requires that instrumentation shall be provided to monitor variables and systems over their anticipated ranges for normal operation, for anticipated operational occurrences, and for accident conditions as appropriate to assure adequate safety, including those variables and systems that can affect the fission process, the integrity of the reactor core, the reactor coolant pressure boundary, and the containment and its associated systems. Appropriate controls shall be provided to maintain these variables and systems within prescribed operating ranges.

  The proposed changes do not change the conditions under which the Engineered Safety Feature Actuation System (ESFAS) Main Control Room Isolation, Air Supply Initiation, and Electrical Load De-energization function performs its design function or the manner in which the design function is performed. Changes to the Main Control Room Air Supply Iodine or Particulate Radiation – High 2 function Applicability provide an exception when the actuation safety function is already accomplished, and therefore, the assumed safety function is maintained.

  The Class 1E 24-Hour Battery Charger Undervoltage function design is unchanged and continues to support compliance with GDC 13. The proposed change to include this feature in TS is consistent with being credited safety function in the safety analysis.

- GDC 18, *Inspection and testing of electric power systems*, requires, in part, that electric power systems important to safety shall be designed to permit appropriate periodic inspection and testing, including the capability to test periodically the operability and functional performance of the components of the systems. Current required surveillances on the Class 1E 24-hour batteries are unchanged. The proposed change to add periodic testing of the de-energization of the main control room air supply radiation monitor sample pumps on an actual or simulated actuation signal, supports testing of the operability and functional performance of the assumed battery load profile.

- GDC 19, *Control room*, states: "A control room shall be provided from which actions can be taken to operate the nuclear power unit safely under normal conditions and to maintain it in a safe condition under accident conditions, including loss-of-coolant accidents. Adequate radiation protection shall be provided to permit access and occupancy of the control room under accident conditions without personnel receiving radiation exposures in excess of 0.05 Sv (5 rem) total effective dose equivalent (TEDE) as defined in § 50.2 for the duration of the accident." The proposed changes do not result in a change to the VES design or radiological dose rates to the MCR operators for the duration of a DBA. The MCRE remains habitable for the duration of a DBA, thus this criterion remains satisfied.

- GDC 21, "*Protection System Reliability and Testability*" - requires, in part, that the protection system be designed to permit its periodic testing during reactor operation, including a capability to test channels independently to determine failures and losses of redundancy that may have occurred. This activity does not propose any change to the PMS design and therefore, there is no effect on the capability for periodic testing during reactor power operation. This activity continues to impose periodic testing consistent with current requirements. Therefore, compliance with GDC 21 is not changed.

Criterion XI, "Test Control," of 10 CFR 50 Appendix B – Criterion XI requires, in part, that a test program be established to ensure that all testing, including operational testing required to demonstrate that systems and components will perform satisfactorily in service, is identified and performed in accordance with written test procedures. The VEGP Units 3 and 4 surveillance test program continues to meet this requirement. The changes to include testing of the Class 1E 24-Hour Battery Charger Undervoltage function, and the de-energization of the main control room air supply radiation monitor sample pumps on an actual or simulated actuation signal, will performed in accordance with written test procedures. Therefore, compliance with Criterion XI is not changed.

4.2 Precedent

No precedents are identified.

4.3 Significant Hazards Consideration

Southern Nuclear Operating Company (SNC) is requesting an amendment to Combined License (COL) Nos. NPF-91 and NPF-92 for Vogtle Electric Generating Plant (VEGP) Units 3 and 4, respectively. The license amendment request (LAR) proposes changes to the following COL Appendix A Technical Specifications (TS):

- TS 3.3.13, Engineered Safety Feature Actuation System (ESFAS) Main Control Room Isolation, Air Supply Initiation, and Electrical Load De-energization Applicability is revised to exclude operability of the Main Control Room Air Supply Iodine or Particulate Radiation - High 2 function when the Main Control Room (MCR) envelope is isolated and the MCR emergency habitability system (VES) is operating.

- TS 3.3.13, Engineered Safety Feature Actuation System (ESFAS) Main Control Room Isolation, Air Supply Initiation, and Electrical Load De-energization is revised to include Class 1E 24-Hour Battery Charger Input Undervoltage actuation signals for VES actuation and de-energization of the MCR air supply radiation monitoring sample pumps.

- TS 3.8.1, DC Sources – Operating, and TS 3.8.2, DC Sources – Shutdown are revised to include a Surveillance Requirement to verify each MCR air supply radiation monitoring sample pump de-energizes on an actual or simulated actuation signal.

The LAR also proposed changes to the following Updated Final Safety Analysis Report Figure, subsection, and Table which are involved with the above TS changes:

- Figure 7.2-1 (Sheet 13 of 21), Functional Diagram Containment and Other Protection to revise the functional block "DE-ENERGIZE MCR RADIATION MONITORS" to "DE-ENERGIZE MCR AIR SUPPLY RADIATION MONITOR SAMPLE PUMPS."

- Subsection 7.3.1.2.17, Main Control Room Isolation, Air Supply Initiation, and Electrical Load De-energization, to clarify the Class 1E 24-Hour Battery Charger Input Undervoltage actuation logic, the load that is de-energized, and to further describe the protection provided by undervoltage actuation signal.

- Table 7.3-1, Engineered Safety Features Actuation Signals, Sheet 6 and Sheet 9, to revise the application of Note (8) and add a new Note (13) stating "De-energization of Main Control Room air supply radiation monitor sample pumps occurs on an extended undervoltage to Class 1E 24-hour battery chargers coincident with Main Control Room Isolation, Air Supply Initiation, and Electrical Load De-energization actuation signal."

An evaluation to determine whether or not a significant hazards consideration is involved with the proposed amendment was completed by focusing on the three standards set forth in 10 CFR 50.92(c), "Issuance of amendment," as discussed below.

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

Response: No.

The proposed changes do not affect the safety limits or limiting safety system settings as required by the plant-specific Technical Specifications (TS). The proposed changes do not adversely affect the operation of any structures, systems, or components (SSCs) associated with an accident initiator or initiating sequence of events. The proposed changes continue to maintain the initial conditions and operating limits assumed during normal operation, assumed by the accident analysis, and assumed in anticipated operational occurrences. Therefore, the proposed changes do not result in any increase in probability of an analyzed accident occurring.

The proposed changes do not involve a change to any mitigation sequence or the predicted radiological releases due to postulated accident conditions. Including the Class 1E 24-Hour Battery Charger Input Undervoltage actuation signals for VES actuation and de-energization of the MCR air supply radiation monitoring sample pumps establishes TS requirements consistent with functions assumed in the accident sequence. Thus, the consequences of the accidents previously evaluated are not adversely affected.

Therefore, the proposed amendment does not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

Response: No.

The proposed changes have been found to continue to provide the required functional capability of the safety systems for previously evaluated accidents and anticipated operational occurrences. The proposed revisions do not change the function of the related systems, and thus, the changes do not introduce a new failure mode, malfunction or sequence of events that could adversely affect safety or safety-related equipment.

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

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

Response: No.

The proposed changes continue to provide the required functional capability of the safety systems for previously evaluated accidents and anticipated operational occurrences. The proposed changes do not change the function of the related systems nor significantly affect the margins provided by the systems. No safety analysis or design basis acceptance limit/criterion is challenged or exceeded by the requested changes.

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

Based on the above, it is concluded 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.

4.4 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 Commission’s regulations, 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. Therefore, it is concluded that the requested 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.

5. ENVIRONMENTAL CONSIDERATIONS

The proposed changes would revise the Updated Final Safety Analysis Report (UFSAR) Tier 2 information, which involves a change to the Technical Specifications (TS) described in Section 2 of this Enclosure.

A review has determined that the proposed changes require an amendment to the COL. A review of the anticipated construction and operational effects of the requested amendment has determined that the requested amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9), in that:

(i) There is no significant hazards consideration.

As documented in Section 4.3, Significant Hazards Consideration, of this license amendment request, an evaluation was completed to determine whether or not a significant hazards consideration is involved by focusing on the three standards set forth in 10 CFR 50.92, “Issuance of amendment.” The Significant Hazards Consideration evaluation determined that (1) the proposed amendment does not involve a significant increase in the probability or consequences of an accident previously evaluated; (2) the proposed amendment does not create the possibility of a new or different kind of accident from any accident previously evaluated; and (3) the proposed amendment does not involve a significant reduction in a margin of safety. Therefore, it is concluded 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.

(ii) There is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite.

The proposed changes are unrelated to any aspect of plant construction or operation that would introduce any change to effluent types (e.g., effluents containing chemicals or biocides, sanitary system effluents, and other effluents) or affect any plant radiological or non-radiological effluent release quantities. Furthermore, the proposed changes do not affect any effluent release path or diminish the functionality of any design or operational features that are credited with controlling the release of effluents during plant operation. Therefore, it is concluded that the proposed amendment does not involve a significant change in the types or a significant increase in the amounts of any effluents that may be released offsite.

(iii) There is no significant increase in individual or cumulative occupational radiation exposure.

The proposed change in the requested amendment does not affect the shielding capability of, or alter any walls, floors, or other structures that provide shielding. Plant radiation zones and controls under 10 CFR 20 preclude a significant increase in occupational radiation exposure. Therefore, the proposed amendment does not involve a significant increase in individual or cumulative occupational radiation exposure.

Based on the above review of the proposed amendment, it has been determined that anticipated construction and operational effects of the proposed amendment does not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluents that may be released offsite, or (iii) a significant increase in the individual or cumulative occupational radiation exposure. Accordingly, the proposed amendment meets the eligibility criteria for categorical exclusion set forth in 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.

6. REFERENCES

None.

Southern Nuclear Operating Company

ND-20-0464
Enclosure 2

Vogtle Electric Generating Plant (VEGP) Units 3 and 4

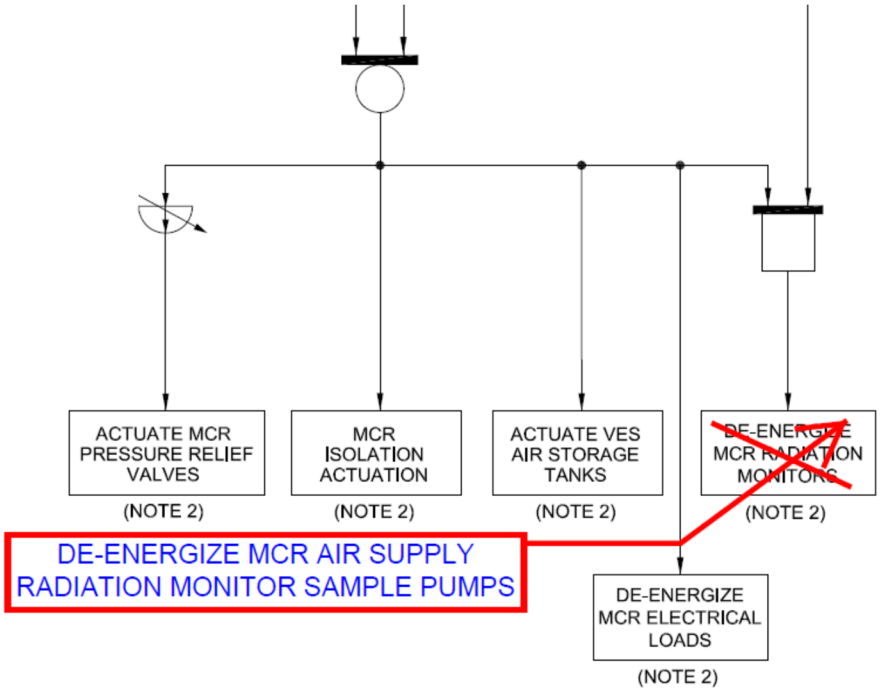
Proposed Changes to Licensing Basis Documents

(LAR-20-003)

Insertions Denoted by Blue Underline and Deletions by ~~Red Strikethrough~~
Omitted text is identified by three asterisks (* * *)

(Enclosure 2 consists of eight pages, including this cover page.)

Updated Final Safety Analysis Report (UFSAR) Figure 7.2-1 (Sheet 13 of 21)



UFSAR Subsection 7.3.1.2.17

* * *

Condition 2 results from the loss of normal control room ventilation due to a loss of all ac power sources. A preset time delay is provided to permit the restoration of ventilation and ac power from the offsite sources or from the onsite diesel generators before initiation. The loss of all ac

* * *

each of the two sensors connected to two of the four battery chargers. The ~~two-out-of-four~~ logic is based on an undervoltage to the battery chargers for divisions A or C coincident with an undervoltage to the battery chargers for divisions B or D.

Condition 3 results from the loss of main control room differential pressure as detected by the pressure boundary differential sensors. One out of two logic is based on main control room differential pressure below the “Low” setpoint for greater than 10 minutes.

In addition, the loss of all ac power sources coincident with main control room isolation will deenergize the main control room air supply radiation monitor~~s~~ sample pumps in order to conserve the battery capacity, maintain room temperature below the equipment qualification limitation, and maintain the assumed heat load for MCR habitability.

* * *

UFSAR Table 7.3-1 (Sheet 6 of 9)

* * *

16. Main Control Room Isolation, Air Supply Initiation, and Electrical Load De-energization
(Figure 7.2-1, Sheet 13) (13)

a. High-2 main control room ~~supply~~ air supply iodine or particulate radiation	2	1/2[1]	None
b. Extended undervoltage to Class 1E 24-hour battery chargers~~(8)~~(13)	2/charger	2/2 per charger and 2/4 chargers5	None
c. Extended Low main control room differential pressure		1/2[1]	None
* * *			

* * *

UFSAR Table 7.3-1 (Sheet 9 of 9)

* * *

Notes:

* * *

5. The ~~two out of four~~ logic is based on undervoltage to the battery chargers for divisions A or C coincident with an undervoltage to the battery chargers for divisions B or D.

* * *

13. De-energization of Main Control Room air supply radiation monitor sample pumps occurs on an extended undervoltage to Class 1E 24-hour battery chargers coincident with Main Control Room Isolation, Air Supply Initiation, and Electrical Load Deenergization actuation signal.

Technical Specification 3.3.13, Engineered Safety Feature Actuation System (ESFAS) Main Control Room Isolation, Air Supply Initiation, and Electrical Load De-energization:

* * *

LCO 3.3.13 The ESFAS Main Control Room Isolation, Air Supply Initiation, and Electrical Load De-energization instrumentation channels for each Function in Table 3.3.13-1 shall be OPERABLE.
~~Two channels of each of the following Functions shall be OPERABLE:~~

~~a. Main Control Room Air Supply Iodine or Particulate Radiation – High 2; and~~

~~b. Main Control Room Differential Pressure – Low.~~

APPLICABILITY: According to Table 3.3.13-1. ~~MODES 1, 2, 3, and 4, During movement of irradiated fuel assemblies.~~

ACTIONS

- NOTE -

Separate condition entry is allowed for each Function.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more Functions with one or more channels inoperable.	A.1 Enter the Condition referenced in Table 3.3.13-1 for the channel(s).	Immediately
B ~~A~~. As required by Required Action A.1 and referenced in Table 3.3.13-1. ~~One or more Functions with one channel inoperable in MODE 1, 2, 3, or 4.~~	B.1 Verify one channel OPERABLE. AND	Immediately

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
B ~~A~~. (continued)	B.2~~A.1~~ ---------- **- NOTE -** Not applicable to an inoperable Main Control Room Differential Pressure – Low channel. ---------- Verify alternate radiation monitors are OPERABLE.	72 hours
	AND	
	B.3~~A.2~~ Verify main control room isolation, air supply initiation, and electrical load de-energization manual controls are OPERABLE.	72 hours
C ~~B~~. As required by Required Action A.1 and referenced in Table 3.3.13-1. ~~One or more Functions with one channel inoperable during movement of irradiated fuel assemblies.~~	C~~B~~.1 Verify one channel OPERABLE.	Immediately
	AND	
	C.2 Restore channel to OPERABLE status.	72 hours
D ~~C~~. Required Action and associated Completion Time of Condition B~~A~~ not met. ~~OR~~ ~~One or more Functions with two channels inoperable in MODE 1, 2, 3, or 4.~~	D~~C~~.1 Be in MODE 3.	6 hours
	AND	
	D~~C~~.2 Be in MODE 5.	36 hours

ACTIONS

CONDITION		REQUIRED ACTION		COMPLETION TIME
E ~~D~~.	Required Action and associated Completion Time of Condition C~~B~~ not met. ~~OR~~ ~~One or more Functions with two channels inoperable during movement of irradiated fuel assemblies.~~	E~~D~~.1	Suspend movement of irradiated fuel assemblies.	Immediately
F.	---------- **- NOTE -** Separate Condition entry is allowed for each channel. ---------- As required by Required Action A.1 and referenced in Table 3.3.13-1.	F.1 OR F.2.1 AND F.2.2	Place inoperable channel in trip. Verify actuation capability is maintained. Restore channel to OPERABLE status.	6 hours 6 hours 7 days
G.	Required Action and associated Completion Time of Condition F not met.	G.1	De-energize both MCR air supply radiation monitor sample pumps.	6 hours

SURVEILLANCE REQUIREMENTS

- NOTE -

Refer to Table 3.3.13-1 to determine which SRs apply for each ESFAS Main Control Room Isolation, Air Supply Initiation, and Electrical Load De-energization Function.

SURVEILLANCE	FREQUENCY
SR 3.3.13.1 * * *	

* * *

Table 3.3.13-1 (page 1 of 1)
ESFAS Main Control Room Isolation, Air Supply Initiation,
and Electrical Load De-Energization Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS
1. Main Control Room Air Supply Iodine or Particulate Radiation – High 2	1[(a)],2[(a)],3[(a)],4[(a)]	2	B	SR 3.3.13.1 SR 3.3.13.2
	(b)[(a)]	2	C	SR 3.3.13.1 SR 3.3.13.2
2. Main Control Room Differential Pressure - Low	1,2,3,4	2	B	SR 3.3.13.1 SR 3.3.13.2
	(b)	2	C	SR 3.3.13.1 SR 3.3.13.2
3. Class 1E 24-Hour Battery Charger Undervoltage	1,2,3,4,5,6,(b)	2/24-hour battery charger	F	SR 3.3.13.1

(a) Not applicable for the Main Control Room Air Supply Iodine or Particulate Radiation - High 2 function when the Main Control Room Envelope is isolated and the Main Control Room Emergency Habitability System is in operation.

(b) During movement of irradiated fuel assemblies.

Technical Specification 3.8.1, DC Sources - Operating:

* * *

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
* * *	* * *	
SR 3.8.1.4	---------- **- NOTE -** Only required to be met when the main control room air supply radiation monitor sample pump is energized. ---------- Verify main control room air supply radiation monitor sample pump de-energizes on an actual or simulated actuation signal.	24 months

Technical Specification 3.8.2, DC Sources - Shutdown:

* * *

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.8.2.1	---------- **- NOTE -** The following SRs are not required to be performed: SR 3.8.1.2 and SR 3.8.1.3. ---------- ~~For DC sources required to be OPERABLE, the~~ The following SRs are applicable: SR 3.8.1.1 SR 3.8.1.2 SR 3.8.1.3 SR 3.8.1.4	In accordance with applicable SRs

Southern Nuclear Operating Company

ND-20-0464
Enclosure 3

Vogtle Electric Generating Plant (VEGP) Units 3 and 4

Conforming Changes to the Technical Specifications Bases (For Information Only)

(LAR-20-003)

Insertions Denoted by Blue Underline and Deletions by ~~Red Strikethrough~~
Omitted text is identified by three asterisks (* * *)

(Enclosure 3 consists of nine pages, including this cover page.)

Technical Specifications Bases B 3.3.8, Engineered Safety Feature Actuation System (ESFAS) Instrumentation:

* * *

APPLICABLE SAFETY ANALYSES, LCOs, and APPLICABILITY (continued)

Main Control Room Isolation, Air Supply Initiation, and Electrical Load De-energization

Isolation of the main control room and initiation of the VES air supply provides a breathable air supply for the operators following an uncontrolled release of radiation. De-energizing non-essential main control room electrical loads maintains the room temperature within habitable limits. Main Control Room Isolation, Air Supply Initiation, and Electrical Load De-energization is actuated on ~~a Control Room Air Supply Radiation – High 2 signal or a Main Control Room Differential Pressure - Low signal~~ any one of the following signals:

- Main Control Room Air Supply Iodine or Particulate Radiation - High 2;
- Main Control Room Differential Pressure – Low; and
- Class 1E 24-hour Battery Charger Undervoltage.

The main control room air supply radiation monitor sample pumps are de-energized by PMS on Main Control Room Isolation, Air Supply Initiation, and Electrical Load De-energization signal coincident with Class 1E 24-hour battery charger undervoltage signal. The main control room air supply radiation monitor sample pumps are de-energized to conserve battery capacity, maintain room temperature below the equipment qualification limitation, and maintain the assumed heat load for Main Control Room habitability.

* * *

Technical Specifications Bases B 3.3.13, Engineered Safety Feature Actuation System (ESFAS) Main Control Room Isolation, Air Supply Initiation, and Electrical Load De-energization:

* * *

APPLICABLE SAFETY ANALYSES, LCOs, and APPLICABILITY

A description of the Main Control Room (MCR) Isolation, Air Supply Initiation, and Electrical Load De-energization is also provided in the Bases for LCO 3.3.8. The ESFAS protective functions required by this LCO, as presented in Table 3.3.13-1, include:

1.~~a.~~ Main Control Room Air Supply Iodine or Particulate Radiation – High 2

Two radiation monitoring channels are provided on the main control room (MCR) air intake. Each MCR Air Supply Iodine or Particulate Radiation monitoring channel requires both the iodine radiation monitor and the particulate radiation monitor to be OPERABLE for the MCR Air Supply Iodine or Particulate Radiation channel to be OPERABLE. If either MCR Air Supply Iodine or Particulate Radiation channel exceeds the High 2 setpoint, main control room isolation, air supply initiation, and electrical load de-energization are actuated. Two channels of the Main Control Room Air Supply Iodine or Particulate Radiation - High 2 Function (each with both the iodine and particulate monitors) are required to be OPERABLE in MODES 1, 2, 3, and 4, and during movement of irradiated fuel because of the potential for a fission product release following a fuel handling accident, or other DBA.

The MCR Air Supply Iodine or Particulate Radiation - High 2 channels are not required to be OPERABLE if the Main Control Room Envelope (MCRE) is isolated and the Main Control Room Emergency Habitability System (VES) is in operation. In the event of a Class 1E 24-hour battery charger undervoltage signal, the MCRE is isolated, the VES is initiated, and the MCR air supply radiation monitor sample pumps are de-energized to conserve battery capacity. With the MCR air supply radiation monitor sample pumps de-energized, the MCR Air Supply Iodine or Particulate Radiation - High 2 function would be inoperable. Whenever both the MCRE has been isolated (VBS cannot supply air flow to the MCR) and the VES is providing pressurization and breathing air to the MCRE, the safety function of the MCR Air Supply Iodine or Particulate Radiation - High 2 channels is not required.

2.~~b.~~ Main Control Room Differential Pressure – Low

Two differential pressure sensor monitors are provided for the MCR pressure boundary. If either sensor exceeds the Low setpoint for greater than 10 minutes, main control room isolation, air supply initiation, and electrical load deenergization are actuated. Two channels of the Main Control Room Differential Pressure – Low Function are required to be OPERABLE in MODES 1, 2, 3, and 4, and during movement of irradiated fuel because of the potential for a fission product release following a fuel handling accident, or other DBA.

3. Class 1E 24- hour Battery Charger Undervoltage

Two undervoltage sensors are provided on the input to each of the four 24-hour battery charger inputs. The main control room isolation, air supply isolation, and electrical load de-energization is actuated by an undervoltage condition on the Class 1E 24-hour battery chargers. The logic is based on a two-out-of-two undervoltage to the 24-hour battery charger for divisions A or C coincident with an undervoltage to the 24-hour battery chargers for divisions B or D. When the undervoltage to Class 1E 24-hour battery chargers signal is present coincident with the main control room isolation, air supply initiation, and electrical load de-energization signal, the main control room air supply radiation monitor sample pumps are de-energized.

Two channels per Class 1E 24-hour battery charger are required to be OPERABLE in MODES 1, 2, 3, 4, 5, and 6, and during movement of irradiated fuel because in the result of a loss of ac power event, the main control room air supply radiation monitor sample pumps are required to be de-energized to conserve battery capacity, maintain room temperature below the equipment qualification limitation, and maintain the assumed heat load for Main Control Room habitability.

ESFAS Main Control Room Isolation, Air Supply Initiation, and Electrical Load De-energization instrumentation satisfies Criterion 3 of 10 CFR 50.36(c)(2)(ii).

ACTIONS

In the event a channel's as-found condition is outside the as-found tolerance described in the SP, or the channel is not functioning as required, or the transmitter, or the Protection and Safety Monitoring System Division, associated with a specific Function is found inoperable, then all affected Functions provided by that channel must be declared inoperable and the LCO Condition(s) entered for the particular protection Function(s) affected.

A Note has been added in the ACTIONS to clarify the application of Completion Time rules. The Conditions of this specification may be

entered independently for each Function (i.e., Main Control Room Air Supply Iodine or Particulate Radiation – High 2, ~~and~~ Main Control Room Differential Pressure – Low, and Class 1E 24-Hour Battery Charger Undervoltage). The Completion Time(s) of the inoperable Function will be tracked separately for each Function starting from the time the Condition was entered for that Function.

A.1

Condition A addresses one or more Functions with one or more channels inoperable. In this case, the Required Action is to enter the Condition referenced in Table 3.3.13-1 immediately.

B.1, B.2, and B.3~~A.1 and A.2~~

Required Action B.1 verifies that one channel in the affected Function is OPERABLE. The Completion Time for Required Action B.1 is immediately because if two channels are inoperable then the Required Actions of Condition D are also applicable. ~~Condition A addresses the situation where one or more Functions with one channel are inoperable in MODE 1, 2, 3, or 4.~~ With one channel inoperable in either or both Functions in MODE 1, 2, 3, or 4, the logic becomes one-out-of-one in the affected Function and is unable to meet single failure criterion. ~~Restoring all channels to OPERABLE status ensures that a single failure will not prevent the protective Function.~~

Required Action B.2 ~~A.1~~ assures that with one Main Control Room Air Supply Iodine or Particulate Radiation - High 2 channel inoperable, the redundant radiation monitor(s), which provide equivalent information, must be verified to be OPERABLE within 72 hours. Required Action B.2 ~~A.1~~ is modified with a Note stating that ~~the~~ it is not applicable to an inoperable Main Control Room Differential Pressure – Low channel. These provisions for operator action can replace one channel of radiation detection and system actuation. Required Action B.3 ~~A.2~~ requires that the main control room isolation, air supply initiation, and electrical load de-energization manual controls must be verified to be OPERABLE within 72 hours. The 72 hour Completion Times are reasonable considering that there is one remaining channel OPERABLE and the low probability of an event occurring during this interval.

C.1 and C.2~~B.1~~

Required Action C.1 verifies that one channel in the affected Function is OPERABLE. The Completion Time for Required Action C.1 is immediately because if two channels are inoperable then the Required Actions of Condition D are also applicable. ~~Condition B addresses the situation where one or more Functions with one channel are inoperable during movement of irradiated fuel assemblies.~~ With one channel inoperable during movement of irradiated fuel assemblies, the system level initiation

capability is reduced below that required to meet single failure criterion. ~~Therefore, the~~ The required channel must be returned to OPERABLE status within 72 hours. The specified Completion Time is reasonable considering the remaining channel is capable of performing the initiation.

D.1 and D.2~~C.1 and C.2~~

If the Required Action and associated Completion Time of Condition B ~~A~~ is not met~~, or one or more Functions with two channels are inoperable in MODE 1, 2, 3, or 4,~~ the plant must be placed in a MODE in which the LCO does not apply. This is accomplished by placing the plant in MODE 3 within 6 hours, and in MODE 5 within 36 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required plant conditions from full power conditions in an orderly manner without challenging plant systems.

E.1~~D.1~~

If the Required Action and associated Completion Time of Condition C ~~B~~ is not met~~, or one or more Functions with two channels are inoperable during movement of irradiated fuel assemblies,~~ the plant must be placed in a MODE in which the LCO does not apply. This is accomplished by immediately suspending movement of irradiated fuel assemblies. The required action suspends activities with potential for releasing radioactivity that might enter the Main Control Room. This action does not preclude the movement of fuel to a safe position.

F.1, F.2.1, and F.2.2

Required Action F.1 allows the inoperable channel to be placed in a trip condition within 6 hours. The Completion Time of 6 hours to place the inoperable channel in trip is reasonable considering the time required to complete this action. Once an inoperable channel is placed in trip, single failure capability of the action is restored and no additional action is required for the inoperable channel. If more than one channel is inoperable at a time, the configuration of inoperable channels in the trip condition may generate an undesirable Main Control Room Isolation, Air Supply Initiation, and Electrical Load De-energization and de-energize the MCR air supply radiation monitor sample pumps. Therefore, one or more inoperable channels may be left untripped by optionally complying with Required Actions F.2.1 and F.2.2.

In place of Required Action F.1, the Required Actions F.2.1 and F.2.2 may be performed. Required Action F.2.1 is to verify that actuation capability is maintained. In order to verify actuation capability is maintained, the combination of channels either in trip or OPERABLE must be able to maintain the actuation capability with an undervoltage to the 24-hour battery chargers for divisions A or C coincident with an undervoltage to the

24-hour battery chargers for divisions B or D. Performing the Required Action F.2.1 within the 6 hour Completion Time is a reasonable time to verify that actuation capability is maintained. Required Action F.2.2 also requires restoring the channel to OPERABLE status within 7 days. This reflects a reasonable time to effect restoration of the single failure capability of the undervoltage actuation function.

Condition F is modified by a Note that states separate Condition entry is allowed for each channel. The Required Actions provide appropriate compensatory actions for each inoperable channel. Complying with the Required Actions may allow for continued operation, and subsequent inoperable channels are governed by subsequent Condition entry and application of associated Required Actions. The Completion Time(s) of the inoperable channel will be tracked separately for each channel starting from the time the Condition was entered for that channel.

G.1

If the Required Action and associated Completion Time of Condition F is not met, the plant must be placed in a Condition in which the likelihood and consequences of an event are minimized. This is accomplished by de-energizing both main control room air supply radiation monitor sample pumps within 6 hours. This allowed Completion Time is reasonable considering the time required to complete this action. Note that de-energizing main control room air supply radiation monitor sample pumps results in inoperability of the Main Control Room Air Supply Iodine or Particulate Radiation - High 2 channels and the need to enter other applicable Conditions.

SURVEILLANCE REQUIREMENTS

The SRs for each ESFAS Main Control Room Isolation, Air Supply Initiation, and Electrical Load De-energization Function are identified in the SRs column of Table 3.3.13-1 for that Function. A Note has been added to the SR table stating that Table 3.3.13-1 determines which SRs apply to which ESFAS Main Control Room Isolation, Air Supply Initiation, and Electrical Load De-energization Function.

SR 3.3.13.1

This SR is the performance of a CHANNEL CALIBRATION every 24 months or approximately at every refueling. CHANNEL CALIBRATION is

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Technical Specifications Bases B 3.8.1, DC Sources - Operating

* * *

BACKGROUND (continued)

Each electrical power subsystem has ample power output capacity for the steady state operation of connected loads required during normal operation, while at the same time maintaining its battery bank fully charged. Each battery charger has sufficient capacity to restore the battery bank from the design minimum charge to its fully charged state within 24 hours while supplying normal steady state loads (Ref. 4).

The main control room air supply radiation monitor sample pumps are de-energized by the Protection and Safety Monitoring System (PMS) on a "Main Control Room Isolation, Air Supply Initiation, and Electrical Load De-energization" signal coincident with a "Class 1E 24-hour Battery Charger Undervoltage" signal (refer to LCO 3.3.13,"ESFAS Main Control Room Isolation, Air Supply Initiation, and Electrical Load De-energization," Bases) to remove non-essential loads from the batteries.

* * *

LCO * * *

An OPERABLE Class 1E DC electrical power subsystem requires all required batteries and respective chargers to be operating and connected to the associated DC bus(es). The spare battery and/or charger may be used by one subsystem for OPERABILITY.

De-energization of each main control room air supply radiation monitor sample pump on a valid PMS signal is also required to be OPERABLE to support the Class 1E 24-hour battery OPERABILITY based on the assumed battery load profile, to maintain room temperature below the equipment qualification limitation, and maintain the assumed heat load for Main Control Room habitability.

* * *

SURVEILLANCE REQUIREMENTS * * *

SR 3.8.1.4

Verification that the main control room air supply radiation monitor sample pump de-energize on an actual or simulated signal from the PMS is required every 24 months to assure that the non-essential Class 1E

24-hour battery loads are shed to maintain the assumed battery load profile.

The Surveillance Frequency is acceptable, given the unit conditions required to perform the test and other administrative controls existing to ensure adequate charger performance during these 24 month intervals. In addition, this Frequency is intended to be consistent with expected fuel cycle lengths.

This Surveillance is modified by a Note stating that it is only required to be met when the main control room air supply radiation monitor sample pump is energized.

* * *

Technical Specifications Bases B 3.8.2, DC Sources - Shutdown

* * *

LCO

Class 1E DC electrical power subsystems are required to be OPERABLE to support required trains of Class 1E Distribution System divisions required to be OPERABLE by LCO 3.8.6. This ensures the availability of
* * *

De-energization of the main control room air supply radiation monitor sample pumps on a valid PMS signal is also required to be OPERABLE to support the Class 1E 24-hour battery OPERABILITY based on the assumed battery load profile, to maintain room temperature below the equipment qualification limitation, and maintain the assumed heat load for Main Control Room habitability.

* * *

SURVEILLANCE REQUIREMENTS

SR 3.8.2.1

SR 3.8.2.1 requires performance of all Surveillances required by SR 3.8.1.1 through SR 3.8.1.4~~3~~. Therefore, see the corresponding Bases for LCO 3.8.1 for a discussion of each SR.

* * *