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DEC 8 1981

Mr. J. A. Jones
 Senior Executive Vice President
 Carolina Power and Light Company
 336 Fayetteville Street
 Raleigh, North Carolina 27602

Dear Mr. Jones:

SUBJECT: TMI ACTION PLAN ITEMS I.A.1.3.1, I.C.5 AND I.C.6 AS DESCRIBED IN
 NUREG-0737

RE: BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2

We have completed our review of the referenced TMI Action Plan items for your facility. The appropriate Office of Inspection and Enforcement evaluations are enclosed for your information. By transmittal of these evaluations, we consider these items complete for your facility.

Sincerely,

ORIGINAL SIGNED BY

Thomas A. Ippolito, Chief
 Operating Reactors Branch #2
 Division of Licensing

Enclosures:
 IE Evaluations

cc w/enclosures:
 See next page



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Mr. J. A. Jones

cc:

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Mr. Charles R. Dietz
Plant Manager
P. O. Box 458
Southport, North Carolina 28461

TITLE: IE REVIEW AND EVALUATION OF LICENSEE CONFORMANCE WITH TMI ACTION
PLAN REQUIREMENTS

ACTION PLAN ITEM NO: 1.A.1.3.1

TITLE: SHIFT MANNING: PART 1, LIMIT OVERTIME

U. S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

UTILITY: CP&L

FACILITY: Brunswick

UNIT NO.: 1 and 2

DOCKET NO.: 50-324 and 50-325

Signature: R. C. Lewis, Acting Director, Division of
Resident and Project Inspection, RII

Date: JUN 22 1981

PARENT REGION CONTACT: F. Jape

Position

Licensees of operating plants shall set forth in their administrative procedures, 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 discussed 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 operator 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 in provided sleeping accommodations and a 10-minute availability is assured.

Discussion and Conclusion

The licensee submitted, in a letter dated February 26, 1981, clarification of their position on restrictions on the use of overtime for plant staff members who perform safety-related functions.

CP&L agrees with the concept of limiting overtime for key personnel to the extent possible. The operators at Brunswick work an eight-hour rotating shift schedule. Each shift lasts seven days. The operator's week, for pay purposes, begins and ends at midnight each Friday. The schedule is designed to give the operator a 40-hour work week, however, the large increase in training requirements and the changes in staffing requirements, do not always permit scheduling compatible with the rigid restrictions of Item I.A.1.3. The restrictions of Item I.A.1.3. are addressed in administrative procedure 4.0, section 4.4. The policy as established, appears to be in the best interest of the public health and safety and operator morale. This policy appears to adequately resolve concerns expressed in Eisenhower's letter of July 31, 1980 and NUREG-0737.

Based on this review we find the policy for the limitation of overtime to be acceptable.

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IE REVIEW AND EVALUATION OF LICENSEE
IMPLEMENTATION OF TMT ACTION
PLAN REQUIREMENTS

Action Item No. 1.C.5

Procedures For Feedback Of Operating
Experience to Plant Staff

U. S. Nuclear Regulatory Commission
Office of Inspection and Enforcement

Utility: CP&L

Facility: Brunswick

Unit No: 1 and 2

Docket Nos: 50-324 and 50-325

Signature: B.C. Jones, Acting Director, Division of
Resident and Reactor Project Inspection, Region II

Date: 6/24/81

Parent Region Contact: Frank Jape

(1.C.5)

POSITION

Task Action Plan 1.C.5, Procedures for Feedback of Operating Experience to Plant Staff requires each licensee to prepare procedures to assure that operating information pertinent to plant safety originating both within and outside the utility organization is continually supplied to operators and other personnel and is incorporated into training and retraining programs. These procedures shall:

- (1) Clearly identify organizational responsibilities for review of operating experience, the feedback of pertinent information to operators and other personnel and the incorporation of such information into training and retraining programs;
- (2) Identify the administrative and technical review steps necessary in translating recommendations by the operating experience assessment group into plant actions (e.g., changes to procedures; operating orders);
- (3) Identify the recipients of various categories of information from operating experience (e.g., supervisory personnel, STAs, operators, maintenance personnel, H. P. technicians) or otherwise provide means through which such information can be readily related to the job functions of the recipients.
- (4) Provide means to assure that affected personnel become aware of and understand information of sufficient importance that should not wait for emphasis through routine training and retraining programs;
- (5) Assure that plant personnel do not routinely receive extraneous and unimportant information on operating experience in such volume that it would obscure priority information or otherwise detract from overall job performance and proficiency;
- (6) Provide suitable checks to assure that conflicting or contradictory information is not conveyed to operators and other personnel until resolution is reached; and;
- (7) Provide periodic internal audit to assure that the feedback program functions effectively at all levels.

Each utility shall carry out an operating experience assessment function that will involve utility personnel having collective competence in all areas important to plant safety.

Those involved in the assessment of operating experience will review information from a variety of sources. These include operating information from the licensee's own plant(s), publications such as IE Bulletins, Circulars and Notices, and pertinent NRC or industrial assessments of operating experience. In some cases, information may be of sufficient importance that it must be dealt with promptly (through instructions, changes to operating and emergency procedures, issuance of special changes to operating and emergency procedures,

issuance of special precautions, etc.) and must be handled in such a manner to assure that operations management personnel would be directly involved in the process. In many other cases, however, important information will become available which should be brought to the attention of operators and other personnel for their general information to assure continued safe plant operation. Since the total volume of information handled by the assessment group may be large, it is important that assurance be provided that high-priority matters are dealt with promptly and that discrimination is used in the feedback of other information so that personnel are not deluged with unimportant and extraneous information to the detriment of their overall proficiency. It is important, also, that technical reviews be conducted to preclude premature dissemination of conflicting or contradictory information.

Discussion and Conclusion

The licensee has prepared the following procedures in response to Item I.C.5:

- (1) Administrative Instruction A1-02 "Feedback of Operating Experience", establishes a program to ensure appropriate information is provided to all personnel.
- (2) Onsite Nuclear Safety Instruction No. 1 "Operating Experience Feedback", establishes responsibilities for assuring that pertinent information is continually supplied to the operating and training organizations.
- (3) Corporate Nuclear Safety Instruction No. 9 "Operating Experience Feedback", establishes corporate responsibilities for assessment of operating experiences outside the facility.

Based on this review we find the licensee's procedures for feedback of operating experience to the plant staff, to be acceptable.

TITLE: IE REVIEW AND EVALUATION OF LICENSEE CONFORMANCE WITH TMI ACTION
PLAN REQUIREMENTS

ACTION PLAN ITEM NO: 1.C.6

Guidance on Procedures for Verifying Correct
TTITLE: Performance of Operating Activities

U. S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

UTILITY: CP&L

FACILITY: BRUNSWICK 1 and 2

UNIT NOS. 1 and 2

DOCKET NOS. 50-324 and 50-325

Signature: R. C. Lewis, Acting Director, Division of
Resident and Reactor Project Inspection, RII

Date: JUL 2 1981

PARENT REGION CONTACT: F. Jape

I.C.6 GUIDANCE ON PROCEDURES FOR VERIFYING CORRECT PERFORMANCE OF OPERATING ACTIVITIES

Position

It is required (from NUREG-0660) that licensees' procedures be reviewed and revised, as necessary, to assure that an effective system of verifying the correct performance of operating activities is provided as a means of reducing human errors and improving the quality of normal operations. This will reduce the frequency of occurrence of situations that could result in or contribute to accidents. Such a verification system may include automatic system status monitoring, human verification of operations and maintenance activities independent of the people performing the activity (see NUREG-0585, Recommendation 5), or both.

Implementation of automatic status monitoring if required will reduce the extent of human verification of operations and maintenance activities but will not eliminate the need for such verification in all instances. The procedures adopted by the licensees may consist of two phases--one before and one after installation of automatic status monitoring equipment, if required, in accordance with item I.D.3, NUREG 0660.

The American Nuclear Society has prepared a draft revision to ANSI Standard N18.7-1972 (ANS 3.2) "Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants." A second proposed revision to Regulatory Guide 1.33, "Quality Assurance Program Requirements (Operation)," which is to be issued for public comment in the near future, will endorse the latest draft revision to ANS 3.2 subject to the following supplemental provisions:

- (1) Applicability of the guidance of Section 5.2.6 should be extended to cover surveillance testing in addition to maintenance.
- (2) In lieu of any designated senior reactor operator (SRO), the authority to release systems and equipment for maintenance or surveillance testing or return-to-service may be delegated to an on-shift SRO, provided provisions are made to ensure that the shift supervisor is kept fully informed of system status.
- (3) Except in cases of significant radiation exposure, a second qualified person should verify correct implementation of equipment control measures such as tagging of equipment.
- (4) Equipment control procedures should include assurance that control-room operators are informed of changes in equipment status and the effects of such changes.
- (5) For the return-to-service of equipment important to safety, a second qualified operator should verify proper systems alignment unless functional testing can be performed without compromising plant safety, and can prove

that all equipment, valves, and switches involved in the activity are correctly aligned.

NOTE: A licensed operator possessing knowledge of the systems involved and the relationship of the systems to plant safety would be a "qualified" person. The staff is investigating the level of qualification necessary for other operators to perform these functions.

Discussion and Conclusions

CP&L's letter of December 15, 1980, committed to provide a description of measures being performed at Brunswick in this area and CP&L's position on the remaining portions of the item. This information is provided below.

I.C.6 gives ANS 3.2 with five supplemental provisions as an example of an acceptable program to meet the requirement. The program at the Brunswick Plant meets the requirements of ANSI 18.7-1976 (ANS 3.2). The Brunswick Plant has taken the following actions to meet the requirements of the five supplemental provisions:

1. Plant Operating Manual, Volume 1, Section 8.0 "Periodic Testing", has been revised to include the guidance of ANSI 18.7-1976 in the area of surveillance testing (supplemental provision 1).
2. Supplemental provision 2 was a requirement of the Brunswick Plant program and therefore no changes were required to meet this item.
3. Plant Operating Manual, Volume 1, Section 11.5 "Clearances", assigns responsibility for equipment control to the shift foreman (SRO) and the qualified person accepting the clearance (supplemental provision 3).
4. Plant Operating Manual, Volume 1, Section 11.5.1.c, contains provisions to assure that control room operators are informed of changes in equipment status and the effects of such changes (supplemental provision 4).
5. Plant Operating Manual, Section 7.0, states, when returning equipment to service, a qualified second person will verify the proper system alignment, unless functional testing can be performed without compromising plant safety and other means can prove that all equipment, valves and switches involved in the activity are correctly aligned (supplemental provision 5).

The licensee completed the revisions to the Plant Operating Manual on April 3, 1981. IE reviewed the licensee's actions with respect to the above commitments.

Based on this review, we find the method for verifying correct performance of operating activities to be acceptable.