

February 12, 2003

MEMORANDUM TO: Glenn M. Tracy, Director
Division of Nuclear Security
Office of Nuclear Security
and Incident Response

FROM: Chris Nolan, Acting Chief/*RA*/
Licensee Personnel Security Section
Division of Nuclear Security
Office of Nuclear Security
and Incident Response

SUBJECT: NOTICE CONCERNING SECOND PUBLIC MEETING TO DISCUSS
IMPLEMENTATION OF A DRAFT ORDER REGARDING WORKER FATIGUE AT NUCLEAR
POWER PLANTS (ADAMS ACCESSION NUMBER ML030420625)

DATE AND TIME: February 21, 2003
1:00 P.M. - 5:00 P.M.

LOCATION: U.S. Nuclear Regulatory Commission
One White Flint North (OWFN 14B6)
11555 Rockville Pike
Rockville, Maryland

PURPOSE: To provide a public forum for stakeholders to participate in discussions concerning implementation of a draft order concerning worker fatigue at nuclear power plants. Attached are the following: (1) agenda of specific topics for discussion at this meeting, and (2) draft order and compensatory measures.

CATEGORY: This is a Category 2 meeting. The public is invited to participate in this meeting by discussing regulatory issues with NRC at designated points during the meeting. Feedback forms will be distributed. Meeting summary with the list of participants will be placed on a web page. NOTE: Some portions of this meeting may be closed.

CONTACT: Garmon West, NSIR
301-415-0211
GXW@NRC.GOV

PARTICIPANTS:NRCSTAKEHOLDERS

G. TracyJ. Davis (NEI)
C. NolanR. Evans (NEI)
G. WestD. Lochbaum (UCS)
M. BurrellR. Meyer (PROS)
T. QuayG. Jones (AFL/CIO)
D. TrimbleD. Brian (POGO)
D. DesaulniersB. Quigley
C. GoodmanD. Droblich (National Sleep
S. Richards Foundation)
M. RothschildB. Vila (DOJ)
J. Persensky
J. Goldberg

Attachments:A. Meeting Agenda
B. Draft Order and Compensatory Measures

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OFFICE	LPSS/DNS	E	LPSS/DNS	LPSS/DSN
NAME	A. Sapountzis		G. West *	C. Nolan
DATE	02/12/03		02/12/03	02/12/03

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**MEETING WITH STAKEHOLDERS TO DISCUSS A DRAFT ORDER
REGARDING FATIGUE OF NUCLEAR FACILITY SECURITY FORCE PERSONNEL
AT NUCLEAR POWER PLANTS**

**February 21, 2003
ONE WHITE FLINT NORTH IN ROOM 14B6**

AGENDA

- | | |
|--|----------------------|
| INTRODUCTIONS AND OPENING REMARKS (Glenn Tracy) | 1:00pm-1:15pm |
| <ul style="list-style-type: none">- Purpose, need and objectives for the meeting. (Chris Nolan)- Format and procedures for participation in the meeting. | |
| BACKGROUND (David Desaulniers) | 1:15pm-1:45pm |
| <ul style="list-style-type: none">- Review of January 23, 2003 meeting. | |
| PRESENTATION OF DRAFT ORDER, COMPENSATORY MEASURES FOR FATIGUE (Garmon West) | 1:45pm-2:45pm |
| <ul style="list-style-type: none">- Scope.- Work hour controls for individuals.- Comments and questions. (Stakeholders) | |
| BREAK | 2:45pm-3:00pm |
| CONTINUATION...PRESENTATION OF DRAFT ORDER, COMPENSATORY MEASURES FOR FATIGUE (Garmon West) | 3:00pm-4:30pm |
| <ul style="list-style-type: none">- Work hour controls for shifts.- Licensees exempt from C.1 and C.2 (CM) during declared emergencies.- Procedures- Comments and questions. (Stakeholders) | |
| CLOSING REMARKS BY NRC (Glenn Tracy/Chris Nolan) | 4:30pm-5:00pm |
| <ul style="list-style-type: none">- Summation of major topics.- Next steps.- Comments and questions. (Stakeholders) | |

ATTACHMENT A

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of)	
)	Docket Nos. (as shown in Attachment 1)
ALL OPERATING POWER REACTOR)	License Nos. (as shown in Attachment 1)
LICENSEES)	EA-02-026

**ORDER MODIFYING LICENSES
(EFFECTIVE IMMEDIATELY)**

I.

The licensees identified in Attachment 1 to this Order hold licenses issued by the U.S. Nuclear Regulatory Commission (NRC or Commission) authorizing operation of nuclear power plants in accordance with the Atomic Energy Act of 1954 and Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50. Commission regulations at 10 CFR 50.54(p)(1) require these licensees to maintain safeguards contingency plan procedures in accordance with 10 CFR Part 73, Appendix C. Specific safeguards requirements for reactors are contained in 10 CFR 73.55.

II.

On September 11, 2001, terrorists simultaneously attacked targets in New York, N.Y., and Washington, D.C., utilizing large commercial aircraft as weapons. In response to the attacks and intelligence information subsequently obtained, the Commission issued a number of Safeguards and Threat Advisories to its licensees in order to strengthen licensees' capabilities and readiness to respond to a potential attack on a nuclear facility. On February 25, 2002, the Commission issued Orders to the licensees of operating power reactors to put the actions taken in response to the Advisories in the established regulatory framework

and to implement additional security enhancements which emerged from the NRC's ongoing comprehensive security review.

Work hour demands on nuclear facility security force personnel have increased substantially over the past 15 months and the current threat environment continues to require heightened security measures. Therefore, the Commission has determined that the security measures addressed by the enclosed compensatory measures are required to be implemented by licensees as prudent, measures to address issues that may arise from work-hour related fatigue of nuclear facility security force personnel. Therefore, the Commission is imposing requirements, as set forth in Attachment 2 of this Order, on all licensees of these facilities. These requirements, which supplement existing regulatory requirements, will provide the Commission with reasonable assurance that the public health and safety and common defense and security continue to be adequately protected in the current threat environment. These requirements will remain in effect until the Commission determines otherwise.

In order to provide assurance that licensees are implementing prudent measures to achieve a consistent level of protection, all licenses identified in Attachment 1 to this Order shall be modified to include the requirements identified in Attachment 2 to this Order. In addition, pursuant to 10 CFR 2.202, the NRC finds that in the circumstances described above, the public health, safety and interest require that this Order be immediately effective.

III.

Accordingly, pursuant to Sections 103, 104, 161b, 161j, 161o, 182 and 186 of the Atomic Energy Act of 1954, as amended, and the Commission's regulations in 10 CFR 2.202 and 10 CFR Parts 50, 72, and 73, IT IS HEREBY ORDERED, **EFFECTIVE IMMEDIATELY**, THAT ALL LICENSES IDENTIFIED IN ATTACHMENT 1 TO THIS ORDER ARE MODIFIED AS FOLLOWS:

- A. All Licensees shall, notwithstanding the provisions of any Commission regulation or license to the contrary, comply with the requirements described in Attachment 2 to this Order except to the extent that a more stringent requirement is set forth in the Licensees' security plans. The Licensees shall immediately start implementation of the requirements in Attachment 2 to the Order and shall complete implementation **no later than [insert date 60 days from the date of issuance]**.
- B. 1. All Licensees shall, within **twenty (20) days** of the date of this Order, notify the Commission, (1) if they are unable to comply with any of the requirements described in Attachment 2, (2) if compliance with any of the requirements is unnecessary in their specific circumstances, or (3) if implementation of any of the requirements would cause the Licensee to be in violation of the provisions of any Commission regulation or the facility license. The notification shall provide the Licensee's justification for seeking relief from or variation of any specific requirement.
2. Any Licensee that considers that implementation of any of the requirements described in Attachment 2 to this Order would adversely impact safe operation of the facility must notify the Commission, within **twenty (20) days** of this Order, of the adverse safety impact, the basis for its determination that the requirement has an adverse safety impact, and either a proposal for achieving the same objectives specified in the Attachment 2 requirement in question, or a schedule for modifying the facility to address the adverse safety condition. If neither approach is appropriate, the Licensee must supplement its response to Condition B.1 of this Order to identify the condition as a requirement with which it cannot comply, with attendant justifications as required in Condition B.1.

- C. 1. All Licensees shall, within **twenty (20) days** of the date of this Order, submit to the Commission, a schedule for achieving compliance with each requirement described in Attachment 2.
2. All Licensees shall report to the Commission when they have achieved full compliance with the requirements described in Attachment 2.
- D. Notwithstanding the provisions of 10 CFR 50.54(p) and 72.186(b), all measures implemented or actions taken in response to this Order shall be maintained until the Commission determines otherwise.

Licensees' responses to Conditions B.1, B.2, C.1, and C.2 above, shall be submitted in accordance with 10 CFR 50.4 or 72.4 as applicable. In addition, Licensees' submittals that contain Safeguards Information shall be properly marked and handled in accordance with 10 CFR 73.21.

The Director, Office of Nuclear Reactor Regulation may, by letter, relax or rescind any of the above conditions upon demonstration by the Licensee of good cause.

IV.

In accordance with 10 CFR 2.202, the Licensee must, and any other person adversely affected by this Order may, submit an answer to this Order, and may request a hearing on this Order, within twenty (20) days of the date of this Order. Where good cause is shown, consideration will be given to extending the time to request a hearing. A request for extension of time in which to submit an answer or request a hearing must be made in writing to the Director, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington, DC 20555, and include a statement of good cause for the extension. The answer may consent to this Order. Unless the answer consents to this Order, the answer shall, in writing and under oath or affirmation, specifically set forth the matters of fact and law on which the Licensee or other person adversely affected relies and the reasons as to why the Order

should not have been issued. Any answer or request for a hearing shall be submitted to the Secretary, Office of the Secretary of the Commission, U.S. Nuclear Regulatory Commission, ATTN: Rulemakings and Adjudications Staff, Washington, DC 20555. Copies also shall be sent to the Director, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington, DC 20555; to the Assistant General Counsel for Materials Litigation and Enforcement at the same address; to the Regional Administrator for NRC Region I, II, III, or IV, as appropriate for the specific facility; and to the Licensee if the answer or hearing request is by a person other than the licensee. Because of possible disruptions in delivery of mail to United States Government offices, it is requested that answers and requests for hearing be transmitted to the Secretary of the Commission either by means of facsimile transmission to 301-415-1101 or by e-mail to hearingdocket@nrc.gov and also to the Office of the General Counsel either by means of facsimile transmission to 301-415-3725 or by e-mail to OGCMailCenter@nrc.gov. If a person other than the licensee requests a hearing, that person shall set forth with particularity the manner in which his interest is adversely affected by this Order and shall address the criteria set forth in 10 CFR 2.714(d).¹

If a hearing is requested by the Licensee or a person whose interest is adversely affected, the Commission will issue an Order designating the time and place of any hearing. If a hearing is held, the issue to be considered at such hearing shall be whether this Order should be sustained.

Pursuant to 10 CFR 2.202(c)(2)(i), the Licensee may, in addition to demanding a hearing, at the time the answer is filed or sooner, move the presiding officer to set aside the immediate effectiveness of the Order on the ground that the Order, including the need for

¹The most recent version of Title 10 of the *Code of Federal Regulations*, published January 1, 2002, inadvertently omitted the last sentence of 10 CFR 2.714 (d) and paragraphs (d)(1) and (d)(2) regarding petitions to intervene and contentions. For the complete, corrected text of 10 CFR 2.714 (d), please see 67 FR 20884; April 29, 2002.

immediate effectiveness, is not based on adequate evidence but on mere suspicion, unfounded allegations, or error.

In the absence of any request for hearing, or written approval of an extension of time in which to request a hearing, the provisions specified in Section III above shall be final twenty (20) days from the date of this Order without further order or proceedings. If an extension of time for requesting a hearing has been approved, the provisions specified in Section III shall be final when the extension expires if a hearing request has not been received. AN ANSWER OR A REQUEST FOR HEARING SHALL NOT STAY THE IMMEDIATE EFFECTIVENESS OF THIS ORDER.

FOR THE NUCLEAR REGULATORY COMMISSION

Samuel J. Collins, Director
Office of Nuclear Reactor Regulation

Dated this day of

Compensatory Measures

A. **Background:**

These compensatory measures (CMs) are established to delineate licensee responsibility in response to the threat environment presently in existence in the aftermath of the events of September 11, 2001. Excessive work schedules can challenge the ability of security force personnel to remain vigilant and effectively perform their duties.

B. Scope:

Operating nuclear power reactor licensees shall comply with the following CMs to ensure, in part, that nuclear facility security force personnel are not assigned to duty while in a fatigued condition that could reduce their alertness or ability to perform functions necessary to identify and promptly respond to plant security threats. Work hour controls shall apply to personnel performing the following functions: armed member of the security force, central alarm station operator, secondary alarm station operator, security shift supervisor, and watchperson.

C. Compensatory Measures:

1. Work Hour Controls for Individuals

(a) Personnel performing the functions identified in B:

(1) Shall not exceed the following limits, excluding shift turnover time:

- (i) 16 hours in any 24-hour period,
- (ii) 26 hours in any 48-hour period, and
- (iii) 72 hours in any 7 day period.

(2) Shall have a minimum 10-hour break between work periods. The participation in turnover is permitted during the break period.

(3) May be authorized, by the licensee, to deviate from the limits specified in C.1(a)(1) and/or C.1(a)(2) provided:

- (i) The licensee could not have reasonably foreseen or controlled the circumstance necessitating the deviation,
- (ii) The security shift supervisor has determined that the deviation is required to maintain the security for the facility,
- (iii) An evaluation is performed, in advance, by an individual trained in the causes, symptoms, and effects of fatigue that determined that the individuals readiness would not be adversely effected by the additional work period to be authorized under the deviation, and
- (iv) The basis and approval for items (i), (ii), and (iii) are documented.

(b) The number and duration of approved deviations shall be limited to the extent practicable.

(c) The licensee shall monitor and control individual work hours to ensure that excessive work hours are not compromising worker alertness and performance.

2. Work Hour Controls for Shifts

Shift average work hours for personnel performing the functions identified in B shall be controlled in accordance with the following limits:

(a) Normal Plant Conditions: The average number of hours actually worked per shift, by personnel performing the functions identified in B, shall not exceed 48 hours per week averaged over a rolling consecutive period not to exceed six (6) weeks.

Worker absences and workers who were not assigned to the shift for the entire period should be prorated when calculating the average.

(b) Planned Plant Outages:

(1) The average number of hours actually worked per shift, by personnel performing the functions identified in B, shall not exceed 60 hours per week averaged over a rolling consecutive period 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. Part weeks, worker absences and workers who were not assigned to the shift for the entire period should be prorated when calculating the average.

(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.

(c) Unplanned Plant Outages or Increase in Threat condition:

(1) There are no specific shift limits for this condition.

(2) 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 allowance defined in C.2(c)(1) shall not exceed 120 days.

3. Licensees shall be exempt from the requirements of C.1 and C.2 during declared emergencies as defined in the licensee's emergency plan.

4. Procedures

Develop or augment procedures, as necessary, for personnel within the scope of this CM to:

(a) Describe the process for implementing the controls for hours worked specified in C.1, C.2, and C.3 of this CM.

(b) Describe the process to be followed if an individual reports prior to or during a duty period that he or she considers himself or herself unfit for duty due to fatigue consistent with the requirements of 10 CFR Part 26, "Fitness-For-Duty Programs," and 10 CFR 50.7, "Employee Protection."

(c) Document self-declarations of unfit for duty due to fatigue.

(d) Address other factors that could affect fatigue such as mental stress, illness, and the use of prescription and over-the-counter medications.