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New York Power Authority

John C. Brons
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February 28, 1986
JPN-86-08

Director of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Attention: Mr. Daniel R. Muller, Director
BWR Project Directorate No. 2
Division of BWR Licensing

Subject: James A. FitzPatrick Nuclear Power Plant
Docket No. 50-333
Detailed Control Room Design Review (DCRDR)
Summary Report and Implementation Schedule

References:
1. NYPA letter, J. P. Bayne to D. B. Vassallo, dated October 24, 1983 (JPN-83-90) transmitted the FitzPatrick DCRDR Program Plan.
2. NYPA letter, J. P. Bayne to D. B. Vassallo, dated August 31, 1984 (JPN-84-57) transmitted supplement to DCRDR Program Plan.
3. NYPA letter, J. C. Brons to D. B. Vassallo, dated August 7, 1985 (JPN-85-62) requested extension for submittal of DCRDR Program Plan.
4. NRC letter, H. L. Thompson, Jr. to J. C. Brons, dated October 23, 1985 reschedules submittal of DCRDR summary report and implementation schedule.

Dear Sir:

Supplement 1 to NUREG-0737 required that the Authority conduct a review of the FitzPatrick Control Room "...to improve the ability of nuclear power plant control room operators to prevent accidents or cope with accidents if they occur by improving the information provided to them"

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(NUREG-0660, Item I.D.1). The Authority described plans and schedules for completing a second detailed review of the FitzPatrick Control Room in Reference 1. In Reference 2, the Authority's plans were revised to incorporate NRC comments. The submittal of the DCRDR summary report and implementation schedule was rescheduled from November 15, 1985 to February 28, 1986 by Reference 3. This new schedule was subsequently confirmed by an NRC order (Reference 4).

Attachment 1 is the Authority's implementation schedule for correcting the Human Engineering Deficiencies (HEDs) identified in the FitzPatrick Detailed Control Room Design Review Summary Report. The summary report is Attachment 2.

Approximately 400 HEDs were identified during the FitzPatrick DCRDR. None were judged to require immediate correction based on their safety significance. About 90 have already been resolved. Eighty-three HEDs require no corrective action. Fifteen assessment category II HEDs will not be corrected for reasons detailed in Section 4.0 of the summary report. The remainder will be corrected in accordance with the attached schedule. A small number of HEDs require further review before a satisfactory means to correct them can be determined. A schedule for completing this review and implementing the resulting improvements is included as part of Attachment 1.

Should you or your staff have any questions concerning this matter, please contact Mr. J. A. Gray, Jr. of my staff.

Very truly yours,

John C. Brons
Senior Vice President
Nuclear Generation

cc: Office of the Resident Inspector
U. S. Nuclear Regulatory Commission
P. O. Box 136
Lycoming, New York 13093

ATTACHMENT 1 TO JPN-86-08

New York Power Authority
James A. FitzPatrick Nuclear Power Plant
Docket No. 50-333

Detailed Control Room Design Review (DCRDR Summary Report - Implementation Schedule

The DCRDR Summary Report divides the 400 Human Engineering Deficiencies (HEDs) identified during the FitzPatrick Detailed Control Room Design Review into 12 categories based upon the recommended resolution. The summary report further describes these 12 categories including the approximate quantity of HEDs in each. This schedule is based on the 12 categories which are as follows:

No.	HED Resolution Category
1.	Demarcation
2.	Labeling
3.	Color Coding
4.	Scale Modification
5.	Relocation
6.	Modification
7.	Emergency and Plant Information Computer (EPIC)
8.	Standard
9.	Procedure
10.	Review
11.	Miscellaneous
12.	No Change Recommended

HEDs were also assigned an initial assessment category based on their potential to increase operator error. HED assessment categories are defined in Section 5.1 of the DCRDR Program Plan and Section 5.2.1 of the summary report.

All HEDs that were assigned to assessment category I will be corrected. The summary report lists 15 assessment category II HEDs that will be left uncorrected or partially corrected. Justification for not correcting these HEDs is also included in the summary report. A table summarizing this implementation schedule is included at the end of this attachment.

A. Control Room Enhancement (Paint-Tape-Label)

Human Engineering Deficiencies (HEDs) that will be resolved by a control room enhancement program (HED Resolution Categories: Demarcation, Labeling, Color Coding, Scale Modification, Standard, Procedure and Miscellaneous) will be completed not later than 30 days after the end of the 1987 refueling outage (Reload 7/Cycle 8) or June 1, 1987, whichever is later. The Reload 7/Cycle 8 refueling outage is currently scheduled to begin in January 1987.

B. Control Room Modifications

Modifications include the relocation, replacement, and modification of existing instrumentation and controls, or the addition of new instrumentation or controls (HED Resolution Categories: Relocation and Modification.) HEDs requiring control room modifications will be completed not later than 30 days after the end of 1988 refueling outage (Reload 8/Cycle 9) or December 1, 1988, whichever is later.

C. Human Engineering Deficiencies Requiring Further Review

The Authority has identified 13 HEDs which require further review before a satisfactory means of resolving them can be selected for implementation (HED Resolution Category: Review). For example, one HED recommended replacement of a specific model of lighted control switch. Almost one hundred of these switches are used for the control of non-safety related equipment in the control room. Because of their small size, the Authority cannot be sure that replacement switches are commercially available that will resolve the HED and fit in the control panels.

The Authority will complete any further review required and define a course of action for each of these HEDs. A description of the modifications to correct these HEDs and and implementation schedule for modifications will be submitted to the NRC not more than 60 days after the end of the 1987 refueling outage (Reload 7/Cycle 8) or July 1, 1987, whichever is later.

D. Emergency and Plant Information Computer (EPIC)

Thirty of the HEDs identified during the FitzPatrick DCRDR

will be resolved as part of the the Authority's SPDS/EPIC program (HED Resolution Category: EPIC.) In some cases, the installation of the SPDS/EPIC system will eliminate the discrepancy. For example, congestion inside the control room "horseshoe" will be significantly reduced when new SPDS/EPIC equipment replaces the existing equipment. Proper arrangement of this new equipment will be addressed as part of the SPDS/EPIC human factors program. In other cases, the SPDS/EPIC will be used to make information currently availible on instruments more accessible to control room operators by displaying this information on SPDS/EPIC terminals.

HEDs that will be resolved by installation of the SPDS/EPIC system will be completed in accordance with the SPDS/EPIC schedule if their inclusion in the schedule will not delay completion of SPDS/EPIC. Therefore, the Authority will either: (1) submit an implementation schedule for changes to the SPDS/EPIC system to correct these HEDs not later than 60 days after the end of the 1987 refueling outage (Reload 7/Cycle 8) or July 1, 1987, whichever is later; or, (2) complete changes to the SPDS/EPIC system to correct these HEDs not later than 30 days after the end of the 1987 refueling outage (Reload 7/Cycle 8) or June 1, 1987, whichever is later.

New York Power Authority
James A. FitzPatrick Nuclear Power Plant
Detailed Control Room Design Review
Implementation Schedule Summary Table

Item	HED Resolution Category	Approx. Qty.	Completion Date
A.	1, 2, 3, 4, 8, 9, 11	164	Note 2
B.	5, 6	46	Note 3
C.	10	13	Note 4
D.	7	36	Note 5

Notes:

1. This table does not include approximately 90 Human Engineering Deficiencies (HEDs) that have already been resolved, HEDs that will not be completely corrected, or HEDs which require no corrective action.

2. Not later than 30 days after the end of the 1987 refueling outage (Reload 7/Cycle 8) or June 1, 1987, whichever is later.

3. Not later than 30 days after the end of the 1988 refueling outage (Reload 8/Cycle 9) or December 1, 1988, whichever is later.

4. Not later that 60 days after the end of the 1987 refueling outage (Reload 7/Cycle 8) or July 1, 1987, whichever is later, the Authority will submit: (1) a description of the modifications to correct HEDs requiring further review; and, (2) a schedule for implementing these modifications.

5. The Authority will either: (1) submit an implementation schedule for changes to the SPDS/EPIC system to correct these HEDs not later than 60 days after the end of the 1987 refueling outage (Reload 7/Cycle 8) or July 1, 1987, whichever is later; or, (2) complete changes to the SPDS/EPIC system to correct these HEDs not later than 30 days after the end of the 1987 refueling outage (Reload 7/Cycle 8) or June 1, 1987, whichever is later.