
Clarification of TMI Action Plan Requirements

Requirements for Emergency Response Capability

**U.S. Nuclear Regulatory
Commission**

Office of Nuclear Reactor Regulation



AVAILABILITY NOTICE

Availability of Reference Materials Cited in NRC Publications

Most documents cited in NRC publications will be available from one of the following sources:

1. The NRC Public Document Room, 2120 L Street, NW, Lower Level, Washington, DC 20555
2. The Superintendent of Documents, U.S. Government Printing Office, P.O. Box 37082, Washington, DC 20013-7082
3. The National Technical Information Service, Springfield, VA 22161

Although the listing that follows represents the majority of documents cited in NRC publications, it is not intended to be exhaustive.

Referenced documents available for inspection and copying for a fee from the NRC Public Document Room include NRC correspondence and internal NRC memoranda; NRC Office of Inspection and Enforcement bulletins, circulars, information notices, inspection and investigation notices; Licensee Event Reports; vendor reports and correspondence; Commission papers; and applicant and licensee documents and correspondence.

The following documents in the NUREG series are available for purchase from the GPO Sales Program: formal NRC staff and contractor reports, NRC-sponsored conference proceedings, and NRC booklets and brochures. Also available are Regulatory Guides, NRC regulations in the Code of Federal Regulations, and Nuclear Regulatory Commission Issuances.

Documents available from the National Technical Information Service include NUREG series reports and technical reports prepared by other federal agencies and reports prepared by the Atomic Energy Commission, forerunner agency to the Nuclear Regulatory Commission.

Documents available from public and special technical libraries include all open literature items, such as books, journal and periodical articles, and transactions. Federal Register notices, federal and state legislation, and congressional reports can usually be obtained from these libraries.

Documents such as theses, dissertations, foreign reports and translations, and non-NRC conference proceedings are available for purchase from the organization sponsoring the publication cited.

Single copies of NRC draft reports are available free, to the extent of supply, upon written request to the Office of Information Resources Management, Distribution Section, U.S. Nuclear Regulatory Commission, Washington, DC 20555.

Copies of industry codes and standards used in a substantive manner in the NRC regulatory process are maintained at the NRC Library, 7920 Norfolk Avenue, Bethesda, Maryland, and are available there for reference use by the public. Codes and standards are usually copyrighted and may be purchased from the originating organization or, if they are American National Standards, from the American National Standards Institute, 1430 Broadway, New York, NY 10018.



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

June 15, 1982

TO ALL LICENSEES OF OPERATING PLANTS, APPLICANTS FOR AN
OPERATING LICENSE, AND HOLDERS OF CONSTRUCTION PERMITS

Gentlemen:

SUBJECT: NUCLEAR POWER PLANT STAFF WORKING HOURS
(Generic Letter No. 82-12)

On February 8, 1982, we forwarded to you a copy of a policy statement issued by the Commission entitled "Policy on Factors Causing Fatigue of Operating Personnel at Nuclear Reactors." That policy statement has now been slightly revised and the revised version is attached to this letter. The forwarding letter (Generic Letter 82-02) stated that actions were underway to incorporate the Commission policy on working hours into Regulatory Guide 1.33 and into NUREG-0737 (Item I.A.1.3).

Publication of Regulatory Guide 1.33 is now anticipated in June 1982, following release of ANS 3.2. Revised pages of NUREG-0737 that incorporate the Commission policy on working hours are enclosed.

Our letter of February 8, 1982 requested that you take action as necessary to revise the administrative section of your technical specifications to assure that your plant administrative procedures follow the revised working hour guidelines, including a provision for documentation of authorized deviations which should be available for NRC review. You should review your past actions to assure that they are consistent with the attached revised policy statement. Note that the revised guidelines are to be incorporated by October 1, 1982.

Sincerely,

A handwritten signature in dark ink, appearing to read "Darrell G. Eisenhut", is written over the typed name.

Darrell G. Eisenhut, Director
Division of Licensing
Office of Nuclear Reactor Regulation

Attachment:
Revision to Item I.A.1.3
of NUREG-0737.

y

I.A.1.3 SHIFT MANNING

Pages I.A.1.3-1 through I.A.1.3-3 are replaced in their entirety by the following. A bar in the margin indicates changes from the material originally included on these pages.

Position

This position defines shift manning requirements for normal operation. The letter of July 31, 1980 from D. G. Eisenhut to all power reactor licensees and applicants (copy attached) sets forth the interim criteria for shift staffing (to be effective pending general criteria that will be the subject of future rulemaking). Overtime restrictions were also included in the July 31, 1980 letter.

Changes to Previous Requirements and Guidance

Errors were discovered in the last column of the table attached to the letter of July 31, 1980. A corrected table is enclosed; a bar in the margin indicates the correction. (See p. I.A.1.3-4.)

The overtime requirements have been rewritten to incorporate the provisions of a Commission policy statement on working hours and operator fatigue.

Clarification

Licensees of operating plants and applicants for operating licenses shall include in their administrative procedures (required by license conditions) provisions governing required shift staffing and movement of key individuals about the plant. These provisions are required to assure that qualified plant personnel to man the operational shifts are readily available in the event of an abnormal or emergency situation.

These administrative procedures shall also set forth a policy, the objective of which is to prevent situations where fatigue could reduce the ability of operating personnel to keep the reactor in a safe condition. The controls established should assure that, to the extent practicable, personnel are not assigned to shift duties while in a fatigued condition that could significantly reduce their mental alertness or their decision making ability. The controls shall apply to the plant staff who perform safety-related functions (e.g., senior reactor operators, reactor operators, auxiliary operators, health physicists, and key maintenance personnel).

IE Circular No. 80-02, "Nuclear Power Plant Staff Work Hours", dated February 1, 1980 (copy attached) discusses the concern of overtime work for members of the plant staff who perform safety-related functions. The guidance contained in IE Circular No. 80-02 was amended by the July 31, 1980 letter. In turn, the overtime guidance of the July 31, 1980 letter was revised in Section I.A.1.3 of NURG-0737. The NRC has issued a policy statement (attached) which further revises the overtime guidance as stated in NUREG-0737. This guidance is as follows:

Enough plant operating personnel should be employed to maintain adequate shift coverage without routine heavy use of overtime. The objective is to have operating personnel work a normal 8-hour day, 40-hour week while the plant is operating. However, in the event that unforeseen problems require substantial amounts of overtime to be used, or during extended periods of shutdown for refueling, major maintenance or major plant modifications, on a temporary basis, the following guidelines shall be followed:

- a. An individual should not be permitted to work more than 16 hours straight (excluding shift turnover time).
- b. An individual should not be permitted to work more than 16 hours in any 24-hour period, nor more than 24 hours in any 48-hour period, nor more than 72 hours in any seven-day period (all excluding shift turnover time).
- c. A break of at least eight hours should be allowed between work periods (including shift turnover time).
- d. Except during extended shutdown periods, the use of overtime should be considered on an individual basis and not for the entire staff on shift.

Recognizing that very unusual circumstances may arise requiring deviation from the above guidelines, such deviation shall be authorized by the plant manager or his deputy, or higher levels of management. The paramount consideration in such authorization shall be that significant reductions in the effectiveness of operating personnel would be highly unlikely. Authorized deviations to the working hour guidelines shall be documented and available for NRC review.

In addition, procedures are encouraged that would allow licensed operators at the controls to be periodically relieved and assigned to other duties away from the control board during their tours of duty.

Operating license applicants shall complete these administrative procedures before fuel loading. Development and implementation of the administrative procedures at operating plants will be reviewed by the Office of Inspection and Enforcement beginning Oct. 1, 1982.

See Section III.A.1.2 for minimum staffing and augment capabilities for emergencies.

Applicability

This requirement applies to all licensees of operating reactors and applicants for operating licenses.

Implementation

(1) Overtime administrative procedures shall be established for operating reactors by Oct. 1, 1982 and by fuel loading for applicants for operating license.

(2) Staffing requirements shall be completed by July 1, 1982 for operating reactors and by fuel load for operating license applicants.

Type of Review

A post-implementation review will be performed on operating reactors. Applicants for operating licenses will be reviewed prior to implementation.

Documentation Required

The documentation required is as noted in the letter of July 31, 1980.

Technical Specification Changes Required

Changes to Technical Specifications will be required for overtime administrative procedure and staffing requirements.

References

NUREG-0660

IE Circular No. 80-02, "Nuclear Power Plant Staff Work Hours," February 1, 1980
Letter from D. G. Eisenhut, NRC, to All Power Reactor Licensees, July 31, 1980
Policy on Factors Causing Fatigue of Operating Personnel at Nuclear Reactors,

POLICY ON FACTORS CAUSING FATIGUE OF OPERATING PERSONNEL AT NUCLEAR REACTORS

Licensees of operating plants and applicants for operating licenses shall establish controls to prevent situations where fatigue could reduce the ability of operating personnel to keep the reactor in a safe condition. The controls should focus on shift staffing and the use of overtime--key job-related factors that influence fatigue.

The objective of the controls would be to assure that, to the extent practicable, personnel are not assigned to shift duties while in a fatigued condition that could significantly reduce their mental alertness or their decision making capability. The controls shall apply to the plant staff who perform safety-related functions (e.g., senior reactor operators, reactor operators, health physicists, auxiliary operators, and key maintenance personnel).

Enough plant operating personnel should be employed to maintain adequate shift coverage without routine heavy use of overtime. The objective is to have operating personnel work a normal 8-hour day, 40-hour week while the plant is operating. However, in the event that unforeseen problems require substantial amounts of overtime to be used, or during extended periods of shutdown for refueling, major maintenance or major plant modifications, on a temporary basis, the following guidelines shall be followed:

- a. An individual should not be permitted to work more than 16 hours straight (excluding shift turnover time).
- b. An individual should not be permitted to work more than 16 hours in any 24-hour period, nor more than 24 hours in any 48-hour period, nor more than 72 hours in any seven day period (all excluding shift turnover time).
- c. A break of at least eight hours should be allowed between work periods (including shift turnover time).
- d. Except during extended shutdown periods, the use of overtime should be considered on an individual basis and not for the entire staff on a shift.

Recognizing that very unusual circumstances may arise requiring deviation from the above guidelines, such deviation shall be authorized by the plant manager or his deputy, or higher levels of management. The paramount consideration in such authorization shall be that significant reductions in the effectiveness of operating personnel would be highly unlikely.

In addition, procedures are encouraged that would allow licensed operators at the controls to be periodically relieved and assigned to other duties away from the control board during their tour of duty.

ABSTRACT

This document, Supplement 1 to NUREG-0737, is a letter from D. G. Eisenhut, Director of the Division of Licensing, NRR, to licensees of operating power reactors, applicants for operating licenses, and holders of construction permits forwarding post-TMI requirements for emergency response capability which have been approved for implementation. On October 30, 1980, the NRC staff issued NUREG-0737, which incorporated into one document all TMI-related items approved for implementation by the Commission at that time. In this NRC report, additional clarification is provided regarding Safety Parameter Display Systems, Detailed Control Room Design Reviews, Regulatory Guide 1.97 (Revision 2) - Application to Emergency Response Facilities, Upgrade of Emergency Operating Procedures, Emergency Response Facilities, and Meteorological Data.

