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 DENTON, H. R.      Office of Nuclear Reactor Regulation, Director (post 851125)

SUBJECT: Requests exemption from 10CFR50, App E requirement to perform full-participation emergency preparedness exercise within 1 yr prior to issuance of QL. Exercise on 850517-18 noted no violations or deviations. Response requested by 860331.

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Carolina Power & Light Company

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SERIAL: NLS-86-053

Mr. Harold R. Denton, Director  
Office of Nuclear Reactor Regulation  
United States Nuclear Regulatory Commission  
Washington, DC 20555

SHEARON HARRIS NUCLEAR POWER PLANT  
UNIT NO. 1 - DOCKET NO. 50-400  
EMERGENCY PREPAREDNESS EXERCISE  
REQUEST FOR EXEMPTION

Dear Mr. Denton:

Carolina Power & Light Company (CP&L) hereby requests an exemption from the requirement in 10CFR50, Appendix E, Section IV.F.1, to perform a full-participation emergency preparedness exercise "within 1 year prior to issuance of the first operating license for full power and prior to operation above 5 percent of rated power . . ." for the Shearon Harris Nuclear Power Plant (SHNPP).

A full-participation emergency preparedness exercise was conducted on May 17-18, 1985. The NRC inspection team in its report of June 5, 1985 (50-400/85-20), reported no violations or deviations, and in the public meeting on May 19, 1985, stated that: ". . . the comments from the evaluators were that the exercise was fully successful; the licensee played very well; and the training and commitment to emergency preparedness was obvious in this exercise." In a R. W. Krimm to E. L. Jordan memorandum on the relicensing exercise, dated August 7, 1985, FEMA found that: "the state and local emergency plans are adequate and capable of being implemented and the exercise demonstrated that off-site preparedness is adequate . . ."

At the time of the May 1985 exercise, CP&L anticipated receiving a full-power license and exceeding 5 percent power at SHNPP within a year. CP&L has since changed the SHNPP schedule and now anticipates operation above 5 percent of rated power in September 1986. The enclosure to this letter provides justification for exemption from the requirement that a full-scale exercise be held within one year prior to exceeding 5 percent rated power. CP&L will comply with Section IV.F.2 of Appendix E by conducting a small-scale exercise of the SHNPP emergency plan in 1986. CP&L will conduct its next exercise with participation of the local county emergency response agencies, including support from the state of North Carolina in 1987.

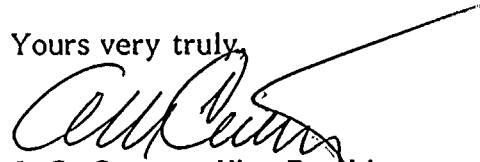
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The lead time required to plan for a full-scale exercise and the need to commit the resources of CP&L, FEMA, NRC, and numerous state and local agencies make it imperative that this issue be resolved expeditiously. Accordingly, CP&L requests that you grant this exemption at the earliest possible date and in any event no later than March 31, 1986. Please call if you have any questions regarding this request.

Yours very truly,



A. B. Cutter - Vice President  
Nuclear Engineering & Licensing

ABC/JDK/mmh (3360CGL)

Enclosure

cc: Mr. B. C. Buckley (NRC)  
Mr. G. F. Maxwell (NRC-SHNPP)  
Dr. J. Nelson Grace (NRC-RII)  
Mr. G. E. Simonds (NRC)  
Mr. Travis Payne (KUDZU)  
Mr. Daniel F. Read (CHANGE/ELP)  
Wake County Public Library  
Mr. J. Heard (FEMA-Atlanta)

Mr. Wells Eddleman  
Mr. J. F. Myers (NC Div. Emergency Mgt.)  
Mr. John D. Runkle  
Dr. Richard D. Wilson  
Mr. G. O. Bright (ASLB)  
Dr. J. H. Carpenter (ASLB)  
Mr. J. L. Kelley (ASLB)  
Mr. H. A. Cole

SHEARON HARRIS NUCLEAR POWER PLANT (SHNPP)

JUSTIFICATION FOR EXEMPTION FROM 10CFR50 APPENDIX E,

SECTION IV.F.1

The NRC may grant exemptions from Part 50 requirements which, pursuant to 10 CFR § 50.12(a) are (1) "authorized by law, will not present an undue risk to the public health and safety, and are consistent with the common defense and security," and (2) present special circumstances. Section 50.12(a)(2) identifies six categories of special circumstances; four of these categories ((ii), (iii), (v), and (vi)) are applicable to the SHNPP exemption request; each of which is discussed below. Compliance with Section 50.12(a)(1) is achieved by maintaining an acceptable level of emergency preparedness as discussed under exemption criterion (ii). Therefore, this exemption will not present an undue risk to public health and safety, and is consistent with the common defense and security.

Exemption Criterion (ii). 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 Appendix E Section IV.F.1 schedule requirement is presumably to ensure that emergency response capability is maintained until the full-power licensing requirements become effective. As adopted in 1980, Section IV.F.1 required a full-scale exercise "within one year before the issuance of the operation license for full power." At that time, the NRC also required each state and local government in the plume Emergency Planning Zone (EPZ) to participate in at least one full-scale exercise each year following licensing.

In 1980 the NRC considered it necessary to conduct annual full-participation exercises to maintain emergency planning capability; however, in 1984 the NRC changed the annual exercise requirement for offsite emergency response (Section IV.F.3(b)) to once every two years on the basis of both the high level of readiness and disproportionate expenditure of resources used to support annual exercises as demonstrated in over 150 exercises. The Commission stated:

Because emergency response personnel at the State and local government level continuously respond to actual emergencies, the Commission does not consider that relaxing the frequency of State and local government participation in emergency preparedness exercises would adversely affect the health and safety of the public.

49 Fed. Reg. 27733, 27734 (July 6, 1984).

In applying a corresponding analysis to the full-scale exercise conducted prior to licensing, it is apparent that adequate emergency preparedness can be demonstrated for periods in excess of one year between the exercise and operation above 5 percent rated power. Application of the one-year requirement is not necessary to achieve the underlying purpose of the rule. This is particularly evident in view of the overall success of the May 1985 exercise and the success of exercises conducted by CP&L for the Brunswick and Robinson units in recent years. At the May 19, 1985 public meeting on the May 1985 exercise, the leader of the NRC Evaluation Team concluded that "... the comments from the evaluators were that the exercise was fully successful; the licensee

played very well; and the training and commitment to emergency planning was obvious in this exercise." The NRC inspection report for the May 17-18, 1985 exercise (50-400/85-20) identified only one inspector follow-up item. Work on this item is complete and is ready for reinspection.

The NRC also conducted an Emergency Preparedness Appraisal on March 4-15, 1985. In a November 18-22, 1985 follow-up inspection (50-400/85-46), the NRC reinspected items that were identified in the appraisal. The NRC closed the one deficiency, 31 improvement items, and 27 incomplete areas. Work is proceeding on completion of 3 remaining inspector follow-up items, and 22 incomplete areas with the goal of having them ready for NRC inspection in June 1986.

With respect to off-site emergency planning, FEMA's overall conclusion was "that the State and local emergency plans are adequate and capable of being implemented, and the exercise demonstrated that appropriate measures can be taken to protect the health and safety of the public living in the vicinity of the Shearon Harris Nuclear Power Station in the event of a radiological emergency" (FEMA Memorandum R. W. Krimm to E. L. Jordan dated August 7, 1985).

Given the recognized success of the May 1985 exercise (both on-site and off-site), requiring another precicensing exercise is not necessary to achieve the underlying purpose of the rule.

Moreover, SHNPP and participating state and local agencies have undertaken or will undertake many activities that maintain emergency preparedness in the interim between the May 1985 exercise and the next annual emergency exercise. These activities include:

1) Emergency Plan Training Program

a. Carolina Power & Light

The Company conducted emergency plan training in the first quarter of 1985 and retraining is currently in progress. As presented in the SHNPP Emergency Plan, the on-site Emergency Plan Training Program includes initial and annual retraining in specific tasks and procedures for:

- directors, coordinators, and managers in the emergency response facilities
- personnel responsible for accident assessment
- radiological monitoring teams
- radiological analysis and dose projection personnel
- police and security personnel
- fire brigades
- damage control teams
- first aid, medical support, and rescue personnel
- off-site CP&L personnel

CP&L also conducted training with the teachers and principals of the ten schools located within the ten mile EPZ in April and May and again in August and September 1985.

In the November 18-22, 1985 follow-up inspection, of the March 4-15, 1985 appraisal, the NRC found the completed portions of the emergency plan training program adequate.

b. State of North Carolina

The state has conducted approximately 15 training courses that help maintain emergency preparedness for state and county personnel. Examples of specific courses include:

- Radiological Emergency Operations
- Managing Emergency Operations
- Red Cross Shelter Course
- Emergency Communications Course
- Nuclear Reactor Orientation
- Radiation Monitoring Fundamentals
- Biological Effects of Radiation
- SHNPP Emergency Plan Overview

Attendance at each course is dependent on the specific goals and objectives of the training. Personnel who have attended selected courses as appropriate include:

- State Division of Emergency Management Personnel
- County Emergency Management Personnel
- Law Enforcement Officers
- Fire Department Personnel
- State Emergency Response Team Personnel
- School Bus Drivers
- State Motor Vehicle Division Personnel

In April 1986, the state will conduct three (3) radiological instructor workshops for state and county emergency services personnel. The state also conducts a hazardous materials workshop and hazardous materials assessment workshop for state and county agencies. Finally, in a November 26, 1985 letter, the state provided a schedule for completion of the training programs that are part of corrective actions on FEMA findings from the May 1985 exercise.

c. Local Counties

The local counties also conduct training programs as follows:

- Chatham County is conducting radiation training for local hospitals personnel in April, 1986.
- Harnett County is conducting a damage assessment workshop on March 5, 1986 and a shelter management training workshop on March 13-14, 1986.
- Lee County is conducting a damage assessment workshop this year.
- Wake County provides training to local hospitals as discussed in 2)i below. As indicated in the state's November 26, 1985 letter to FEMA, Wake County is also continuing training on items which FEMA identified after the May 1985 exercise.

2) Drills and Exercises (Listed Chronologically)

- a. In September, 1985, the plant, state, and counties began participating in the monthly communications drills. These drills include testing of the notification system and the reading of messages by plant emergency communicator staff personnel to the state and local warning point personnel to maintain proficiency and familiarization with the notification form and procedures.
- b. In November, 1985, SHNPP began its periodic fire drills per Section 13.2 of the FSAR. The frequency of these drills are such that each shift of the fire brigade participates in a drill quarterly. Fire drills include:
  - simulated fire conditions inside the plant
  - communications
  - use of prefire plans
  - notification of off-site fire departments
  - management of ventilation systems
  - de-energizing of electrical equipment.
- c. On November 25, 1985, Harnett County conducted a hazardous materials release drill with local hospitals.
- d. In December, 1985, CP&L conducted the first semiannual health physics drill for the plant. This drill included response of plant radiological teams to simulated plant radiological conditions. Activities included:
  - surveys
  - post accident sampling procedures
  - off-site radiological dose projections
  - laboratory analysis
  - radiological exposure control during an emergency
- e. On February 20-21, 1986, state personnel participated in the Catawba Nuclear Power Plant emergency preparedness exercise.
- f. In the third quarter of 1986, Lee County will conduct a hazardous materials incident exercise.
- g. Prior to obtaining the full power license, CP&L is planning to conduct the following drills:
  - an on-site drill including:
    - the semi-annual health physics drill to evaluate the response of the plant radiological teams to simulated plant radiological conditions
    - a medical drill to evaluate the ability to respond to treatment of a contaminated and injured patient at the site and at an agreement hospital
    - an environmental and radiological monitoring drill to evaluate the ability to measure radiological releases off-site
    - a fire drill to evaluate response from an off-site fire department



- a plant accountability and evacuation drill, which will evaluate response of site personnel to:
    - plant alarms
    - mustering at on-site shelters
    - performance of accountability
    - an evacuation order
  - an augmentation drill to evaluate the plant's ability to augment the emergency response organization within the times required by the Emergency Plan
- h. Chatham County conducts an annual mutual aid response exercise with:
- fire departments
  - rescue squads
  - law enforcement agencies
  - hospitals
- i. Wake County conducts an annual "accreditation" drill with each of the three local hospitals, unless a hospital experiences an actual emergency during the year.
- 3) Actual Emergencies

- In the spring of 1985 the state Division of Emergency Management and other agencies with emergency responsibility responded to a series of major forest fires in North Carolina and responded when Hurricane Gloria struck the North Carolina coast in September 1985. Both of these emergencies involved evacuation of the public. Division of Emergency Management capabilities were demonstrated and enhanced by these experiences.

An emergency plan exercise to satisfy the requirement of 10CFR50 Appendix E Section IV.F.2 for an annual exercise will be held in 1986. Current planning for this exercise includes implementation of the on-site elements of the SHNPP emergency plan.

Exemption Criterion (iii). Compliance would result in undue hardship or other costs that are significantly in excess of those contemplated when the regulation was adopted, or that are significantly in excess of those incurred by others similarly situated.

The NRC did not appear to contemplate that more than one full-participation exercise would actually have to be conducted for a given reactor prior to licensing when it adopted Section IV.F.1 of Appendix E. Conducting a second full-participation exercise prior to SHNPP's exceeding 5 percent of rated power would result in the following undue hardships and costs:

1) Carolina Power & Light

A second full-participation exercise would require an excessive expenditure of CP&L resources above and beyond those required to conduct an annual emergency plan exercise. The additional resources would be required to interface with State and local county officials both in the preparation for and execution of a full-participation exercise.



2) State and Local Agencies

A second SHNPP prelicensing exercise would place additional strain on state and local agencies' workloads and financial resources as follows:

- a. The state of North Carolina, Division of Emergency Management, did not budget for state participation in a full-scale SHNPP exercise in the fiscal period of July, 1985 through June, 1986 since the frequency requirements (10CFR50 Appendix E Section IV.F.3(b)) for state preparation emergency plan exercises would have been met under the previous SHNPP schedule. Hence any exercise conducted prior to July 1, 1986 will require contingency funds allocated from other purposes. The state has not planned participation in a SHNPP exercise until 1987. A full scale prelicensing exercise in 1986 has been estimated by the state of North Carolina to cost more than \$150,000.

Furthermore, state emergency management resources have been strained by supporting real emergencies which have occurred in the last two years such as the tornados in eastern North Carolina in March, 1984, Hurricane Diana in September 1984, forest fires in the state in the spring of 1985, and Hurricane Gloria in September 1985.

- b. Local county agencies did not include funds for a full scale prelicensing exercise this year. Consequently, they would have to redirect financial and personnel resources to such an effort. The local counties estimate that a second pre-licensing exercise would require a similar level of resources as the May 1985 exercise. Chatham and Lee counties previously expended 300 and 180 man-hours plus expenses, respectively. Wake County's participation included approximately 700 employees and public volunteers over two days with many hours charged to overtime.

Exemption Criterion (v). The exemption would provide only temporary relief from the applicable regulation and the licensee or applicant has made good faith efforts to comply with this regulation.

The exemption CP&L requests would provide relief from a one-time requirement. Since CP&L currently expects that SHNPP will exceed 5 percent power by September 1986, the May 1985 exercise falls outside the rule's schedule for a limited time.

CP&L has made a good faith effort to comply with the rule. To support the 1985 exercise it was necessary to begin planning in January 1985 to meet NRC requirements for submittal of the exercise objectives to NRC and FEMA 75 days prior to the exercise. From this initial planning stage and up until late 1985, CP&L schedules were based on fuel load in March 1986. As late as NRC's quarterly report to Congress for the third quarter 1985 ("Bevill Report") the NRC also reflected a fuel load date of March 1986. In December 1985, CP&L delayed fuel load from March until June 1986 due to regulatory and construction delays. This resulted in a delay in exceeding 5 percent power to beyond May 1986.



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Exemption Criterion (vi). There is present any other material circumstance not considered when the regulation was adopted for which it would be in the public interest to grant an exemption. If such condition is relied upon exclusively for satisfying paragraph (a)(2) of this section, the exemption may not be granted until the Executive Director for Operations has consulted with the Commission.

When Section IV.F.1 was adopted, the NRC did not contemplate that the exercise would be subject to adjudication before any licensing board presiding over an operating license proceeding; however, in UCS vs. NRC, 735 F.2d 1437 (D.C. Cir. 1984), the Court of Appeals vacated a 1982 regulation which explicitly barred such litigation. As noted in IE Information Notice No. 85-41, Scheduling of Pre-Licensing Emergency Preparedness Exercises (dated May 24, 1985), applicants must now consider scheduling full-participation exercises sufficiently far in advance of the anticipated licensing date to accommodate hearings and minimize unnecessary licensing delays. This constitutes a material change not considered when the regulation was adopted and makes compliance with the one-year requirement, which already required licensing predictions, much more difficult.

In the SHNPP case, an intervenor proposed 12 new contentions based on the May 1985 exercise. Two contentions were admitted by the Licensing Board and are now in litigation. (LBP-85-49, Partial Initial Decision on Emergency Planning and Safety Contentions, slip op. at 14-24, December 11, 1985). If another full-participation exercise is required prior to licensing, it is possible that litigation of that exercise would be required. This would not only be likely to delay licensing the plant, but would also be contrary to the public interest since the litigation would be duplicative.

