

POLICY ISSUE
(Notation Vote)

December 23, 2004

SECY-04-0236

FOR: The Commissioners

FROM: Luis A. Reyes
Executive Director for Operations /RA/

SUBJECT: SOUTHERN NUCLEAR OPERATING COMPANY'S PROPOSAL TO
ESTABLISH A COMMON EMERGENCY OPERATING FACILITY AT ITS
CORPORATE HEADQUARTERS

PURPOSE:

To obtain Commission approval of the proposal by Southern Nuclear Operating Company (SNC) to combine the existing near-site emergency operations facilities (EOFs) for the Edwin I. Hatch Nuclear Plant (HNP), the Joseph M. Farley Nuclear Plant (FNP) and the Vogtle Electric Generating Plant (VEGP) into a common EOF.

SUMMARY:

The SNC proposed to combine the EOFs at its three operating nuclear plant sites into a common EOF at its corporate offices in Birmingham, Alabama. The circumstances in this proposal are as follows: (1) the distances from the respective sites to the common EOF are 1½ to 2 ½ times greater than existing ones, (2) common EOFs are prevalent in Region II, and (3) the request involves multiple State and local emergency management agencies. The staff has determined that at the proposed distances, it cannot consider the proposed location to be "near-site," and therefore, an exemption from 10 CFR 50 Appendix E section E.8 and 10 CFR 50.47(b)(3) that requires an EOF to be "near-site" is required (the exemption request and the associated environmental assessment have been attached for information).

While arguably, the greater distances involved in the proposed plan could impede the licensee's and NRC's ability to perform their respective functions, the staff believes that advancements in

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communications, monitoring capabilities, computer technology, the familiarity of Region II staff with the use of common EOFs, and the SNC's emergency response strategies adequately compensate any impediments. Furthermore, as a result of its remote location, the common EOF could provide additional capabilities in response to security events as the licensee can effectively mobilize and manage its resources and communicate effectively with the site, Federal, State, and local emergency management. The staff is confident that this proposal will continue to provide reasonable assurance that adequate protective measures can and will be implemented in the event of a radiological emergency.

STAFF EVALUATION:

Commission approval is required for an EOF to be more than 25 miles from the Technical Support Center (The original distance of 20 miles, specified in NUREG-0696 and Supplement 1 to NUREG-0737, was changed by the Commission in its SRM dated September 18, 1996, regarding SECY-96-170, dated August 5, 1996). The distances from the plant sites to the proposed common EOF range from 213 miles (FNP) to 352 miles (HNP). The Commission approved two previous exceptions to the guidance because (1) the licensees were able to interface and effectively communicate with Federal, State, and local emergency management agencies, and (2) reasonable assurance was provided that adequate protective measures can and will be implemented in the event of a radiological emergency. The Commission disapproved one other exception to the guidance because the licensee did not make provisions to interface with Federal, State, and local emergency management agencies near the site. The licensee would have been at a remote location while Federal, State, and local officials would have been at a location near the site.

The staff has determined an exemption to the regulations is required for this proposal, as the location of the common EOF from the respective sites cannot be considered "near-site." However, as part of the top-down review of Emergency Preparedness, the staff has identified 10 CFR 50 Appendix E section E.8 and 10 CFR 50.47(b)(3) as opportunities to enhance the emergency preparedness regulatory structure. The staff will propose rulemaking to remove "near-site" from the regulations, as a more performance based requirement is appropriate because licensees that have a common EOF or are located at distances greater than 25 miles have effectively demonstrated through drills and exercises that a "near-site" EOF is not necessary to protect the public health and safety and promote the common defense and security.

The staff has requested that licensees who want to establish a common EOF demonstrate the ability to respond to a multi-site event. The staff observed a dual-site drill on July 14, 2004, involving HNP and FNP. The staff observed the licensee's notification process, staffing, communication, technical support, dose assessment, protective action recommendation process, coordination with offsite officials, and overall command and control. The licensee demonstrated the capability to effectively respond to a dual-site emergency event. EOF staffing was in accordance with the procedures. The offsite agencies received timely and accurate information, and adequate protective measures were recommended to protect the public health and safety. The observation team for the dual-site drill, conducted on July 14, 2004, consisted of members from the December 18, 2003, TMI dual-site drill observation team, NRC Headquarters Emergency Preparedness Directorate staff and Region II staff.

The staff considered the following factors in conducting the evaluation of SNC's proposal to establish a common EOF for FNP, HNP, and VEGP.

Functions:

In accordance with NUREG-0696, an EOF must have facilities for the following functions:

1. management of overall licensee response effort
2. coordination of radiological and environmental assessment
3. determination of protective actions
4. coordination of emergency response activities with Federal, State, and local agencies

The proposal meets the above criteria but deviates from the guidance in the management of overall licensee response effort by keeping the authority to declare the emergency action levels (EALs) on-site with the Emergency Director (ED) at the Technical Support Center (TSC). However, the licensee has offered that the EAL declaration will be enhanced because the ED can interact face-to-face with the operations crew, has day-to-day operational awareness of plant status, and has plant operations experience. In addition, consistent with industry practice, the ED consults with the EOF Manager in determining the EALs. Event classification has been retained at other common EOFs with no adverse effect on the protection of the health and safety of the public.

Staffing and Training: The personnel staffing the common EOF consists of a designated minimum staff and staff to support full operations. The minimum staff is capable of performing all of the EOF functions. SNC previously staffed its Corporate EOF within 60 minutes from the time of notification of a site area emergency. SNC has committed to augmenting its emergency response organization (ERO) to achieve operational status (including command and control functions) within 60 minutes from the time of notification (the time of notification will not exceed 15 minutes) of an Alert or higher emergency declaration, which is consistent with the NUREG-0696 goal of activating the emergency response facility within 60 minutes. In addition, the licensee has established an on-call list/duty roster. These personnel are required to remain fit for duty and be able to respond to the common EOF in 60 minutes.

SNC conducted an unannounced drill on July 1, 2004, to demonstrate that the capability exists to staff the common EOF facility in a timely manner. The SNC staff responded within 42 minutes and achieved a two-deep response in 50 minutes.

SNC has identified two positions that will have site-specific responsibilities (EOF Manager and Technical Supervisor). If an emergency event occurs at more than one site, the responsible EOF Managers and Technical Supervisors will respond to the common EOF for their respective sites.

Personnel who respond to the EOF will be trained on the emergency plan and their specific ERO position. SNC has a goal of activating the EOF in support of all activities that include TSC activation. This would result in a common EOF activation for a drill/exercise at least three times a year. In addition, as stated in the emergency plan, the licensee has committed to conducting a drill once every 5 years involving more than one SNC site.

Location: The licensee's proposed common EOF is 213 miles from FNP, 316 from VEGP, and 352 miles from HNP. Although these distances are more than 25 miles from the plants, the location of the proposed EOF continues to provide functionality and availability characteristics for meeting the licensee's functions and responsibilities by performing all the functions of a "near-site" EOF. The remote location allows the common EOF to function unaffected by the release of radioactive material from any of the licensee's sites. In addition, the licensee coordinated the proposal of a common EOF with the States and with local emergency management agencies and has obtained their concurrence.

Size: The proposed EOF includes the core command center of approximately 4032 square feet and can, if necessary, encompass any work area inside SNC's seven-story corporate office. Based on the requirements of NUREG-0696, Section 4.4, the maximum occupancy level of the EOF is 53. The maximum anticipated staffing level required to support the proposed common EOF is 35 (21 SNC staff personnel, 9 NRC personnel, 1 FEMA representative and 1 representative from each of the four States). If needed, additional SNC personnel may support the EOF either from within the core command center or from any work area inside SNC's corporate office.

Communications: The licensee has committed to provide the same level of communications that exists at its current near-site EOFs: commercial telephones, bridge lines, radios, an offsite premise extension (OPX) (to bypass local telephone switching), SNC's own phone system (Southern LINC), a direct ringdown system (Emergency Notification Network (ENN)), and the FTS lines for NRC use. The installation of the FTS lines is being coordinated with Region II and will be completed if approval is given to the proposed common EOF and prior to implementation of the change.

The licensee has capitalized on an advancement in computer technology through the use of a new communication tool called "Web EOC." This allows States, local emergency management agencies, and the licensee to exchange information without having to meet face-to-face. The web EOC has event status, significant events, and the ability to be broadcasted at multiple sites.

Potential Overloading of Common EOF: The establishment of a common EOF for three sites could result in the need to respond to an emergency event at more than one site. The licensee has revised its procedures to have the capability to augment its EOF staff for multiple emergency events at FNP, HNP, and VEGP sites. Several positions have been designated as plant-specific and personnel have been designated for each of the three sites. In the unlikely event of a multisite accident, SNC will mobilize its entire EOF staff, using its ERO notification system. Personnel who are not needed will be briefed, placed on stand-by, and dismissed.

Impact on NRC's Incident Response and NRC Resources: Region II's incident response staff has been participating in drills and exercises with common EOFs for more than 15 years and has not encountered any problems and does not foresee any problems with the proposed common EOF for SNC. Region II thoroughly understands the functionality of the common EOF. The Region has been directing the incident response staff to respond to more than one location during an event while maintaining effective internal and external communications. Region II staff has not identified any concerns about whether the State/local officials can effectively function with the licensee's EOF being located in Birmingham, AL. If the NRC site team determines they need to relocate from the common EOF in Birmingham to be near the site, the

former near-site EOF which was located at the Training Center would be able to accommodate the NRC staff. However, Region II incident response staff has indicated this is not an expected action.

Region II has experience with the following common EOFs: Tennessee Valley Authority (Browns Ferry, Sequoyah, and Watts Bar) and Duke Power (McGuire and Catawba).

State and Local Agreement: The licensee included in its proposal, letters of concurrence from the State and local emergency management agencies in Alabama, Florida, Georgia, and South Carolina. SNC has made provisions in the proposed common EOF to accommodate State emergency management agencies and local representatives. Currently, the States send representatives to the EOF as needed. The local emergency management agencies do not normally send representatives to the EOF. The State of South Carolina expressed they would like the licensee to provide transportation of its representative to the common EOF as needed. The licensee has revised its letter of agreement with the State of South Carolina to transport the Emergency Management Division representative to the Common EOF upon request.

The States of Alabama and Georgia participated in the dual-site drill conducted by SNC. The Georgia Emergency Management Agency (GEMA) and the Department of Natural Resources (DNR) provided the NRC staff with oral comments that indicated they were pleased with the timeliness and accuracy, and the amount of information made available. In addition, the use of the electronic Web EOC interactive computer system, complemented with direct Southern LINC, enhanced communications between the State Emergency Operations Center (SEOC) and the proposed common EOF in Birmingham. The State of Alabama emergency management agency concluded that the establishment of a common EOF will continue to maintain the current effective communication interactions.

CONCLUSION:

The common EOF in Birmingham, AL meets the functional and physical requirements for an EOF, with the exception of being located near-site. The licensee has committed to augmenting its staff at the common EOF to achieve operational status at an alert or greater declaration. This represents a change from the previous augmentation goal of staffing the Corporate EOF at a site area emergency. The SNC proposal will maximize the use of Corporate senior management to fill key common EOF positions and increase the pool of available personnel to fill key onsite positions (these personnel would have reported to the near-site EOF in the current arrangement). The licensee will also conduct a dual-site drill once every 5 years to demonstrate proficiency and capability.

The States and local emergency management agencies have concurred that the proposal improves the effectiveness of communications, improves overall response, and continues to protect the public. The licensee has backup plans in place, if needed, to ensure timely and accurate notification. With the addition of "Web EOC" advanced computer technology, the licensee can share information more effectively.

The establishment of the SNC common EOF in Region II has no effect on the NRC's Incident Response effort. Region II is familiar with the response activities. If needed, the former near-site EOFs can accommodate the NRC site team if they want to relocate from the Common EOF to a location near the site. Therefore, the staff concludes that the establishment of a common EOF will effectively and efficiently support the SNC emergency response capability. This is

consistent with the defense in depth doctrine and provides reasonable assurance that protective measures can and will be implemented in the event of a radiological emergency at any of the SNC nuclear plants.

RECOMMENDATION:

The licensee has capitalized on corporate resources, the advances in technology, and will increase the number of on-site responders. The common EOF approach will continue to protect the public health and safety and promote the common defense and security. The common EOF establishes one central SNC voice for communication and coordination with Federal, State, and local emergency management agencies for any SNC emergency event. In addition, the common EOF could provide additional capabilities in response to a security event as the licensee can effectively mobilize and manage its resources and communicate effectively with the site, Federal, State, and local emergency management. The NRC staff has determined that emergency response, communication, and coordination is not adversely affected by the establishment of a common EOF for the SNC.

The NRC staff recommends that the Commission approve the proposal which establishes a common EOF for FNP, HNP, VEGP at the SNC Corporate Headquarters in Birmingham, AL.

RESOURCES:

The Commission's decision on the staffs' recommendation does not impact resources.

COORDINATION:

The Office of the General Counsel has reviewed this Commission paper and has no legal objection to its content. The paper was coordinated with the Office of the Chief Financial Officer for resource implications.

/RA Ellis W. Merschoff Acting For/

Luis A. Reyes
Executive Director
for Operations

Attachment: Southern Nuclear Operating Company Exemption
Associated Environmental Assessment

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
SOUTHERN NUCLEAR OPERATING COMPANY, INC.
EDWIN I. HATCH NUCLEAR PLANT, UNITS 1 AND 2
JOSEPH M. FARLEY NUCLEAR PLANT, UNITS 1 AND 2
VOGTLE ELECTRIC GENERATING PLANT, UNITS 1 AND 2
DOCKET NO(S) 50-321, 50-366, 50-348, 50-364, 50-424, AND 50-425
EXEMPTION

1.0 BACKGROUND

The Southern Nuclear Operating Company, Inc. (SNC or the licensee), is the holder of Facility Operating Licenses No. DPR-57, NPF-5, NPF-2, NPF-8, NPF-68, and NPF-81, which authorize operation of 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 and 2 (Vogtle), respectively. The licenses provide, among other things, that these facilities are subject to all rules, regulations, and orders of the Nuclear Regulatory Commission (NRC, the Commission) now or hereafter in effect.

The facilities consist of boiling water reactors located in Appling County in Georgia (Hatch), and pressurized water reactors in Houston County, Alabama (Farley), and Burke County, Georgia (Vogtle).

2.0 REQUEST/ACTION

Title 10 of the *Code of Federal Regulations* (10 CFR), Part 50, requires in Appendix E, Section E, that adequate provisions shall be made and described for emergency facilities and

equipment, including a licensee onsite technical support center and a licensee near-site emergency operations facility (EOF) from which effective direction can be given and effective control can be exercised during an emergency. Additionally, 10 CFR 50.47(b)(3) states in part, “. . . arrangements to accommodate State and local staff at the licensee’s near-site EOF have been made . . .” The Commission issued NUREG-0696 “Functional Criteria for Emergency Response Facilities,” and Supplement 1 to NUREG-0737, “Clarification of TMI Action Plan Requirements,” to provide guidance regarding acceptable methods for meeting its EOF emergency preparedness requirements. In addition, NUREG-0654/FEMA-REP-1, “Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants,” Evaluation Criterion H.2, states: “Each licensee shall establish an Emergency Operations Facility from which evaluation and coordination of all licensee activities related to an emergency is 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.”

Both NUREG-0696, Table 2 and Supplement 1 to NUREG-0737, Table 1 specify that the EOF should be located between 10 and 20 miles from the site, but a primary EOF may be located closer than 10 miles if a backup EOF is located within 10 to 20 miles of the Technical Support Center. For cases where the licensee proposed an exception involving a greater deviation, and for all Corporate EOF (CEOF) proposals, the NRC staff is required to obtain Commission approval. In SNC’s proposal dated October 16, 2003, and as supplemented on April 15 and August 16, 2004, the licensee requested approval to consolidate the near-site EOFs and back-up EOFs for Hatch, Farley, and Vogtle into a single EOF located at SNC’s corporate location in Birmingham, Alabama.

Prior requests by other licensees to relocate EOFs to a location greater than 20 miles from associated reactor sites did not result in the NRC staff requiring an exemption to 10 CFR Part 50 Appendix E, and 10 CFR 50.47. However, the licensee’s proposal to locate the EOFs in

Birmingham, AL, is 1 ½ to 2 ½ times farther than any previous NRC-approved distance. At this distance, the SNC common EOF can not reasonably be considered to be “near-site.”

Therefore, the NRC staff determined that an exemption to the regulations that require an EOF to be near-site is required prior to implementation of the SNC CEOF. In order to ensure that NRC actions are timely, effective, and efficient, the staff is initiating this exemption request under 10 CFR 50.12.

3.0 DISCUSSION

Pursuant to 10 CFR 50.12, the Commission may, upon application by any interested person or upon its own initiative, grant exemptions from the requirements of 10 CFR Part 50 when (1) the exemptions are authorized by law, will not present an undue risk to public health or safety, and are consistent with the common defense and security; and (2) when special circumstances are present. Under 10 CFR 50.12(a)(2)(ii), special circumstances are present when application of the regulation in the particular circumstances would not serve the underlying purpose of the rule or is not necessary to achieve the underlying purpose of the rule.

The underlying purpose of the 10 CFR Part 50, Appendix E and 10 CFR 50.47(b)(3) is to provide reasonable assurance that adequate protective measures can and will be implemented in the event of a radiological emergency. Specifically, adequate protective measures are those that provide effective direction, control, determine protective actions for the public, and coordinate the emergency response effort with federal, State, and local agencies.

The staff relied upon the licensee’s submittals to evaluate whether the licensee’s proposal to consolidate the EOF’s for Hatch, Vogtle, and Farley meets the underlying purpose of 10 CFR Part 50, Appendix E and 10 CFR 50.47(b)(3). Advancements in communications, monitoring capabilities, computer technology, the familiarity of the NRC staff with the use of common EOFs, and the SNC’s emergency response strategies will continue to provide reasonable assurance that adequate protective measures can and will be implemented in the

event of a radiological emergency.

The common EOF in Birmingham, AL, meets the functional and availability characteristics for carrying out the functions of a “near-site” EOF. The remote location of the common EOF could aid in response to a security event as the licensee can effectively mobilize and manage its resources and communicate effectively with the site, Federal, State, and local emergency management.

The NRC staff observed a dual-site drill on July 14, 2004 involving FNP and HNP. The staff observed the licensee’s notification process, staffing, communication, technical support, dose assessment, protective action recommendation process, coordination with offsite officials, and overall command and control. The licensee demonstrated the capability to respond to a dual-site emergency event. EOF staffing was in accordance with the SNC’s procedures. The offsite agencies received timely and accurate information, and adequate protective measures were recommended to protect the public health and safety.

In summary, the license’s proposal to consolidate the near-site EOF’s for Hatch, Farley, and Vogtle to SNC’s corporate location in Birmingham, Alabama meets the underlying purpose of the rule, See 10 CFR 50.12(a)(2)(ii). As evinced in SNC’s submittals the new EOF location can perform all of the functions of a “near-site” location as contemplated by the regulations. Relocation of the EOFs to the proposed site will continue to provide reasonable assurance that adequate protective measures can and will be implemented in the event of a radiological emergency. Therefore, SNC has demonstrated that special circumstances exist such that an exemption is warranted.

4.0 CONCLUSION

Accordingly, the Commission has determined that, pursuant to 10 CFR 50.12(a), the exemption is authorized by law, will not present an undue risk to the public health and safety, and is consistent with the common defense and security. Also, special circumstances are present. Therefore, as specified herein, the Commission hereby grants Southern Nuclear Operating Company, Inc., an exemption from the requirements of 10 CFR 50, Appendix E, Section E.8. and 10 CFR 50.47(b)(3).

Pursuant to 10 CFR 51.32, the Commission has determined that the granting of this exemption will not have a significant effect on the quality of the human environment (**XX FR XXXXX**).

This exemption is effective upon issuance.

Dated at Rockville, Maryland, this day of .

FOR THE NUCLEAR REGULATORY COMMISSION

Ledyard B. Marsh, Director
Division of Licensing Project Management
Office of Nuclear Reactor Regulation