



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

DEC 17 1985

Docket No. 50-219

LICENSEES: GPU Nuclear Corporation
Jersey Central Power and Light Company

FACILITY: Oyster Creek Nuclear Generating Station

SUBJECT: MEETING OF OCTOBER 9, 1985, ON THE STAFF'S EVALUATION OF THE
DETAILED CONTROL ROOM DESIGN REVIEW, NUREG-0737 ITEM I.D.1

On Wednesday, October 9, 1985, a meeting was held at NRR Headquarters, Bethesda, Maryland, to discuss GPU Nuclear's (the licensee's) questions on the additional information needed by the staff to complete its review of the Detailed Control Room Design Review (DCRDR), NUREG-0737 Item I.D.1, for Oyster Creek. Attachment 1 is the list of the individuals attending the meeting. Attachment 2 is a copy of the information needed by the staff and Attachment 3 is the questions from the licensee on this information. The following is a summary of the significant items discussed and the actions taken or proposed.

Item I.D.1, "Control Room Design Reviews," of the Nuclear Regulatory Commission (NRC) Action Plan NUREG-0660 stated that operating licensees will be required to perform a DCRDR to identify and correct design discrepancies in the control room. The licensee submitted its DCRDR Program Plan dated June 1983, the DCRDR Summary Report on April 30, 1984 and a supplement to the DCRDR Summary Report on April 8, 1985. The staff has reviewed these submittals and has participated in a meeting on November 1-2, 1984, and an on-site audit at the facility on November 28, 1984, to evaluate the licensee's DCRDR program. The staff has concluded that additional information is needed to complete its review of the Oyster Creek control room design.

The additional information needed by the staff is in the following three areas: Function and Task Analysis, Control Room Inventory and Selection of Design Improvements. The details of the information needed are given in Attachment 2. The NRC Project Manager asked the licensee to review this information and provide the staff with any questions it had on this information. The questions from the licensee are in Attachment 2. This October 9, 1985 meeting was held to answer these questions so that the licensee clearly understands what additional information the staff needs to close out the DCRDR issue. These meeting minutes will document the remaining data needed by the staff to close out its DCRDR evaluation for Oyster Creek.

The staff and licensee discussed the material in Attachments 2 and 3. A summary of the significant statements made by the staff to clarify the additional information needed is given below. This is under the same major heading given in Attachment 2.

Function and Task Analysis

The staff is requesting additional documentation of the processes or steps in the licensee's Function and Task Analyses for revisions of the General Electric Corporation Emergency Procedure Guidelines (EPGs) only up to and including revision 3. The staff will not require as part of its DCRDR evaluation such documentation for any future EPG revisions. The licensee has not satisfactorily documented how it has done these analyses for Revisions 1 and 2 of the EPGs. The licensee does not have task analysis data sheets for Revisions 1 and 2.

The documentation for the future function and task analysis for the EPGs Revision 3 must be more detailed. It should include completed task analysis data sheets for each task.

The licensee's description of its Function and Task Analysis is given in the second page of Attachment 3. The staff presented that a step exists between (1) and (2) of the licensee's description. This is the step to determine the information and control requirements for each task. This should be included in the task analysis data sheet.

A "prescriptive task analysis technique" referred to in Attachment 2 is the task analysis data sheet.

The staff stated an acceptable method to document the past Function and Task Analyses is to describe in detail the flow chart of the process the licensee went through to do its Function and Task Analysis. This chart was a licensee chart exhibit in the November 1-2, 1985, meeting at the licensee's contractor's place of business (See Attachment No. 4). The details have been described by the licensee in the meetings of November 1, 2 and 28, 1984, but no written documentation of these details have been provided by the licensee to the staff. The staff needs this documentation to complete its review and prepare a final safety evaluation on the licensee's DCRDR. The staff is in agreement with these details previously described by the licensee.

Control Room Inventory

The staff presented that human engineering discrepancies (HEDs) represent the results of the licensee's comparison of the control room inventory with display and control requirements requested by the staff in Attachment 2. The licensee has developed HEDs from its work on Revisions 1 and 2 of the EPGs and the staff has accepted these HEDs as meeting the staff requirement for a documented control room inventory for these EPGs. Because the licensee has not begun its Function and Task Analysis for Revision 3 of the EPGs, it does not have HEDs for Revision 3. The staff will request these HEDs as the documentation that the licensee has properly completed its control room inventory for Revision 3.

The control room inventory is a comparison between the display and control requirements for each control room operator task and the existing displays and controls in the control room. The HED identifies the deviations from accepted human factors principles--specifically, the difference between what is required for a task and what exists in the control room.

Selection of Design Improvements

Supplement 1 to NUREG-0737 requires the licensee for the DCRDR to describe the following for each HED: (1) the modification to correct the HED if it is decided the HED is significant and should be corrected and (2) the schedule to make the modification. The HEDs listed on page 2 of Attachment 2 are the only HEDs for which the licensee has not provided this information. These are HEDs resulting from the licensee implementation of Revisions 1 and 2 of the EPGs. The staff will require the same information from the licensee for HEDs resulting from implementing Revision 3 of the EPGs. The level of detail requested by the staff is the same as that provided for HEDs by the licensee in its submittal of April 8, 1985.

Summary

In summary, the following will be requested by the staff to complete its DCRDR evaluation for Oyster Creek:

- (1) The licensee will describe in detail by letter the processes or steps in its Function and Task Analysis previously used for Revisions 1 and 2 of the EPGs. An acceptable method is to describe in detail the flow chart in Attachment 4.
- (2) The licensee will describe in detail by letter the processes or steps in its Function and Task Analysis for its implementation of Revision 3 of the EPGs. This should be the detailed task analysis data sheets for which only a representative sample of these sheets would be required to be submitted.
- (3) The HEDs identified in the licensee's implementation of Revision 3 of the EPGs will be the results of the comparison of the control room inventory with display and control requirements requested by the staff.
- (4) The licensee will describe the modifications to be made to correct the HEDs listed in Attachment 2 and the schedule to make the modifications. The detail requested by the staff is the same as that provided previously for HEDs by the licensee in its April 8, 1985 submittal.
- (5) The licensee will describe the modifications to be made to correct the HEDs that will come from the implementation of Revision 3 of the EPGs, if the HED is significant and should be corrected, and the schedule to make the modifications.

- (6) The licensee will provide a submittal before the Cycle 11R refueling outage which will have two parts: the information described in (1) and (4) above and the date, not to exceed the restart the Cycle 11R outage, when it will submit the information described in (2), (3) and (5) above.

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Meeting of October 9, 1985
on DCRDR

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ADDITIONAL INFORMATION NEEDED BY THE STAFF

In order to satisfactorily complete the DCRDR required by Supplement 1 to NUREG-0737, GPUN must submit, for staff review and approval, a supplemental DCRDR Summary Report containing the information for the DCRDR elements described below.

Function and Task Analysis

GPUN needs to provide written documentation of those processes it has described at meetings to determine information and controls required for emergency operations and their requisite characteristics. Prior to the implementation of Revision 3 of the EPGs, GPUN should carry out a system function and task analysis for these procedures using prescriptive task analysis techniques. The process used should be documented, and an example

of completed task analysis worksheets, including the identification of display and control characteristics, should be submitted.

Control Room Inventory

GPUN needs to describe the results of the comparison of the control room inventory with the display and control requirements identified in Revision 3 of the Emergency Procedures Guidelines for the Oyster Creek control room.

Selection of Design Improvements

The process implemented and criteria used by GPUN to select design improvements to resolve HEDs fulfill the requirement of NUREG-0737, Supplement 1. GPUN has corrected many identified HEDs. Some, however, have not been corrected at this time. The licensee should provide proposed modifications and/or implementation schedules for those HEDs listed below:

Group I: HED No. 1-16

Group II: HED No. 21, 42, 49, 56, 66, 67, 69, 70, 71, 74, 75

Group IV: HED No. 17, 37, 39, 43, 45, 58, 59, 60, 61, 62, 63, 64

Group VI: HED No. 10, 12

LICENSEE'S QUESTIONS

TASK ANALYSIS

It is confusing why NRC is only requesting submittal of Task Analysis for Rev. 3 of EOP's as a condition for SER. Previous versions were not submitted. Why is it now needed and not for previous revs?

CONTROL ROOM INVENTORY

The HED's represent the results of the comparison. Our presentation in November 1984 presented the information to arrive at the HED's. What does NRC expect to see in comparison results.

HED's

Supplement 1 to 0737 requires that we identify the problem areas, not the eventual solution. At the point of identification, the NRC should be able to draft a SER. How far will NRC extend the SER requirements? After proposed changes? After proposed schedule of modifications? After mods are actually completed?

FUNCTION AND TASK ANALYSIS

During refueling outage 11R GPUN intends to implement a revision to the Oyster Creek Symptom-Based EOP's which include Secondary Containment Control and Combustible Gas Control. As previously committed, GPUN intends to perform a Function and Task Analysis as part of the Human Factors review of the new procedures. Since the NRC has not officially prescribed and techniques for performing this task analysis in its regulations, we intend to perform the following steps as part of the project:

- (1) A review of the plant specific Emergency Procedure Guidelines from which the EOP's will be developed with the individual who authorized the EPG's to determine the operator tasks to perform ~~and step.~~ *each*
- (2) A determination of these controls and displays necessary to perform each of the tasks defined in (1) above by the Human Factors reviewer, including appropriate ~~caution~~, range, scale and ~~visibility~~ of each. *caution* *location*
- (3) A comparison of the requirements of (2) above to the controls and displays available in the control room using full scale photographs and prints of the control panel verified by reviewing actual control room equipment as necessary.
- (4) A walkthrough of the EOP's developed from the EPGs with licensed control room operators for all the tasks determined in (2) above to verify the correctiveness and completeness of the task analysis. Also a walkthrough of some transients *will be performed* to further confirm the selected tasks.

These steps will be documented as necessary to provide a complete record of the process and will be available for NRC review.

CONTROL ROOM INVENTORY

This requirement is fulfilled in step (3) above.

SELECTION OF DESIGN IMPROVEMENTS

Status of HEDs:

Completed: 1-2, 1-12, 4-58.

Evaluation or study in progress, scheduled resolution of action required by 1/86:

Group I: HED No. 1, 4, 5, 6, 8-11, 13-16.

Group II: HED No. 74.

Group IV: HED No. 17, 43, 59, 63, 64.

Group VI: HED No. 10, 12.

Modification selected and scheduled for implementation in Outage 11R:

Group I: HED No. 3, 7.

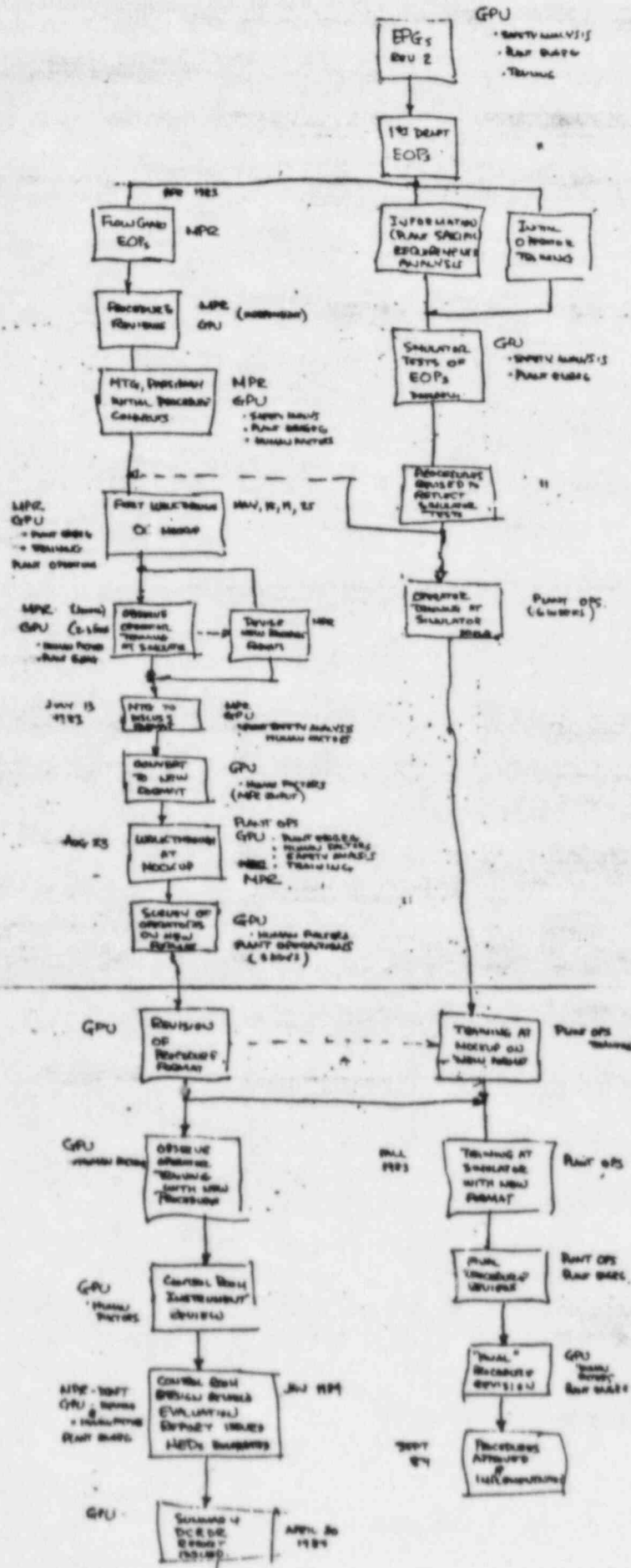
Group II: HED No. 21, 42, 49, 56, 66, 67, 69, 70, 71, 75.

Group IV: HED No. 37, 39, 45, 60, 61, 62.

EVOLUTION & REVIEWS OF EOPs,
INCLUDING ANALYSIS OF CONTROL
ROOM TASKS

11/2/89

ATTACHMENT 4



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- (6) The licensee will provide a submittal before the Cycle 11R refueling outage which will have two parts: the information described in (1) and (4) above and the date, not to exceed the restart the Cycle 11R outage, when it will submit the information described in (2), (3) and (5) above.

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