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 FACIL:50-315 Donald C. Cook Nuclear Power Plant, Unit 1, Indiana & 05000315  
 50-316 Donald C. Cook Nuclear Power Plant, Unit 2, Indiana & 05000316

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SUBJECT: Forwards rev to schedule for upgrades resulting from plant  
 DCRDR.

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AEP:NRC:0773AF

Donald C. Cook Nuclear Plant Units 1 and 2  
Docket Nos. 50-315 and 50-316  
License Nos. DPR-58 and DPR-74  
STATUS UPDATE OF DETAILED CONTROL ROOM DESIGN  
REVIEW (DCRDR) UPGRADES

U.S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, D.C. 20555

Attn: T. E. Murley

October 23, 1989

Dear Dr. Murley:

This letter provides you a revision to the schedule for upgrades resulting from the Cook Nuclear Plant Units 1 and 2 DCRDR. This information updates our DCRDR Summary Report, AEP:NRC:0773V letter dated December 30, 1986, and the revision information provided in AEP:NRC:0773X letter dated March 13, 1987.

Attachment 1 to this letter provides an implementation schedule for correction of safety-significant human engineering deficiencies (HEDs) in Categories I, II, and III-S. Approximately 94% of these items have been completed.

Attachment 2 to this letter provides an implementation schedule for specific HEDs identified in Appendix B4 of the NRC pre-audit letter. Approximately 86% of these items in Attachment 2 have been completed.

Attachment 3 compiles those HEDs of note in Attachments 1 and 2 under their topical areas. A short comment is provided regarding the item's disposition. Also shown for each item in Attachment 3 is the originally estimated completion date provided in submittal AEP:NRC:0773X.

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Dr. T. E. Murley

-2-

AEP:NRC:0773AF

This document has been prepared following Corporate procedures that incorporate a reasonable set of controls to ensure its accuracy and completeness prior to signature by the undersigned.

Sincerely,



M. P. Alexich  
Vice President

ldp

Attachments

cc: D. H. Williams, Jr.  
A. A. Blind - Bridgman  
R. C. Callen  
G. Charnoff  
A. B. Davis  
NRC Resident Inspector - Bridgman  
NFEM Section Chief

11/1/40

The following codes apply to this attachment:

C Physical Implementation is Complete  
 \*\*\* Unit One = Late 1990 Refueling Outage  
 \*\*\* Unit Two = Mid 1990 Refueling Outage  
 \*\*\*\*\* Unit One = Early 1992 Refueling Outage  
 \*\*\*\*\* Unit Two = Late 1991/Early 1992 Refueling Outage

#### SAFETY SIGNIFICANT HEDs

Cook DCRDR - Category I & II Corrective  
 Action Implementation - Planned Completion Dates

CLO/HED	CAT.	UNIT 1	UNIT 2
1.1-5	II	C	C
1.1-9	II	C	C
1.1-10	II	C	C
1.2-1	II	C	C
1.2-2	II	C	C
1.3-1	II	C	C
2	II	C	C
1.3-3	II	C	C
4	II	C	C
5	II	C	C
6	I	***	***
7	II	C	C
1.3-8	II	C	C
1.5-2	II	C	C
3	II	C	C
4	II	C	C
7	II	C	C
1.7-2	II	C	C
2.1-1	II	C	C
-2	II	***	***
-3	II	***	***
-4	II	C	C
2.1-5	II	C	C
-6	II	***	***
-7	I	***	***

## SAFETY SIGNIFICANT HEDs

## Planned Completion Dates Cont'd

C Physical Implementation is Complete  
 \*\*\* Unit One = Late 1990 Refueling Outage  
 \*\*\* Unit Two = Mid 1990 Refueling Outage  
 \*\*\*\* Unit One = Early 1992 Refueling Outage  
 \*\*\*\* Unit Two = Late 1991/Early 1992 Refueling Outage

CLO/HED	CAT.	UNIT 1	UNIT 2
-13	II	C	C
3.1-2	II	C	C
-3	II	C	C
-4	II	C	C
-5	II	C	C
-7	II	C	C
-8	II	C	C
-11	II	C	C
-13	II	C	C
-17	II	C	C
-20	II	C	C
-21	II	C	C
-22	II	C	C
-23	II	C	C
-24	II	C	C
-27	II	C	C
-30	I	C	C
-32	II	C	C
4.1-1	II	C	C
-3	II	C	C
-5	II	***	***
-9	II	C	C
-10	II	C	C
-20	II	C	C
-22	II	C	C
5.1-4	II	C	C
-6	II	C	C
-8	II	C	C
-11	II	C	C
-17	II	C	C
-46	II	C	C
6.1-1	II	C	C
-3	II	C	C
-5	II	C	C
-6	II	C	C

## SAFETY SIGNIFICANT HEDs

## Planned Completion Dates Cont'd

C Physical Implementation is Complete  
 \*\*\* Unit One = Late 1990 Refueling Outage  
 \*\*\* Unit Two = Mid 1990 Refueling Outage  
 \*\*\*\*\* Unit One = Early 1992 Refueling Outage  
 \*\*\*\*\* Unit Two = Late 1991/Early 1992 Refueling Outage

CLO/HED	CAT.	UNIT 1	UNIT 2
-7	II	C	C
-16	II	C	C
-20	II	C	C
-21	II	C	C
-23	II	C	C
-24	II	C	C
-31	II	C	C
-35	II	C	C
-37	II	C	C
-40	II	C	C
6.1-43	II	C	C
-44	II	C	C
-46	II	C	C
-47	II	C	C
-49	I	C	C
-57	II	C	C
-60	II	C	C
-61	II	C	C
-63	II	C	C
-64	II	C	C
7.1-1	II	*****	*****
-3	II	C	C
7.2-4	II	C	C
-7	II	C	C
-9	II	C	C
-12	II	C	C
-15	II	C	C
-17	II	C	C
-35	II	C	C
-58	II	C	C
-87	II	C	C
-88	II	C	C
8.1-1	II	C	C
-13	II	C	C
9.1-1	II	C	C



## SAFETY SIGNIFICANT HEDs

## Planned Completion Dates Cont'd

C Physical Implementation is Complete  
 \*\*\* Unit One = Late 1990 Refueling Outage  
 \*\*\* Unit Two = Mid 1990 Refueling Outage  
 \*\*\*\* Unit One = Early 1992 Refueling Outage  
 \*\*\*\* Unit Two = Late 1991/Early 1992 Refueling Outage

CLO/HED	CAT.	UNIT 1	UNIT 2
-2	I	***	***
-4	II	C	C
-6	II	C	C
-7	II	C	C
V1-4	II	C	C
-16	II	C	C
-25	I	C	C
-26	I	C	C
-42	II	C	C
-47	II	C	C
-57	II	C	C
V2-1	II	C	C
-5	II	C	C
-6	II	C	C
-9	II	C	C
-17	II	C	C
-18	II	C	C

## SAFETY SIGNIFICANT HEDs

Cook DCRDR - Category III-S Corrective  
Action Implementation - Planned Completion Dates

C Physical Implementation is Complete  
 \*\*\* Unit One = Late 1990 Refueling Outage  
 \*\*\* Unit Two = Mid 1990 Refueling Outage  
 \*\*\*\* Unit One = Early 1992 Refueling Outage  
 \*\*\*\* Unit Two = Late 1991/Early 1992 Refueling Outage

CLO/HED	UNIT 1	UNIT 2
1.1-1	C	C
1.4-1	C	C
1.7-4	C	C
1.7-7	C	C
2.1-9	C	C
3.1-6	C	C
-9	C	C
-10	C	C
-15	***	***
-19	C	C
-26	C	C
-31	C	C
4.1-4	C	C
-8	C	C
-13	C	C
-14	C	C
5.1-3	C	C
-18	C	C
-19	C	C
-44	C	C
-48	C	C
-50	C	C
6.1-2	C	C
-4	C	C
-8	C	C
-11	C	C
-12	C	C
-13	C	C
-14	C	C
-22	C	C

## SAFETY SIGNIFICANT HEDs

## Planned Completion Dates Cont'd III-S

C Physical Implementation is Complete  
\*\*\* Unit One = Late 1990 Refueling Outage  
\*\*\* Unit Two = Mid 1990 Refueling Outage  
\*\*\*\* Unit One = Early 1992 Refueling Outage  
\*\*\*\* Unit Two = Late 1991/Early 1992 Refueling Outage

CLO/HED	UNIT 1	UNIT 2
-27	C	C
-32	C	C
-39	C	C
-42	C	C
-51	C	C
6.1-53	C	C
-55	C	C
-59	C	C
-62	C	C
-66	C	C
6.1-67	C	C
-69	C	C
-70	C	C
-71	C	C
7.1-14	C	C
-20	C	C
8.1-6	C	C
-10	C	C
-12	C	C



Cook DCRDR - Item B4. NRC Audit

## Implementation Schedules - Planned Completion Dates

C Physical Implementation is Complete  
 \*\*\* Unit One = Late 1990 Refueling Outage  
 \*\*\* Unit Two = Mid 1990 Refueling Outage  
 \*\*\*\* Unit One = Early 1992 Refueling Outage  
 \*\*\*\* Unit Two = Late 1991/Early 1992 Refueling Outage

CLO/HED	CAT.	UNIT 1	UNIT 2
1.1-8	III	C	C
1.1-10	II	C	C
1.4-1	III-S	C	C
1.4-2	IV	C	C
1.7-5	III	C	C
2.1-10	III	***	***
2.1-11	III	***	***
2.1-12	III	***	***
3.1-3	II	C	C
-4	II	C	C
3.1-9	III-S	C	C
-15	III-S	C	C
-30	I	C	C
4.1-8	III-S	C	C
4.1-16	III	C	C
5.1-4	II	C	C
5.1-50	III-S	C	C
6.1-1	II	C	C
7.1-20	III-S	C	C
8.1-6	III-S	C	C
9.1-7	II	C	C
V1-65	III	C	C

SAFETY SIGNIFICANT HEDs  
Information on Planned Completion Dates

C Physical Implementation is Complete  
 \*\*\* Unit One = Late 1990 Refueling Outage  
 \*\*\* Unit Two = Mid 1990 Refueling Outage  
 \*\*\*\* Unit One = Early 1992 Refueling Outage  
 \*\*\*\* Unit Two = Late 1991/Early 1992 Refueling Outage

CLO/HED	CAT.	UNIT 1	UNIT 2	PREVIOUS	
				UNIT 1	UNIT 2
<u>SG Panel Rearrangement</u>					
1.2-1	II	C	C	12/90	12/89
1.2-2	II	C	C	12/90	12/89

A small additional modification to Unit 2 is being considered for implementation during the outage of 1990.

Radio Communications Upgrade

1.3-6	I	***	***	12/89	12/89
2.1-2	II	***	***	12/89	12/89
2.1-3	II	***	***	12/89	12/89
2.1-6	II	***	***	12/89	12/89
2.1-7	I	***	***	12/89	12/89
2.1-10	III	***	***	12/86	12/86
2.1-11	III	***	***	12/87	12/87
2.1-12	III	***	***	12/87	12/87

The scope of the upgrades has grown considerably and was not fully defined until April 1989. The engineering and design will be completed in time to install the systems during the Unit 1 and Unit 2 outages of 1990.

RCP Oil Pot Level Alarms

3.1-15	III-S	***	***	6/89	12/89
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Delayed to 1990 due to manpower commitments in the 1989 SGRP Unit 2 Outage and the 1989 Unit 1 Refueling Outage.

Source Range Block/Unblock Switch Replacement

4.1-5	II	***	***	6/87	6/88
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Additional switch modification requirements were confirmed by tests during the Unit 1 outage of 1989. Implementation will be completed during outages of 1990.



Figure 1 is a line graph showing the percentage of total sample for each age group across different years. The Y-axis is labeled 'PERCENTAGE OF TOTAL SAMPLE' and ranges from 0 to 100. The X-axis is labeled 'YEAR' and includes 1960, 1970, 1980, 1990, and 2000. The legend identifies eight age groups: 0-14, 15-24, 25-34, 35-44, 45-54, 55-64, 65-74, and 75+. The 0-14 age group shows a consistent decline from approximately 15% in 1960 to 5% in 2000. The 15-24 age group peaks at 35% in 1970 and then declines to 15% by 2000. The 25-34 age group grows from 10% in 1960 to 25% in 2000. The 35-44 age group grows from 10% in 1960 to 25% in 2000. The 45-54 age group grows from 10% in 1960 to 25% in 2000. The 55-64 age group grows from 10% in 1960 to 25% in 2000. The 65-74 age group grows from 10% in 1960 to 25% in 2000. The 75+ age group grows from 10% in 1960 to 25% in 2000.

SAFETY SIGNIFICANT HEDs  
Information on Planned Completion Dates (Cont'd)

C      Physical Implementation is Complete  
 \*\*\*    Unit One = Late 1990 Refueling Outage  
 \*\*\*    Unit Two = Mid 1990 Refueling Outage  
 \*\*\*\*   Unit One = Early 1992 Refueling Outage  
 \*\*\*\*   Unit Two = Late 1991/Early 1992 Refueling Outage

CLO/HED	CAT.	UNIT 1	UNIT 2	PREVIOUS	
				UNIT 1	UNIT 2
<u>P-250 Plant Computer Replacement</u>					
7.1-1	II	****	****	12/91	12/91

Schedule commitment is 1991 outages for both units. Unit 1 may, however, be implemented during the outage of 1990.

<u>Visual Display Upgrades</u>					
9.1-2	I	***	***	12/90	12/89

All V1 and V2 subtasks must be closed out in order to closeout 9.1-2. V1-12 CONTAINMENT ISOLATION STATUS INDICATION is scheduled for implementation during the 1990 outages.