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MURLEY,T.E. Office of Nuclear Reactor Regulation, Director (Post 870411

SUBJECT: Discusses status of commitments made in 861205 ltr re
1986 DCRDR summary rept.Green off status light will be added
to hydrogen/oxygen analyzer heater switch & indicating
unit to ensure consistent red/green indicating lights.

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Iowa Electric Light and Power Company

April 30, 1992
NG-92-1938

JOHN F. FRANZ, JR.
VICE PRESIDENT, NUCLEAR

Dr. Thomas E. Murley, Director
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Mail Station P1-37
Washington, DC 20555

Subject: Duane Arnold Energy Center (DAEC)
Docket No: 50-331
Op. License No: DPR-49
Detailed Control Room Design Review
(DCRDR) Summary Report - Update
Reference: "Detailed Control Room Design Review
Summary Report", Transmitted by letter,
R. McGaughy to H. Denton, NG-86-4251,
December 5, 1986
File: A-107a, A-370

Dear Dr. Murley:

The purpose of this letter is to inform you of the status of commitments made in the referenced document, the 1986 Detailed Control Room Design Review (DCRDR) Summary Report. As a result of studies and new projects implemented at the DAEC since that report, we have resolved certain items differently than described originally in the Summary Report.

The attachment to this letter describes the revised disposition for each of the affected items and the basis for the revisions. All of these items are part of "Phase 4" of the DAEC DCRDR program. Phase 4 consisted of items which would enhance operator performance but would not resolve any safety significant Human Engineered Deficiencies (HED's). All of the safety significant HED's were completed in Phases 1 through 3 of our program. As described in the attachment to this letter, certain items have been eliminated from the DCRDR program because they are better accomplished under other programs currently under way at DAEC. Other items are being eliminated because the resulting benefits do not justify the high costs involved, have been resolved by a method different from that described in the Summary Report, or upon further study, would have resulted in a degradation in human factors design and are therefore being deleted. The remainder of the items in Phases 1 through 4 of this program have been completed.

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Based upon the above, we consider the DCRDR program at DAEC to be complete.

Please feel free to contact me if you have any questions.

Very truly yours,



John F. Franz, Jr.
Vice President, Nuclear

Jmo
JFF/JMD/pjv~

Attachment: Revisions to DCRDR Summary Report Items

cc: M. Davis
L. Liu
L. Root
R. McGaughy
C. Shiraki (NRC-NRR)
A. Bert Davis (Region III)
NRC Resident Office
Commitment Control

Revisions to DCRDR Summary Report Items

1. Provide controlled access (egress only) through the back door of the control room for operation staff. (Ref. 1, Pg. C-35, item 9)

Resolution: This item was originally included as part of DCRDR Long-Term Enhancements developed in 1986. Since that time the Security Upgrade Program has been initiated. As a part of this program, the present security card reader system will be replaced. Since the card reader for the control room back door will be installed under the Security Upgrade Program, this item will be deleted from the DCRDR program. The Security Upgrade Program is being tracked on the Integrated Plan (Reference 2).

2. A green "off" status light will be added to the Hydrogen/Oxygen analyzer heater switch and indicating unit to ensure consistent use of red and green indicating lights. (Ref. 1, Pg. C-15, item 9)

Resolution: The Hydrogen/Oxygen analyzers and associated controls on control room panel 1C09 are being evaluated for replacement during the cycle 12/13 refueling outage. Therefore, the proposed addition of the green "off" status light is not cost-effective at this time and will not be implemented.

3. Controls for operating the condenser vacuum breakers will be provided on 1C07. These controls will be placed below the condenser vacuum pump controls on 1C07. (Ref. 1, Pg. C-12, item 3)

Resolution: Currently the condenser vacuum breakers are manual valves located in the turbine building. These valves are easily accessible and are not in a radiation area. Plant operators can reach these valves in an adequate amount of time to respond to plant transients. The expense of installing motor operators on these valves and placing remote control functions in the control room did not prove to be cost-effective. Therefore, this item will not be implemented.

4. The Group 8 isolation function will be eliminated. {When the steam supply valve for the HPCI and RCIC system opens, the normally-open steam drain valves close on system initiation and isolation occurs. Eliminate confusion caused by Group 8 by eliminating HPCI and RCIC condensate returns as group isolation. They operate as a normal system function and isolate as a normal system function on the same signals as the HPCI and RCIC initiation. Maintain certification and leakage criteria for these valves but get group 8 out of Technical Specifications and UFSAR.} (Ref. 1, Pg. C-10, item 10)

Resolution: The valves in question are containment isolation valves, but isolate as a normal function of a HPCI or RCIC initiation instead of a containment isolation signal. The problem in the above DCRDR item arose because of the requirement to verify containment isolations when a containment isolation signal was received. Since the identification of this item, a Primary Containment Isolation System status board has been installed in the control room as a result of other DCRDR enhancements. This status board indicates isolation signals and successful isolation of all isolation valve groups receiving containment isolation signals. This has corrected the problem.

5. Push-to-Test light socket will be provided for amber lights. Administrative procedures for periodic testing of these lights will be implemented. (Ref. 1, Pg. C-35, item 10)

Resolution: The purpose of this item was to test for unidentified burnt-out light bulbs. These bulbs are known to have a very long life and are infrequently used. As an alternative method for assuring that the bulbs work properly, we will perform a mass changeout of the bulbs every two years. This task has been incorporated into the Preventative Maintenance Program. Therefore, this item has been resolved.

6. Control Room lighting will be improved. (Ref. 1, Pg. C-34, item 3). The lighting in the area of 1C388 will be enhanced to ensure adequate lighting is available (Ref. 1, Pg. C-31, item 3)

Resolution: The current Control Room and 1C388 area lighting falls well within EPRI-NP5989 guidelines. Additionally, we have determined that any increase in lighting would cause increased glare on instrument gauges. Operations personnel agree that added glare would cause difficulty in reading instruments and that lighting levels should remain unchanged. Therefore, this item will not be implemented.

7. Pressure indicators of PI-4172 and PI-4130A, on panel 1C034 will be replaced with indicators with scales 0-30 psia. (Ref. 1, Pg. C-25, item 1)

Resolution: Color banding for these instruments to identify the normal operating range was accomplished as part of earlier DCRDR enhancements. This has resolved problems with using these instruments and replacement is no longer necessary.

8. The annunciator "Acknowledge/Test" push button on 1C26 will be relocated to a more operable location of the panel. The battery ventilation on 1C26 will be relocated and grouped together. The hot water heating controls on 1C26 will be Relocated and grouped together. (Ref. 1, Pg. C-23, items 1, 2, and 3)

Resolution: The "Acknowledge/Test" push button is only 2" below human factors height requirements. Also, surface enhancements already completed as part of the DCRDR program have resolved most of the problems such that relocating controls would not produce enough improvement to justify the cost.

9. The radiation recorders on panel 1C002 will be rearranged to group related components together. The correction has been incorporated into existing design modifications, DCP 1293 and DCP 1363, which are in progress at DAEC. (Ref. 1, Pg. C-5, item 1)

Resolution: Surface enhancements and color coded labeling under the DCRDR program have already solved many of the human factors concerns on this panel. Re-arranging the instruments would not provide enough benefit to justify the cost.

10. The handswitches on 1C06 for the Radwaste Dilution line test valves, HS-4910A and HS-4910B, will be replaced with cane handle handswitches. In addition, the indicating lights associated with these handswitches will be relocated so that the red light is to the right. (Ref. 1, Pg. C-11, item 9)

Resolution: Upon further review of this item, it was found that large cane handled switches interfered with the panel mimic. This would create more human factor related problems. Therefore, the cane handled switches will not be installed. The indicating lights, however, have been relocated as stated.

11. Handswitch HS-5928 will be removed from panel 1C023. (Ref. 1, Pg. C-20, item 2)

Resolution: This switch controls fans and dampers for Turbine Building HVAC. Although some of the fans have been removed, 3 exhaust fans are still controlled by this switch. It is therefore desirable to leave this switch on panel 1C023 (Plant HVAC Control Panel). Therefore, this item will not be implemented.

Reference 1: "Detailed Control Room Design Review Summary Report," Transmitted by letter, R. McGaughy to H. Denton, NG-86-4251, December 5, 1986

2: "Semi-Annual Report for the Plan for the Integrated Scheduling of Plant Modifications for the Duane Arnold Energy Center" transmitted by letter, D. Mineck to T. Murley, NG-91-3266, November 4, 1991