

Evaluation of Request to Relocate the Southern Nuclear Operating Company Consolidated Emergency Operations Facility

1.0 BACKGROUND

By letter dated August 30, 2017 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML17243A202), Southern Nuclear Operating Company (SNC) requested U.S. Nuclear Regulatory Commission (NRC) approval to relocate SNC's existing consolidated emergency operations facility (EOF) for the Edwin I. Hatch Nuclear Plant - Units 1 and 2 (Hatch), Joseph M. Farley Nuclear Plant - Units 1 and 2 (Farley), and Vogtle Electric Generating Plant-Units 1, 2, 3 and 4 (Vogtle). The existing Commission-approved EOF is located in the SNC Corporate Headquarters at 40 Inverness Center Parkway, Birmingham, Alabama. SNC is proposing to relocate its consolidated EOF to the new SNC Headquarters at the North Tower 3525 Colonnade Parkway, Birmingham, Alabama. While only a 1.3-mile straight-line distance from the existing facility location, the proposed new facility location is more than 25 miles from the Hatch, Farley and Vogtle sites and, therefore, requires prior Commission approval per paragraph IV.E.8.b of Appendix E, "Emergency Planning and Preparedness for Production and Utilization Facilities," to Part 50, "Domestic Licensing of Production and Utilization Facilities," of Title 10 of the *Code of Federal Regulations* (10 CFR).

The existing consolidated EOF, as described in the SNC Standard Emergency Plan and Annexes, was approved in NRC letter to SNC, "Joseph M. Farley, Units 1 and 2; Edwin I. Hatch, Units 1 and 2; and Vogtle Electric Generating Plant, Units 1, 2, 3, and 4 - Issuance of Amendments Related to SNC Fleet Emergency Plan (CAC Nos. MF6670, MF6671, MF6672, MF6673, MF6674, MF6675, and RP9516)," dated March 14, 2017 (ADAMS Accession No. ML16141A090). In its review of the SNC Standard Emergency Plan and Annexes, the staff found that the existing consolidated EOF is consistent with applicable guidance and meets the applicable requirements as cited above.

2.0 REGULATORY REQUIREMENTS AND GUIDANCE

The NRC staff considered the following relevant regulations in its evaluation of SNC's request to relocate its existing consolidated EOF.

- Paragraph 50.47(b)(1) of 10 CFR Part 50 states, in part: "Primary responsibilities for emergency response by the nuclear facility licensee...have been assigned...and each principal response organization has staff to respond and to augment its initial response on a continuing basis."
- Paragraph 50.47(b)(3) of 10 CFR Part 50 states, in part, that "...arrangements to accommodate State and local staff at the licensee's emergency operations facility have been made...."
- Paragraph 50.47(b)(8) of 10 CFR Part 50 states: "Adequate emergency facilities and equipment to support the emergency response are provided and maintained."
- Paragraph 50.47(b)(9) of 10 CFR Part 50 states: "Adequate methods, systems, and equipment for assessing and monitoring actual or potential offsite consequences of a radiological emergency condition are in use."

- Paragraph IV.E.8.b of Appendix E to 10 CFR Part 50 states, in part: “For an emergency operations facility located more than 25 miles from a nuclear power reactor site, provisions must be made for locating NRC and offsite responders closer to the nuclear power reactor site so that NRC and offsite responders can interact face-to-face with emergency response personnel entering and leaving the nuclear power reactor site.”

As required by paragraph IV.E.8.b of Appendix E to 10 CFR Part 50, the near-site facility for NRC and offsite responders must meet the following requirements:

- Space for members of an NRC site team and Federal, State, and local responders;
- Additional space for conducting briefings with emergency response personnel;
- Communication with other licensee and off-site emergency response facilities;
- Access to plant data and radiological information, and
- Access to copying equipment and office supplies.

Paragraph IV.E.8.c to Appendix E of 10 CFR Part 50 further establishes the following minimum capabilities for an applicant or licensee EOF:

- The capability for obtaining and displaying plant data and radiological information for each reactor at a nuclear power reactor site and for each nuclear power reactor site that the facility serves;
- The capability to analyze plant technical information and provide technical briefings on event conditions and prognosis to licensee and offsite response organizations for each reactor at a nuclear power reactor site and for each nuclear power reactor site that the facility serves, and
- The capability to support response to events occurring simultaneously at more than one nuclear power reactor site if the emergency operations facility serves more than one site.

Revision 1 to NUREG-0654/FEMA-REP-1 (NUREG-0654), “Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants” (ADAMS Accession No. ML040420012), provides the following guidance that establishes evaluation criteria related to the EOF under 10 CFR 50.47(b)(3) and (b)(8):

- Section II.C, “Emergency Response Support and Resources,” Evaluation Criterion 2.a, states that “Each principal offsite organization may dispatch representatives to the licensee’s Emergency Operations Facility.”
- Section II.H, “Emergency Facilities and Equipment,” Evaluation Criterion 2, states that “Each Licensee shall establish an Emergency Operations Facility from which evaluation and coordination of all licensee activities related to an emergency is to be carried out and from which the licensee shall provide information to Federal, State and local authorities responding to radiological emergencies in accordance with NUREG-0696, Revision 1.”

The NRC’s issuance of the guidance document, NUREG-0696, “Functional Criteria for Emergency Response Facilities” (ADAMS Accession No. ML051390358), in 1981, established criteria for the NRC staff to use in evaluating whether an applicant or licensee met the existing requirements in paragraph IV.E.8 to Appendix E of 10 CFR Part 50. Section 4, “Emergency

Operations Facility,” of NUREG-0696 provided compliance criteria for the EOF in the following categories:

- Functions (section 4.1);
- Location, Structure, and Habitability (section 4.2);
- Staffing and Training (section 4.3);
- Size (section 4.4);
- Radiological Monitoring (section 4.5);
- Communications (section 4.6);
- Instrumentation, Data System Equipment, and Power Supplies (section 4.7);
- Technical Data and Data System (section 4.8), and
- Records Availability and Management (section 4.9).

Section VI.1 of the Office of Nuclear Security and Incident Response (NSIR)/Division of Preparedness and Response (DPR) Interim Staff Guidance (ISG) document, NSIR/DPR-ISG-01, “Emergency Planning for Nuclear Power Plants,” dated November 2011 (ADAMS Accession No. ML113010523) provides guidance for a performance-based approach for evaluating changes to a consolidated EOF.

3.0 NRC STAFF EVALUATION

3.1 Functions

The new consolidated EOF will provide for SNC’s management of the offsite emergency response, coordination of radiological assessment, and management of initial recovery operations, including notification of events and protective action recommendations as assigned in the SNC Standard Emergency Plan. The technical support center (TSC) for all three sites will continue to have the responsibility for event classification. Licensee Emergency Response Organization staff in the new consolidated EOF will continue to perform the following functions that are currently performed in the existing facility:

- Coordinate field team activities to monitor radiological activity;
- Perform dose assessments, and develop and provide protective action recommendations (PAR) to offsite agencies based upon plant conditions or dose projections;
- Make emergency event notifications to designated State and local agencies for each of the SNC sites, which include initial notifications, changes in emergency classification or PARs, and periodic updates, and
- Provide event, plant, and response information to public information staff for dissemination to the media and public through the respective sites’ Joint Information Centers.

Based on a review of the licensee’s submittal, the NRC staff has determined that these facility functions and responsibilities are consistent with that currently described in Section B, “Emergency Response Organization,” and Section H, “Emergency Facilities and Equipment,” of the SNC Standard Emergency Plan for the management of overall licensee emergency response. As such, no change is proposed to these existing EOF functions or responsibilities.

Based on a review of the licensee’s submittal, the NRC staff has determined that the new consolidated EOF provides equivalent or improved capabilities over the existing facility,

including updated equipment that monitors plant and environmental conditions to provide information required for dose assessment and development of PARs. The new consolidated EOF will also continue to house offsite response organizations, including Federal agencies, to coordinate information and deploy emergency resources from State and Federal agencies. Working space is provided for ERO staff and dedicated rooms are available for each responding State (Alabama, Georgia, South Carolina and Florida). Local agencies do not currently respond to the consolidated EOF and are expected to continue to coordinate through respective State agencies after the move to the new consolidated EOF. As such, no change is proposed to existing EOF capabilities to support the co-location of designated offsite response organizations.

The guidance in Section 4.1 to NUREG-0696 suggests that the licensee use normal industrial security for the EOF. Responsibility for establishing and maintaining access control for the EOF will continue to be the responsibility of the EOF Security Coordinator, as described in Section B.3.1, "EOF Organization," of the SNC Standard Emergency Plan. Access to the facility will continue to be controlled through the use of electronic card readers to allow entry only to authorized personnel. The licensee explained that the use of the new consolidated EOF during normal daily operations will be limited to activities that will not degrade readiness, operations, or reliability. As such, no change is proposed to facility security capabilities as compared to the security of SNC's existing EOF.

Section IV.1 of NSIR/DPR-ISG-01, which supplements the guidance in Section 4.1 of NUREG-0696, states, in part, that the EOF will have facilities and capabilities for "Effectively responding to and coordinating response efforts for events occurring simultaneously at more than one site for a co-located or consolidated EOF." In Section 3.1.11 to Enclosure 1, "Evaluation of Proposed Changes," of its August 30, 2017, letter, SNC states the following:

SNC will continue to maintain the EOF capability to support simultaneous events at two SNC sites. The new EOF will be equipped with facilities to monitor and analyze events at more than one site. Enough workstations are available for data retrieval, and the facility has adequate display capabilities to simultaneously present this information to the EOF staff. In addition, the new EOF will have the capability to support communications to offsite agencies for more than one event. If the EOF must respond to an event at more than one site simultaneously, the normal EOF staff complement will be augmented with additional personnel as needed.

The new EOF will have provisions to have dedicated lead responders assigned for each plant should there be multiple events affecting two or more plant sites. Diverse communication pathways are provided between the plant emergency response facilities and the EOF such that management can be expanded to provide communication with multiple State organizations. The four States potentially affected by multiple plant events are provided dedicated rooms and equipment to support simultaneous response activities....

Due to the improved space and upgraded equipment, SNC has the capability to expand the new EOF response beyond two unit or two site events. Additional lead responders can be supported within the proposed EOF should it be necessary to expand coordination in the facility beyond two units or sites.

As such, no changes are proposed to what is currently described in the SNC Emergency Plan that would negatively impact the ability of the EOF to effectively respond to and coordinate response efforts for events occurring simultaneously at more than one SNC site.

The staff has determined, based on a review of the licensee's submittal, that the new consolidated EOF does not negatively alter the functions of the EOF as currently described in the SNC Emergency Plan. Therefore, the staff has concluded that the new consolidated EOF is consistent with the guidance in NUREG-0696, as supplemented by NSIR/DPR-ISG-01, and meets the standards of 10 CFR 50.47(b) and requirements of paragraph IV.E.8 of Appendix E to 10 CFR Part 50.

While not required, the NRC staff and FEMA intend to observe the two-site-simultaneous demonstration drill planned for June 2018, as described in SNC's August 30, 2017, letter, to further verify the ability of the new consolidated EOF to perform the functions as currently designated in the SNC Emergency Plan. SNC will provide notice and the opportunity for offsite response organizations to participate and for NRC and the Federal Emergency Management Agency (FEMA) to observe the drill at the new facility." Successful performance of this dual-site drill will demonstrate the ability of the new SNC consolidated EOF to continue to effectively function during simultaneous events at multiple nuclear power reactor sites.

3.2 Location, Structure, and Habitability

3.2.1 Location

Section 4.2 of NUREG-0696, as supplemented by Section IV.1 of NSIR/DPR-ISG-01, provides guidance on considerations for the location of an EOF. Specifically, Footnote 1 to Table 2, "Relation of EOF Location to Habitability Criteria," to Section IV.1 of NSIR/DPR-ISG-01 states, in part, that "Specific Commission approval is required for EOF locations beyond 25 miles of the TSC." The new consolidated EOF will be located at the new SNC Headquarters at the street address of North Tower 3525 Colonnade Parkway, Birmingham, Alabama, which is only a 1.3-mile straight-line distance from its current location at 40 Inverness Center Parkway, Birmingham, Alabama. The new EOF is off the same major thoroughfare providing access to the existing facility. As such, the impact of the relocation based on the distance from the respective sites is negligible (see table below).

Site	Straight-line Distance to EOF	
	Existing	Proposed
Farley Nuclear Plant	178.5 miles	179.7 miles
Hatch Nuclear Plant	274.0 miles	275.3 miles
Vogtle Electric Generating Plant	286.0 miles	287.1 miles

Based on the Commission's approval of the existing consolidated EOF, the NRC staff finds that the physical location of the new consolidated EOF is consistent with the guidance in NUREG-0696, as supplemented by NSIR/DPR-ISG-01, and meets the requirements of paragraph IV.E.8.b of Appendix E to 10 CFR Part 50.

3.2.1.1 Offsite Agreement

The new consolidated EOF will provide working space for each of the responding representatives from the States of Alabama, Georgia, South Carolina and Florida. Section 4.2 to NUREG-0696, as supplemented by Section IV.1 of NSIR/DPR-ISG-01, states that “It is strongly recommended that the EOF location be coordinated with State and local authorities to improve the relationship between the licensee and offsite organizations.” As such, in Enclosure 2, “State Letters of Agreement,” to its August 30, 2017, letter, SNC provided signed letters of concurrence from the following State agencies, which currently respond to the existing SNC consolidated EOF, indicating that they concur with the proposed facility relocation:

- Alabama Emergency Management Agency,
- Office of Homeland Security – Georgia Emergency Management Agency,
- South Carolina Emergency Management Division, and
- Florida Division of Emergency Management.

The staff finds that no changes are proposed to what is currently described in the SNC Emergency Plan in support of designated State representatives responding to the new consolidated EOF. In addition, per the “Memorandum of Understanding Between the Department of Homeland Security/Federal Emergency Management Agency and Nuclear Regulatory Commission Regarding Radiological Response, Planning and Preparedness,” dated December 7, 2015 (ADAMS Accession No. ML15344A371), the NRC requested that FEMA evaluate the impact of the proposed relocation of the SNC consolidated EOF on off-site radiological emergency plans and preparedness, and provide its findings to the NRC. By letter dated September 22, 2017 (ADAMS Accession No. ML17275B332), FEMA stated, “Based on its review, FEMA does not find any impediments to Florida, Georgia, South Carolina, and Alabama emergency response organizations operating effectively from Southern Nuclear Company’s new common EOF and offsite radiological emergency plans and preparedness are not negatively impacted by this change.” Based on these findings, the staff has determined that the new consolidated EOF is consistent with the guidance in NUREG-0696, as supplemented by NSIR/DPR-ISG-01, and meets the requirements of 10 CFR 50.47(b)(3).

3.2.1.2 Impact on NRC’s Incident Response

Paragraph IV.E.8.b of Appendix E to 10 CFR Part 50 requires that for an EOF located more than 25 miles from a nuclear reactor site, provisions be made for locating NRC and off-site responders closer to the reactor site to facilitate face-to-face interaction with emergency personnel entering and leaving the site. Section IV of NSIR/DPR-ISG-01 states, in part, that the EOF will have facilities and capabilities for “Locating NRC and offsite agency staff closer to a site if the EOF is greater than 25 miles from the site,” and establishes guidance on minimum provisions at this location.

SNC’s near-site response locations are described in the Standard Emergency Plan Annexes for each affected reactor sites. No changes to the near-site response locations are planned or required due to the relocation of the EOF. At each near-site location, SNC will continue to provide a functional working space for NRC, State and FEMA representatives. SNC will also continue to provide telecommunications and habitability provisions, including telephones, ERO contact lists, standard office lighting, HVAC (heating, ventilation, and air conditioning), furniture, copiers, office supplies, computers with internet access, electrical power outlets, conference area with whiteboards, separate areas suitable for briefing and debriefing response personnel, and radiation monitoring capability.

SNC's existing near-site response locations and capabilities, as reflected in the respective site Annexes, will continue to remain as follows:

- Farley Training Center (per Section 5.1.5 of Revision 0 to the SNC Standard Emergency Plan Annex for Farley Nuclear Plant, Units 1 and 2 -- ADAMS Accession No. ML15246A050);
- Hatch Simulator Building (per Section 5.1.5 of Revision 0 to the SNC Standard Emergency Plan Annex for Hatch Nuclear Plant, Units 1 and 2 -- ADAMS Accession No. ML15246A053), and
- Vogtle Training Center (per Section 5.1.5 of Revision 0 to the SNC Standard Emergency Plan Annex for Vogtle Electric Generating Plant, Units 1 and 2 -- ADAMS Accession No. ML15246A056, and Revision 0 to the SNC Standard Emergency Plan Annex for Vogtle Electric Generating Plant, Units 3 and 4 -- ADAMS Accession No. ML15246A059).

Because SNC is not proposing any changes to the near-site response locations, or the existing capabilities of these locations, the NRC staff has not identified any impact on NRC incident response efforts related to the near site locations. Therefore, the existing near site locations, as identified in the respective SNC site Annexes, are consistent with the guidance in NSIR/DPR-ISG-01, and meet the requirements of paragraph IV.E.8.b of Appendix E to 10 CFR Part 50.

3.2.2 Structure

Section 4.2 of NUREG-0696, as supplemented by Table 2 to Section IV.1 of NSIR/DPR-ISG-01, provides guidance that for an EOF located at or beyond 10 miles of the site's TSC that the structure be "Well engineered for design life of plant." Footnote 2 to Table 2 provides an example of "well engineered" as referring to the applicable Uniform Building Code, and states that the structure must be able to withstand adverse conditions of high winds (other than tornados) and floods, referencing a 100-year recurrence frequency as an acceptable design basis. SNC states that the new consolidated EOF is built to withstand wind loads consistent with the 2009 International Building Code, as adopted by the State of Alabama, and that the facility is not located on a flood plain. As such, the NRC staff finds that the physical structure of the new consolidated EOF is consistent with the guidance in NUREG-0696, as supplemented by NSIR/DPR-ISG-01, and meets the requirements of 10 CFR 50.47(b)(8).

3.2.3 Habitability

Section 4.2 of NUREG-0696, as supplemented by Table 2 to Section IV.1 of NSIR/DPR-ISG-01, provides guidance for the ventilation standards and protection factor for a radiological release. Because the new EOF is located beyond 10 miles from the respective nuclear power reactor sites it supports, EOF functions would not be impacted by a radiological release from any SNC site due to the distance from each respective site as illustrated in Section 3.2.1. In these situations, the criteria in Table 2 of NSIR/DPR-ISG-01 states that no specialized ventilation systems or protection factor is needed. As such, the NRC staff finds the habitability of the new consolidated EOF is consistent with the guidance in NUREG-0696, as supplemented by NSIR/DPR-ISG-01, and meets the requirements of 10 CFR 50.47(b)(8).

3.3 Staffing and Training

Section 4.3 of NUREG-0696, as supplemented by Section IV.1 of NSIR/DPR-ISG-01, provides guidance on EOF staffing and training to provide for the overall management of licensee resources and the continuous evaluation and coordination of licensee activities during and after an accident. In addition, Section 4.3 to NUREG-0696 provides guidance on the conduct of periodic EOF activation drills in accordance with the licensee's emergency plan.

The proposed consolidated EOF is in the same location as the new SNC Corporate Headquarters, which allows for corporate support and management personnel to quickly staff the EOF with expertise from various disciplines. In addition, the roadway capacity and relative location results in little change for EOF responders staffing the new consolidated EOF. As such, the staffing and activation of the new consolidated EOF remains unchanged from that described in Section B.3, "EOF Organization," of the SNC Standard Emergency Plan. The response time for EOF staffing also remains unchanged (75 minutes from the time of an Alert or higher declaration).

The associated training and drill requirements for EOF staff positions in the new EOF remain consistent with those for the current EOF as described in Section N, "Exercises and Drills," and Section O, "Radiological Emergency Response Training," of the SNC Standard Emergency Plan. In Section 3.3, "Staffing and Training," to Enclosure 1 of its August 30, 2017, letter, SNC states that, "Facility walk-through activities and familiarization drills will be conducted to provide existing staff an opportunity to occupy and implement the facility. SNC has planned a two-site simultaneous demonstration drill for June 2018. SNC will provide the opportunity for offsite response organizations to participate...."

In order to ensure that EOF staff remain proficient in skills required to perform EOF functions for the reactors of various designs within the SNC fleet, including the Vogtle, Units 3 and 4 passive reactor design, SNC will continue to use the ERO Performance Indicator (PI) under the Emergency Preparedness Cornerstone¹, which allows the licensee and NRC staff to verify the licensee's ability to meet the performance-based consolidated EOF criteria and to adequately cope with an emergency at any of the licensee's sites. The PI tracks the participation of ERO members assigned to fill key positions in performance enhancing experiences, and ensures that the risk-significant aspects of classification, notification, and PAR development are evaluated and included in the PI process. The PI also ensures that utilities with common EOFs where personnel are assigned to the key positions that support multiple nuclear sites are monitored to ensure that each receives a meaningful opportunity to gain proficiency.

Based on a review of the licensee's submittal, the staff has determined that the staffing and training of EOF staff, including ERO response times and periodic drills and exercises, remains unchanged from that currently described in the SNC Emergency Plan. As such, the NRC staff concludes that the staffing and training of the new consolidated EOF is consistent with the guidance in NUREG-0696, as supplemented by NSIR/DPR-ISG-01, and meets the requirements of 10 CFR 50.47(b)(1).

¹ Nuclear Energy Institute (NEI) document, NEI 99-02, Revision 7, "Regulatory Assessment Performance Indicator Guideline," dated August 31, 2013 (ADAMS Accession No. ML13261A116)

3.4 Size

Section 4.4 to NUREG-0696, as supplemented by Section IV.1 to NSIR/DPR-ISG-01, provides guidance that the EOF building will be large enough to provide adequate work space for personnel assigned to the EOF as specified in the licensee's emergency plan, at the maximum level of occupancy without crowding, as well as provide separate office space to accommodate NRC staff and other Federal personnel.

Although SNC is not proposing to change the staffing levels and capabilities of the EOF as currently described in the SNC Emergency Plan, the physical layout of the facility has been revised. Figure H.2.A, "Emergency Operations Facility Layout (Typical)," included as Enclosure 2, "Layout Diagram – New EOF," to SNC's August 30, 2017, letter, provides the proposed layout for the new consolidated EOF. The licensee stated that the total usable space and working space of the new consolidated EOF is sized to meet the guidance in Section 4.4 of NUREG-0696² described above. Specifically, the new EOF will provide adequate working space for the number of ERO staff as specified in Revision 0 of the SNC Standard Emergency Plan, including State and NRC responders, at the maximum level of occupancy without crowding. SNC also stated that additional space is factored into the new EOF design in order to provide for sufficient personnel to respond to multi-unit events, if necessary.

Consistent with the existing facility, space in the new consolidated EOF is allocated for functional activities of accident assessment, radiation assessment, offsite monitoring, offsite communications, command and control, conferences, NRC personnel, and storage. There is sufficient space for the service of equipment, displays, and instrumentation within the new facility. Phones and special communications equipment are provided as needed throughout the new facility at personnel workstations. Individuals needing access to plant data are provided access via personal computers with Internet access. Functional displays of EOF data are made available through use of computer monitors and video display monitors. In Section 3.1.1, "Management of Overall Licensee Emergency Response," to Enclosure 1 of its August 30, 2017, letter, SNC states, in part, that "the new facility will be furnished with updated equipment that monitors plant and environmental conditions to provide information required for dose assessment and development of protective action recommendations."

Based on a review of the licensee's submittal, the NRC staff finds that the new EOF will be of sufficient size to accommodate and support Federal, State, local, and licensee ERO personnel, equipment and documentation in the EOF, which is consistent with the guidance in NUREG-0696, as supplemented by NSIR/DPR-ISG-01, and meets the requirements of 10 CFR 50.47(b)(8) and paragraph IV.E.8.c to Appendix of 10 CFR Part 50.

3.5 Radiological Monitoring

The guidance in Section 4.5 to NUREG-0696 specifies that to ensure adequate radiological protection of EOF personnel, radiation monitoring systems should be provided in the EOF. Similar to the existing SNC consolidated EOF, the new consolidated EOF will also be located beyond 10 miles from any of the SNC plants that it serves. In addition, no other NRC-licensed nuclear power reactor site is located within 10 miles of the new consolidated EOF. The staff finds that based on the physical location of the new consolidated EOF, EOF personnel would not be impacted by a radiological release from any nuclear power plant site. Therefore, radiological monitoring capabilities for EOF personnel, as described in NUREG-0696 and

² Section 4.4 of NUREG-0696 provides guidance that the minimum size of working space provided shall be approximately 75 square feet per person.

NSIR/DPR-ISG-01, are not needed and the new consolidated EOF meets the requirements of 10 CFR 50.47(b)(8).

3.6 Communications

Section 4.6 of NUREG-0696 provides guidance that the EOF shall have reliable voice communications facilities to the TSC, the control room, NRC, and State and local emergency operations centers, and describes the primary functions of the EOF voice communications facilities.

Based on a review of the licensee's submittal, the NRC staff confirmed that the description of the EOF facilities and equipment related to communications for the new consolidated EOF remains consistent to that which is currently described in Section F, "Emergency Communications," to the SNC Standard Emergency Plan and equivalent to the existing facility. The new EOF would provide the capability for the plant control rooms, TSCs, simulator control rooms, and alternative emergency response facilities for the eight SNC nuclear units to communicate with the required offsite response organizations and with each other. The Emergency Notification Network will continue to serve as the primary means of communication between the new consolidated EOF, the site control rooms, and the offsite response organizations, with the commercial telephone system providing the backup means of emergency notification. In addition, the licensee's submittal describes that the internet connections, long distance calling networks, satellite connectivity, local area network (LAN) connections, and the number of telephones and multifunction machines with fax capability in the new EOF are equal or superior to the existing EOF location.

Communications with the NRC are described as being established through the Federal Telephone System (FTS) telephone network, which connects the respective SNC plant sites and the consolidated EOF with the NRC Operations Center. The FTS is comprised of dedicated telephones that tie into the Emergency Notification System, Health Physics Network), Protective Measures Counterpart Link, Reactor Safety Counterpart Link, Management Counterpart Link, and Operations Center LAN in order to continue ensure effective and efficient communication capabilities. Fax transmission capability among the EOF, TSC, and NRC Operations Center will continue to exist in the new consolidated EOF as is the case in the existing EOF. Extensions for the ENS and HPN circuits will also be available in the designated NRC work areas.

Personnel in the new consolidated EOF will continue to be able to communicate with the respective SNC sites using the SNC intra-plant phone system and portable radio systems as currently done within the existing EOF. A radio system for communication with field monitoring teams is provided in the new consolidated EOF to coordinate radiological monitoring efforts.

Backup power to voice and data communications in the new consolidated EOF is provided by a backup diesel generator. In addition, voice communication systems in the new EOF are provided with 2-hour back-up power by a stand-alone uninterruptible power supply. The testing of communications systems at the new consolidated EOF will continue to be performed as described in Section F.3, "Communications Tests," to the SNC Standard Emergency Plan to ensure the reliable, timely flow of information between all parties having an emergency response role.

The NRC staff finds that the new consolidated EOF has sufficient internal and external telecommunications capabilities to support EOF functions for simultaneous events involving multiple sites, based on the functions and staffing as currently described in the SNC Emergency Plan. As such, the NRC staff has concluded that the new consolidated EOF will provide for

reliable EOF voice and data communications and information collection consistent with the guidance in NUREG-0696, and meets the requirements of 10 CFR 50.47(b)(8).

3.7 Instrumentation, Data System Equipment, and Power Supplies

Section 4.7 of NUREG-0696 provides guidance on equipment to gather, store and display data needed in the EOF to analyze and exchange information on plant conditions, as well as criteria to perform these functions. Based on a review of the licensee's submittal, the NRC staff confirmed that the description of the facilities and equipment related to instrumentation, data system equipment, and power supplies for the new consolidated EOF remain as currently described in Section H.2.1, "Emergency Operations Facility," to the SNC Standard Emergency Plan. Data communication networks are installed to provide secure access to plant data and parameters for display in the new consolidated EOF. The networks are installed in accordance with the requirements of Section 4.7 of NUREG-0696 and 10 CFR 73.54, "Protection of digital computer and communication systems and networks." Data acquisition will be achieved through a secure proxy server, which allows the new consolidated EOF to access displays that are representative of the displays in the respective site control room via the SNC Wide Area Network (WAN) and LAN. These displays provide data points and parameters that are available to the operators in the control rooms and emergency responders in the respective site's TSC and operations support center. The new consolidated EOF video display system presents the graphics on screens in the main EOF area.

SNC states that the LAN/WAN equipment and core computer network equipment in the new consolidated EOF have a backup electrical power supply and, therefore, loss of primary power would not cause the loss of any stored data vital to the new consolidated EOF functions. The primary commercial electric service for the new consolidated EOF is provided by Alabama Power's underground distribution system. Backup electrical power for the new EOF is supplied by an onsite diesel generator sized to carry the electrical load for the entire SNC Corporate Headquarters building, thereby providing backup power to instrumentation and data system equipment in the new consolidated EOF. Furthermore, since the new consolidated EOF is located offsite, its electrical equipment loads cannot affect any safety-related power source at the respective SNC sites.

The NRC staff finds that the new consolidated EOF provides for reliable EOF instrumentation, data system equipment, and power supplies. As such, the NRC staff concludes that the new consolidated EOF will provide for reliable equipment to gather, store and display data needed in the EOF to analyze and exchange information on plant conditions consistent with the guidance in Section 4.7 to NUREG-0696, and meets the requirements of 10 CFR 50.47(b)(8)-(9) and paragraph IV.E.8.c of Appendix E to 10 CFR Part 50.

3.8 Technical Data and Data Systems

Section 4.8 of NUREG-0696 provides guidance on the technical data system needed to receive, store, process and display information sufficient to perform assessments of the actual and potential onsite and offsite environmental consequences of an emergency condition. Based on a review of the licensee's submittal, the NRC staff confirmed that the description of the offsite dose assessment capabilities at the new consolidated EOF will continue to be performed using the existing dose assessment computer analysis program at SNC's nuclear generating stations and other emergency response facilities in the event of an actual or potential release of airborne radioactivity to the environment.

SNC states that the new EOF data system is unchanged from the current EOF, and continues to comply with data display and data storage requirements discussed in Section 4.8 of NUREG-0696. This capability will include sensor data of the Type A, B, C, D, and E variables as described in Regulatory Guide 1.97, "Criteria for Accident Monitoring Instrumentation for Nuclear Power Plants," and the meteorological variables required by both Regulatory Guide 1.23, "Meteorological Monitoring Programs for Nuclear Power Plants," and NUREG-0654.

SNC states that the new consolidated EOF SNC can receive, store, process, and display information needed to perform assessments of actual and potential offsite consequences of an emergency. The new consolidated EOF has access to the same data points that are available to operators in each respective site's control room and emergency responders in the TSC and operational support center. The new EOF data set will include radiological, meteorological, and other environmental data needed to assess environmental conditions, coordinate radiological monitoring activities, and recommend implementation of offsite protective actions.

Because the new EOF will have similar capabilities as the existing consolidated EOF, the NRC staff finds that the new consolidated EOF provides for reliable EOF technical data and data systems. As such, the NRC staff concludes that the new consolidated EOF will provide for the sufficient receipt, storage, processing and display of information to perform assessments of the actual and potential onsite and offsite environmental consequences of an emergency condition consistent with the guidance in Section 4.8 to NUREG-0696, and meets the requirements of 10 CFR 50.47(b)(8)-(9) and paragraph IV.E.8.c of Appendix E to 10 CFR Part 50.

3.9 Records Availability and Management

Section 4.9 of NUREG-0696 provides guidance on the ready access to up-to-date plant records, procedures and emergency plans needed to exercise overall management of licensee emergency response resources. The new consolidated EOF is located near the SNC Document Services. Based on a review of the licensee's submittal, the NRC staff confirmed that the description of the key reference materials for the Farley, Hatch, and Vogtle sites, consistent with that referenced in Section H.2.1 to the SNC Standard Emergency Plan, will be kept up-to-date and readily available in the new consolidated EOF. As such, the NRC staff finds that the new consolidated EOF provides for records availability and management consistent with the guidance in Section 4.9 to NUREG-0696, and meets the requirements of 10 CFR 50.47(b)(8).

4.0 CONCLUSION

On the basis of its evaluation, the staff concludes the proposed consolidated EOF will fulfill necessary emergency response functions and meet applicable regulations in 10 CFR 50.47 and Appendix E of 10 CFR Part 50, and is consistent with the guidance in Section 4 of NUREG-0696, as supplemented by Section IV.I of NSIR/DPR-ISG-01. Given the technological capabilities of the facility and its capacity to address multi-site events, and the staffing of an ERO that will be comprised of experienced and diverse personnel, and longstanding NRC and State experience with the existing SNC consolidated EOF, NRC staff finds that there is reasonable assurance that protective measures can and will be implemented in the event of a radiological emergency at any of the sites that the proposed consolidated EOF will serve.