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OCAN082201

10 CFR 50.90
10 CFR 50.54(q)
10 CFR 50.47

August 30, 2022

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

Subject: License Amendment Request for Approval of Changes to the Emergency Plan Staffing Requirements

Arkansas Nuclear One, Units 1 and 2
NRC Docket Nos. 50-313 and 50-368
Renewed Facility Operating License Nos. DPR-51 and NPF-6

Pursuant to 10 CFR 50.90, Entergy Operations, Inc. (Entergy) is submitting a request for NRC approval of a proposed change to the Arkansas Nuclear One (ANO) Emergency Plan. The proposed change would revise the required number of qualified onsite dose assessors for the on-shift Emergency Response Organization (ERO) in the ANO Emergency Plan utilizing the minimum staff ERO guidance specified in NUREG-0654/FEMA-REP-1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," Revision 2.

The proposed change has been reviewed considering the requirements of 10 CFR 50.47, "Emergency Plans," paragraph (b) and 10 CFR 50 Appendix E, "Emergency Planning and Preparedness for Production and Utilization Facilities." An evaluation of the proposed change pursuant to 10 CFR 50.54, "Conditions of licenses," paragraph (q), "Emergency Plans," determined that the proposed change requires prior NRC approval. The proposed change has no effect on offsite responses.

The Enclosure provides the evaluation of the proposed change. Attachment 1 provides the existing ANO Emergency Plan page marked-up to show the proposed changes. Attachment 2 provides the revised ANO Emergency Plan Clean Retyped page.

Entergy requests approval of the proposed license amendment by September 30, 2023. The proposed changes would be implemented within 90 days of issuance of the amendment.

This letter contains no new regulatory commitments.

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

If there are any questions or if additional information is needed, please contact Riley Keele, Manager, Regulatory Assurance, Arkansas Nuclear One, at (479) 858-7826.

I declare under penalty of perjury that the foregoing is true and correct.
Executed on August 30, 2022.

Respectfully,

Phil Couture

PC/nbm

Enclosure: Evaluation of the Proposed Change

Attachments to Enclosure:

1. ANO Emergency Plan Markups
2. ANO Emergency Plan Clean Retyped

cc: NRC Region IV Regional Administrator
NRC Senior Resident Inspector – Arkansas Nuclear One
NRC Project Manager – Arkansas Nuclear One
Designated Arkansas State Official

ENCLOSURE

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EVALUATION OF THE PROPOSED CHANGE

EVALUATION OF THE PROPOSED CHANGE

1.0 SUMMARY DESCRIPTION

Entergy Operations, Inc. (Entergy) is requesting NRC approval of a proposed revision to the Arkansas Nuclear One (ANO) Emergency Plan. The proposed change would revise the required number of qualified onsite dose assessors for the on-shift Emergency Response Organization (ERO) in the ANO Emergency Plan utilizing the minimum staff ERO guidance specified in NUREG-0654/FEMA-REP-1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," Revision 2 (Reference 6.3). The proposed changes comply with the requirements of 10 CFR 50.47, "Emergency Plans," paragraph (b) and 10 CFR 50 Appendix E, "Emergency Planning and Preparedness for Production and Utilization Facilities." The proposed revision maintains the requirement that on-shift emergency response responsibilities are staffed and assigned. The evaluation of the proposed changes pursuant to 10 CFR 50.54, "Conditions of licenses," paragraph (9), "Emergency Plans," does not result in a reduction of the capability of the ERO to respond to an emergency and does not reduce ANO's ability to protect the health and safety of the public but results in a reduction in commitment to the NRC. As a result, NRC review and approval is needed pursuant to 10 CFR 50.54(q).

2.0 DETAILED DESCRIPTION

2.1 Proposed Changes

Attachments 1 and 2 provide marked-up and clean retyped pages of the ANO Emergency Plan Table B-1 "Minimum Staffing Requirements." The proposed change allows one person from chemistry to perform the required dose assessment in a dual unit event. It does so by modifying Note 9 of Table B-1 to specify that one on-shift Chemist, instead of two, is qualified to perform offsite dose projections and chemistry/radiochemistry functions for either/both units. This note applies to the combined Unit-1 and Unit-2 column which specifies the number of on-shift Radiological Accident Assessment and Support - Chemist (Offsite Dose Projections) and Chemistry/Radiochemistry – Chemists. The justification for the change is discussed in Section 2.2 and 3.1.

2.2 Bases for Proposed Changes

The proposed revision reduces the number of required on-shift dose assessors from two to one. Two on-shift chemists currently serve as the qualified dose assessors for the on-shift ERO. The Chemistry function listed in Table B-1 of the ANO Emergency Plan is being revised to one onsite qualified dose assessor (Chemist) who performs the required function for a dual unit event. The proposed ERO staffing is consistent with NUREG-0654, Revision 2 (Reference 6.3).

3.0 TECHNICAL EVALUATION

3.1 Functional Analysis

This analysis evaluates the impact of revising the ANO Emergency Plan and On-Shift Staffing Analysis to reduce the number of required on-shift dose assessors from two to one to support both ANO units. The proposed revision reduces the number of required on-shift chemists

(qualified dose assessor) from two to one on shift with another available within 60 minutes which is consistent with Table B-1 of NUREG-0654, Revision 2 (Reference 6.3).

NUREG-0654, Revision 1 (Reference 6.2), Table B-1, specifies the capability to provide one person to perform offsite dose assessment within 30 minutes. It also specifies the capability to provide one on-shift Nuclear Chemist and the capability to augment this position with an additional Nuclear Chemist within 60 minutes.

An evaluation was performed in accordance with 10 CFR 50.54(q) which included a historical document review of the ANO Emergency Plan and other licensing basis documents. A review of submittals from other nuclear stations for a similar reduction in order to meet NUREG 0654, Revision 2 (Reference 6.3), Table B-1 was also performed.

In addition, the NRC Safety Evaluation Report (SER) and approval for ANO Emergency Plan Revision 28 (0CNA090212, ML022700069), was reviewed as a commitment. The submission for Revision 28 requested the extension of ERO response times from 30 to 60 minutes and 60 to 90 minutes for Initial Response and ERO Staff, respectively. Prior to the requested change, there was one chemist (initial dose assessor) required to be on-shift and one chemist required to be available within 30 minutes to support the dose assessment function. The SER reiterated the requirement in NUREG 0654, Revision 1 (Reference 6.2), Table B-1 to provide one staff member with the ability to complete dose assessment within 30 minutes and to maintain one chemist on shift with one additional chemist available to respond within 60 minutes. The NRC stated that requiring two chemists on shift and one available to respond within 90 minutes was an acceptable compensatory measure for the Table B-1 requirement.

The current ANO Emergency Plan Table B-1 describes the staffing requirements for Assessment and Support which requires one on-shift chemist for each unit, one additional chemist to be available within 60 minutes, and an EOF Dose Assessor be available within 90 minutes. The proposed ANO Emergency Plan revision decreases the number of required on-shift chemists from two to one serving as the qualified dose assessor to support both ANO units for a dual unit event. It also specifies that one additional chemist would be available within 60 minutes, and a EOF Dose Assessor would be available within 90 minutes. A review of the on-shift staffing analysis under 10 CFR 50, Appendix E, Section IV.A.9 was performed to ensure that the on-shift staffing supports initial dose assessment for a dual unit event, and no chemistry/radiochemistry tasks were found for either unit that would be required to be performed within the first 90 minutes.

On-shift chemists are qualified to perform chemistry/radiochemistry and dose assessment tasks for both units. Technical advances in dose assessment software (Unified RASCAL Interface) and computer hardware have made it possible for dose assessment for either unit or both units to be run concurrently on laptop computers in a central location (e.g., control room extension) or from the affected unit's control room. Assessment reports for both units may be summed to provide an aggregate release estimation. Entergy performed a Dose Assessment Task Demonstration to validate that a single, qualified dose assessor could perform the function for a dual unit event. The activity was performed with a qualified initial dose assessor in the control room/control room extension to demonstrate that the ERO member could perform their required actions. Simulated plant data and information was provided as it was earned. Times were recorded noting any issues with equipment, set-up, or procedures that could impact the ability for one person to complete the required dose assessment for a dual unit event. The demonstration was completed in the same manner in which the current process is performed. The chemist was successful in completion of the dose assessment task for a dual unit event.

The analysis demonstrates that no degradation or loss of function for assessment and response to a radiological release would occur as a result of the change.

The proposed ERO staffing is consistent with NUREG-0654, Revision 2 (Reference 6.3), Table B-1 and maintains the shift compliment required by the approved On-Shift Staffing Analysis; whereas a chemist must be available to perform dose assessment. There are no analyzed chemistry/radiochemistry tasks that are required to be performed within the ANO Emergency Plan response time frame; however, any additional chemists on shift may be assigned tasks at the discretion of the shift manager.

4.0 REGULATORY EVALUATION

4.1 Applicable Regulatory Requirements/Criteria

The proposed change has been evaluated to determine whether applicable regulations and requirements continue to be met.

Section 50.47, "Emergency plans," of Title 10 of the Code of Federal Regulations (10 CFR) sets forth the U.S. Nuclear Regulatory Commission's (NRC) Emergency Plan requirements for nuclear power plant facilities.

- 10 CFR 50.47(b)(2) states, in part: "... adequate staffing to provide initial facility accident response in key functional areas is maintained at all times, timely augmentation of response capabilities is available, and ..."
- 10 CFR 50.47(b)(9), states: "Adequate methods, systems, and equipment for assessing and monitoring actual or potential offsite consequences of a radiological emergency condition are in use."

Section IV.A, "Organization" of 10 CFR 50, Appendix E, "Emergency Planning and Preparedness for Production and Utilization Facilities," states in part: "The organization for coping with radiological emergencies shall be described, including definition of authorities, responsibilities, and duties of individuals assigned to the licensee's emergency organization and the means for notification of such individuals in the event of an emergency. Specifically, the following shall be included: (1) A description of the normal plant operating organization. (2.b) A description of the onsite ERO with a detailed discussion of plant staff emergency assignments. (9) By December 24, 2012, for nuclear power reactor licensees, a detailed analysis demonstrating that on-shift personnel assigned emergency plan implementation functions are not assigned responsibilities that would prevent the timely performance of their assigned functions as specified in the emergency plan."

Evaluation Criteria 5 of Section II.B of NUREG-0654/FEMA-REP-1, Revision 1 (Reference 6.2), states, in part: "Each licensee shall specify the positions or title and major tasks to be performed by the persons to be assigned to the functional areas of emergency activity. For emergency situations, specific assignments shall be made for all shifts and for plant staff members, both onsite and away from the site. These assignments shall cover the emergency functions in Table B-1 entitled, 'Minimum On-Site Staffing Requirements for Nuclear Power Plant Emergencies.' The minimum on-shift staffing levels shall be as indicated in Table B-1. The licensee must be able to augment on-shift capabilities within a short period after declaration of an emergency. This capability shall be as indicated in Table B-1."

NUREG-0654/FEMA-REP-1, Revision 2 (Reference 6.3) was intended to aid licensees, applicants for licenses, or state and local EROs in the development of their radiological emergency response plans. The NRC endorsed this document for use in this effort via Revision 2 to Regulatory Guide (RG) 1.101, "Emergency Planning and Preparedness for Nuclear Power Reactors," dated October 1981 (Reference 6.4). RG 1.101 (Reference 6.4) allows for licensees to submit alternatives to the guidance provided in NUREG-0654/FEMA-REP-1 for staff review and approval if necessary.

Section II.B of NUREG-0654/FEMA-REP-1, Revision 2 (Reference 6.3), states, in part: "On shift facility licensee responsibilities for emergency response are unambiguously defined, adequate staffing to provide initial facility accident response in key functional areas is maintained at all times, timely augmentation of response capabilities is available, and the interfaces among various onsite response activities and offsite support and response activities are specified."

10 CFR 50.54(q) establishes requirements that all holders of a nuclear power reactor operating license must follow and maintain in effect emergency plans which meet the planning standards in 10 CFR 50.47(b) and the requirements in 10 CFR 50, Appendix E, "Emergency Planning and Preparedness for Production and Utilization Facilities."

RG 1.219, "Guidance on Making Changes to Emergency Plans for Nuclear Power Reactors," (Reference 6.5) provides guidance related to emergency preparedness and specifically to making changes to emergency response plans.

Entergy has evaluated the proposed changes against the applicable regulatory requirements and guidance criteria and concluded that the ANO Emergency Plan, as revised, continues to meet the requirements in Appendix E to 10 CFR 50 and the planning standards of 10 CFR 50.47(b).

4.2 Precedent

In the amendments listed below, the NRC approved similar changes to EROs, including the revisions to the on-shift chemistry staffing for the Emergency Plan, as per the Reference 6.1 guidance and are therefore, applicable to the proposed changes to the ANO Emergency Plan.

4.2.1 "Hope Creek Generating Station and Salem Nuclear Generating Station, Unit Nos. 1 and 2 - Issuance of Amendment Nos. 221, 332, and 313 RE: Revised Emergency Plan Staffing Requirements (ML19352F231), dated February 18, 2020

4.2.2 "South Texas Project, Units 1 and 2 - Issuance of Amendments RE: ERO Time Augmentation and Staffing Changes to the Emergency Plan (ML18159A212) dated July 19, 2018

4.2.3 "Braidwood Station, Units 1 and 2; Byron Station, Unit Nos. 1 and 2; Clinton Power Station, Unit No. 1; Dresden Nuclear Power Station, Units 1, 2, and 3; LaSalle County Station, Units 1 and 2; and Quad Cities Nuclear Power Station, Units 1 and 2 – Issuance of Amendments to Revise the ERO Staffing Requirements (ML19036A586) dated March 21, 2019

4.2.4 "Limerick Generating Station, Units 1 and 2, and Peach Bottom Atomic Power Station, Units 1, 2, and 3 - Issuance of Amendments to Revise the ERO Staffing Requirements (ML19078A018), dated May 24, 2019

4.3 No Significant Hazards Consideration Analysis

In accordance with the requirements of 10 CFR 50.90, Entergy Operations, Inc (Entergy) requests approval of an amendment to revise the Arkansas Nuclear One (ANO) Emergency Plan. The proposed changes result in a revision in the Emergency Response Organization (ERO) staffing for initial dose assessment. Entergy has evaluated the proposed amendment against the standards in 10 CFR 50.92 and has determined that the proposed amendment presents no significant hazards. Entergy has evaluated whether or not 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 change involve a significant increase in the probability or consequences of an accident previously evaluated?

Response: No.

The proposed amendment, which reduces the required number of qualified dose assessors for the on-shift ERO from two to one, has no effect on normal plant operation or on any accident initiator or precursors and does not impact the function of plant structures, systems, or components. The ANO ERO maintains the ability to perform initial dose assessment for a dual unit event. The proposed changes do not alter or prevent the ability of the ERO to perform their intended functions to mitigate the consequences of an accident or event. Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the proposed change create the possibility of a new or different kind of accident from any accident previously evaluated?

Response: No.

The proposed amendment does not impact any accident analysis. The change does not involve a physical alteration of the plant (i.e., no new or different type of equipment is being 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. The proposed change revises the on-shift staffing in the ANO Emergency Plan. Therefore, the proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

Response: No.

Margin of safety is associated with confidence in the ability of the fission product barriers (i.e., fuel cladding, reactor coolant system pressure boundary, and containment structure) to limit the level of radiation dose to the public. The proposed change is associated with the ANO Emergency Plan staffing and does not impact operation of the plant or its response to transients or accidents. The change does not affect the Technical Specifications. The proposed change does not involve a change in the method of plant operation and no accident analyses is affected by the proposed change. Safety analysis acceptance criteria are not affected by the proposed change. The revised ANO Emergency Plan continues to provide the necessary response staff. Therefore, the proposed change does not involve a significant reduction in a margin of safety.

Based on the above, Entergy concludes that the proposed change presents no 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

In conclusion, 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.

5.0 ENVIRONMENTAL CONSIDERATION

The proposed changes are applicable to emergency planning requirements and do not reduce the capability to meet the emergency planning standards of 10 CFR 50.47(b) and the requirements of 10 CFR 50, Appendix E. The proposed change 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 individual or cumulative occupational radiation exposure. Accordingly, the proposed change meets the eligibility criterion 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 change.

6.0 REFERENCES

- 6.1 Letter from NRC to NEI, "Alternative Guidance for Licensee EROs," (ML18022A352), dated June 12, 2018
- 6.2 NRC/FEMA NUREG-0654/FEMA-REP-1, Revision 1 "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," (ML040420012), dated November 1980
- 6.3 NRC NUREG-0654/FEMA-REP-1, Revision 2, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants" (ML14163A605), dated December 2019
- 6.4 NRC RG 1.101, "Emergency Planning and Preparedness for Nuclear Power Reactors," Revision 2, (ML13038A097), dated October 1981
- 6.5 NRC RG 1.219, "Guidance on Making Changes to Emergency Plans for Nuclear Power Reactors," (ML 102510626), dated November 2011

ENCLOSURE, ATTACHMENT 1

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ANO EMERGENCY PLAN MARKUPS

(1 Page)

ARKANSAS NUCLEAR ONE
EMERGENCY PLAN

TABLE B-1

MINIMUM STAFFING REQUIREMENTS

~~(ANO On-Shift Staffing Analysis Final Report Revision 2 (OSRC Approved: 07/24/2017))~~
(Including Capability for Additional Staffing)

Major Functional Area	Position/Title or Expertise	On Shift		Available in 60 Min	Available in 90 Min
		U1	U2		
Plant Operations	Manager, Shift Ops (SRO)	1	1	-	-
	Supervisor, Control Room (SRO)	1	1	-	-
	Control Room Operators	2	2	-	-
	Auxiliary Operators	2	2	-	-
	Shift Technical Advisor (Shift Engineer)	1	1	-	-
	Waste Control Operator (Radwaste)	1	1	-	-
Emergency Direction & Control	Emergency Director	1 ⁴	1 ⁴	-	1
Notification / Communication	Communicator Control Room	1	1	-	-
	EOF Communications Personnel	-	-	-	1
Radiological Accident Assessment and Support	EOF Dose Assessor	-	-	-	1
	Chemist (Offsite Dose Projections)	1 ⁹		1	-
Operational Accident Assessment, and Protective Actions (in plant)	Radiation Protection Technician (In-Plant Surveys)	1 ¹⁰	1 ¹⁰	1	1
	Radiation Protection Technician (Onsite Out-of-Plant Surveys)	-	-	-	1
	Radiation Protection Technicians (Protective Actions – In Plant)	3 ²	3 ²	2	2
	Radiation Protection Technicians (Offsite Surveys)	-	-	2	2
Chemistry/Radiochemistry	Chemists	1 ⁹		-	1
Repair and Corrective Actions	Electrical Maintenance	3 ^{2,12}	3 ^{2,12}	1 ⁵	1 ⁵
	I & C Technician	-	-	1 ⁶	1 ⁶
	Mechanic	3 ^{2,12}	3 ^{2,12}	-	2 ¹³
System & Component Engineering	Core/Thermal Hydraulics	1 ⁸	1 ⁸	1	-
	Electrical Engineer	-	-	-	1
	Mechanical Engineer	-	-	-	1
Fire Fighting	-----	5 ^{2,11}		Local Support (30 Minute Response)	
Rescue Operations and First-Aid	-----	2 ²		Local Support (30 Minute Response)	
Site Access Control and Personnel Accountability	Security Personnel	All per Security Plan			
Total Number of Personnel on Shift is 2322					

¹ These ERO positions may be vacant for not more than two hours in order to provide for unexpected absences, provided immediate action is taken to fill the require position.

² May be provided by shift personnel assigned other functions.

³ Once notified, emergency responders are to report to their assigned facility as soon as possible and without delay.

⁴ The Manager, Shift Ops initially assumes the responsibility for Emergency Direction and Control, then is relieved by the EOF Emergency Director.

⁵ Electrical Maintenance personnel.

⁶ I&C Maintenance personnel.

⁷ Deleted.

⁸ STA duties encompass the Core/Thermal Hydraulics function.

⁹ ~~One On-Shift~~ There are two Chemists on shift is qualified to perform offsite dose projections and chemistry/radiochemistry functions for either/both units.

¹⁰ On-Shift Radiation Protection Technicians are qualified to perform Protective Actions In-Plant and In-Plant Surveys.

¹¹ Includes an additional Operator not counted elsewhere in the table.

¹² ANO Nuclear Plant Operators are trained to perform the actions associated with Repair and Corrective Action. This an acceptable collateral duty per the guidance of NEI 10-05 section 2.5 (On-Shift Staffing Analysis Final Report section II.D).

¹³ Mechanical Maintenance personnel.

ENCLOSURE, ATTACHMENT 2

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ANO EMERGENCY PLAN CLEAN RETYPED

(1 Page)

ARKANSAS NUCLEAR ONE
EMERGENCY PLAN

TABLE B-1

MINIMUM STAFFING REQUIREMENTS
(Including Capability for Additional Staffing)

Major Functional Area	Position/Title or Expertise	On Shift		Available in 60 Min	Available in 90 Min
		U1	U2		
Plant Operations	Manager, Shift Ops (SRO)	1	1	-	-
	Supervisor, Control Room (SRO)	1	1	-	-
	Control Room Operators	2	2	-	-
	Auxiliary Operators	2	2	-	-
	Shift Technical Advisor (Shift Engineer)	1	1	-	-
	Waste Control Operator (Radwaste)	1	1	-	-
Emergency Direction & Control	Emergency Director	1 ⁴	1 ⁴	-	1
Notification / Communication	Communicator Control Room	1	1	-	-
	EOF Communications Personnel	-	-	-	1
Radiological Accident Assessment and Support	EOF Dose Assessor	-	-	-	1
	Chemist (Offsite Dose Projections)	1 ⁹		1	-
Operational Accident Assessment, and Protective Actions (in plant)	Radiation Protection Technician (In-Plant Surveys)	1 ¹⁰	1 ¹⁰	1	1
	Radiation Protection Technician (Onsite Out-of-Plant Surveys)	-	-	-	1
	Radiation Protection Technicians (Protective Actions – In Plant)	3 ²	3 ²	2	2
	Radiation Protection Technicians (Offsite Surveys)	-	-	2	2
Chemistry/Radiochemistry	Chemists	1 ⁹		-	1
Repair and Corrective Actions	Electrical Maintenance	3 ^{2,12}	3 ^{2,12}	1 ⁵	1 ⁵
	I & C Technician	-	-	1 ⁶	1 ⁶
	Mechanic	3 ^{2,12}	3 ^{2,12}	-	2 ¹³
System & Component Engineering	Core/Thermal Hydraulics	1 ⁸	1 ⁸	1	-
	Electrical Engineer	-	-	-	1
	Mechanical Engineer	-	-	-	1
Fire Fighting	-----	5 ^{2,11}		Local Support (30 Minute Response)	
Rescue Operations and First-Aid	-----	2 ²		Local Support (30 Minute Response)	
Site Access Control and Personnel Accountability	Security Personnel	All per Security Plan			
Total Number of Personnel on Shift is 22					

¹ These ERO positions may be vacant for not more than two hours in order to provide for unexpected absences, provided immediate action is taken to fill the require position.

² May be provided by shift personnel assigned other functions.

³ Once notified, emergency responders are to report to their assigned facility as soon as possible and without delay.

⁴ The Manager, Shift Ops initially assumes the responsibility for Emergency Direction and Control, then is relieved by the EOF Emergency Director.

⁵ Electrical Maintenance personnel.

⁶ I&C Maintenance personnel.

⁷ Deleted.

⁸ STA duties encompass the Core/Thermal Hydraulics function.

⁹ One On-Shift Chemist is qualified to perform offsite dose projections and chemistry/radiochemistry functions for either/both units.

¹⁰ On-Shift Radiation Protection Technicians are qualified to perform Protective Actions In-Plant and In-Plant Surveys.

¹¹ Includes an additional Operator not counted elsewhere in the table.

¹² ANO Nuclear Plant Operators are trained to perform the actions associated with Repair and Corrective Action. This an acceptable collateral duty per the guidance of NEI 10-05 section 2.5 (On-Shift Staffing Analysis Final Report section II.D).

¹³ Mechanical Maintenance personnel.