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Docket No. 50-336

Mr. W. G. Counsil, Senior Vice President
Nuclear Engineering & Operations
Northeast Nuclear Energy Company
P. O. Box 270
Hartford, Connecticut 06141

Dear Mr. Counsil:

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION ON PROCEDURES GENERATION PACKAGE (PGP) FOR MILLSTONE UNIT 2

We have completed our review of your PGP submittal dated September 1, 1983. For your PGP to be acceptable, you will need to modify your submittal in accordance with the enclosed request for additional information. The criteria used in our review is contained in NUREG-0899, "Guidelines for the Preparation of Emergency Operating Procedures".

We request that you provide this information within 60 days of your receipt of this letter.

The information requested in this letter affects fewer than 10 respondents; therefore OMB clearance is not required under P.L. 96-511.

Sincerely,

James R. Miller, Chief
Operating Reactors Branch #3
Division of Licensing

Enclosure:
Request for
Additional Information

cc: See next page

ORB#3:DL	ORB#3:DL	ORB#3:DL	ORB#3:DL
PKreutzer	DOsborne:dd	JLyons	JRMiller
9/21/84	9/21/84	9/21/84	9/24/84

REQUEST FOR ADDITIONAL INFORMATION
MILLSTONE NUCLEAR POWER STATION, UNIT 2
PROCEDURES GENERATION PACKAGE (PGP)

The NRC staff has completed it review of the Millstone 2 PGP, which was submitted in a letter dated September 1, 1983, from W. G. Counsil to J. R. Miller. The following issues must be addressed in a revision to the Millstone 2 PGP so that we can continue our review of the PGP.

PLANT-SPECIFIC TECHNICAL GUIDELINES (P-STG)

1. The discussion of the P-STG needs to identify deviations and additions with respect to the generic guidelines and to identify their safety significance. More specifically, additional information is needed on:

   A. Those plant-specific items not covered by the generic guidelines, i.e., additional steps, instrumentation values, plant conditions, and equipment identification.

   B. Those items which are deviations from the generic guidelines also need to be identified and the technical reason for the deviation included.

   C. Additions to and deviations from the generic guidelines need to be analyzed to determine their safety significance. The PGP discussion should include an indication that this analysis has been done, and the analysis or technical justification of the safety significance for the deviation should be included in the PGP.

2. Control room instrumentation and controls used in operator steps need to be evaluated with respect to their necessity and adequacy. This may be done as a separate effort or as a part of verification/validation of EOPs. Additional information is needed in the PGP with regard to:

   A. Description of the method used to determine needed control room instrumentation and controls used in operator steps.

   B. Description of the method used to determine the adequacy of the present control room instrumentation and controls used in operator steps.

PLANT-SPECIFIC WRITER'S GUIDE (P-SWG)

1. Exhibits 1-4 show important information which is not discussed or referenced in the P-SWG. If the procedure writers and typists are to use the exhibits to obtain this type of information, there should be a discussion of the details for addressing consistently each item in the text with reference to the four exhibits. This should include procedure title, margins, line spacing and step numbering. (NUREG-0899, Section 5.5.8)

2. Section 2.2 of the P-SWG references Exhibit 1 as the sample title page, but it appears that Exhibit 2 should be the reference as the sample title page. This reference should be corrected, or Exhibit 1 and Section 2.2 should be made consistent.

3. The P-SWG should include instructions, in Section 4.2 on Page 6, that action steps should be wholly contained on a page (similar to the instructions for Cautions and Notes). (NUREG-0899, Subsection 5.5.2)

4. Item I.A.1.a of the verification checklist asks "Are the corner asterisks visible on procedure pages?". There are no instructions in the P-SWG or examples of the placement of asterisks in the exhibits. This discrepancy should be corrected.

5. Fairly detailed instructions for operator aids are provided on Pages 11, 16 and 17. These sections should, however, be expanded to:

   A. Identify the means by which the operators will be able to readily access the tables, figures, and attachments during emergency conditions.

   B. Provide guidance for labeling of graph axes.

6. The P-SWG discusses a number of specifics on the use of capitalization in the EOPs. Additional instructions need to be provided that discuss capitalization in action steps, cover sheet, figures and tables. The P-SWG should make clear that standard American English usage holds in all other cases. (NUREG-0899, Subsection 5.6.5)

7. The P-SWG mentions procedure links (referencing other procedures) in Section 4.7 on Page 9 and provides some of the instructions for the writer. However, an example or a more detailed discussion of a good procedure link would provide the writer with guidance on an acceptable method to accomplish this important task. The example or discussion should include the content and format of a procedure link and the discussion for identifying sections and subsections. (NUREG-0899, Subsection 5.2.2)

8. Action steps need to be written for a variety of situations that are not currently addressed in the P-SWG. The P-SWG should address the use and formatting for the following types of action steps:

   A. Verification steps which are used to determine whether the objective of a task or a sequence of actions has been achieved. (NUREG-0899, Subsection 5.7.2)

B. Steps of continuous or periodic concern/applicability, which are often needed to repeatedly perform a given action, such as monitoring or controlling some plant parameter or taking an action at a given time interval. The format should include a means to allow operators to note or keep track of the conditions or time interlude. (NUREG-0899, Subsection 5.7.5)

C. Steps for which a number of alternative actions are equally acceptable. (NUREG-0899, Subsection 5.7.5)

D. Steps that are performed concurrently with other steps. (NUREG-0899, Subsection 5.7.7)

9. To minimize confusion, delay, and errors in execution of the EOP steps, the following concerns should be addressed in the P-SWG:

   A. The EOPs should be structured so that they can be executed by the minimum control room crew as specified in the technical specifications. (NUREG-0899, Subsection 5.8.1)

   B. The EOPs should be structured so that operator roles specified in the EOPs are consistent with pre-established leadership roles and divisions of responsibilities. (NUREG-0899, Subsection 5.8.2)

   C. The action steps should be structured so as to minimize physical conflicts between personnel and to minimize the amount of movement needed for carrying out the steps. (NUREG-0899, Subsection 5.8.3)

   D. The action steps should be structured to avoid their unintentional duplication by operators. (NUREG-0899, Subsection 5.8.3)

10. It is important that an operator be able to quickly access the relevant EOPs or portions of EOPs. The P-SWG should address the accessibility of various parts and sections of the EOPs. (NUREG-0899, Subsection 6.1.4)

11. The P-SWG discusses a number of important items regarding the reproduction of the EOPs. Additionally, the P-SWG should include requirements for the quality of the reproduced copies of the EOPs to ensure their legibility. (NUREG-0899, Subsection 6.2.2)

12. Section 3.2 of the P-SWG gives a description of the entry conditions for EOPs. The example in Exhibit 3, however, does not appear to be the typical list of entry conditions, such as control room annunciators, indicators, etc. A better example would be more helpful to the procedures writers.

EOP VALIDATION/VERIFICATION PROGRAMS

EOP Verification Program

The Verification Program as outlined in Section 2.5 meets most of the objectives that were identified in NUREG-0899. However, this section of the PGP needs to address:

1. Who will be using the verification checklist.

2. Instructions for its use by the various review groups.

3. How discrepancies are to be resolved.

4. The management position(s) that will be responsible for the resolution of discrepancies.

5. The formalization of the process and the responsibilities in the "Operation Review" and the "Table Top Review" and the inclusion of a member with Human Factors expertise on the review team.

EOP Validation Program

The Validation Program as outlined in Section 2.6 defines "validation," states that an operating crew will perform the validation and be observed by a project team, and that appropriate scenarios will be used. Further, an EOP Validation Form has been prepared for use. These items are essential to meet the objectives stated in NUREG-0899, Subsection 3.3.5, but there are a number of other items which should be addressed.

1. The validation program needs to be formalized with the objectives of the program identified and the methods that will be used to accomplish each objective. Where a plant-specific simulator is not used, the methods should be identified that will be used to validate the portions of the EOPs that cannot be validated on the generic simulator.

2. The criteria for selection of the EOP validation team should be identified and their roles and responsibilities should be clearly delineated. The size of the operating crew should be determined by technical specifications for minimum staffing.

3. The discussion on use of scenarios to validate the EOPs on a simulator should be expanded to address the following:

A. The criteria that is used to select the simulator scenarios should be included. The criteria should ensure that tne EOPs are evaluated under multiple failures.

B. The method that will be used to validate those portions of the EOPs that cannot be validated on the simulator.

4. The PGP should discuss a feedback system for handling and resolving discrepancies, problems and errors that are found during the validation and verification processes; and a plan should be included for correcting and revising the EOPs. This plan should identify those who will perform the corrections and revisions and the basic procedure to be employed. (NUREG-0899, Subsection 3.3.5.2)

5. As revisions occur to EOPs, these revisions may also require validation. The PGP should include criteria for determining when validation and verification of revisions is needed. (NUREG-0899, Subsection 6.2.4)

6. The control room instrumentation and controls referred to in the EOPs need to be evaluated in terms of their adequacy and their correspondence with the actual instrumentation found in the control room. The PGP should be modified to include the following:

   A. A description of the plan for determining the information and control needs for the EOPs. (NUREG-0899, Subsection 3.3.1)

   B. The plan that will be used to determine whether the actual control room instruments and controls meet the information and control needs. [NUREG-0899, Subsection 3.3.5.1.(a)]

7. Millstone 2 PGP includes a Validation Form, but there is no description of its use, who is to use it or how. As a minimum, the PGP should describe how the checklist is to be used as part of the validation process.

EOP TRAINING PROGRAM

The operator training program for EOPs as described in the Millstone 2 PGP contains some of the necessary items to provide for the training and evaluation of the new EOPs. This information covers the training objectives, indication of the use of lectures, simulators, discussions as training methods, etc., and a commitment to evaluate operators after training. The following areas require additional information for clarification:

1. Although the PGP does mention the use of a simulator for operator training, the training program should:

   A. State whether a site-specific or generic simulator is to be used (or was used).

   B. Indicate that all EOPs will be exercised by all operators prior to implementation.

   C. Discuss the method to be used to train the operator in areas where the simulator is not like the control room or does not react like the plant. This can be done with the use of mock-ups or a control room walkthrough.

   D. Indicate that operator roles and team work with respect to the EOPs are planned.

   E. Indicate the use of a wide variety of scenarios to fully exercise the EOPs on the simulator and thus expose the operators to a wide variety of EOP uses.