



PO Box 1551  
411 Fayetteville Street Mall  
Raleigh NC 27602

C. S. Hinnant  
Sr. Vice President and Chief Nuclear Officer  
Progress Energy, Inc.

10 CFR 50.4(b)(4)  
10 CFR 2.202

Serial: PE&RAS-03-080  
July 24, 2003

United States Nuclear Regulatory Commission  
ATTENTION: Director, Office of Nuclear Reactor Regulation  
Washington, DC 20555

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2  
DOCKET NOS. 50-325 AND 50-324 / LICENSE NOS. DPR-71 AND DPR-62

SHEARON HARRIS NUCLEAR POWER PLANT, UNIT NO. 1  
DOCKET NO. 50-400 / LICENSE NO. NPF-63

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2  
DOCKET NO. 50-261 / LICENSE NO. DPR-23

CRYSTAL RIVER UNIT 3 NUCLEAR GENERATING PLANT  
DOCKET NO. 50-302 / LICENSE NO. DPR-72

**SUPPLEMENTAL ANSWER TO APRIL 29, 2003, ORDER FOR COMPENSATORY MEASURES RELATED TO FITNESS-FOR-DUTY ENHANCEMENTS APPLICABLE TO NUCLEAR FACILITY SECURITY FORCE PERSONNEL (EA-03-038)**

Reference: Letter from Samuel J. Collins (Director, Office of Nuclear Reactor Regulation) to C. S. Hinnant (Sr. Vice President and Chief Nuclear Officer, Progress Energy, Inc.), dated July 10, 2003, *Relaxation of the Order, Exercising Enforcement Discretion, and Extension of the Time to Submit an Answer or Request a Hearing Regarding Order EA-03-038, Fitness-For-Duty Enhancements for Nuclear Security Force Personnel, for:*  
*Brunswick Steam Electric Plant, Unit Nos. 1 and 2*  
*Shearon Harris Nuclear Power Plant, Unit No. 1*  
*H.B. Robinson Steam Electric Plant, Unit No. 2*  
*Crystal River Nuclear Generating Plant, Unit No. 3*

Ladies and Gentlemen:

By the above referenced letter ("NRC Letter"), the NRC responded to the June 3, 2003 submittal of Progress Energy Carolinas, Inc. (PEC) and Progress Energy Florida, Inc. (PEF) to the NRC's April 29, 2003, *Issuance of Order for Compensatory Measures Related to Fitness-For-Duty Enhancements Applicable to Nuclear Facility Security Force Personnel (EA-03-038)* ("Order").

Pursuant to the NRC Letter, this letter constitutes PEC's and PEF's supplemental answer (pursuant to 10 CFR 2.202 and Section IV of the Order) and response (pursuant to 10 CFR 50.4 and Sections III.A, III.B.1, III.B.2, and III.C.1 of the Order). This letter also contains a request for relief pursuant to Section III of the Order and confirms PEC's and PEF's understanding with respect to the Commission's intent to exercise enforcement discretion associated with the implementation of the Order.

JE53

Answer and Response:

PEC and PEF hereby consent to the Order and do not request a hearing. PEC and PEF have started implementing the requirements of Attachment 2 to the Order and will complete implementation by October 29, 2003, as required by Section III.A of the Order. At this time, PEC and PEF know of no matter about which the Commission must be notified, pursuant to Section III.B.1 or III.B.2 of the Order, but will promptly notify the Commission if any such matter arises in PEC's and PEF's further implementation of the Order. Enclosure 1 to this letter provides PEC's and PEF's schedule for achieving compliance with the requirements described in Attachment 2 to the Order as required by Section III.C.1 of the Order.

Basis for the Order:

PEC and PEF appreciate the NRC providing the basis for the Order as requested in our submittal of June 3, 2003 to enable us to understand more fully the NRC's intent in promulgating the Order. However, after reviewing the basis provided in the Enclosure to the NRC Letter, PEC and PEF do not believe that the rationale appropriately supports many of the requirements established by the Order. Working through the Nuclear Energy Institute, we intend to continue discussions with the NRC to bring greater clarity to those matters to ensure that the implications of the Order and related issues are fully addressed, including how they might apply in the broader context of revisions to the 10 CFR Part 26 rule.

Request for Relief Pursuant to the Order:

Section 4 of the Enclosure to the NRC Letter states that licensees must include shift turnover time in the calculation of group work-hour controls. We believe that this interpretation of the Order's requirements does not promote safety or prevent fatigue, and that it deviates from the precedent established in Generic Letter 82-12, and, in the context of implementing the other requirements of the Order, that it will be unnecessarily burdensome. Therefore, pursuant to the provisions of Section III of the Order, and consistent with the Staff Requirements Memorandum to William D. Travers dated March 31, 2003 (COMSECY-03-0012), PEC and PEF hereby request that the Director, Office of Nuclear Reactor Regulation, rescind the interpretation provided in the NRC Letter that shift turnover time must be included in the calculation of group work-hour controls. Enclosure 2 to this document provides the good cause basis upon which the requested relief should be granted.

Further, PEC and PEF request that, pursuant to Section III of the Order, the Director, Office of Nuclear Reactor Regulation, relax the application of the group work-hour controls during the preparation for and conduct of pilot force-on-force exercises. The pilot force-on-force exercises conducted to date demonstrate that an extraordinary amount of effort is involved in preparing for and conducting those exercises and will be required for the mandated annual licensee force-on-force exercises. The goal of the group work-hour controls is not advanced by requiring their application to the preparations for and conduct of force-on-force exercises. Enclosure 3 to this submittal provides the good cause basis for relaxing the group work-hour control requirements in those circumstances.

Unless and until the NRC grants the requested rescission and/or relaxation, PEC and PEF will continue to implement those portions of the Order on the schedule provided and will complete implementation of all provisions of the Order by October 29, 2003. PEC and PEF will promptly bring to the NRC's attention any matter that we determine justifies any further request for rescission or relaxation of any provision of the Order or the NRC Letter.

Exercise of Enforcement Discretion:

Finally, PEC and PEF hereby confirm our understanding that the Commission intends to exercise enforcement discretion to accommodate issues which may arise as licensees, in good faith, take reasonable actions to implement the specific requirements of this Order. We further understand that the Commission will exercise enforcement discretion for the period necessary to resolve such issues and to integrate the requirements of the Order with the other Orders issued April 29, 2003 and February 25, 2002 as well as with other pertinent regulatory requirements, and our safeguards contingency plans, security plans and security officer training and qualification plans.

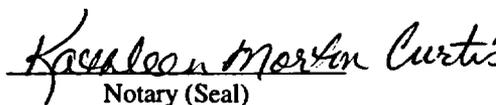
This document contains no new regulatory commitment.

Sincerely,



C. S. Hinnant  
Senior Vice President and  
Chief Nuclear Officer

C. S. Hinnant, having been first duly sworn, did depose and say that the information contained herein is true and correct to the best of his information, knowledge and belief; and the sources of his information are officers, employees, and agents of Progress Energy Carolinas, Inc. and Progress Energy Florida, Inc.



Notary (Seal)

My commission expires: 11/10/2003



DSL/HAS

Enclosures as stated

- c: ✓ **USNRC Document Control Desk (original and three copies)**
- L. A. Reyes, Regional Administrator – Region II (two copies)**
  - B. L. Mozafari, NRR Project Manager – BSEP, Unit Nos. 1 and 2; CR3**
  - C. P. Patel, NRR Project Manager – SHNPP, Unit No. 1; HBRSEP, Unit No. 2**
  - USNRC Resident Inspector – BSEP, Unit Nos. 1 and 2**
  - USNRC Resident Inspector – CR3**
  - USNRC Resident Inspector – SHNPP, Unit No. 1**
  - USNRC Resident Inspector – HBRSEP, Unit No. 2**
  - USNRC Secretary, Office of the Secretary of the Commission, Rulemakings and Adjudications Staff**
  - USNRC Assistant General Counsel for Materials Litigation and Enforcement**
  - J. A. Sanford – North Carolina Utilities Commission**

**Schedule for achieving compliance with each requirement in Attachment 2 of the  
April 29, 2003, Order EA-03-038**

<u>Plant</u>	<u>Date of Full Compliance</u>
Brunswick Steam Electric Plant, Unit No. 1	October 29, 2003
Brunswick Steam Electric Plant, Unit No. 2	October 29, 2003
Crystal River Nuclear Generating Plant, Unit No. 3	October 29, 2003
H.B. Robinson Steam Electric Plant, Unit No. 2	October 29, 2003
Shearon Harris Nuclear Power Plant, Unit No. 1	October 29, 2003

### Rationale for not including turnover time in group work-hour limits

**1. Including shift turnover time in group work-hour limits can have negative safety implications:** As discussed in Section 3 of the Enclosure to the NRC Letter of July 10, 2003, the Order appropriately excluded shift turnover time in the calculation of individual work-hour limits to avoid a potential unintended consequence with safety implications (i.e., an individual might rush the turnover process to ensure that he or she complied with the individual work-hour limits). Issues related to management of shift turnover were extensively discussed in public meetings held as part of the 10 CFR Part 26 revision process, and there was broad agreement that such a possibility could have potential safety implications that should be avoided. Including shift turnover time in the calculation of group work-hour controls also creates the potential the turnovers will be rushed. To avoid the potential negative safety consequences that could result from rushing the turnover process, shift turnover time should be excluded from the calculation of the group work-hour controls.

**2. Including shift turnover time in group work-hour limits undercuts the intent of the Order:** The content of an appropriate mechanism for monitoring total hours worked to meet the group work-hour conditions was also discussed extensively in the public meetings conducted as part of the 10 CFR Part 26 revision process. The goal is to provide licensee management, and the NRC, with an indicator that would provide an early indication if an inadequate staffing situation were to occur. To be effective, such a metric should be straightforward in its implementation, provide meaningful results, and not be unnecessarily burdensome. Including shift turnover time in group work-hour controls achieves none of these objectives.

First, including shift turnover times in the group work-hour calculations would add significant and unnecessary complications to the metric, even though turnover time would represent a numerically insignificant amount of the total group work-hours worked. There has been broad agreement, in the public meetings discussed above, that some simplifications are necessary to establish an efficient and effective metric. Appropriate simplifications include the exclusion of individuals who work less than 75% of their scheduled time during a six week monitoring period, the inclusion of meal time and breaks that occur during a shift, and the exclusion of transit time to and from the plant. Consistent with the goal of developing a simple, but effective, metric, excluding turnover time would simplify the necessary calculations and improve the precision of the data collected.

Second, the inclusion of shift turnover time in the group work-hour limit will provide inconsistent and ambiguous data. To be meaningful, group work-hour limits should be able to be applied, and measured, consistently across the industry. However, differences in lengths of shifts, numbers of turnovers, and shift turnover practices among plants would inhibit meaningful plant-to-plant and industry-wide comparisons.

**3. Record-keeping burden:** The inclusion of shift turnover time will be unnecessarily burdensome and penalize some licensees. As discussed above, the Order specifically excludes turnover time from the calculation of the individual work-hour limits. Thus, including turnover time in the group work-hour limit calculation would require licensees to calculate the hours that each individual worked twice -- once for the calculation of individual limits, which would exclude shift turnover time, and a second time for the calculation of the group limits, which would be

required to include shift turnover time. The resultant multiple counting to implement the staff's interpretation of the Order's intent will create a clearly unwarranted record-keeping burden with no commensurate benefit. Further, plants on an 8 hour shift rotation would be penalized because they would have more shift turnovers each day, and thus significantly more cumulative time would be spent on shift turnovers.

**Conclusion:** The group work-hour controls established by the Order are intended to preclude significant amounts of overtime being worked by security officers over long periods of time by requiring licensees to ensure that they have hired and trained a large enough work force to support routine operations. This intent is clearly consistent with Generic Letter 82-12, *Nuclear Power Plant Staff Work Hours*, which states, "Enough plant personnel should be employed to maintain adequate shift coverage without routine heavy use of overtime." Generic Letter 82-12 has been in effect for more than twenty years and, with but a few exceptions, has been effective in achieving its purpose, and shift turnover time has never been included. Including shift turnover time in the evaluation of security force staffing would represent an insignificant amount of time in the context of total hours worked, but it would impose an unnecessary burden on licensees without any commensurate benefit. Finally, there is no logic that supports treating shift turnover time differently for group work-hour purposes than for individual work-hour limits.

**Rationale for not including the preparation for and conduct of pilot force-on-force exercises and annual licensee force-on-force exercises in group work-hour limits**

**1. Including the preparation for and conduct of pilot force-on-force exercises would not be appropriate:** The purpose of the pilot exercises is to develop the process that will be used by the NRC to evaluate the total security program of individual licensees, including observation and participation in the required exercises, through the mandated annual licensee force-on-force exercises. As has been demonstrated in the pilot force-on-force exercise program, significant changes in licensee protective strategies have resulted from the implementation of the Compensatory Measures required by the April 29, 2003, orders and the Interim Compensatory Measures mandated by the February 25, 2002, orders. The pilot exercises are intended to provide valuable insight to licensees and the NRC to evaluate the effectiveness of the security protective strategy developed by licensees and security program performance.

The pilot force-on-force exercises are, by their very nature, developmental, and are occurring coincident with licensees' implementation of the other April 29, 2003, security-related orders. The benefit of conducting these exercises far outweighs the extra man-hours being expended. These exercises occur only once for each participating licensee and therefore would not cause a long-term cumulative fatigue impact on the participating licensee's security force or create any resultant safety concern.

**2. Including the preparation for and conduct of annual licensee force-on-force exercises would not be appropriate:** The protective strategies developed by licensees in response to the NRC security related orders will likely require significantly more resources to prepare for and conduct the mandated annual exercises than in the past. The pilot program exercises conducted to date have proven that it takes a significant amount of overtime hours for the security force personnel covered by the work-hour order to prepare for and conduct these exercises. A complete shadow force of exercise participants must be created, using security force personnel on overtime, and monitors and adversaries provided. If the overtime hours for the exercises are included in the group work-hour metric for the work-hour order, the six-week period that includes the required exercise may exceed the 48-hour group average. Given the complexity of meeting the group work-hour limits on a rolling six-week basis in this new context, it is possible that licensees may unavoidably, but not significantly, exceed the group limits, even though the individual work-hour limits are met. To require licensees to add staffing to prevent exceeding the 48-hour group average is not reasonable because the exercises occur infrequently and are not part of the licensee's discretionary use of overtime. It would be inconsistent with the purpose of the group work-hour controls to apply them in this context.

**Conclusion:** The group work-hour controls are intended to preclude significant amounts of overtime being worked by security officers over long periods of time by requiring licensees to ensure that they have hired and trained a large enough work force to support routine operations. This intent is clearly consistent with Generic Letter 82-12, *Nuclear Power Plant Staff Work Hours*, which states, "Enough plant personnel should be employed to maintain adequate shift coverage without routine heavy use of overtime." Generic Letter 82-12 has been in effect for more than twenty years and, with but a few exceptions, has been effective in achieving its purpose. Including

the work-hours involved in preparing for and conducting both pilot force-on-force exercises and annual licensee force-on-force exercises would represent a significant proportion of the total hours worked during the six weeks when the exercise is conducted, and would impose a staffing level requirement on licensees that is not reasonable solely to support the force-on-force exercises. Because there is a large benefit to both the licensee and the NRC from conducting these exercises, the extraordinary amount of resources required to prepare for and conduct these exercises should not be required to be included in the group work-hour controls metric.