July 2, 1982

SECY-82-286

RULEMAKING ISSUE
(Affirmation)

For: The Commissioners

From: William J. Dircks
Executive Director for Operations

Subject: PROPOSED RULEMAKING CONCERNING STAFFING AT NUCLEAR POWER PLANTS

Purpose: To obtain Commission approval to publish a proposed rule for comment (Version 1 or Version 2).

Version 1: (Senior licensed operators only)

Whether licensees of nuclear power units should be (1) required to ensure the presence of a person with a senior operator license in the control room at all times that a nuclear power unit is operating without affecting the ability of the senior operator in charge to move about the site; and (2) to provide a minimum number of senior operators on each shift at all times.

Version 2: (Both senior operators and operators)

Whether licensees of nuclear power units should be required (1) to ensure the presence of a person with a senior operator license in the control room at all times that a nuclear power unit is operating without affecting the ability of the senior operator in charge to move about the site; and (2) to provide a minimum number of appropriately licensed personnel on each shift at all times.

Discussion: The "NRC Action Plan Developed as a Result of the TMI-2 Accident," NUREG-0660, stated that there must be at least one more senior operator on site than the number of

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control rooms from which a reactor is being operated. Interim shift staffing criteria were provided in a letter dated July 31, 1980, from Darrell G. Eisenhut, Director, Division of Licensing, to all licensees of operating plants, all applicants for operating licenses, and all holders of construction permits. NUREG-0737, "Clarification of TMI Action Plan Requirements," which modifies the July 31, 1980 letter, uses the following interim shift staffing criteria: (1) that a shift supervisor with a senior operator's license be on site at all times any unit is loaded with fuel; (2) that a licensed senior operator be in the control room from which any reactor is being operated; (3) that core alterations be supervised by an individual who holds a senior operator license for for that unit; and (4) that there be one or more control room operators in the control room of each fueled unit depending on the number of units controlled from that control room and on whether or not these units are operating. These staffing criteria, provided in Enclosure E (which is extracted from NUREG-0737) to both proposed rules, Versions 1 and 2, have been applied to all nuclear power units which have received an operating license since the TMI-2 accident. Further, the substantial majority of all licensees conform to the Table provided in Enclosure E, especially for the licensed operator portion of the table. This has been accomplished by adoption of Technical Specifications in lieu of a specific rule.

These interim shift staffing criteria were discussed at a Commission meeting held on June 11, 1982. As a result of this discussion, it was decided that an amendment to 10 CFR Part 50 should be proposed to apply the criteria for shift staffing for licensed operators, provided in NUREG-0737, to nuclear power units licensed before the TMI incident.

Two proposed versions of the proposed rule are enclosed. Version 1 is limited to addressing only the minimum numbers of senior operators needed, and assuring the presence of a person with a senior operator license in the control room. Version 2 would require minimum numbers of both reactor operators and senior operators on each shift at nuclear power units and would ensure the presence of a person with a senior operator license in the control room at all times that the unit is being operated. All licensees of nuclear power plants would be expected to meet these staffing requirements by January 1, 1983.

The versions proposed in this rulemaking action are consistent with the guidance provided at the June 11, 1982 Commission meeting and the interim criteria provided by NUREG-0737. The resource impact on the NRC staff is limited to the licensing of the increased number of operators that the amendment would require.

To provide the same regulatory basis for both operators and senior operators, the staff recommends that the proposed rule contained in Version 2 to this paper be approved.

Recommendations: That the Commission:

1. Approve publication of the proposed rule as set forth in Enclosure A to either Version 1 or Version 2.

2. In order to satisfy the requirements of the Regulatory Flexibility Act, 5 U.S.C. 605(b), certify that this rule, if promulgated, will not have a significant economic impact on a substantial number of small entities. This certification is included in the enclosed Federal Register notice.

3. Note:

   a. That the notice of proposed rulemaking in Enclosure A of either Version 1 or Version 2 will be published in the Federal Register allowing 30 days for public comment.

   b. That if, after expiration of the comment period, no significant adverse comments or significant questions have been received and no substantial changes in the text of the rule are indicated, the Executive Director for Operations will arrange for publication of the amendment in final form.

   c. That, in accordance with 10 CFR 51.5(d)(3), neither an environmental impact statement nor a negative declaration need be prepared in connection with this rulemaking action because the amendment is non-substantive and insignificant from the standpoint of environmental impact.

   d. This proposed rule contains no information collection requirements and OMB clearance is not needed.

e. That the Subcommittee on Nuclear Regulation of the Senate Committee on Environmental and Public Works and the Subcommittee on Energy and Power of the House Committee on Interstate and Foreign Commerce will be informed.

f. That a public announcement will be issued (Enclosure C of either Version 1 or Version 2).

g. That the proposed action complies with E.O. 12291/Task IV.G.2 of the TMI Action Plan (Enclosure D of either Version 1 or Version 2).

h. That ADM will send copies of the proposed rule to all affected licensees and other interested people following Commission approval for publication of the proposed rule.

i. That the Chief Counsel for Advocacy of the Small Business Administration will be informed of the certification and the reasons for it as required by the Regulatory Flexibility Act.

Scheduling: Recommend affirmation at an open meeting.

William J. Dircks
Executive Director for Operations

Enclosures:
Version 1
Enclosure A - Proposed Rule Package
Enclosure B - Value/Impact Statement
Enclosure C - Draft Public Announcement
Enclosure D - Analysis with Respect to Systematic Review of Regulations
Enclosure E - Extract from NUREG-0737
Enclosure F - Draft letters to Congress

Version 2 -
Similar to Version 1

cc: SECY
OPE
OGC

Commissioners' comments should be provided directly to the Office of the Secretary by co.o.b Thursday, July 22, 1982.

Commission Staff Office comments, if any, should be submitted to the Commissioners NLT Thursday, July 15, 1982, with an information copy to the Office of the Secretary. If the paper is of such a nature that it requires additional time for analytical review and comment, the Commissioners and the Secretariat should be apprised of when comments may be expected.

This paper is tentatively scheduled for affirmation at an Open Meeting during the Week of July 26, 1982. Pleas refer to the appropriate Weekly Commission Scheduled, when published, for a specific date and time.

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VERSION 1

"Proposed Rule Package"

Senior Operators Only

ENCLOSURE A

Senior Operators Only

[7590-01]

NUCLEAR REGULATORY COMMISSION

10 CFR Part 50

Licensed Operator Staffing at Nuclear Power Units

AGENCY: Nuclear Regulatory Commission.

ACTION: Proposed rule.

SUMMARY: The Nuclear Regulatory Commission is proposing to amend its regulations to require licensees of nuclear power units to provide a minimum number of senior licensed personnel on shift at all times and to ensure the presence of a person with a senior operator license at all times in the control room from which a nuclear power unit is operating. These requirements would provide the senior operator in charge with the flexibility to move about the facility while assuring that a senior operator is present in the control room during unit operation. This proposed amendment would further assure the protection of the health and safety of the public by assuring the continuous presence of a person with a senior operator license in the control room during operation of a nuclear power unit.

DATES: Comment period expires . Comments received after this expiration date will be considered if it is practical to do so, but assurance of consideration cannot be given except as to comments received on or before that date.

ADDRESSES: Interested persons are invited to submit written comments and suggestions on the proposed amendments and the supporting value/impact assessment to the Secretary of the Commission, U. S. Nuclear Regulatory Commission, Washington, DC 20555, Attention: Docketing and Service Branch. Single copies

of the value/impact assessment may be obtained on request from the contact person listed below. Copies of the value/impact assessment and of comments received by the Commission may be examined and copied for a fee in the Commismission's Public Document Room at 1717 H Street, NW, Washington, DC.

FOR FURTHER INFORMATION CONTACT: E. W. Merschoff, Office of Nuclear Regulatory Research, U. S. Nuclear Regulatory Commission, Washington, DC 20555, telephone: 301-443-5942.

SUPPLEMENTARY INFORMATION:

Background

In the aftermath of the Three Mile Island (TMI) accident, a number of studies and investigations conducted by the NRC, the industry, and others have recommended changes in the numbers, qualifications, and organization of nuclear power plant personnel. The principal studies were conducted by the President's Commission on Three Mile Island, the NRC Special Inquiry Group, and the NRC Office of Nuclear Reactor Regulation's Lessons Learned Task Force, and its Bulletins and Orders Task Force.[1/] These studies concluded that, among other things, current shift staffing requirements should be upgraded. The "NRC Action Plan Developed as a Result of the TMI-2 Accident" (NUREG-0660), Item I.A.1.3, adopted this recommendation and NUREG-0737 was issued to provide interim shift staffing criteria to all licensees of operating units, all

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1/ The recommendations of the investigating groups are collected in NUREG-0660, "NRC Action Plan Developed as a Result of the TMI-2 Accident." NUREG-0660, in Appendix E, discusses the availability of the reports prepared by the various organizations. NUREG documents are available for public inspection and copying for a fee in the Commission's Public Document Room at 1717 H Street, NW, Washington, DC. Copies of NUREG documents may be obtained from: the GPO Sales Program, Division of Technical Information and Document Control, U. S. Nuclear Regulatory Commission, Washington, DC 20555 and the National Technical Information Service, Springfield, VA 22161.

applicants for operating licenses, and all holders of construction permits. The NUREG-0737 criteria include the provisions that: (a) a shift supervisor with a senior operator's license shall be on site at all times that a nuclear power unit is loaded with fuel; (b) a licensed senior operator shall be in the control room from which any unit is being operated; c) an individual who holds a senior operator license shall supervise core alterations; and (d) one or more control room operators shall be assigned on shift for each fueled unit depending on the number of operating units controlled from the control room.

Implementation and Schedule

These criteria have been used for licenses issued after the accident at Three Mile Island, and all licensees of operating nuclear power units are aware of the the NRC's staffing criteria provided by NUREG-0737. To ensure that all operating nuclear power units are adequately staffed with licensed personnel, the proposed amendment would apply the NUREG-0737 criteria to all operating nuclear power units. All licensees of nuclear power units would be expected to meet these staffing requirements by January 1, 1983. This date was chosen recognizing that the utility industry has been attempting to meet the increased staffing levels called for in NUREG-0737 for approximately two years.

Proposed Action

Section 50.54, "Conditions of Licenses"

The proposed amendment would require that the licensee assign a senior operator, licensed on all units at a facility, to be at the facility at all times there is fuel in any unit. If a single senior operator does not hold a senior operator license on all units at the facility,then two or more senior operators, who in combination are licensed as senior operators on all of the units, shall be

provided. The presence of this individual would assure that a technically competent supervisor would be present on each shift to direct the overall operation of the plant.

That an individual who is licensed as a senior operator for the unit be present at all times in the control room from which that unit is being operated. This change would assure that supervising and technical expertise is continuously available in the control room to respond to accident situations.

The table shown in subparagraph (m)(2) of the proposed amendment prescribes the licensed staffing requirements for nuclear power units, according to the operating condition of the unit and the number of units controlled from each control room. The reason for the table is to clearly and concisely state the requirements. Additionally, footnote 1 to the table establishes the transition points for staffing requirements applicable when a unit is "not operating" to the more restrictive staffing requirements when the unit is "operating." Public comments are specifically requested on the appropriateness of these transition points with respect to staffing requirements as well as on the proposed staffing requirements of the table.

Extensions Beyond the January 1, 1983, Deadline

Some licensees might need to request an extension beyond the proposed deadline. The NRC would review these requests in accordance with the provisions of 10 CFR §50.54 by using the following additional criteria:

1. Whether the licensee is firmly committed to hire and train the necessary number of operators.

2. Whether the licensee has set a reasonable target date by which it would meet the requirements.

3. Whether the licensee has an active recruitment program to hire the necessary numbers of operators.

4. Whether the licensee has an adequate training program to assure that it has well-trained operators readily available.

Additionally, the NRC would use any other information which it considers to be pertinent to the request.

This proposed rule does not contain any information collection requirements under the Paperwork Reduction Act of 1980, Public Law 95-511.

REGULATORY FLEXIBILITY ACT CERTIFICATION

In accordance with the Regulatory Flexibility Act of 1980, 5 U.S.C. 605(b), the Commission hereby certifies that this rule, if promulgated, would not have a significant economic impact on a substantial number of small entities. This proposed rule affects the staffing requirements of facilities licensed under the provisions of 10 CFR §50.21(b) and 10 CFR §50.22. The companies that own these facilities do not fall within the scope of "small entities" as set forth in the Regulatory Flexibility Act or the small business size standards set out in regulations issued by the Small Business Administration in 13 CFR Part 121.

LIST OF SUBJECTS IN 10 CFR PART 50

Antitrust, Classified information, Fire prevention, Intergovernmental relations, Nuclear power plants and reactors, Penalty, Radiation protection, Reactor siting criteria, Reporting requirements.

For the reasons set out in the preamble and pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974, as amended, and section 553 of Title 5 of the United States Code, notice is hereby given that adoption of the following amendment to 10 CFR Part 50 is contemplated.

PART 50 - DOMESTIC LICENSING OF PRODUCTION
AND UTILIZATION FACILITIES

1. The authority citation for Part 50 continues to read as follows:

Authority: Secs. 103, 104, 161, 182, 183, 189, 68 Stat. 936, 937, 948, 953, 954, 955, 956, as amended (42 U.S.C. 2133, 2134, 2201, 2232, 2233, 2239); secs. 201, 202, 206, 88 Stat. 1243, 1244, 1246 (42 U.S.C. 5841, 5842, 5846), unless otherwise noted.

Section 50.78 also issued under sec. 122, 68 Stat. 939 (42 U.S.C. 2152). Sections 50.80-50.81 also issued under sec. 184, 68 Stat. 954, as amended (42 U.S.C. 2234). Sections 50.100-50.102 issued under sec. 186, 68 Stat. 955 (42 U.S.C. 2236).

For the purposes of sec. 223, 68 Stat. 958, as amended (42 U.S.C. 2273), 50.10(a), (b), and (c), 50.44, 50.46, 50.48, 50.54, and 50.80(a) are issued under sec. 161b, 68 Stat. 948, as amended (42 U.S.C. 2201(b)); 50.10(b) and (c) and 50.54 are issued under sec. 161i, 68 Stat. 949, as amended (42 U.S.C. 2201(i)); and 50.55(e), 50.59(b), 50.70, 50.71, 50.72, and 50.78 are issued under sec. 161o, 68 Stat. 950, as amended (42 U.S.C. 2201(o)).

2. Paragraph 50.54(m) is redesignated subparagraph 50.54(m)(1) to read as follows:

§50.54 Conditions of licenses.

* * * * *

(m)(1) A senior operator licensed pursuant to Part 55 of this chapter shall be present at the facility or readily available on call at all times during its operation, and shall be present at the facility during initial start-up and approach to power, recovery from an unplanned or unscheduled shutdown or

significant reduction in power, and refueling, or as otherwise prescribed in the facility license.

3. A new subparagraph (2) is added to §50.54(m) to read as follows:

§50.54 Conditions of licenses.

* * * * *

(2)(i) Notwithstanding subparagraph (m)(1) in this section, by January 1, 1983, licensees of nuclear power units shall meet the requirements of this subparagraph and the minimum licensed operator staffing requirements in the following table:

MINIMUM REQUIREMENTS FOR ONSITE STAFFING OF

NUCLEAR POWER UNITS BY SENIOR OPERATORS LICENSED UNDER 10 CFR PART 55

NUMBER OF NUCLEAR POWER UNITS OPERATING 1/	POSITION	ONE UNIT	TWO UNITS		THREE UNITS	
		ONE CONTROL ROOM	ONE CONTROL ROOM	TWO CONTROL ROOMS	TWO CONTROL ROOMS	THREE CONTROL ROOMS
NO OPERATING UNITS	SENIOR OPERATOR	1	1	1	1	1
ONE	SENIOR OPERATOR	2	2	2	2	2
TWO	SENIOR OPERATOR	N/A	2	3	3 2/	3
THREE	SENIOR OPERATOR	N/A	N/A		3	4

Footnotes for table

1. Operating nuclear power units are defined as follows:
   (a) Pressurized water reactors with an average coolant temperature above 200°F; or
   (b) Boiling water reactors with an average coolant temperature above 212°F; or
   (c) High temperature gas cooled reactors with a helium temperature above 220°F.

2. The number of required personnel may be reduced by one person when the nuclear power units are controlled from a common control room, provided that the senior operators are licensed on both of the units.

(ii) A person holding a senior operator's license for the nuclear power unit shall, at all times, be in the control room from which that nuclear power unit is being operated.

(iii) During alteration of the core of a nuclear power unit, including fuel loading or transfer, a person holding a senior operator license shall be present to supervise the activity and during this time the licensee shall not assign other duties to this person.

(iv) The Director of Nuclear Reactor Regulation may grant requests for extensions of the deadline to July 1, 1983, if the requests are timely and demonstrate good cause. In exceptional cases, the Commission itself may grant extensions beyond July 1, 1983.

Dated at Washington, D. C. this day of , 1982.

For the Nuclear Regulatory Commission.

Samuel J. Chilk
Secretary of the Commission.

ENCLOSURE B

Senior Operators Only

PRELIMINARY VALUE/IMPACT STATEMENT FOR PROPOSED ACTION ON MINIMUM STAFFING REQUIREMENTS FOR LICENSED OPERATORS AT NUCLEAR POWER PLANTS

1. PROPOSED ACTION

1.1 Description

The proposed action would require licensees of facilities licensed under 10 CFR 50.21(b) or 50.22 (1) to ensure the presence of a person with a senior operator license in the control room at all times that a nuclear power unit is operating; and (2) to provide a minimum number of personnel having a senior operator license on each shift at all times.

1.2 Need for Proposed Action

NUREG-0660, "NRC Action Plan Developed as a Result of the TMI-2 Accident," contains specific recommendations for licensed operator staffing at nuclear power units. The Commission has approved certain of these recommendations that are found in NUREG-0737, "Clarification of TMI Action Plan Requirements." The proposed amendments were developed to formally codify the staffing requirements promulgated in NUREG-0737 in order to encourage participation of the public and the industry in the development of shift staffing requirements.

1.3 Value/Impact of Proposed Action

1.3.1 NRC Operations

The value of the proposed action to the NRC is that it would assure the presence of a person with a senior operator license in the control room

at all times that a nuclear power unit is operating without limiting the ability of the senior operator in charge to move about the site and would ensure that nuclear power plants are adequately staffed with senior operators.

The impact of the proposed action on the NRC would be the time spent in developing the regulation and the resources that would be expended to license the increased number of operators that the amendment would require.

1.3.2 Other Government Agencies

Not applicable unless the government agency is an applicant or licensee such as TVA. In that case the impact on that agency will be the same as on other licensees.

1.3.3 Industry

The value of the proposed action to industry would be enhanced assurance of safety of facility operation. Implementation of this regulation would also benefit the licensee by allowing the senior operator in charge freedom to move about the site as needed and still provide the presence of a person who holds a senior operator license in the control room.

The impact on the industry would be the cost of training and maintain-maintaining the required number of senior licensed operators on shift. Preliminary assessment of the licensees indicates that over half will meet these proposed staffing levels for licensed operators by July 1, 1982. There may be a need to grant extensions of the implementation

date to some licensees based on the time required to train individuals to become senior reactor operators. The impact of training additional senior reactor operators may be particularly acute for those licensees who have had higher than anticipated attrition rates.

1.3.4 Public

The value of the proposed action to the public would be safer and more reliable operation of nuclear power facilities.

The impact on the public could be higher electricity costs due to the increased cost to the industry discussed in 1.3.3.

1.3.5 Decision on Proposed Action

Minimum shift staffing requirements for nuclear power units for which an operating license has been issued should be increased.

2. TECHNICAL APPROACH

The staffing requirements have been developed in NUREG-0660 and NUREG-0737. The intent of this action is not to change these requirements but rather to formally codify them.

3. PROCEDURAL APPROACH

3.1 Procedural Alternatives

3.1.1 Specific Regulation

Issue a regulation which requires minimum staffing levels for senior licensed operators.

3.1.2 Issue Orders

Issue confirmatory or other orders based on the licensed operator staffing levels provided in NUREG-0737.

3.1.3 NUREG-0737 - Policy Statement

Licensees would be requested to change their technical specifications to include the staffing levels provided for in NUREG-0737.

3.2 Value/Impact of Procedural Alternatives

The value of issuing a shift staffing regulation for senior operators is that it would allow the public and the industry an opportunity to participate in the rule making process in a better fashion than would be available by issuing orders or a policy statement. Additionally, issuing a regulation conforms with the Commission's policy of imposing requirements on a large group of licensees through rulemaking. The impact of issuing a regulation is a lack of flexibility in implementing the regulation.

The value of issuing confirmatory orders based on NUREG-0737 is that it might be done more quickly than by developing a regulation. The impact is that the public and industry would not be able to participate formally by submitting comments. These requirements by orders may involve adjudicating on a case-by-case basis with nonuniform results.

The value of issuing a policy statement is that it might be done quickly and provide for flexibility in implementation, thus encouraging innovation by licensees. The impact of issuing a policy statement is that it

would be unenforceable, since compliance with a policy statement is voluntary.

3.3 Decision on Procedural Approach

The proposed action should be accomplished by publishing a regulation since a regulation is the most appropriate way of establishing a requirement for a large group of licensees (i.e., all operating nuclear power plants), and because it provides a better way for the public and industry to participate in the Commission's imposition of requirements.

4. STATUTORY CONSIDERATIONS

4.1 NRC Regulatory Authority

Section 103 of the Atomic Energy Act of 1954, as amended, and section 201 of the Energy Reorganization Act of 1974, as amended.

4.2 Need for NEPA Statement

An environmental impact statement is not required since, under 10 CFR 51.5(d)(3), the proposed action is not a major action that may significantly affect the quality of the human environment.

5. RELATIONSHIP TO OTHER EXISTING OR PROPOSED REGULATIONS OR POLICIES

The proposed requirements are consistent with the provisions of NUREG-0737.

6. SUMMARY AND CONCLUSIONS

A regulation dealing with minimum numbers of licensed senior operators on shift should be proposed.

ENCLOSURE C

Senior Operators Only

PUBLIC ANNOUNCEMENT

THIS STATEMENT TO BE PREPARED DEPENDING ON
WHICH VERSION OF THE PROPOSED RULE IS ADOPTED.

ENCLOSURE D

Analysis with Respect to Periodic Systematic Review of Regulations
(TMI Action Plan Task IV.G.2)

SUBJECT: Minimum Requirements for the Staffing of Nuclear Power Units by Operators Licensed Under 10 CFR Part 55

Criteria for Periodic and Systematic Review of Regulations	
1. The proposed regulation is needed.	The need for the proposed regulation is discussed in the Value/Impact Assessment prepared in connection with the rulemaking (Enclosure B).
2. The direct and indirect effects of the regulation have been adequately considered.	The direct and indirect effects of this rulemaking were considered in the Value/Impact Analysis prepared in connection with the proposed rule (Enclosure B).
3. Alternative approaches have been considered and the least burdensome of the acceptable alternatives has been chosen.	Alternative methods for providing nuclear power plant staffing requirements have been considered in the Value/Impact Assessment, and the least burdensome of the acceptable alternatives has been chosen.
4. Public comments have been considered and an adequate response has been prepared.	The proposed amendment is being issued for public comment.
5. The regulation is written in plain English and is understandable to those who must comply with it.	The proposed amendment has been reviewed and edited for the specific purpose of ensuring that the regulation is clear and can be understood by persons who are required to comply with it.
6. An estimate has been made of the new reporting burdens or recordkeeping requirements necessary for compliance with the regulation.	The proposed action will result in no additional reporting burden on licensees or NRC.
7. The name, address, and telehone number of a knowledgeable agency official is included in the publication.	The Federal Register notice promulgating the proposed rule contains the name, address, and telephone number of a knowledgeable agency official.
8. A plan for evaluating the regulation after its issuance has been developed.	This regulation, if promulgated will be reviewed in the second cycle of NRC's periodic and systematic review process (1986-1991).

ENCLOSURE E

I.A.1.3 SHIFT MANNING

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 be more flexible.

Clarification

Page 3 of the July 31, 1980 letter is superseded in its entirety by the following:

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 operate the plant with the required staff and develop working schedules such that use of overtime is avoided, to the extent practicable, for the plant staff who perform safety-related functions (e.g., senior reactor operators, reactor operators, health physicists, auxiliary operators, I&C technicians 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 staff recognizes that there are diverse opinions on the amount of overtime that would be considered permissible and that there is a lack of hard data on the effects of overtime beyond the generally recognized normal 8-hour working day, the effects of shift rotation, and other factors. NRC has initiated studies in this area. Until a firmer basis is developed on working hours, the administrative procedures shall include as an interim measure the following guidance, which generally follows that of IE Circular No. 80-02.

In the event that overtime must be used (excluding extended periods of shutdown for refueling, major maintenance or major plant modifications), the following overtime restrictions should be followed:

(1) An individual should not be permitted to work more than 12 hours straight (not including shift turnover time).

(2) There should be a break of at least 12 hours (which can include shift turnover time) between all work periods.

(3) An individual should not work more than 72 hours in any 7-day period.

(4) An individual should not be required to work more than 14 consecutive days without having 2 consecutive days off.

However, recognizing that circumstances may arise requiring deviation from the above restrictions, such deviation shall be authorized by the plant manager or his deputy, or higher levels of management in accordance with published procedures and with appropriate documentation of the cause.

If a reactor operator or senior reactor operator has been working more than 12 hours during periods of extended shutdown (e.g., at duties away from the control board), such individuals shall not be assigned shift duty in the control room without at least a 12-hour break preceding such an assignment.

NRC encourages the development of a staffing policy that would permit the licensed reactor operators and senior reactor operators to be periodically assigned to other duties away from the control board during their normal tours of duty.

If a reactor operator is required to work in excess of 8 continuous hours, he shall be periodically relieved of primary duties at the control board, such that periods of duty at the board do not exceed about 4 hours at a time.

The guidelines on overtime do not apply to the shift technical advisor provided he or she is provided sleeping accommodations and a 10-minute availability is assured.

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 90 days after July 31, 1980.

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 November 1, 1980 and by fuel loading for applicants for operating licenses.

(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 postimplementation 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 minimum shift crew manning.

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.

NEW GUIDANCE FOR INTERIM REQUIRED SHIFT STAFFING

Operating Status	One Unit, One Control Room	Two Units, One Control Room	Two Units, Two Control Rooms	Three Units, Two Control Rooms
One Unit Operating*	1 SS (SRO) 1 SRO 2 RO 2 AO	1 SS (SRO) 1 SRO 3 RO 3 AO	1 SS (SRO) 1 SRO 3 RO 3 AO	1 SS (SRO) 1 SRO 4 RO 4 AO
Two Units Operating*	NA	1 SS (SRO) 1 SRO 3 RO 3 AO	1 SS (SRO) 2 SRO 4 RO 4 AO	1 SS (SRO) 2 SRO) Only 1 SRO & 4 ROs 5 RO) required if both) units are operated) from one control) room 5 AO
All Units Operating*	NA	1 SS (SRO) 1 SRO 3 RO 3 AO	1 SS (SRO) 2 SRO 4 RO 4 AO	1 SS (SRO) 2 SRO 5 RO 5 AO
All Units Shut Down	1 SS (SRO) 1 RO 1 AO	1 SS (SRO) 2 RO 3 AO	1 SS (SRO) 2 RO 3 AO	1 SS (SRO) 3 RO 5 AO

SS - shift supervisor
SRO - licensed senior reactor operator
RO - licensed reactor operator
AO - auxiliary operator

NOTE: (1) In order to operate or supervise the operation of more than one unit, an operator (SRO or RO) must hold an appropriate, current license for each such unit.

(2) In addition to the staffing requirements indicated in the table, a licensed senior operator will be required to directly supervise any core alteration activity.

(3) See item I.A.1.1 for shift technical advisor requirements.

* Modes 1 through 4 for PWRs.
Modes 1 through 3 for BWRs.

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

July 31, 1980

TO ALL LICENSEES OF OPERATING PLANTS AND APPLICANTS FOR OPERATING LICENSES AND HOLDERS OF CONSTRUCTION PERMITS

SUBJECT: INTERIM CRITERIA FOR SHIFT STAFFING

This is to provide you with the shift manning requirements as indicated in item (1) of our letter of May 7, 1980. Pending completion of the long-term development of criteria for shift staffing and administrative controls, the NRC staff has developed interim criteria for licensees of operating plants and applicants for operating licenses. Except for senior reactor operators, these interim criteria for shift staffing shall remain as described in the Standard Review Plan, Section 13.1.2, NUREG 75/087. Special requirements regarding the utilization and qualifications of an on-shift technical advisor to the shift supervisor were provided in our letter of October 30, 1979.

We have changed the previous requirements for senior reactor operators and now require that there be one licensed senior reactor operator in the control room at all times, other than during cold shutdown conditions. This will therefore require that there be a minimum of two senior reactor operators at each site at all times, other than during cold shutdown conditions, to assure the availability of one senior reactor operator in the control room without affecting the freedom of the shift supervisor to move about the site as needed. The criteria for reactor and auxiliary operators are stated below and the required staffing levels for selected station configurations and various plant operating modes are summarized in the enclosed table.

At any time a licensed nuclear unit is being operated in Modes 1-4 for a PWR (Power Operation, Startup, Hot Standby, or Hot Shutdown respectively) or in Modes 1-3 for a BWR (Power Operation, Startup, or Hot Shutdown respectively), the minimum shift crew shall include two licensed senior reactor operators (SRO), one of whom shall be designated as the shift supervisor, two licensed reactor operators (RO) and two unlicensed auxiliary operators (AO). For a multi-unit station, depending upon the station configuration, shift staffing may be adjusted to allow credit for licensed senior reactor operators (SRO) and licensed reactor operators (RO) to serve as relief operators on more than one unit; however, these individuals must be properly licensed on each such unit. At all other times, for a unit loaded with fuel, the minimum shift crew shall include one shift supervisor who shall be a licensed senior reactor operator (SRO), one licensed reactor operator (RO) and one unlicensed auxiliary operator.

Adjunct requirements to the shift staffing criteria stated above are as follows:

a. A shift supervisor with a senior reactor operator's license, who is also a member of the station supervisory staff, shall be onsite at all times when at least one unit is loaded with fuel.

b. A licensed senior reactor operator (SRO) shall, at all times, be in the control room from which a reactor is being operated. The shift supervisor may from time-to-time act as relief operator for the licensed senior reactor operator assigned to the control room.

c. For any station with more than one reactor containing fuel, the number of licensed senior reactor operators onsite shall, at all times, be at least one more than the number of control rooms from which the reactors are being operated.

d. In addition to the licensed senior reactor operators specified in a., b., and c. above, for each reactor containing fuel, a licensed reactor operator (RO) shall be in the control room at all times.

e. In addition to the operators specified in a., b., c., and d. above, for each control room from which a reactor is being operated, an additional licensed reactor operator (RO) shall be onsite at all times and available to serve as relief operator for that control room. As noted above, this individual may serve as relief operator for each unit being operated from that control room, provided he holds a current license for each unit.

f. Auxiliary (non-licensed) operators shall be properly qualified to support the unit to which assigned.

g. In addition to the staffing requirements stated above, shift crew assignments during periods of core alterations shall include a licensed senior reactor operator (SRO) to directly supervise the core alterations. This licensed senior reactor operator may have fuel handling duties but shall not have other concurrent operational duties.

These criteria do not relieve licensees of any special requirements for additional operators which may have been imposed for individual units.

General application of revised shift staffing criteria will be the subject of a rulemaking proceeding. However, these interim criteria will be effective for plants receiving operating licenses during the interim period (including TMI-1). Licensees of plants already holding operating licenses shall examine their current staffing practices and capabilities in light of these interim criteria and advise this office within 90 days of receipt of this letter of the date by which their shift staffing could be in compliance with these criteria. Licensees of operating plants shall take steps to meet the revised criteria as soon as practical, but no later than July 1, 1982. In your response to this letter, you are requested to discuss your plans, schedules and commitments to meet these staffing criteria. Holders of construction permits who have not as yet applied for an operating license should factor these criteria into their recruitment and crew training plans.

In addition, 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.

The administrative procedures shall also set forth a policy concerning overtime work for the senior reactor operators, reactor operators, and shift technical advisor required by these interim criteria. These procedures shall stipulate that overtime shall not be routinely scheduled to compensate for an inadequate number of personnel to meet the shift crew staffing requirements. In the event that overtime must be used, due to unanticipated or unavoidable circumstances, the following overtime restrictions shall be followed:

~~(1) An individual shall not be permitted to work more than 12 hours straight (not including shift turnover time).~~

~~(2) An individual shall not be permitted to work more than 24 hours in any 48 hour period.~~

SUPERSEDED

~~(3) An individual shall not work more than 72 hours in any 7 day period.~~

~~(4) An individual shall not work more than 14 consecutive days without having two consecutive days off.~~

However, recognizing that circumstances may arise requiring deviation from the above restrictions, such deviation may be authorized by the plant manager or higher levels of management in accordance with published procedures and with appropriate documentation of the cause.

The limitations on overtime follow the guidance provided in IE Circular 80-02, except for the requirement noted above on the restriction on use of overtime in circumstances that are unavoidable.

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 90 days after the date of this letter.

Sincerely,

Darrell G. Eisenhut

Darrell G. Eisenhut, Director
Division of Licensing

Enclosures:
As stated

cc: OR Licensees, and OL Applicants
CP Holders Service Lists

ENCLOSURE F

All Licensed Operators

The Honorable Morris K. Udall, Chairman
Subcommittee on Energy and the Environment
Committee on Interior and Insular Affairs
United States House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

The NRC has sent to the Office of the Federal Register for publication the enclosed proposed amendment to the Commission's rules in 10 CFR Part 50. The amendment, if adopted, would require licensees of nuclear power plants for which an operating license has been granted to: (1) ensure the presence of a person with a senior operator license in the control room at all times that a nuclear power unit is operating without affecting the ability of the senior operator in charge to move about the site and (2) maintain an adequate number of licensed personnel on shift at all times.

Each licensee of a nuclear power plant would have to meet these requirements by January 1, 1983. The Commission is asking for comments on the proposed rule.

Sincerely,

Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission

Enclosure:
Amendment to 10 CFR Part 50

cc: Representative Manuel Lujan

The Honorable Toby Moffett, Chairman
Subcommittee on Environmental Energy and
Natural Resources
Committee on Government Operations
United States House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

The NRC has sent to the Office of the Federal Register for publication the enclosed proposed amendment to the Commission's rules in 10 CFR Part 50. The amendment, if adopted, would require licensees of nuclear power plants for which an operating license has been granted: (1) to ensure the presence of a person with a senior operator license in the control room at all times that a nuclear power unit is operating without affecting the ability of the senior operator in charge to move about the site, and (2) maintain an adequate number of licensed personnel on shift at all times.

Each licensee of a nuclear power plant would have to meet this requirement by January 1, 1983. The Commission is asking for comments on the proposed rule.

Sincerely,

Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission

Enclosure:
Amendment to 10 CFR Part 50

cc: Representative Joel Deckard

The Honorable Richard Ottinger, Chairman
Subcommittee on Energy Conservation and Power
Committee on Energy and Commerce
United States House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

The NRC has sent to the Office of the Federal Register for publication the enclosed proposed amendment to the Commission's rules in 10 CFR Part 50. The amendment, if adopted, would require licensees of nuclear power plants for which an operating license has been granted to: (1) ensure the presence of a person with a senior operator license in the control room at all times that a nuclear power unit is operating without affecting the ability of the senior operator in charge to move about the site, and (2) maintain an adequate number of licensed personnel on shift at all times.

Each licensee of a nuclear power plant would have to meet these requirements by January 1, 1983. The Commission is asking for comments on the proposed rule.

Sincerely,

Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission

Enclosure:
Amendment to 10 CFR Part 50

cc: Representative Carlos Moorhead

The Honorable Alan Simpson, Chairman
Subcommittee on Nuclear Regulation
Committee on Environment and Public Works
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

The NRC has sent to the Office of the Federal Register for publication the enclosed proposed amendment to the Commission's rules in 10 CFR Part 50. The amendment, if adopted, would require licensees of nuclear power plants for which an operating license has been granted to: (1) ensure the presence of a person with a senior operator license in the control room at all times that a nuclear power unit is operating without affecting the ability of the senior operator in charge to move about the site, and (2) maintain an adequate number of licensed personnel on shift at all times.

Each licensee of a nuclear power plant would have to meet these requirements by January 1, 1983. The Commission is asking for comments on the proposed rule.

Sincerely,

Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission

Enclosure:
Amendment to 10 CFR Part 50

cc: Senator Gary Hart

ENCLOSURE E

INTERIM SHIFT STAFFING REQUIREMENTS

I.A.1.3 SHIFT MANNING

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 effe tive 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 be more flexible.

Clarification

Page 3 of the July 31, 1980 letter is superseded in its entirety by the following:

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 operate the plant with the required staff and develop working schedules such that use of overtime is avoided, to the extent practicable, for the plant staff who perform safety-related functions (e.g., senior reactor operators, reactor operators, health physicists, auxiliary operators, I&C technicians 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 staff recognizes that there are diverse opinions on the amount of overtime that would be considered permissible and that there is a lack of hard data on the effects of overtime beyond the generally recognized normal 8-hour working day, the effects of shift rotation, and other factors. NRC has initiated studies in this area. Until a firmer basis is developed on working hours, the administrative procedures shall include as an interim measure the following guidance, which generally follows that of IE Circular No. 80-02.

In the event that overtime must be used (excluding extended periods of shutdown for refueling, major maintenance or major plant modifications), the following overtime restrictions should be followed:

(1) An individual should not be permitted to work more than 12 hours straight (not including shift turnover time).

(2) There should be a break of at least 12 hours (which can include shift turnover time) between all work periods.

(3) An individual should not work more than 72 hours in any 7-day period.

(4) An individual should not be required to work more than 14 consecutive days without having 2 consecutive days off.

However, recognizing that circumstances may arise requiring deviation from the above restrictions, such deviation shall be authorized by the plant manager or his deputy, or higher levels of management in accordance with published procedures and with appropriate documentation of the cause.

If a reactor operator or senior reactor operator has been working more than 12 hours during periods of extended shutdown (e.g., at duties away from the control board), such individuals shall not be assigned shift duty in the control room without at least a 12-hour break preceding such an assignment.

NRC encourages the development of a staffing policy that would permit the licensed reactor operators and senior reactor operators to be periodically assigned to other duties away from the control board during their normal tours of duty.

If a reactor operator is required to work in excess of 8 continuous hours, he shall be periodically relieved of primary duties at the control board, such that periods of duty at the board do not exceed about 4 hours at a time.

The guidelines on overtime do not apply to the shift technical advisor provided he or she is provided sleeping accommodations and a 10-minute availability is assured.

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 90 days after July 31, 1980.

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 November 1, 1980 and by fuel loading for applicants for operating licenses.

(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 postimplementation 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 minimum shift crew manning.

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.

NEW GUIDANCE FOR INTERIM REQUIRED SHIFT STAFFING

Operating Status	One Unit, One Control Room	Two Units, One Control Room	Two Units, Two Control Rooms	Three Units, Two Control Rooms
One Unit Operating*	1 SS (SRO) 1 SRO 2 RO 2 AO	1 SS (SRO) 1 SRO 3 RO 3 AO	1 SS (SRO) 1 SRO 3 RO 3 AO	1 SS (SRO) 1 SRO 4 RO 4 AO
Two Units Operating*	NA	1 SS (SRO) 1 SRO 3 RO 3 AO	1 SS (SRO) 2 SRO 4 RO 4 AO	1 SS (SRO) 2 SRO) Only 1 SRO & 4 ROs 5 RO) required if both) units are operated) from one control) room 5 AO
All Units Operating*	NA	1 SS (SRO) 1 SRO 3 RO 3 AO	1 SS (SRO) 2 SRO 4 RO 4 AO	1 SS (SRO) 2 SRO 5 RO 5 AO
All Units Shut Down	1 SS (SRO) 1 RO 1 AO	1 SS (SRO) 2 RO 3 AO	1 SS (SRO) 2 RO 3 AO	1 SS (SRO) 3 RO 5 AO

SS - shift supervisor
SRO - licensed senior reactor operator
RO - licensed reactor operator
AO - auxiliary operator

NOTE: (1) In order to operate or supervise the operation of more than one unit, an operator (SRO or RO) must hold an appropriate, current license for each such unit.

(2) In addition to the staffing requirements indicated in the table, a licensed senior operator will be required to directly supervise any core alteration activity.

(3) See item I.A.1.1 for shift technical advisor requirements.

* Modes 1 through 4 for PWRs.
Modes 1 through 3 for BWRs.

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

July 31, 1980

TO ALL LICENSEES OF OPERATING PLANTS AND APPLICANTS FOR OPERATING LICENSES AND HOLDERS OF CONSTRUCTION PERMITS

SUBJECT: INTERIM CRITERIA FOR SHIFT STAFFING

This is to provide you with the shift manning requirements as indicated in item (1) of our letter of May 7, 1980. Pending completion of the long-term development of criteria for shift staffing and administrative controls, the NRC staff has developed interim criteria for licensees of operating plants and applicants for operating licenses. Except for senior reactor operators, these interim criteria for shift staffing shall remain as described in the Standard Review Plan, Section 13.1.2, NUREG 75/087. Special requirements regarding the utilization and qualifications of an on-shift technical advisor to the shift supervisor were provided in our letter of October 30, 1979.

We have changed the previous requirements for senior reactor operators and now require that there be one licensed senior reactor operator in the control room at all times, other than during cold shutdown conditions. This will therefore require that there be a minimum of two senior reactor operators at each site at all times, other than during cold shutdown conditions, to assure the availability of one senior reactor operator in the control room without affecting the freedom of the shift supervisor to move about the site as needed. The criteria for reactor and auxiliary operators are stated below and the required staffing levels for selected station configurations and various plant operating modes are summarized in the enclosed table.

At any time a licensed nuclear unit is being operated in Modes 1-4 for a PWR (Power Operation, Startup, Hot Standby, or Hot Shutdown respectively) or in Modes 1-3 for a BWR (Power Operation, Startup, or Hot Shutdown respectively), the minimum shift crew shall include two licensed senior reactor operators (SRO), one of whom shall be designated as the shift supervisor, two licensed reactor operators (RO) and two unlicensed auxiliary operators (AO). For a multi-unit station, depending upon the station configuration, shift staffing may be adjusted to allow credit for licensed senior reactor operators (SRO) and licensed reactor operators (RO) to serve as relief operators on more than one unit; however, these individuals must be properly licensed on each such unit. At all other times, for a unit loaded with fuel, the minimum shift crew shall include one shift supervisor who shall be a licensed senior reactor operator (SRO), one licensed reactor operator (RO) and one unlicensed auxiliary operator.

Adjunct requirements to the shift staffing criteria stated above are as follows:

a. A shift supervisor with a senior reactor operator's license, who is also a member of the station supervisory staff, shall be onsite at all times when at least one unit is loaded with fuel.

b. A licensed senior reactor operator (SRO) shall, at all times, be in the control room from which a reactor is being operated. The shift supervisor may from time-to-time act as relief operator for the licensed senior reactor operator assigned to the control room.

c. For any station with more than one reactor containing fuel, the number of licensed senior reactor operators onsite shall, at all times, be at least one more than the number of control rooms from which the reactors are being operated.

d. In addition to the licensed senior reactor operators specified in a., b., and c. above, for each reactor containing fuel, a licensed reactor operator (RO) shall be in the control room at all times.

e. In addition to the operators specified in a., b., c., and d. above, for each control room from which a reactor is being operated, an additional licensed reactor operator (RO) shall be onsite at all times and available to serve as relief operator for that control room. As noted above, this individual may serve as relief operator for each unit being operated from that control room, provided he holds a current license for each unit.

f. Auxiliary (non-licensed) operators shall be properly qualified to support the unit to which assigned.

g. In addition to the staffing requirements stated above, shift crew assignments during periods of core alterations shall include a licensed senior reactor operator (SRO) to directly supervise the core alterations. This licensed senior reactor operator may have fuel handling duties but shall not have other concurrent operational duties.

These criteria do not relieve licensees of any special requirements for additional operators which may have been imposed for individual units.

General application of revised shift staffing criteria will be the subject of a rulemaking proceeding. However, these interim criteria will be effective for plants receiving operating licenses during the interim period (including TMI-1). Licensees of plants already holding operating licenses shall examine their current staffing practices and capabilities in light of these interim criteria and advise this office within 90 days of receipt of this letter of the date by which their shift staffing could be in compliance with these criteria. Licensees of operating plants shall take steps to meet the revised criteria as soon as practical, but no later than July 1, 1982. In your response to this letter, you are requested to discuss your plans, schedules and commitments to meet these staffing criteria. Holders of construction permits who have not as yet applied for an operating license should factor these criteria into their recruitment and crew training plans.

In addition, 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.

The administrative procedures shall also set forth a policy concerning overtime work for the senior reactor operators, reactor operators, and shift technical advisor required by these interim criteria. These procedures shall stipulate that overtime shall not be routinely scheduled to compensate for an inadequate number of personnel to meet the shift crew staffing requirements. In the event that overtime must be used, due to unanticipated or unavoidable circumstances, the following overtime restrictions shall be followed:

~~(1) An individual shall not be permitted to work more than 12 hours straight (not including shift turnover time).~~

~~(2) An individual shall not be permitted to work more than 24 hours in any 48 hour period.~~

SUPERSEDED

~~(3) An individual shall not work more than 72 hours in any 7 day period.~~

~~(4) An individual shall not work more than 14 consecutive days without having two consecutive days off.~~

However, recognizing that circumstances may arise requiring deviation from the above restrictions, such deviation may be authorized by the plant manager or higher levels of management in accordance with published procedures and with appropriate documentation of the cause.

The limitations on overtime follow the guidance provided in IE Circular 80-02, except for the requirement noted above on the restriction on use of overtime in circumstances that are unavoidable.

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 90 days after the date of this letter.

Sincerely,

Darrell G. Eisenhut, Director
Division of Licensing

Enclosures:
As stated

cc: OR Licensees, and OL Applicants
CP Holders Service Lists

ENCLOSURE F

Senior Operators Only

The Honorable Morris K. Udall, Chairman
Subcommittee on Energy and the Environment
Committee on Interior and Insular Affairs
United States House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

The NRC has sent to the Office of the Federal Register for publication the enclosed proposed amendment to the Commission's rules in 10 CFR Part 50. The amendment, if adopted, would require licensees of nuclear power plants for which an operating license has been granted to ensure the presence of a person with a senior operator license in the control room at all times that a nuclear power unit is operating without affecting the ability of the senior operator in charge to move about the site.

Each licensee of a nuclear power plant would have to meet these requirements by January 1, 1983. The Commission is asking for comments on the proposed rule.

Sincerely,

Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission

Enclosure:
Amendment to 10 CFR Part 50

cc: Representative Manuel Lujan

The Honorable Toby Moffett, Chairman
Subcommittee on Environmental Energy and
Natural Resources
Committee on Government Operations
United States House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

The NRC has sent to the Office of the Federal Register for publication the enclosed proposed amendment to the Commission's rules in 10 CFR Part 50. The amendment, if adopted, would require licensees of nuclear power plants for which an operating license has been granted to ensure the presence of a person with a senior operator license in the control room at all times that a nuclear power unit is operating without affecting the ability of the senior operator in charge to move about the site.

Each licensee of a nuclear power plant would have to meet this requirement by January 1, 1983. The Commission is asking for comments on the proposed rule.

Sincerely,

Harold R Denton, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission

Enclosure:
Amendment to 10 CFR Part 50

cc: Representative Joel Deckard

The Honorable Alan Simpson, Chairman
Subcommittee on Nuclear Regulation
Committee on Environment and Public Works
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

The NRC has sent to the Office of the Federal Register for publication the enclosed proposed amendment to the Commission's rules in 10 CFR Part 50. The amendment, if adopted, would require licensees of nuclear power plants for which an operating license has been granted to ensure the presence of a person with a senior operator license in the control room at all times that a nuclear power unit is operating without affecting the ability of the senior operator in charge to move about the site.

Each licensee of a nuclear power plant would have to meet these requirements by January 1, 1983. The Commission is asking for comments on the proposed rule.

Sincerely,

Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission

Enclosure:
Amendment to 10 CFR Part 50

cc: Senator Gary Hart

VERSION 2

"Proposed Rule Package"

All Licensed Operators

ENCLOSURE A

All Licensed Operators

[7590-01]

NUCLEAR REGULATORY COMMISSION

10 CFR Part 50

Licensed Operator Staffing at Nuclear Power Units

AGENCY: Nuclear Regulatory Commission.

ACTION: Proposed rule.

SUMMARY: The Nuclear Regulatory Commission is proposing to amend its regulations to require licensees of nuclear power units to provide a minimum number of licensed personnel on shift at all times and to ensure the presence of a person with a senior operator license at all times in the control room from which a nuclear power unit is operating. These requirements would provide the senior operator in charge with the flexibility to move about the facility while assuring that a senior operator is present in the control room during unit operation. This proposed amendment would further assure the protection of the health and safety of the public by assuring the continuous presence of a person with a senior operator license in the control room during operation of a nuclear power unit.

DATES: Comment period expires . Comments received after this expiration date will be considered if it is practical to do so, but assurance of consideration cannot be given except as to comments received on or before that date.

ADDRESSES: Interested persons are invited to submit written comments and suggestions on the proposed amendments and the supporting value/impact assessment to the Secretary of the Commission, U. S. Nuclear Regulatory Commission, Washington, DC 20555, Attention: Docketing and Service Branch. Single copies

of the value/impact assessment may be obtained on request from the contact person listed below. Copies of the value/impact assessment and of comments received by the Commission may be examined and copied for a fee in the Commismission's Public Document Room at 1717 H Street, NW, Washington, DC.

FOR FURTHER INFORMATION CONTACT: E. W. Merschoff, Office of Nuclear Regulatory Research, U. S. Nuclear Regulatory Commission, Washington, DC 20555, telephone: 301-443-5942.

SUPPLEMENTARY INFORMATION:

Background

In the aftermath of the Three Mile Island (TMI) accident, a number of studies and investigations conducted by the NRC, the industry, and others have recommended changes in the numbers, qualifications, and organization of nuclear power plant personnel. The principal studies were conducted by the President's Commission on Three Mile Island, the NRC Special Inquiry Group, and the NRC Office of Nuclear Reactor Regulation's Lessons Learned Task Force, and its Bulletins and Orders Task Force.[1/] These studies concluded that, among other things, current shift staffing requirements should be upgraded. The "NRC Action Plan Developed as a Result of the TMI-2 Accident" (NUREG-0660), Item I.A.1.3, adopted this recommendation and NUREG-0737 was issued to provide interim shift staffing criteria to all licensees of operating units, all

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1/ The recommendations of the investigating groups are collected in NUREG-0660, "NRC Action Plan Developed as a Result of the TMI-2 Accident." NUREG-0660, in Appendix E, discusses the availability of the reports prepared by the various organizations. NUREG documents are available for public inspection and copying for a fee in the Commission's Public Document Room at 1717 H Street, NW, Washington, DC. Copies of NUREG documents may be obtained from: the GPO Sales Program, Division of Technical Information and Document Control, U. S. Nuclear Regulatory Commission, Washington, DC 20555 and the National Technical Information Service, Springfield, VA 22161.

applicants for operating licenses, and all holders of construction permits. The NUREG-0737 criteria include the provisions that: (a) a shift supervisor with a senior operator's license shall be on site at all times that a nuclear power unit is loaded with fuel; (b) a licensed senior operator shall be in the control room from which any unit is being operated; (c) an individual who holds a senior operator license shall supervise core alterations; and (d) one or more control room operators shall be assigned on shift for each fueled unit depending on the number of operating units controlled from the control room.

Implementation and Schedule

These criteria have been used for licenses issued after the accident at Three Mile Island, and all licensees of operating nuclear power units are aware of the the NRC's staffing criteria provided by NUREG-0737. To ensure that all operating nuclear power units are adequately staffed with licensed personnel, the proposed amendment would apply the NUREG-0737 criteria to all operating nuclear power units. All licensees of nuclear power units would be expected to meet these staffing requirements by January 1, 1983. This date was chosen recognizing that the utility industry has been attempting to meet the increased staffing levels called for in NUREG-0737 for approximately two years.

Proposed Action

Section 50.54, "Conditions of Licenses"

The proposed amendment would require that the licensee assign a senior operator, licensed on all units at a facility, to be at the facility at all times there is fuel in any unit. If a single senior operator does not hold a senior operator license on all units at the facility, then two or more senior operators, who in combination are licensed as senior operators on all of the units, shall be

provided. The presence of this individual would assure that a technically competent supervisor would be present on each shift to direct the overall operation of the plant.

(b) That an individual who is licensed as a senior operator for the unit be present at all times in the control room from which that unit is being operated. This change would assure that supervising and technical expertise is continuously available in the control room to respond to accident situations.

(c) That each unit have one operator at the controls at all times and that operating units have an additional operator assigned to the unit. The operator at the controls would assure that plant instrumentation is continuously monitored and that controls are properly manipulated. The additional operator for operating units would assure that relief is available for the operator at the controls and would assure that a licensed operator is available to perform other assigned duties, such as conducting valve lineup checks, taking routine tours, and investigating problem areas. For locations where a control room is shared by two units, the additional operator, if licensed on each unit, may be shared by the two units, since he could provide relief to either operator at the controls and could tend to other duties outside the control room for either unit.

The table shown in subparagraph (m)(2) of the proposed amendment prescribes the licensed staffing requirements for nuclear power units, according to the operating condition of the unit and the number of units controlled from each control room. The reason for the table is to clearly and concisely state the requirements. Additionally, footnote 1 to the table

establishes the transition points for staffing requirements applicable when a unit is "not operating" to the more restrictive staffing requirements when the unit is "operating". Public comments are specifically requested on the appropriateness of these transition points with respect to staffing requirements as well as on the proposed staffing requirements of the table.

Extensions Beyond the January 1, 1983 Deadline

Some licensees might need to request an extension beyond the proposed deadline. The NRC would review these requests in accordance with the provisions of 10 CFR §50.54 by using the following additional criteria:

1. Whether the licensee is firmly committed to hire and train the necessary number of operators.
2. Whether the licensee has set a reasonable target date by which it would meet the requirements.
3. Whether the licensee has an active recruitment program to hire the necessary numbers of operators.
4. Whether the licensee has an adequate training program to assure that it has well-trained operators readily available.

Additionally, the NRC would use any other information which it considers to be pertinent to the request.

This proposed rule does not contain any information collection requirements under the Paperwork Reduction Act of 1980, Public Law 95-511.

REGULATORY FLEXIBILITY ACT CERTIFICATION

In accordance with the Regulatory Flexibility Act of 1980, 5 U.S.C. 605(b), the Commission hereby certifies that this rule, if promulgated, would not have

a significant economic impact on a substantial number of small entities. This proposed rule affects the staffing requirements of facilities licensed under the provisions of 10 CFR §50.21(b) and 10 CFR §50.22. The companies that own these facilities do not fall within the scope of "small entities" as set forth in the Regulatory Flexibility Act or the small business size standards set out in regulations issued by the Small Business Administration in 13 CFR Part 121.

LIST OF SUBJECTS IN 10 CFR PART 50

Antitrust, Classified information, Fire prevention, Intergovernmental relations, Nuclear power plants and reactors, Penalty, Radiation protection, Reactor siting criteria, Reporting requirements.

For the reasons set out in the preamble and pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974, as amended, and section 553 of Title 5 of the United States Code, notice is hereby given that adoption of the following amendment to 10 CFR Part 50 is contemplated.

PART 50 - DOMESTIC LICENSING OF PRODUCTION
AND UTILIZATION FACILITIES

1. The authority citation for Part 50 continues to read as follows:

Authority: Secs. 103, 104, 161, 182, 183, 189, 68 Stat. 936, 937, 948, 953, 954, 955, 956, as amended (42 U.S.C. 2133, 2134, 2201, 2232, 2233, 2239); secs. 201, 202, 206, 88 Stat. 1243, 1244, 1246 (42 U.S.C. 5841, 5842, 5846), unless otherwise noted.

Section 50.78 also issued under sec. 122, 68 Stat. 939 (42 U.S.C. 2152). Sections 50.80-50.81 also issued under sec. 184, 68 Stat. 954, as amended (42 U.S.C. 2234). Sections 50.100-50.102 issued under sec. 186, 68 Stat. 955 (42 U.S.C. 2236).

For the purposes of sec. 223, 68 Stat. 958, as amended (42 U.S.C. 2273), 50.10(a), (b), and (c), 50.44, 50.46, 50.48, 50.54, and 50.80(a) are issued under sec. 161b, 68 Stat. 948, as amended (42 U.S.C. 2201(b)); 50.10(b) and (c) and 50.54 are issued under sec. 161i, 68 Stat. 949, as amended (42 U.S.C. 2201(i)); and 50.55(e), 50.59(b), 50.70, 50.71, 50.72, and 50.78 are issued under sec. 161o, 68 Stat. 950, as amended (42 U.S.C. 2201(o)).

2. Paragraph 50.54(m) is redesignated subparagraph 50.54(m)(1) to read as follows:

§50.54 Conditions of licenses.

* * * * *

(m)(1) A senior operator licensed pursuant to Part 55 of this chapter shall be present at the facility or readily available on call at all times during its operation, and shall be present at the facility during initial start-up and approach to power, recovery from an unplanned or unscheduled shutdown or

significant reduction in power, and refueling, or as otherwise prescribed in the facility license.

3. A new subparagraph (2) is added to §50.54(m) to read as follows:

§50.54 Conditions of licenses.

* * * * *

(2)(i) Notwithstanding subparagraph (m)(1) in this section, by January 1, 1983, licensees of nuclear power units shall meet the requirements of this subparagraph and the minimum licensed operator staffing requirements in the following table:

MINIMUM REQUIREMENTS FOR ONSITE STAFFING OF NUCLEAR POWER UNITS

BY OPERATORS AND SENIOR OPERATORS LICENSED UNDER 10 CFR PART 55

NUMBER OF NUCLEAR POWER UNITS OPERATING 1/	POSITION	ONE UNIT	TWO UNITS		THREE UNITS	
		ONE CONTROL ROOM	ONE CONTROL ROOM	TWO CONTROL ROOMS	TWO CONTROL ROOMS	THREE CONTROL ROOMS
NO OPERATING UNITS	SENIOR OPERATOR	1	1	1	1	1
	OPERATOR	1	2	2	3	3
ONE	SENIOR OPERATOR	2	2	2	2	2
	OPERATOR	2	3	3	4	4
TWO	SENIOR OPERATOR	N/A	2	3	3 2/	3
	OPERATOR		3	4	5 2/	5
THREE	SENIOR OPERATOR	N/A	N/A		3	4
	OPERATOR				5	6

Footnotes for table

1. Operating nuclear power units are defined as follows:
   (a) Pressurized water reactors with an average coolant temperature above 200°F; or
   (b) Boiling water reactors with an average coolant temperature above 212°F; or
   (c) High temperature gas cooled reactors with a helium temperature above 220°F.

2. The number of required personnel may be reduced by one person when the nuclear power units are controlled from a common control room, provided that both operators and senior operators are licensed on both of the units.

(ii) A person holding a senior operator's license for the nuclear power unit shall, at all times, be in the control room from which that nuclear power unit is being operated.

(iii) During alteration of the core of a nuclear power unit, including fuel loading or transfer, a person holding a senior operator license shall be present to supervise the activity and during this time the licensee shall not assign other duties to this person.

(iv) The Director of Nuclear Reactor Regulation may grant requests for extensions of the deadline to July 1, 1983, if the requests are timely and demonstrate good cause. In exceptional cases, the Commission itself may grant extensions beyond July 1, 1983.

Dated at Washington, D. C. this day of , 1982.

For the Nuclear Regulatory Commission.

Samuel J. Chilk
Secretary of the Commission.

ENCLOSURE B

All Licensed Operators

PRELIMINARY VALUE/IMPACT STATEMENT FOR PROPOSED ACTION ON MINIMUM STAFFING REQUIREMENTS FOR LICENSED OPERATORS AT NUCLEAR POWER PLANTS

1. PROPOSED ACTION

1.1 Description

The proposed action would require licensees of facilities licensed under 10 CFR 50.21(b) or 50.22 (1) to ensure the presence of a person with a senior operator license in the control room at all times that a nuclear power unit is operating; and (2) to provide a minimum number of licensed personnel on each shift at all times.

1.2 Need for Proposed Action

NUREG-0660, "NRC Action Plan Developed as a Result of the TMI-2 Accident," contains specific recommendations for licensed operator staffing at nuclear power units. The Commission has approved certain of these recommendations that are found in NUREG-0737, "Clarification of TMI Action Plan Requirements." The proposed amendments were developed to formally codify the staffing requirements promulgated in NUREG-0737 in order to encourage participation of the public and the industry in the development of shift staffing requirements.

1.3 Value/Impact of Proposed Action

1.3.1 NRC Operations

The value of the proposed action to the NRC is that it would assure the presence of a person with a senior operator license in the control room

at all times that a nuclear power unit is operating without limiting the ability of the senior operator in charge to move about the site and would ensure that nuclear power plants are adequately staffed.

The impact of the proposed action on the NRC would be the time spent in developing the regulation and the resources that would be expended to license the increased number of operators that the amendment would require.

1.3.2 Other Government Agencies

Not applicable unless the government agency is an applicant or licensee such as TVA. In that case the impact on that agency will be the same as on other licensees.

1.3.3 Industry

The value of the proposed action to industry would be enhanced assurance of safety of facility operation. Implementation of this regulation would also benefit the licensee by allowing the senior operator in charge freedom to move about the site as needed and still provide the presence of a person who holds a senior operator license in the control room.

The impact on the industry would be the cost of training and maintain-maintaining the required number of licensed operators on shift. Preliminary assessment of the licensees indicates that over half will meet these proposed staffing levels for licensed operators by July 1, 1982. There may be a need to grant extensions of the implementation

date to some licensees based on the time required to train individuals to become senior reactor operators. The impact of training additional senior reactor operators may be particularly acute for those licensees who have had higher than anticipated attrition rates.

1.3.4 Public

The value of the proposed action to the public would be safer and more reliable operation of nuclear power facilities.

The impact on the public could be higher electricity costs due to the increased cost to the industry discussed in 1.3.3.

1.3.5 Decision on Proposed Action

Minimum shift staffing requirements for nuclear power units for which an operating license has been issued should be increased.

2. TECHNICAL APPROACH

The staffing requirements have been developed in NUREG-0660 and NUREG-0737. The intent of this action is not to change these requirements but rather to formally codify them.

3. PROCEDURAL APPROACH

3.1 Procedural Alternatives

3.1.1 Specific Regulation

Issue a regulation which requires minimum staffing levels for licensed operators.

3.1.2 Issue Orders

Issue confirmatory or other orders based on the licensed operator staffing levels provided in NUREG-0737.

3.1.3 NUREG-0737 - Policy Statement

Licensees would be requested to change their technical specifications to include the staffing levels provided for in NUREG-0737.

3.2 Value/Impact of Procedural Alternatives

The value of issuing a shift staffing regulation is that it would allow the public and the industry an opportunity to participate in the rulemaking process in a better fashion than would be available by issuing orders or a policy statement. Additionally, issuing a regulation conforms with the Commission's policy of imposing requirements on a large group of licensees through rulemaking. The impact of issuing a regulation is a lack of flexibility in implementing the regulation.

The value of issuing confirmatory orders based on NUREG-0737 is that it might be done more quickly than by developing a regulation. The impact is that the public and industry would not be able to participate formally by submitting comments. These requirements by orders may involve adjudicating on a case-by-case basis with nonuniform results.

The value of issuing a policy statement is that it might be done quickly and provide for flexibility in implementation, thus encouraging innovation by licensees. The impact of issuing a policy statement is that it would be unenforceable, since compliance with a policy statement is voluntary.

3.3 Decision on Procedural Approach

The proposed action should be accomplished by publishing a regulation since a regulation is the most appropriate way of establishing a requirement for a large group of licensees (i.e., all operating nuclear power plants), and because it provides a better way for the public and industry to participate in the Commission's imposition of requirements.

4. STATUTORY CONSIDERATIONS

4.1 NRC Regulatory Authority

Section 103 of the Atomic Energy Act of 1954, as amended, and section 201 of the Energy Reorganization Act of 1974, as amended.

4.2 Need for NEPA Statement

An environmental impact statement is not required since, under 10 CFR 51.5(d)(3), the proposed action is not a major action that may significantly affect the quality of the human environment.

5. RELATIONSHIP TO OTHER EXISTING OR PROPOSED REGULATIONS OR POLICIES

The proposed requirements are consistent with the provisions of NUREG-0737.

6. SUMMARY AND CONCLUSIONS

A regulation dealing with minimum numbers of licensed operators on shift should be proposed.

ENCLOSURE C

All Licensed Operators

PUBLIC ANNOUNCEMENT

THIS STATEMENT TO BE PREPARED DEPENDING ON
WHICH VERSION OF THE PROPOSED RULE IS ADOPTED.