

August 9, 2018

Docket Nos.: 50-321 50-348 50-424  
50-366 50-364 50-425

NL-17-1089

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

Joseph M. Farley Nuclear Plant - Units 1 and 2  
Edwin I. Hatch Nuclear Plant - Units 1 and 2  
Vogtle Electric Generating Plant - Units 1 and 2  
License Amendment Request to Revise Technical Specification 5.2.2.g and Update Emergency  
Plan Minimum On-shift Staff Tables

Ladies and Gentlemen:

Pursuant to the provisions of Section 50.90 of Title 10 of the Code of Federal Regulations (10 CFR), Southern Nuclear Operating Company (SNC) hereby requests an amendment to the Technical Specifications (TS) for the following SNC facilities and includes the results of the no significant hazards determination: Joseph M. Farley Nuclear Plant (FNP) Unit 1 Renewed Facility Operating License NPF-2 and Unit 2 Renewed Facility Operating License NPF-8; Edwin I. Hatch Nuclear Plant (HNP) Unit 1 Renewed Facility Operating License DPR-57 and Unit 2 Renewed Facility Operating License NPF-5; and Vogtle Electric Generating Plant (VEGP) Unit 1 Renewed Facility Operating License NPF-68 and Unit 2 Renewed Facility Operating License NPF-81.

Additionally, SNC requests approval of the revision to the minimum on-shift staffing tables in the HNP and FNP annexes associated with the SNC standard emergency plan (SEP) and an accompanying editorial change in the SEP. This change reduces the total number of required on-shift personnel which is considered a reduction in the effectiveness of the HNP and FNP emergency plans (EPs) requiring NRC approval pursuant to 10 CFR 50.54(q)(4).

The proposed TS change aligns Specification 5.2.2.g of each plant's TS with equivalent wording, comparable to TS 5.2.2.e in the standard technical specifications (STS). The proposed amendments are based, in part, on Technical Specification Task Force traveler TSTF-258, "Changes to Section 5.0, Administrative Controls," Revision 4. This change eliminates a dedicated shift technical advisor (STA) position at FNP and HNP by allowing the STA functions to be combined with one or more of the required senior licensed operator positions. The VEGP Units 1 and 2 TS change aligns the facilities with equivalent wording. This proposed change also incorporates wording related to the modes of operation during which the individual meeting the requirements in TS 5.2.2.g is required and provides guidance that the same individual may

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provide advisory technical support for both units. On approval, TS 5.2.2.g for each applicable SNC nuclear plant will be equivalent.

SNC requests approval of the proposed license amendments and change to the applicable SNC SEP annexes by April 30, 2019. The proposed amendments will be implemented within 90 days of issuance.

The enclosure provides the basis for the proposed change, the supporting technical analysis, and the no significant hazards consideration determination analysis. Attachment 1 contains marked-up pages from each plant's TS and Attachment 2 contains the associated revised TS pages. Attachment 3 contains marked-up pages of the SNC SEP and applicable annexes. Attachments 4 and 5 provide the revised HNP and FNP EP on-shift staffing analyses, respectively, performed to support the revision to the applicable SEP annexes.

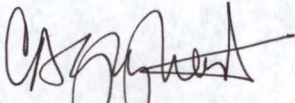
This letter contains no NRC commitments.

In accordance with 10 CFR 50.91, SNC is notifying the State of Alabama and the State of Georgia of this license amendment request by transmitting a copy of this letter and enclosure and attachments to the designated State Official.

If you have any questions, please contact Jamie Coleman at 205.992.6611.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 9<sup>th</sup> day of August 2018.

Respectfully submitted,



Cheryl A. Gayheart  
Regulatory Affairs Director  
Southern Nuclear Operating Company

CAG/RMJ

Enclosure: Basis for Proposed Change

- Attachments:
1. Southern Nuclear Company Nuclear Facilities Technical Specification Marked-up Pages
  2. Southern Nuclear Company Nuclear Facilities Revised Technical Specification Pages
  3. Southern Nuclear Operating Company Standard Emergency Plan and Applicable Annexes – Marked-up Pages
  4. Hatch Nuclear Plant Revised Emergency Plan On-shift Staffing Analysis
  5. Farley Nuclear Plant Revised Emergency Plan On-shift Staffing Analysis



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cc: Regional Administrator, Region II  
NRR Project Manager – Farley, Hatch, Vogtle 1 & 2  
Senior Resident Inspector – Farley, Hatch, Vogtle 1 & 2  
Director, Alabama Office of Radiation Control  
Director, Environmental Protection Division – State of Georgia  
RType: Farley - CFA04.054; Hatch - CHA02.004; Vogtle - CVC7000

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Update Emergency Plan Minimum On-shift Staff Tables**

**Enclosure**

**Basis for Proposed Change**



## **1.0 Summary Description**

Southern Nuclear Operating Company (SNC) proposes to revise the Technical Specifications (TS) for the Joseph M. Farley Nuclear Plant (FNP) - Units 1 and 2, the Edwin I. Hatch Nuclear Plant (HNP) - Units 1 and 2, and the Vogtle Electric Generating Plant (VEGP) - Units 1 and 2. The proposed change aligns Specification 5.2.2.g of each plant's TS with equivalent wording, comparable to TS 5.2.2.e in the standard technical specifications (STS). The proposed amendments are based, in part, on Technical Specification Task Force traveler TSTF-258, Revision 4 (Reference 1). This change eliminates a dedicated shift technical advisor (STA) position at FNP and HNP by allowing the STA functions to be combined with one or more of the required senior reactor operator (SRO) positions. The VEGP Units 1 and 2 TS change aligns the facilities with equivalent wording. This proposed change also incorporates wording related to the modes of operation during which the individual meeting the requirements in TS 5.2.2.g is required and provides guidance that the same individual may provide advisory technical support for both units. On approval, TS 5.2.2.g for each applicable SNC nuclear plant will be equivalent. Additionally, SNC proposes a revision to the on-shift staffing tables in the HNP and FNP annexes associated with the SNC standard emergency plan (SEP) to reduce the total number of required on-shift personnel from 25 to 24 and includes an accompanying editorial change to the SEP.

## **2.0 Detailed Description**

### **2.1 Current Technical Specification Requirements**

TS 5.2.2.g of the current HNP and FNP TS states:

The Shift Technical Advisor (STA) shall provide advisory technical support to the [responsible SRO]<sup>1</sup> in the areas of thermal hydraulics, reactor engineering, and plant analysis with regard to the safe operation of the unit. In addition, the STA shall meet the qualifications specified by the Commission Policy Statement on Engineering Expertise on Shift. [The same individual may fill this position for both units.]<sup>2</sup>

<sup>1</sup> The HNP TS states "shift supervisor" instead of "responsible SRO".

<sup>2</sup> The HNP TS does not contain this final statement.

TS 5.2.2.g of the current VEGP TS states:

An individual shall be assigned who provides technical support in the areas of thermal hydraulics, reactor engineering, and plant analysis with regard to the safe operation of the unit. This individual shall be available for duty when the plant is in modes 1-4. At other times, this individual is not required. In addition, this individual shall meet the qualifications specified by the Commission Policy Statement on Engineering Expertise on Shift. This position may also be filled by the shift supervisor or the individual with an SRO license provided that person meets the qualifications specified by the Commission Policy Statement on Engineering Expertise on Shift.



## 2.2 Current Emergency Plan Requirements

The minimum on-shift staffing tables in the HNP and FNP annexes of the SNC SEP require one Shift Support Supervisor/Shift Technical Advisor (SRO/STA) to provide technical support in the major functional area of plant system engineering, repair, and corrective action. The total on-shift personnel in these table is specified as 25. Section B of the SEP describes the emergency response organization (ERO) and includes the on-site ERO responsibilities. Paragraph B.2.1.8 states, in part, regarding the technical support center reactor engineer: "The Reactor Engineer relieves the Shift Technical Advisor (STA) of Core Thermal Analysis responsibilities."

## 2.3 Reason for the Proposed Change

The proposed change to TS 5.2.2.g is needed for HNP Units 1 and 2 and FNP Units 1 and 2, to provide flexibility to the on-shift staffing by emending the STA role from a dedicated position to a function. The proposed TS change is also needed to explicitly state the modes of operation during which the individual meeting the requirements in TS 5.2.2.g is required and, for the applicable plants, explicitly allow the same individual to provide advisory technical support for both units.

The proposed change to the minimum on-shift staffing tables in the HNP and FNP annexes of the SNC SEP and accompanying editorial change in the SEP are needed because the STA role is being emended as a function in lieu of a position, thereby, eliminating the dedicated position from the respective staffing tables. The SEP annex revision constitutes a reduction in the effectiveness of the HNP and FNP emergency plans (EPs) requiring NRC approval pursuant to 10 CFR 50.54(q)(4).

## 2.4 Description of the Proposed Change

SNC proposes to revise TS 5.2.2.g for HNP Units 1 and 2, FNP Units 1 and 2, and VEGP Units 1 and 2 to state:

An individual shall provide advisory technical support to the unit operations shift crew in the areas of thermal hydraulics, reactor engineering, and plant analysis with regard to the safe operation of the unit. This individual shall meet the qualifications specified by the Commission Policy Statement on Engineering Expertise on Shift.

In addition, SNC proposes to add Mode specific requirements and also state that the same individual may provide advisory support for both units. The proposed addition to be appended at the end of TS 5.2.2.g states:

This individual shall be available for duty when an operating unit is in [MODE 1, 2, 3, or 4]<sup>3</sup>. This same individual may provide advisory technical support for both units.

<sup>3</sup>MODE 1, 2, or 3 for HNP.

SNC also proposes to change the position "Shift Support Supervisor/Shift Technical Advisor (SRO/STA)" to "Shift Support Supervisor or other trained individual" in the minimum on-shift staffing tables in the HNP and FNP annexes of the SNC SEP and replace the number for the position with Note 2, which states: "May be provided by shift personnel assigned other



functions." As a result, the proposed total on-shift personnel in these tables is revised from 25 to 24. In addition, Paragraph B.2.1.8 of the SNC SEP is revised, in part, regarding the technical support center reactor engineer to state: "The Reactor Engineer relieves the Shift Manager or Supervisor of the Core Thermal Analysis responsibilities."

### **3.0 Technical Evaluation**

NRC Generic Letter 86-04 (Reference 2) promulgated the policy statement regarding engineering expertise on shift and established the requirements for eliminating the separate STA position. The NRC policy statement offers the licensees two options for meeting the NUREG-0737 (Reference 3), Enclosure 3, Item I.A.1.1 requirement regarding engineering expertise on shift and meeting licensed operator staffing requirements pursuant to 10 CFR 50.54(m)(2). Option 1 provides for elimination of the separate STA position by allowing licensees to combine one of the required SRO positions with the STA position into a dual-role (SRO/STA) position. Option 2 allows a licensee to continue use of an NRC-approved STA program while meeting licensed operator staffing requirements. Per the policy statement, the Commission encourages licensees to move toward the dual-role (SRO/STA) position, with the eventual goal of the shift supervisor serving in the dual role.

TS 5.2.2.g is revised to eliminate the title of "Shift Technical Advisor (STA)," because the STA function may be fulfilled by one or more of the other on-shift individuals. Therefore, TS 5.2.2.g is revised so that it does not imply that the STA and the shift supervisor must be different individuals. Option 1 of the NRC policy statement is satisfied by assigning an individual with specified educational qualifications to each operating crew as one of the SROs required by 10 CFR 50.54(m)(2)(i) to provide the technical expertise on shift. However, the TS 5.2.2.g wording of, "the Shift Technical Advisor (STA) shall provide ... support to the shift supervisor [or responsible SRO]...", is considered to be misinterpreted to require separate individuals. Therefore, SNC is electing to implement Option 1 of the NRC policy statement at FNP and HNP such that technical expertise may be provided by either an STA qualified individual who also fulfills another role in the shift command structure or a separate individual. VEGP Units 1 and 2 TS 5.2.2.g is currently worded such that Option 1 of the NRC policy statement may be used. The proposed change is consistent with the applicable portion of NRC-approved traveler TSTF-258 (Reference 1).

The proposed mode specific requirements to be included in FNP and HNP TS 5.2.2.g are currently specified in the VEGP Units 1 and 2 TS 5.2.2.g and reflect the clarification in NUREG-0737, Enclosure 3, Item I.A.1.1 that states, in part:

"...an STA be available for duty on each operating shift when a plant is being operated in Modes 1-4 for a PWR and Modes 1-3 for a BWR. At other times, an STA is not required to be on duty."

The proposed statement to be included in HNP and VEGP Units 1 and 2 TS 5.2.2.g that the same individual may provide advisory technical support for both units is currently allowed by FNP Units 1 and 2 TS 5.2.2.g and reflect the NUREG-0737, Enclosure 3, Item I.A.1.1 position statement:

"The shift technical advisor (STA) may serve more than one unit at a multiunit site if qualified to perform the advisor function for the various units."



The STA training programs at HNP, FNP, and VEGP Units 1 and 2 provide for dual unit STA qualification and include dissimilarity training between the units. Therefore, an individual providing advisory technical support is qualified to perform the advisor function for both units.

Detailed staffing studies were performed in 2012 for HNP and FNP to ensure on-shift staffing was adequate to perform critical functions until relieved by the augmented ERO as required by 10 CFR 50, Appendix E. The minimum staff identified was determined to be adequate to respond to the scenarios identified in the regulations until relieved by the augmented ERO 75 minutes after declaration and that no conflicts in responsibilities existed. These studies were performed in accordance with NEI 10-05 (Reference 4) as endorsed by the NRC in interim staff guidance NSIR/DPR-ISG-01 (Reference 5). To facilitate the STA role being emended as a function in lieu of a position, the EP minimum staffing studies were re-evaluated and updated to ensure on-shift staffing continues to be adequate to perform critical functions until relieved by the augmented ERO as required by 10 CFR 50, Appendix E.

Per the guidance provided in NRC Regulatory Issue Summary 2016-10 (Reference 6), the HNP and FNP on-shift staffing analysis reviewed events addressed in NSIR/DPR-ISG-01 as well as those described in NEI 10-05. Events that required STA actions were evaluated for impact as a result of the proposed change. The HNP and FNP EP staffing studies are provided in Attachments 4 and 5, respectively.

For HNP, the events evaluated include:

- design basis threat (DBT),
- large break loss of coolant accident (LB LOCA),
- main steam line break (MSLB),
- aircraft probable threat (APT),
- anticipated transient without scram (ATWS),
- station blackout (SBO),
- control room fire leading to evacuation to remote shutdown panel (RSDP), and
- radiological fast breaker event<sup>4</sup>.

<sup>4</sup> Rapidly progressing event that results in radioactive release greater than Environmental Protection Agency (EPA) protective action guidelines (PAGs) at the site boundary.

The HNP EP notification and plant system engineering functions currently performed by the STA during these events include:

- performance of NRC notifications,
- plant announcements, and
- activation of the Emergency Response Data System.

For FNP, the events evaluated include:

- DBT,
- LB LOCA resulting in radiological fast breaker event<sup>5</sup>,
- MSLB,
- steam generator tube rupture,
- reactor coolant pump locked rotor,
- ATWS,
- APT,
- control room fire leading to evacuation to RSDP, and
- SBO.



- <sup>5</sup> Rapidly progressing event that results in radioactive release greater than EPA PAGs at the site boundary.

The FNP EP plant engineering functions currently performed by the STA during these events include:

- monitoring critical safety functions status trees,
- verification of safety injection actuation and plant response,
- tracking of hydrogen concentrations,
- calculation of shutdown margin, and
- oversight of reactor shut down and trip response actions.

Analysis of the proposed change identified that these EP functions can be completed by other on-shift Operations personnel, and does not result in assignment of conflicting duties for on-shift personnel. The HNP analysis demonstrates that the plant system engineering and notification functions are not adversely impacted, and that no degradation or loss of function occurs as a result of the proposed change. The FNP analysis demonstrates that the plant system engineering functions are not adversely impacted, and that no degradation or loss of function occurs as a result of the proposed change.

Therefore, the proposed change to the minimum on-shift staffing tables in the HNP and FNP annexes of the SNC SEP and accompanying editorial change in the SEP continue to ensure the on-shift staffing is adequate to perform critical functions until relieved by the augmented ERO as required by 10 CFR 50.47(b)(2) and 10 CFR 50, Appendix E, Paragraph IV.A.9.

#### **4.0 Regulatory Evaluation**

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

###### **10 CFR 50.36(b)(4), Administrative controls**

TS requirements associated with the unit staff satisfy, in part, provisions related to organization and management, procedures, recordkeeping, review and audit, and reporting necessary to assure operation of the facility in a safe manner. The proposed amendments emend the wording associated with the individual that provides technical advisory support to change the STA role from a position to function. This proposed change does not adversely impact the ability of the facility staff to operate in a safe manner.

###### **10 CFR 50.54, Condition of licenses**

The proposed TS change conforms to existing NRC policy guidance regarding engineering expertise on shift and SNC continues to maintain minimum licensed operator staffing requirements pursuant to 10 CFR 50.54(m)(2)(i).

###### **10 CFR 50.47, Emergency plans**

10 CFR 50.47(b) requires emergency responsibilities of various supporting organizations be specifically established and principal response organization has staff to respond and to augment its initial response on a continuous basis. §50.47(b) also requires adequate staffing to provide initial facility accident response in key functional areas to be maintained at all times including



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timely augmentation of response capabilities available. The proposed amendments reduce the minimum on-shift staff from 25 to 24 in the HNP and FNP annexes to the SNC SEP and includes an accompanying editorial change in the SEP. This change does not adversely impact emergency responsibilities of various supporting organizations and the principal response organization continues to contain staff necessary to respond and to augment its initial response on a continuous basis.

10 CFR 50, Appendix E

Section IV.A provides requirements on the emergency organization including a description of the ERO with detailed discussion of, in part, plant staff emergency assignments. The HNP and FNP EP minimum staffing studies were re-evaluated and updated to ensure on-shift staffing continues to be adequate to perform critical functions until relieved by the augmented ERO. Therefore, the proposed change to the HNP and FNP annexes of the SNC SEP continue to meet the applicable 10 CFR 50, Appendix E requirements.

NUREG-0737 Enclosure 3

Item I.A.1.1 position requires each licensee to provide an on-shift technical advisor to the shift supervisor. The STA may serve more than one unit at a multiunit site if qualified to perform the advisor function for the various units. The position also describes the educational and training qualifications required for the STA function. The proposed amendments emend the wording associated with the individual that provides technical advisory support to change the STA role from a position to function. Following implementation of the proposed amendments, an on-shift individual will continue to be available to provide advisory technical support to the unit operations shift crew in the areas of thermal hydraulics, reactor engineering, and plant analysis with regard to the safe operation of the unit and will meet the qualifications specified by the Commission policy statement on engineering expertise, including those necessary to perform the technical advisory function for both units.

Item I.A.1.1 further provides clarification for eliminating the STA position and until such time, an STA be available for duty on each operating shift when a plant is being operated in Modes 1-4 for a PWR and Modes 1-3 for a BWR. At other times, an STA is not required to be on duty. Following implementation of the proposed amendments, advisory technical support (i.e., STA functions) will continue to be provided by senior licensed operators while the VEGP Units 1 and 2 and FNP units are operating in Modes 1-4 and HNP units are operating in Modes 1-3.

Regulatory Guide 1.101 and NUREG-0654

NUREG-0654/FEMA-REP-1 (Reference 7), which is considered acceptable by the NRC staff as indicated in Regulatory Guide 1.101 (Reference 8), describes the onsite emergency assignments and functions in Table B-1 entitled "Minimum Staffing Requirements for Nuclear Power Plant Emergencies." The proposed change to reduce the minimum on-shift staff from 25 to 24 in the HNP and FNP annexes to the SNC SEP continue to meet the minimum on-shift staffing as indicated in NUREG-0654, Table B-1.

4.2 Precedent

Eliminating a dedicated STA position allowing advisory technical support to be provided by senior reactor operators has been approved for multiple licensees including;



- Amendment 220 to Oyster Creek Nuclear Generating Station operating license (NRC ADAMS Accession No. ML010310230) allowing one of the required on-shift SRO positions to be combined with the required STA position so as to serve in a dual SRO/STA position.
- Amendments 173 and 113 to St. Lucie Plant, Units 1 and 2 operating licenses, respectively (NRC ADAMS Accession No. ML010810277) permitting, as an alternative to the current dedicated STA, a single, qualified individual to simultaneously serve as an STA and an SRO.
- Amendments 266 and 257 to Sequoyah Nuclear Plant Units 1 and 2 operating licenses, respectively (NRC ADAMS Accession No. ML010520368), which revised Section 6.2.4, "Shift Technical Advisor," to align with the latest revision of the Westinghouse STS, NUREG-1431. This change assigned the role of STA to a qualified individual in the operating crew, as specified in the STS.
- Amendments 132 and 111 to VEGP Units 1 and 2 operating licenses (NRC ADAMS Accession No. ML041810596) revising TS 5.2.2.g to limit the requirements of the STA functions to Modes 1-4 in accordance with NUREG-0737, Enclosure 3, Item I.A.1.1.

#### 4.3 No Significant Hazards Consideration Determination Analysis

Southern Nuclear Operating Company (SNC) proposes to revise the Technical Specifications (TS) for the Joseph M. Farley Nuclear Plant (FNP) - Units 1 and 2, the Edwin I. Hatch Nuclear Plant (HNP) - Units 1 and 2, and the Vogtle Electric Generating Plant (VEGP) - Units 1 and 2. The proposed change will align Section 5.2.2.g of each plant's TS with equivalent wording, comparable to TS 5.2.2.e in the standard technical specifications. This change eliminates a dedicated shift technical advisor (STA) personnel position at FNP and HNP by allowing the STA functions to be combined with one or more of the required senior reactor operator positions. The VEGP Units 1 and 2 TS change aligns the facilities with equivalent wording. This proposed change also incorporates wording related to the modes of operation during which the individual meeting the requirements in TS 5.2.2.g is required and provides guidance that the same individual may provide advisory technical support for both units. On approval, TS 5.2.2.g for each applicable SNC nuclear plant will be equivalent. Additionally, SNC proposes a revision to the minimum on-shift staffing tables in the HNP and FNP annexes to the SNC standard emergency plan (EP) that reduces the total number of required on-shift personnel from 25 to 24 and includes an accompanying editorial change to the SNC standard EP.

SNC has evaluated whether a significant hazards consideration is involved with the proposed amendments 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 advisory technical support function and on-shift staffing requirements are not associated with an initiator of any accident previously evaluated, so the probability of accidents previously evaluated is unaffected by the proposed change. In addition, the



proposed change does not alter the design or safety function of any safety related system. The proposed change emends the STA role as a function in lieu of a position and reduces the minimum required on-shift EP staffing for HNP and FNP by one. Minimum staffing studies were re-performed and confirmed on-shift staffing continues to be adequate to perform critical functions until relieved by the augmented emergency response organization (ERO) as required by 10 CFR 50.47(b)(2) and 10 CFR 50, Appendix E, Paragraph IV.A.9. As a result, manual operator action necessary to mitigate previously evaluated accidents continue to be persevered. Thus, the consequences of any accident are not affected by the proposed change.

Therefore, the proposed change does not involve a 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 evaluated?

Response: No

The proposed change emends the STA role as a function in lieu of a position and reduces the minimum required on-shift EP staffing for HNP and FNP by one. The proposed change does not involve a physical alteration of the plant (i.e., no new or different type of equipment will be installed), a change in the method of plant operation, or new operator actions. The proposed change does not introduce failure modes that could result in a new accident, and the change does not alter assumptions made in the safety analysis. As a result, there are no new accident scenarios, failure mechanisms, including no new single failures, introduced as a result of the proposed change.

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

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

Response: No

Safety margins are applied to the design and licensing basis functions and to the controlling values of parameters to account for various uncertainties and to avoid exceeding regulatory or licensing limits. The proposed change emends the STA role as a function in lieu of a position and reduces the minimum required on-shift EP staffing for HNP and FNP by one. The change does not impact any specific values that define margin established in each plant's licensing basis and, as a result, does not result in exceeding or altering a design basis or safety limit (i.e., the controlling numerical value for a parameter established in the UFSAR or the licenses). On-shift staffing continues to be adequate to perform critical functions until relieved by the augmented ERO as required by 10 CFR 50.47(b)(2) and 10 CFR 50, Appendix E, Paragraph IV.A.9.

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



#### 4.4 Conclusion

In conclusion, based on the considerations discussed herein, (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.

#### 5.0 Environmental Consideration

The proposed amendments modify the technical specification administrative controls to emend the shift technical advisory role as a function in lieu of a position and eliminates a dedicated position from the Hatch Nuclear Plant and Farley Nuclear Plant annexes to the Southern Nuclear Operating Company standard emergency plan, allowing the functions to be combined with one or more of other personnel positions. The proposed amendments are confined to personnel actions and changes to administrative requirements. Accordingly, the proposed amendments meet the eligibility criterion for categorical exclusion set forth in categories (7) and (10) of 10 CFR 51.22(c). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed amendments.

#### 6.0 References

1. TSTF-258, Revision 4, "Changes to Section 5.0, Administrative Controls," June 29, 1999. (NRC Agencywide Documents Access and Management System (ADAMS) Accession No. ML040620102)
2. NRC Generic Letter 86-04, "Policy Statement on Engineering Expertise on Shift," February 13, 1986. (NRC ADAMS Accession No. ML031150270)
3. NUREG-0737, "Clarification of TMI Action Plan Requirements," November 1980. (NRC ADAMS Accession No. ML051400209)
4. NEI 10-05, "Assessment of On-Shift Emergency Response Organization Staffing and Capabilities," Revision 0, June 2011. (NRC ADAMS Accession No. ML111751698)
5. NSIR/DPR-ISG-01, "Interim Staff Guidance, Emergency Planning for Nuclear Power Plants," Revision 0, November, 2011. (NRC ADAMS Accession No. ML14106A057)
6. NRC Regulatory Issue Summary 2016-10, "License Amendment Requests for Changes to Emergency Response Organization Staffing and Augmentation," August, 5, 2016. (NRC ADAMS Accession No. ML16124A002)
7. NUREG-0654 FEMA-REP-1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," Revision 1, November 1990. ((NRC ADAMS Accession No. ML040420012)
8. Regulatory Guide 1.101, "Emergency Planning and Preparedness for Nuclear Power Reactors," Revision 5, June 2005. (NRC ADAMS Accession No. ML050730286)



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**Attachment 1**

**Southern Nuclear Company Nuclear Facilities Technical Specification  
Marked-up Pages**



## 5.2 Organization

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### 5.2.2 Unit Staff (continued)

- f. The operations manager or at least one assistant operations manager shall hold an SRO license.
  - g. ~~The Shift Technical Advisor (STA)~~ An individual shall provide advisory technical support to the ~~shift supervisor~~ unit operations shift crew in the areas of thermal hydraulics, reactor engineering, and plant analysis with regard to the safe operation of the unit. ~~In addition, the STA~~ This individual shall meet the qualifications specified by the Commission Policy Statement on Engineering Expertise on Shift. This individual shall be available for duty when an operating unit is in MODE 1, 2 or 3. This same individual may provide advisory technical support for both units.
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## 5.2 Organization

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### 5.2.2 Unit Staff (continued)

- f. The operations manager or assistant operations manager shall hold an SRO license.
  - g. ~~The Shift Technical Advisor (STA)~~An individual shall provide advisory technical support to the ~~shift supervisor~~unit operations shift crew in the areas of thermal hydraulics, reactor engineering, and plant analysis with regard to the safe operation of the unit. ~~In addition, the STA~~This individual shall meet the qualifications specified by the Commission Policy Statement on Engineering Expertise on Shift. This individual shall be available for duty when an operating unit is in MODE 1, 2 or 3. This same individual may provide advisory technical support for both units.
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## 5.2 Organization

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### 5.2.2 Unit Staff (continued)

- f. The operations manager or at least one assistant operations manager shall hold an SRO license.
  - g. ~~The Shift Technical Advisor (STA)~~An individual shall provide advisory technical support to the ~~responsible SRO~~unit operations shift crew in the areas of thermal hydraulics, reactor engineering, and plant analysis with regard to the safe operation of the unit. ~~In addition, the STA~~This individual shall meet the qualifications specified by the Commission Policy Statement on Engineering Expertise on Shift. This individual shall be available for duty when an operating unit is in MODE 1, 2, 3, or 4. ~~The~~This same individual may ~~fill this position~~provide advisory technical support for both units.
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## 5.2 Organization

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### 5.2.2 Unit Staff (continued)

- f. The operations manager or at least one assistant operations manager shall hold an SRO license.
  - g. An individual shall ~~be assigned who provides~~provide advisory technical support to the unit operations shift crew in the areas of thermal hydraulics, reactor engineering, and plant analysis with regard to the safe operation of the unit. ~~This individual shall be available for duty when the plant is in modes 1-4. At other times, this individual is not required. In addition, this~~ This individual shall meet the qualifications specified by the Commission Policy Statement on Engineering Expertise on Shift. This individual shall be available for duty when an operating unit is in MODE 1, 2, 3, or 4. This same individual may provide advisory technical support for both units. ~~This position may also be filled by the shift supervisor or the individual with an SRO license provided that person meets the qualifications specified by the Commission Policy Statement on Engineering Expertise on Shift.~~
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**Joseph M. Farley Nuclear Plant - Units 1 and 2  
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License Amendment Request to Revise Technical Specification 5.2.2.g and  
Update Emergency Plan Minimum On-shift Staff Tables**

**Attachment 2**

**Southern Nuclear Company Nuclear Facilities Revised Technical  
Specification Pages**



## 5.2 Organization

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### 5.2.2 Unit Staff (continued)

- f. The operations manager or at least one assistant operations manager shall hold an SRO license.
  - g. An individual shall provide advisory technical support to the unit operations shift crew in the areas of thermal hydraulics, reactor engineering, and plant analysis with regard to the safe operation of the unit. This individual shall meet the qualifications specified by the Commission Policy Statement on Engineering Expertise on Shift. This individual shall be available for duty when an operating unit is in MODE 1, 2 or 3. This same individual may provide advisory technical support for both units.
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## 5.2 Organization

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### 5.2.2 Unit Staff (continued)

- f. The operations manager or assistant operations manager shall hold an SRO license.
  - g. An individual shall provide advisory technical support to the unit operations shift crew in the areas of thermal hydraulics, reactor engineering, and plant analysis with regard to the safe operation of the unit. This individual shall meet the qualifications specified by the Commission Policy Statement on Engineering Expertise on Shift. This individual shall be available for duty when an operating unit is in MODE 1, 2 or 3. This same individual may provide advisory technical support for both units.
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## 5.2 Organization

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### 5.2.2 Unit Staff (continued)

- f. The operations manager or at least one assistant operations manager shall hold an SRO license.
  - g. An individual shall provide advisory technical support to the unit operations shift crew in the areas of thermal hydraulics, reactor engineering, and plant analysis with regard to the safe operation of the unit. This individual shall meet the qualifications specified by the Commission Policy Statement on Engineering Expertise on Shift. This individual shall be available for duty when an operating unit is in MODE 1, 2, 3, or 4. This same individual may provide advisory technical support for both units.
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5.2 Organization

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5.2.2 Unit Staff (continued)

- f. The operations manager or at least one assistant operations manager shall hold an SRO license.
  - g. An individual shall provide advisory technical support to the unit operations shift crew in the areas of thermal hydraulics, reactor engineering, and plant analysis with regard to the safe operation of the unit. This individual shall meet the qualifications specified by the Commission Policy Statement on Engineering Expertise on Shift. This individual shall be available for duty when an operating unit is in MODE 1, 2, 3, or 4. This same individual may provide advisory technical support for both units.
-



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**Attachment 3**

**Southern Nuclear Operating Company Standard Emergency Plan and  
Applicable Annexes –Marked-up Pages**



#### B.2.1.3 TSC Operations Supervisor

The Operations Supervisor reports to the TSC Manager. Major position functions include evaluating plant conditions and initiating mitigation actions, coordinating TSC efforts in determining the nature and extent of plant conditions affecting plant equipment, actions to limit or contain the emergency, invoking the provisions of 10 CFR 50.54(x) (including completion of NRC notification), and assisting the OSC Manager in determining the priority assigned to OSC activities.

#### B.2.1.4 TSC Maintenance Supervisor

The Maintenance Supervisor reports to the TSC Manager and is responsible for planning and coordination of repair, damage control, and plant modification activities. The Maintenance Supervisor works closely with the Engineering Supervisor in planning for plant modifications and repairs.

#### B.2.1.5 TSC Radiation Protection (RP) Supervisor

The RP Supervisor reports to the TSC Manager and supervises the activities of the radiation protection staff and Health Physics Network (HPN) Communicator. The RP Supervisor assists the Radiation Protection/Chemistry Group Lead in the OSC in determining the extent and nature of radiological or hazardous conditions, and assists in the establishment of offsite dose assessment activities prior to EOF activation.

#### B.2.1.6 On-shift Dose Analyst

The On-shift Dose Analyst normally responds to the TSC and reports to the Shift Manager. The On-shift Dose Analyst operates the dose assessment model to provide estimates of environmental dose in the event of a radiological release attributable to the event until this duty is transferred to the EOF.

#### B.2.1.7 TSC Engineering Supervisor

The Engineering Supervisor reports to the TSC Manager. The TSC Engineering Supervisor is responsible for the overall direction of Engineering Group activities and assessment. The Engineering Supervisor also directs the analysis of plant problems and core damage, and provides recommendations for plant modifications to mitigate the effects of the accident.

#### B.2.1.8 TSC Reactor Engineer

The Reactor Engineer reports to the Engineering Supervisor in the TSC. The Reactor Engineer is responsible for monitoring core conditions and providing recommendations to maintain the viability of the core. The Reactor Engineer relieves the Shift ~~Technical Advisor (STA)~~ Manager or Supervisor of the Core Thermal Analysis responsibilities.

#### B.2.1.9 TSC Engineering Support

The TSC Engineering Support reports to the Engineering Supervisor in the TSC. The TSC Engineering Support is responsible for monitoring the plant systems and planning corrective actions as appropriate.



Table 2.2.A – Farley Nuclear Plant On-Shift Staffing

Major Functional Area	Major Tasks	Position	On-Shift
Emergency Direction and Control		Shift Manager (SM)/ Emergency Director (ED)	1
Plant Operations and Assessment of Operational Aspects		Shift Supervisor (SRO)	2
		Reactor Operator (RO)	4
		Shift Support Supervisor/Fire Brigade Leader (SRO/FBL) <sup>Note 1</sup>	1
		System Operator (SO) <sup>Note 1</sup>	7
Plant System Engineering, Repair and Corrective Actions	Technical Support	Shift Support Supervisor or other trained individualShift Support Supervisor/Shift Technical Advisor (SRO/STA)	4 Note 2
Notification/Communication	Notify licensee, state, local, and federal personnel and maintain communication	Licensed Operator (RO or SRO)	Note 2
Radiological Accident Assessment and Support of Operational Accident Assessment	Offsite Dose Assessment	Chemistry Technician or other trained personnel	1
	In-plant surveys	RP Technician or other trained personnel	1
	Offsite Surveys, Onsite (out-of-plant)	RP Technician or other trained personnel	1
Protective Actions	Radiation Protection: a. Access Control b. RP Coverage for repair, corrective actions, search and rescue, first-aid, and firefighting c. Personnel monitoring d. Dosimetry	RP Technician	1
	Chemistry/Radio-chemistry	Chemistry Technician	1
Plant System Engineering, Repair and Corrective Actions	Repair and Corrective Actions	Maintenance Supervisor	1
		Electrical Maintenance	1
		Mechanical Maintenance	1
		I&C Maintenance	1
Total:			254
Fire Fighting		Fire Brigade <sup>Note 1</sup>	5
Rescue Operations and First Aid		Rescue Operations/First Aid <sup>Note 2</sup>	2
Site Access Control and Personnel Accountability		Security	Security Plan

Note 1 – Fire Brigade made up of FB Leader (SSS) and 4 System Operators not assigned safe shutdown responsibilities.

Note 2 – May be provided by shift personnel assigned other functions



**Table 2.2.A – Hatch Nuclear Plant On-Shift Staffing**

Major Functional Area	Major Tasks	Position	On-Shift
Emergency Direction and Control		Shift Manager (SM)/ Emergency Director (ED)	1
Plant Operations and Assessment of Operational Aspects		Shift Supervisor (SRO)	2
		Reactor Operator (RO)	4
		Shift Support Supervisor/Fire Brigade Leader (SRO/FBL) <sup>Note 1</sup>	1
		System Operator (SO) <sup>Note 1</sup>	7
Plant System Engineering, Repair and Corrective Actions	Technical Support	Shift Support Supervisor or other trained individual Shift Support Supervisor / Shift Technical Advisor (SRO/STA)	4Note 2
Notification/Communication	Notify licensee, State local and Federal personnel & maintain communication	Licensed Operator (RO or SRO)	Note 2
Radiological Accident Assessment and Support of Operational Accident Assessment	Offsite Dose Assessment	Chemistry Technician or other trained personnel	1
	In-plant surveys	RP Technician or other trained personnel	1
	Offsite Surveys Onsite (out-of-plant)	RP Technician or other trained personnel	1
Protective Actions	Radiation Protection: a. Access Control b. RP Coverage for repair, corrective actions, search and rescue first-aid & firefighting c. Personnel monitoring d. Dosimetry	RP Technician	1
	Chemistry/Radio- chemistry	Chemistry Technician	1
Plant System Engineering Repair and Corrective Actions	Repair and Corrective Actions	Maintenance Supervisor	1
		Electrical Maintenance	1
		Mechanical Maintenance	1
		I&C Maintenance	1
Total:			254
Fire Fighting		Fire Brigade <sup>Note 1</sup>	5
Rescue Operations and First Aid		Rescue Operations/First Aid <sup>Note 2</sup>	2
Site Access Control and Personnel Accountability		Security	Security Plan

Note 1 – Fire Brigade made up of FB Leader (SSS) and 4 System Operators not assigned safe shutdown responsibilities.

Note 2 – May be provided by shift personnel assigned other functions.



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**Attachment 4**

**Hatch Nuclear Plant Revised Emergency Plan On-shift Staffing Analysis**