



South Texas Project Electric Generating Station P.O. Box 289 Wadsworth, Texas 77483

July 23, 2003
NOC-AE-03001566

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Secretary
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South Texas Project
Units 1 & 2
Docket Nos. STN 50-498, STN 50-499
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)

By letter 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 South Texas Project Electric Generating Company, Unit Nos. 1 and 2, ("NRC letter") the NRC responded to the June 2, 2003, submittal of STP Nuclear Operating Company (STPNOC) to the NRC's April 29, 2003, 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 STPNOC'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, B.1 and 2, and C.1 of the Order). This letter also requests relief from certain of the requirements pursuant to Section III of the Order and confirms STPNOC's understanding with respect the Commission's intent to exercise enforcement discretion associated with the implementation of the Order. Although STPNOC submitted an extension request before the due date required by the order, the NRC rejected the relaxation in that extension request.

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Answer and Response:

STPNOC hereby consents to the Order and does not request a hearing. STPNOC has 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, STPNOC knows of no matters about which the Commission must be notified pursuant to Section III.B.1 or B.2 of the Order, but will promptly notify the Commission if any such matters arise in the course of STPNOC's further implementation of the Order. Enclosure 1 to this letter provides STPNOC'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:

STPNOC appreciates the NRC providing its basis for the Order as requested in our submittal of June 2, 2003, to enable us to more fully understand the NRC's intent in promulgating the Order. However, after reviewing the basis provided in Enclosure 1 to the NRC Letter, STPNOC does not believe that the rationale appropriately supports some of the requirements established by the Order. Working through NEI, 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 potential revisions to 10 CFR Part 26 rule.

Requests for Relief Pursuant to the Order:

Section 4 of Enclosure 1 to the NRC Letter states that licensees must include shift turnover time in the calculation of group work-hour controls (Compensatory Measure C.2). We believe that this interpretation of the Order's requirements does not promote safety or prevent fatigue, deviates from the precedent established in Generic Letter 82-12, and, in the context of implementing the other requirements of the Order, 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, STPNOC hereby requests 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 submittal provides the good cause basis upon which the requested relief should be granted.

STPNOC also requests 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 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.

Further, STPNOC also requests pursuant to Section III of the Order, the Director, Office of Nuclear Reactor Regulation, relax Compensatory Measure C.2(b) regarding group work-hour controls during planned outages to authorize an alternative that takes into account the Extended Allowed Outages applicable to the South Texas Project, Unit Nos. 1 and 2. Enclosure 4 to this document provides the rationale for this requested relief.

Unless and until the NRC grants the requested rescission and/or relaxation, STPNOC 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. STPNOC also commits that it will promptly bring to the NRC's attention any matters that STPNOC determines justify any further request for rescission or relaxation of any provision of the Order or the NRC Letter.

Exercise of Enforcement Discretion:

Finally, STPNOC hereby confirms its 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 plan, security plan, and security officer training and qualification plan.

Please direct any questions regarding this letter to Scott Head at (361) 972-7136.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on: 7/23/03


J.J. Sheppard
President & Chief Executive Officer

- Enclosure: 1) Implementation Schedule for Order Related to Fitness for Duty Enhancements
2) Rationale for Requested Relief Regarding Turnover Time
3) Rationale for Requested Relief Regarding Force-on-Force Exercises
4) Rationale for Requested Relief Regarding Extended Allowed Outages

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**Implementation Schedule for Order
Related to Fitness for Duty Enhancements**

Implementation Schedule for NRC Order on Compensatory Measures (CM) Regarding Security Force Personnel Work Hours			
CM	Title	Required Compliance Date	Planned Implementation Date
C.1.a.1	Individual Work-Hour Controls (24-hour, 48-hour, 7-day periods)	October 29, 2003	October 29, 2003
C.1.a.2	Individual Work-Hour Controls - Minimum 10-hour Break Period	October 29, 2003	October 29, 2003
C.1.a.3	Program for Authorization to Deviate from C.1.a.1/ C.1.a.2	October 29, 2003	October 29, 2003
C.2.a	Group Work-Hour Controls – Normal Plant Conditions	October 29, 2003	October 29, 2003 (See Note 1)
C.2.b	Group Work-Hour Controls – Planned Outages	October 29, 2003	October 29, 2003 (See Note 1)
C.2.c	Group Work-Hour Controls – Unplanned Outages or Increase Threat Condition	October 29, 2003	October 29, 2003 (See Note 1)
C.3	Exemption from C.1 & C.2 During Declared Emergencies	October 29, 2003	October 29, 2003
C.4.a	Develop Procedures for Work Hour Controls (C.1, C.2, & C.3)	October 29, 2003	October 29, 2003
C.4.b	Develop Procedures for Self- Declaration due to Fatigue	October 29, 2003	October 29, 2003
C.4.c	Develop Procedures for Evaluation Process if Self- Declarations Returned to Duty	October 29, 2003	October 29, 2003

Note 1: Enclosures 2, 3, and 4 request relief from certain requirements.

Rationale for Requested Relief Regarding Turnover Time

1. **Including shift turnover time in group work-hour limits can have negative safety implications:** As discussed in Section 3 of Enclosure 1 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 that 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

Rationale for Requested Relief Regarding Turnover Time

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 Requested Relief Regarding Force-on-Force Exercises

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, order. 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 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

Rationale for Requested Relief Regarding Force-on-Force Exercises

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.

Rationale for Requested Relief Regarding Extended Allowed Outages

STP Nuclear Operating Company (STPNOC) requests NRC approval of the following request for an alternative to Compensatory Measure (CM) C.2(b) regarding Group Work Hour Controls during planned outages.

1. Applicable Order Requirement:

Attachment 2 – Compensatory Measures

C.2. Group Work-Hour Controls

(b) Planned Plant or Planned Security System Outages:

(1) The average number of hours actually worked by personnel performing the functions identified in B, shall not exceed 60 hours per week averaged over consecutive periods not to exceed six (6) weeks. For planned abnormal plant conditions whose duration is less than the averaging period the limit would be 60 hours per week averaged over the duration of the condition. Workers who did not work at least 75 percent of the normally scheduled hours during the averaging period shall not be included when calculating the average. If the group average limit is exceeded, the licensee shall take prompt action to reduce the average hours worked in accordance with this compensatory measure and take actions to prevent recurrence.

Note 2: Licensee may define the beginning of a planned plant outage to be up to 3 weeks prior to the plant shutdown (i.e., plant operational mode not equal to 1).

(2) The limit defined in C.2(b)(1) can be used for up to 90 days. For periods greater than 90 days, the licensee shall take prompt action to limit hours worked in accordance with the requirements of C.2(a). The use of the limits defined in C.2(b)(1) shall not exceed 120 days.

Note 2 implies, although not explicitly stated that the NRC considers a “planned plant outage” to be those conditions when the Unit(s) are not operating (i.e., not in Mode 1).

2. Proposed Alternative: STPNOC proposes to include Extended Allowed Outages as part of CM C.2(b).

Much of the standby diesel generator, essential cooling water, and essential chilled water system maintenance is done during Extended Allowed Outages while the plant is in operation (i.e., Mode 1) rather than during plant outages.

Rationale for Requested Relief Regarding Extended Allowed Outages

3. **Basis of Alternative:** This alternative recognizes that the South Texas Project (STP) has extended allowed outage times of 14 days for the standby diesel generators, and an extended allowed outage time of 7 days for the essential cooling water and essential chilled water systems. The extended allowed outage times permit STP to schedule major maintenance on these systems while at power. This has resulted in numerous benefits to the station, including a corresponding reduction in refueling outage duration. As such, the duration of refueling outages at STP since 1996 has averaged 31.7 days. This includes four more extensive outages: two steam generator replacement outages that averaged 70 days and two reactor vessel ten-year inservice inspection outages that averaged 30 days. The average outage duration is still less than the 6 weeks (45 days) allowed by CM C.2(b)(1) and the extension to 90 days allowed by CM C.2(b)(2).

STP typically schedules five Extended Allowed Outages annually. The extended allowed outage duration has typically been 5 days. This requires approximately 8 additional security officers for each 24-hour period.

Conclusion: It would be burdensome for STP to employ additional personnel during normal plant conditions in order to staff these short duration outages conducted at power. The overtime required to man these additional posts will not be approved for an entire crew, but only for a limited number of individuals over a relatively short duration. The overtime worked by security force personnel during Extended Allowed Outages will not adversely impact officer readiness. STPNOC therefore requests that the group work-hour limits for planned outages as described in the Order include Extended Allowed Outages.