



RESPONSE TO FREEDOM OF INFORMATION ACT (FOIA) / PRIVACY ACT (PA) REQUEST

2001-0003

1

RESPONSE TYPE FINAL PARTIAL

REQUESTER

Matthew S. Galbraith

DATE

NOV 01 2000

PART I. -- INFORMATION RELEASED

- No additional agency records subject to the request have been located.
- Requested records are available through another public distribution program. See Comments section.
- APPENDICES Agency records subject to the request that are identified in the listed appendices are already available for public inspection and copying at the NRC Public Document Room.
- APPENDICES **A** Agency records subject to the request that are identified in the listed appendices are being made available for public inspection and copying at the NRC Public Document Room.
- Enclosed is information on how you may obtain access to and the charges for copying records located at the NRC Public Document Room, 2120 L Street, NW, Washington, DC.
- APPENDICES **A** Agency records subject to the request are enclosed.
- Records subject to the request that contain information originated by or of interest to another Federal agency have been referred to that agency (see comments section) for a disclosure determination and direct response to you.
- We are continuing to process your request.
- See Comments.

PART I.A -- FEES

AMOUNT *
\$

- You will be billed by NRC for the amount listed. None. Minimum fee threshold not met.
- You will receive a refund for the amount listed. Fees waived.

* See comments for details

PART I.B -- INFORMATION NOT LOCATED OR WITHHELD FROM DISCLOSURE

- No agency records subject to the request have been located.
- Certain information in the requested records is being withheld from disclosure pursuant to the exemptions described in and for the reasons stated in Part II.
- This determination may be appealed within 30 days by writing to the FOIA/PA Officer, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001. Clearly state on the envelope and in the letter that it is a "FOIA/PA Appeal."

PART I.C COMMENTS (Use attached Comments continuation page if required)

SIGNATURE - FREEDOM OF INFORMATION ACT AND PRIVACY ACT OFFICER

Carol Ann Reed

APPENDIX A
RECORDS BEING RELEASED IN THEIR ENTIRETY

<u>NO.</u>	<u>DATE</u>	<u>DESCRIPTION/(PAGE COUNT)</u>
1.	Undated	Memo from P. Hiland to G. Grant regarding Differing Professional View (DPV) (3 pages)
2.	Undated	Collected Data for DPV on D.C. Cook, Unit 2 (13 pages)
3.	08/15/97	Directive 10.159 and Handbook 10.159, Differing Professional Views or Opinions (23 pages)
4.	10/08/97	NRC Inspection Manual, Part 9900: Technical Guidance, Resolution of Degraded and Nonconforming Conditions (12 pages)
5.	06/05/00	Regional Procedure 1206, Differing Professional Views: Key Activities and Time Line (4 pages)
6.	06/06/00	Memo from R. Landsman to J. Dyer: DPV Concerning the Startup of D.C. Cook, Unit 2 (2 pages)
7.	06/07/00	Memo from J. Dyer to J. Grobe regarding Resolution of Degraded CEQ Fan Room Wall (2 pages)
8.	06/23/00	Memo from J. Dyer to G. Grant regarding Ad Hoc Review Panel for DPV (1 page)
9.	06/23/00	Memo from J. Caldwell to File regarding DPV File (1 page)
10.	06/23/00	E-mail from G. Grant to R. Landsman regarding DPV (1 page)
11.	06/26/00	E-mail from G. Grant to R. Landsman regarding DPV (1 page)
12.	06/27/00	E-mail from G. Grant to P. Hiland, et.al. regarding DPV (1 page)
13.	07/14/00	E-mail from G. Grant to P. Hiland, et.al. regarding DPV (1 page)
14.	07/27/00	Memo from G. Grant to J. Dyer regarding Status of Ad Hoc Review Panel for DPV (1 page)
15.	08/03/00	E-mail from G. Grant to J. Dyer regarding DPV with attached 7/25/00 e-mail (2 pages)

16. 08/11/00 Memo from G. Grant to J. Dyer regarding Recommendation of Ad Hoc Review Panel for DPV (6 pages)
17. 08/17/00 Memo from J. Dyer to R. Landsman (with R. Landsman's comments) regarding DPV resolution (2 pages)
18. 08/17/00 Memo from J. Dyer to R. Landsman regarding DPV resolution with attached 8/11/00 memo (8 pages)
19. 08/22/00 Memo from J. Dyer to J. Grobe regarding Corrective Actions for D.C. Cook CEQ Fan Room Degraded Wall with attached 7/6/00 e-mail (2 pages)
20. 08/22/00 Memo from J. Dyer to J. Grobe regarding Corrective Actions for D.C. Cook CEQ Fan Room Degraded Wall with concurrence page (2 pages)

To: Geoffrey E. Grant, Chairman, DPV Panel

From: Pat Hiland, DPV Panel Member

SUBJECT: DPV REGARDING RESTART OF D.C. COOK UNIT 2

REFERENCES:

1. Memorandum Bajwa to Grobe, RESOLUTION OF DEGRADED CEQ FAN ROOM WALL, dated June 12, 1999.
2. D. C. Cook Action Request Status Report for AR A0156971, printed May 2, 2000.
3. D.C. Cook Condition Report P-99-27755 status screen page, printed April 18, 2000.
4. Summary of pour card data for CEQ walls, Calc. No. SD-000510-003, Page No. F5.
5. Westinghouse letter Rice to Hoskins, REACTOR CAVITY LOOP SUBCOMPARTMENT - PRESSURE TIME HISTORIES, dated April 27, 2000.
6. Westinghouse letter Rice to Greenlee, TMD ANALYSIS - CLARIFICATION OF 40% DESIGN MARGIN, dated June 1, 2000.
7. Summary of May 4, 2000, D.C. Cook public meeting, dated May 17, 2000.

The purpose of this memorandum is to document my assessment of the licensee's use of Generic Letter 91-18 (GL 91-18) in their decision to restart D.C. Cook Unit 2 with a degraded fan room wall in containment. For my assessment I utilized the technical guidance contained in NRC Manual Chapter (MC) 9900, "Resolution of Degraded and Nonconforming Conditions," dated October 8, 1997. A number of existing documents (References 1-7), collected by the DPV Panel, were also reviewed to assess available information utilized by the licensee and the NRC staff in their decision making. My assessments also included interviews with three NRC staff members (Grobe, Vegal, and Landsman) who were associated with the D.C. Cook 0350 Panel.

The differing professional view (DPV) was submitted June 6, 2000, and Reference #1 provided the staff's response to each of the issues raised to the D.C. Cook 0350 Panel Chairman. The DPV submittal presented five concerns relative to the guidelines of GL 91-18. Each of the DPV issues regarding use of GL 91-18, my assessment of the staff's response and/or licensee's use of GL 91-18, and my conclusions are as follows:

ISSUE

- **Availability of redundant or backup equipment - we have none.**
- **Compensatory measures - the licensee has stated that we would over pressurize the upper containment and possibly release radioactivity.**
- **Conservatism and margins - already explained above.**

ASSESSMENT

The staff's response to the above three issues states that the licensee demonstrated operability for the affected structural element, i.e. load factor is above 1.0; therefore, consideration of other factors is not necessary.

As noted in the guidance provided in MC 9900, Resolution of Degraded and Nonconforming Conditions, the above three items are included as items to consider for a "Reasonable Assurance of Safety." Additional items also listed in the MC include: safety function and events

A/11

protected against; probability of needing the safety function; and PRA or IPE results. The guidelines in MC 9900, Section 4.7, provides some insight into the NRC's expectations for when a compensatory action is to be implemented. Since the licensee was not required to establish a compensatory measure to restore operability of the affected structure, their decision to use-as-is for some interim basis is reasonable. This does not mean that action is not required to restore licensed design margin; rather, the operability demonstration suggests that the degree of degradation is less than for an item which requires compensatory action.

CONCLUSION

The licensee's use of GL 91-18, and the staff's acceptance of the licensee's operability evaluations with the interim "use-as-is" disposition (i.e. delay restoration of design margin) was in accordance with existing guidelines.

ISSUE

- **GL 91-18 refers to impact on core damage frequency. The containment is not needed for core damage frequency, but is needed for the large early release frequency (LERF).**

ASSESSMENT

The staff's response to this issue stated that since containment was operable but degraded, there was no substantive change in the probability of a large early release.

CONCLUSION

The conclusion of the NRC staff, as documented for Restart Action Matrix Issue R.3.17, was that the licensee's operability determination was reasonable and demonstrated the affected structure was operable. The affected structure was capable of performing its intended function. Based on the operability determination, the staff's conclusion that there was no substantive increase in a large early release frequency is appropriate.

ISSUE

- **G.L. 91-18 refers to timeliness. The licensee first identified problems with this wall on February 11, 1998. They did not start working on it in earnest until I became involved - over two years later. G.L. 91-18 allows the licensee to declare operability providing they implement corrective action at the first available opportunity, not to exceed the next refueling outage (usually 18 months). We are considerably past that time limit. Currently, the licensee has no plans to do any more on these walls then we have seen (calculations), as told to us during the June 1st meeting.**

ASSESSMENT

The staff's response to this issue described the sequence of observations and identified problems on the affected structure, which eventually led the licensee to conduct a detailed operability evaluation. References #2 and #3 documented the licensee's initial determination that the affected structure had "...severely degraded concrete coating and grout..." in February 1998. At the time of discovery the noted discrepancies were believed, as documented in the associated Action Request, not to impact the structure's operability. In November 1999 the severity of the nonconformance was more defined after repair work identified that structural repair, not cosmetic, would be required. In early 2000, the licensee appears to have concentrated their efforts on a use-as-is disposition for the affected structure. In May 2000 a public meeting was held with the licensee (Reference #7) and the NRC staff identified several

pieces of technical information that the NRC needed to do a thorough evaluation. The NRC staff interviewed, who were present at the May 2000 meeting, indicated that the licensee was not prepared or they did not understand the severity of the nonconformance. On June 1, 2000, another public meeting was held with the licensee to discuss their operability determination. At that meeting the licensee presented their corrective actions - post restart (Reference #1, Slide #29).

Manual Chapter 9900, Resolution of Degraded and Nonconforming Conditions, Section 4.3, states that when degraded or nonconforming conditions are identified, "The licensee **must** [emphasis added] establish a time frame for completion of corrective action."

CONCLUSION

The licensee's use of GL 91-18, and their decision to rely on the demonstrated operability determination without restoring and/or revising their Safety Analysis Report design margin prior to restart of D.C. Cook, Unit 2 was reasonable. As stated in the MC, the time frame governing corrective actions begins with the discovery of the condition. At issue is the response of the licensee to a known nonconformance originally identified in 1998. The documented information presents a reasonable argument that the licensee was effectively implementing their corrective actions according to the safety significance of the issue. The original nonconformance was believed to be only "cosmetic" problems with the concrete or grout. In late 1999 the licensee's corrective action programs were effective in recognizing that the problem required more than a cosmetic repair. Considering the analysis required and the increased severity of the degraded condition discovered in 2000, the licensee's decision to defer a permanent repair on the degraded structure was reasonable.

One issue not well documented nor clearly addressed is the licensee's time frame for completion of corrective actions. Through review of records and interviews of NRC staff present at the June 1, 2000, public meeting, the licensee did not initially present specific details regarding their time frame for completion of corrective actions. As a matter of record, the licensee deferred development of a schedule for permanent resolution until Unit 1 restart (Reference #1, slide 29). As noted during interviews, NRC management emphasized the NRC's expectations that corrective actions be implemented in accordance with current NRC guidance at the June 1 meeting, i.e. as soon as practical commensurate with the safety significance of the deficiency, but not later than the next refueling outage for Unit 2. The acceptability of the licensee's "corrective action - post restart" was partially based on verbal agreement from the licensee that adequate corrective actions would be implemented based on a schedule to be presented after Unit 2 restart. While this may be acceptable, a more substantive commitment or presentation from the licensee prior to restart of D.C. Cook Unit 2 would more closely align with the guidance of MC 9900.

OVERALL ASSESSMENT

The licensee's use of the guidance in GL 91-18 to restart D.C. Cook, Unit 2, was appropriate. The licensee and the NRC followed the guidance documents with some judgement used for accepting the licensee's commitment for a time frame for permanent corrective actions.

INDEX OF COLLECTED DATA FOR DPV ON D.C. COOK, UNIT 2

ITEM 1 - ACTION REQUEST STATUS REPORT (5 PAGES) FOR AR A0156971

ITEM 2 - CONDITION REPORT P-99-27755 STATUS SCREEN PAGE DATED 4/18/00

ITEM 3 - SUMMARY OF POUR CARD DATA SHOWING STRENGTH AT 4807 VS. 4867 psi

ITEM 4 - WESTINGHOUSE LETTER DATED APRIL 27, 2000, REQUIRED 40% MARGIN

ITEM 5 - WESTINGHOUSE LETTER DATED JUNE 1, 2000, REMOVES 40% MARGIN

A/2

REPORT REQUESTOR: BARTLETT, B.L.

*** ACTION REQUEST ***

Page: 1

A/R Type : CM
Pri/Ctd : 35
Request Org : ENPT
Request Date: 11FEB98
Requested By: PHELAN, S.M.
Pend Reason :

A/R Number : A0156971
A/R Status : COMPLT
Status Date: 20APR00
Last Update: 26APR00
Print Date : 02MAY00

A. Equipment Code Related Information.

Comp Nbr: FEG : 295.01 Unit: 2 System: Type:
Desc: UNIT 2 CONTAINMENT
Disp FEG: 295.01
Unit Loc: Bldg: Elevation: Room No.: Safety Rel:
A/R Tag?: N Tag Loc: N/A Maint. Cat.: P

A/R Desc: INVESTIGATE DEGRADED CONCRETE IN 2-HV-CEQ-2 FAN ROOM.

B. Detail Description and Location of Problem.

DURING MATERIAL CONDITION WALKDOWN, SEVERELY DEGRADED
CONCRETE COATING AND GROUT WITH LOOSE PIECES WERE FOUND
AT THE TOP CORNER OF THE WEST WALL DIRECTLY OVER THE FAN
HOUSING. (CONTINUED)
THIS CONDITION DOES NOT IMPACT 2-HV-CEQ-2 OPERABILITY.
THE COMPONENT NUMBER WAS USED ONLY TO DESIGNATE LOCATION.
G. 295.01
SENT TO IPSO FOR U2R ADD REVIEW
NOT APPROVED FOR U2R97 PER ORB U2R99
ASSIGNED NNPC BY NNSC
ADDED TO U2R97 PER MT CM BACKLOG REVIEW
C45329-01 PRINTED/ISSUED TO P. RICHARD VIA JAY NIYOGI
C45329-01 REFILED DUE TO ENGINEERING FLAG
C45329-01 REPRINTED/RE-ISSUED TO PHIL RICHARD VIA GFR
C45329-01 SENT TO NRM 4/22/00

SMP	11FEB98
JAH	12FEB98
JAH	12FEB98
JAH	12FEB98
JMC	12FEB98
LCH	19DEC98
JMC	21OCT99
JMC	28FEB00
JMC	10APR00
JMC	26APR00

REPORT REQUESTOR: BARTLETT, B.L.

*** ACTION REQUEST ***

Page: 2

A/R Type : CM
Pri/Ctd : 35
Request Org : ENPT
Request Date: 11FEB98
Requested By: PHELAN, S.M.
Pend Reason :

A/R Number : A0156971
A/R Status : COMPLT
Status Date: 20APR00
Last Update: 26APR00
Print Date : 02MAY00

=====
Date Required : N/A
Supervisor Rvw'd: VERTERAMO, A.X.
Reg Doc Cd :
A/R Pkg Nbr :

Date: 11FEB98
Commitment Nbr:
Recurring Task Nbr:

C. FAILURE STATUS CODE

Sta Review?: N Tech Spec Rel? : Detect Code : N
Syst. Code : N Severity Level : L Plant Effect: G Syst Stat Code: A
Comp. Inop?: N Equip Req'd Mode: N/A /
SS Notified: N SS Name: N/A RCM When/How Discovered: I
RCM System Status Code: F

D. Action Request Plan Information.

A/R Accepted By : ROLAND, G.F.

Date: 17JUN98

Assigned Org: NNCP Assigned To: ROLAND, G.F.
Action Plan Desc: INSPECT/REPAIR CONCRETE IN 2-HV-CEQ-2 AREA

Planning Code: RO2
Network Name: U2R97

Design Change: - -00000-

CR Number: 00-00610 Work Complete: N ECAP Updated: N
CR Number: 99-27755 Work Complete: N ECAP Updated: N

A/R Completed By: CLARK, J.M.

Date: 20APR00

62-00 000000 00 0000
REPORT REQUESTOR: BARTLETT, B.L.

*** ACTION REQUEST ***

Page: 3

A/R Type : CM
Pri/Ctd : 35
Request Org : ENPT
Request Date: 11FEB98
Requested By: PHELAN, S.M.
Pend Reason :

A/R Number : A0156971
A/R Status : COMPLT
Status Date: 20APR00
Last Update: 26APR00
Print Date : 02MAY00

=====
Evaluation Nbr: 01 Eval Type: TSOP Eval Status/Date: COMPLT 13FEB98
Evaluating Org: OPST Eval Due Date: 12FEB98
Evaluation Ind: BRUCK, D.A. Date Assigned: 12FEB98
Eval Request Org : ENPT
Eval Request Indv: PHELAN, S.M.
Eval Approved By : KARNES, D.R. Eval Approved Date: 13FEB98
Prob. Report Initiated : Prob. Report Nbr: Date Complt: N/A
Eval Desc: EVALUATE FOR TECH SPEC CONCERNS

CONCRETE COATINGS AND SURFACE DAMAGE DOES NOT EFFECT THE	DAB	12FEB98
STRUCTURAL INTEGRITY OF THE CONCRETE IN THE CONTAINMENT	DAB	12FEB98
WALLS. THIS IS A LONG TERM DEGRADATION ISSUE AND NOT AN	DAB	12FEB98
NEAR TERM OPERABILITY ISSUE. THERE ARE NO OTHER	DAB	12FEB98
OPERABILITY OR T/S CONCERNS.	DAB	12FEB98

**SUMMARY OF POUR CARD DATA FOR CEQ/ACCUMULATOR/INSTRUMENT R
WALLS FROM ELEVATION 612'-0" TO 638"-0"**

Wall	Elevations	Pour Number	
AZ 54°	631' - 638'	2C18D7	3/4/1974
	622' - 631'	2C18D3	2/25/1974
	612' - 622'	Not Retrievable	
AZ 126°	631'-5 1/4" - 638'-0"	2C18D8	4/2/1974
	622' - 631'-5 1/4"	2C18D4	3/21/1974
	612' - 622'	2C18C5	3/6/1974
AZ 234°	631'-9 1/4" - 638'	2C18D9	6/11/1974
	622' - 631'- 5 1/4"	2C18D5	4/2/1974
	612' - 622'	2C18C6	3/21/1974
AZ 307°	626'-10 1/2" - 638'	2C18D6	6/3/1976
	612' - 624'-4 1/2"	2C18C9	3/15/1976

Concrete Break Strength in psi

Wall	Pour #	3 Day	3 Day	7 Day	7 Day	28 Day	28 Day
		1 st Test	2 nd test	1 st Test	2 nd test	1 st Test	2 nd test
AZ 54°	2C18D7	2805	2858	4220	4294	5585	5547
	2C18D3	2455	2557	3785	4018	5656	5759
AZ 126°	2C18D8	2402	2455	4238	4198	5476	5419
	2C18D4	2575 (4days)	2480 (4days)	4050	4149	4807	4892
	2C18C5	2448	2398	4167	4117	5688	5603
AZ 234°	2C18D9	2253	2349	3353	3180	4949	4998
	2C18D5	2402	2455	4238	4198	5476	5419
	2C18C6	2575 (4 days)	2480 (4 days)	4050	4149	4807	4892
AZ 307°	2C18D6			4227	4015	5253	5164
				4139	3997		
	2C18C9	3272	3325	4262	4262	5536	5695

[Handwritten signature]

Concrete strength
Should be 4807 psi
not 4867 psi

Item #4
(3 pages)



Westinghouse
Electric Company LLC

Box 355
Pittsburgh Pennsylvania 15230-0355

AEP-00-139
April 27, 2000

Mr. Mike Hoskins
American Electric Power
500 Circle Drive
Buchanan, Michigan 49107

AMERICAN ELECTRIC POWER
DONALD C. COOK NUCLEAR PLANT UNITS 1 AND 2
REACTOR CAVITY AND LOOP SUBCOMPARTMENT – PRESSURE TIME HISTORIES

- References:
1. AEP-00-063, "American Electric Power Donald C. Cook Nuclear Plant Units 1 & 2, Reactor Cavity Subcompartment Analysis (CR 99-02649)", 2/15/00
 2. AEP-99-369, "American Electric Power Donald C. Cook Nuclear Plant Units 1 & 2, Input for Electronic Corrective Action Plan SN P-99-2650", 10/18/99

Dear Mr. Kingseed,

Westinghouse performed a reanalysis of the reactor cavity and loop subcompartment to include the effects of as-built plant data. The results of these analyses were formally transmitted to American Electric Power (References 1 and 2). Mr. Satyananda Chakrabarti, AEP, recently requested additional information regarding these analyses and clarification of the respective TMD subcompartment analyses. The specific questions asked by Mr. Chakrabarti and the Westinghouse responses to them are contained in the attached letter.

This work was performed under AEP Contract Number C-7693, Release 00-03 (DETR-00-018). Please contact Mr. Don Peck (412-374-2052) or me if you have further questions on this subject.


W. R. Rice
Customer Projects Manager

Attachment

cc: Ken Green - AEP (Buchannon)
Jeff Smetters - AEP (SGRP Grp., D. C. Cook, Unit 1)
Satyananda Chakrabarti - AEP (Buchannon)



LTR-CRA-00-94

From : Containment and Radiological Analysis
WIN : 284-4079
Date : April 27, 2000
Subject : Donald C. Cook – Reactor Cavity & Loop Subcompartment – Pressure Time Histories

- Ref 1) : CN-CRA-00-10-R0, "D. C. Cook Units 1 and 2 (AEP/AMP) – Evaluation of Input Changes to the TMD Reactor Cavity Subcompartment Model", 02/09/2000.
- 2) : CN-CRA-99-81-R0, "D. C. Cook Units 1 and 2 (AEP/AMP) – Evaluation of Input Changes to the TMD Loop Subcompartment Model", 10/15/1999.
- 3) : AEP-00-063, "American Electric Power Donald C. Cook Nuclear Plant Units 1 & 2 Reactor Cavity Subcompartment Analysis (CR 99-02649)", 02/15/2000.
- 4) : AEP-99-369, "American Electric Power Donald C. Cook Nuclear Plant Units 1 & 2 Input for Electronic Corrective Action Plan SN P-99-2650", 10/18/1999.
- 5) : CN-COA-88-005, "AEP/AMP Thot Reduction Program – Subcompartment Evaluation", 08/3/1988.
- 6) : CN-CRA-99-94-R0, "D. C. Cook Units 1 and 2 (AEP/AMP) – Evaluation of Input Changes to the TMD Fan/Accumulator Room Subcompartment Model", 10/28/1999.
- 7) : CN-CRA-99-57-R1, "D. C. Cook Units 1 and 2 (AEP/AMP) – Ice Condenser Blowdown Loads", 11/09/1999.
- 8) : AEP-99-397, "American Electric Power Donald C. Cook Nuclear Plant Units 1 & 2 Condition Report Number 99-2647 – Fan Accumulator Analysis", 11/3/99.

To: D. E. Peck

cc: E. C. Arnold
W. R. Rice

Westinghouse reanalyzed the reactor cavity and loop subcompartment to include the effects of as-built plant data. Reference 1 and Reference 2 document the analysis. The results were formally transmitted to the customer in Reference 3 and Reference 4.

Mr. Chakrabarti of AEP has recently requested additional input and clarification of the respective TMD subcompartment analyses. Following is a listing of the specific questions and our responses:

1. Required Clarification for Design Margins

Does Westinghouse require a design margin to be applied to the pressures from TMD analyses? If yes, what is the required design margin?

Response

Following is an excerpt from the current Donald C. Cook Nuclear Plant UFSAR:

"The LOCA mass and energy analysis has been performed in accordance with the criteria shown in the Standard Review Plan (SRP) section 6.2.1.3. In this analysis, the relevant requirements of General Design Criteria (GDC) 50 and 10 CFR Part 50 Appendix K have been included by confirmation that the calculated

pressure is less than the design pressure, and because all available sources of energy have been included, which is more restrictive than the old GDC criteria, Appendix H of the original FSAR, to which the Donald C. Cook Plants are licensed. These sources include: reactor power, decay heat, core-stored energy, energy stored in the reactor vessel and internals, metal-water reaction energy, and stored energy in the secondary system.

Although the Donald C. Cook Nuclear Plant is not a standard review plan plant, the containment integrity peak pressure analysis has been performed in accordance with the criteria shown in the SRP Section 6.2.1.1.b, for ice condenser containments. Conformance to GDC's 16, 38, and 50 is demonstrated by showing that the containment design pressure is not exceeded at any time in the transient. This analysis also demonstrates that the containment heat removal systems function to rapidly reduce the containment pressure and temperature in the event of a LOCA."

Similarly for the subcompartment analyses, although the Donald C. Cook Nuclear Plant is not a standard review plan plant, the subcompartment pressure analyses have in general been performed in accordance with the criteria shown in the SRP. Applicable margins are discussed in SRP section 6.2.1.1.b (NUREG-0800 Rev. 2 July 1981), page 6.2.1.1.B-4,

"For plants being reviewed for construction permits, the design differential pressures for all ice condenser control volumes or subcompartments, and system components (e.g., reactor vessel, pressurizer, steam generators) and supports, should provide at least 40% margin above the highest calculated differential pressures. For plants being reviewed for operating licenses, the highest calculated differential pressures for all ice condenser control volumes or subcompartments should not exceed the corresponding design differential pressures."

Research by both AEP and Westinghouse, as part of the review of Condition Reports 99-02649 and 99-2650, determined that there was not a sound basis for all of the input used in the subcompartment analyses. In these instances, the data was recreated. However, the balance of the input, for which adequate documentation existed, was not recreated. This input could be based upon design information, or it could be current, but the status was not verified. The latest subcompartment re-analysis utilized this hybrid set of information. Since it has not been confirmed that all of the TMD input data is as-built information, it is Westinghouse's interpretation that the 40% margin is required. It is also the opinion of Westinghouse that this can be relaxed once all data is verified as being as-built.

Imp

2. Reactor Cavity (Ref. Westinghouse letter AEP-00-058)

a) We need the time history for the peak upper reactor cavity pressure of 79.0 psi.

Response

Figure 1 illustrates the pressure time history for the upper reactor cavity.

b) We need the time history for the peak missile shield differential pressure of 79.2 psi.

Response

The time history plot for the missile shield differential pressure is not available. However, Figure 1, which illustrates the pressure time history for the upper reactor cavity, and Figure 2, which illustrates the pressure time history for the upper containment, can be used to determine the time history differential pressure.



Item # 5
(3 pages)

Westinghouse
Electric Company LLC

Box 355
Pittsburgh Pennsylvania 15230-0355

AEP-00-178

June 1, 2000

05/11/00
Mr. Scott Greenlee
American Electric Power
500 Circle Drive
Buchanan, Michigan 49107

AMERICAN ELECTRIC POWER
DONALD C. COOK NUCLEAR PLANT UNITS 1 AND 2
TMD Analysis - Clarification of 40% Design Margin

Dear Mr. Greenlee,

Per your request, Westinghouse is providing the attached letter to provide clarification of the 40 % design margin discussed in Standard Review Plan (SRP) section 6.2.1.1.B (NUREG-0800, Rev. 2, July 1981), page 6.2.1.1.B-4. Specifically, the attached letter discusses the applicability of the design margin to the Donald C. Cook Nuclear Plant TMD Analyses performed by Westinghouse.

Please contact Mr. Don Peck (412-374-2052) or me if you have further questions on this subject.

William R. Rice
W. R. Rice
Customer Projects Manager

Attachment

cc: Brenda Kovarik - AEP, Bridgman
NDM - AEP, Bridgman - Mail Zone #1

LTR-CRA-00-124

From : Containment and Radiological Analysis
WIN : 284-4079
Date : June 01, 2000
Subject : Donald C. Cook – Clarification of 40% Design Margin
Ref 1): CN-CRA-99-111-R0, "D. C. Cook Units 1 and 2 (AEP/AMP) – Evaluation of Input Changes to the TMD Steam Generator Enclosure Subcompartment Model", 11/19/99.
2): CN-CRA-99-081-R0, "D. C. Cook Units 1 and 2 (AEP/AMP) – Evaluation of Input Changes to the TMD Loop Subcompartment Model", 10/15/99.
3): CN-CRA-00-010-R0, "D. C. Cook Units 1 and 2 (AEP/AMP) – Evaluation of Input Changes to the TMD Reactor Cavity Subcompartment Model", 02/09/00.
4): CN-CRA-99-094-R0, "D. C. Cook Units 1 and 2 (AEP/AMP) – Evaluation of Input Changes to the TMD Fan/Accumulator Subcompartment Model", 10/28/99.
5): CN-CRA-99-123-R0, "D. C. Cook Units 1 and 2 (AEP/AMP) – Evaluation of Input Changes to the TMD Pressurizer Enclosure Subcompartment Model", 01/14/00.
6): CN-COA-88-005-R0, "AEP/AMP That Reduction Program – Subcompartment Evaluation", 8/3/88.
7): LTR-CRA-00-94, "Donald C. Cook – Reactor Cavity & Loop Subcompartment – Pressure Time Histories", 4/27/00, (AEP-00-139).
8): NUREG-0800 Rev.2 July 1981, Section 6.2.1.1.b.

To: D. E. Peck

cc: E. C. Arnold
W. R. Rice

Over the last year, Westinghouse reanalyzed the steam generator enclosure, reactor cavity, loop subcompartment, pressurizer doghouse, and fan accumulator room to include the effects of as-built plant data on the TMD results. Reference 1 through 5 are the calculations that document these analyses.

Reference 6 documents the evaluation conducted as part of the 1988 That Reduction Program.

Reference 7 supplied additional clarification input for the Reactor Cavity & Loop Subcompartment Analyses. This reference also discussed the 40 % design margin of Reference 8, for example, the following is taken directly from Reference 7,

"Research by both AEP and Westinghouse, as part of the review of Condition Reports 99-02649 and 99-2850, determined that there was not a sound basis for all of the input used in the subcompartment analyses. In these instances, the data was recreated. However, the balance of the input, for which adequate documentation existed, was not recreated. This input could be based upon design information, or it could be current, but the status was not verified. The latest subcompartment re-analysis utilized this hybrid set of information. Since it has not been confirmed that all of the TMD input data is as-built information, it is Westinghouse's interpretation that the 40% margin is required. It is also the

opinion of Westinghouse that this can be relaxed once all data is verified as being as-built."

The purpose of this letter is to clarify further the 40% margin statement of Reference 7.

If the plant specific data supplied by AEP, and used for the steam generator enclosure, reactor cavity, loop subcompartment, pressurizer doghouse, and fan accumulator room subcompartment analyses, are as-built information, then it is Westinghouse's opinion that the 40% margin is not required for application in the evaluation of the structural capability of these subcompartments.

As long as the as-built information supplied by AEP is correct, and considering the inherent analysis conservatisms, the actual accident subcompartment pressurization will not exceed the calculated values.

Please formally transmit this information to AEP.

Should you have any questions, please contact the undersigned.



L. C. Smith
Containment and Radiological Analysis

Reviewed by:



J. A. Kolano
Containment and Radiological Analysis

Differing Professional Views or Opinions

***Directive
10.159***

A/3

Contents

Policy	1
Objectives	1
Organizational Responsibilities and Delegations of Authority	2
The Commission	2
Executive Director for Operations (EDO)	2
Chief Information Officer (CIO)	3
Director, Office of Human Resources (HR)	4
Office Directors and Regional Administrators	4
Definitions	5
Applicability	6
Handbook	6
References	6



U. S. Nuclear Regulatory Commission

Volume: 10 Personnel Management
Part: 7 General Personnel Management
Provisions

HR

Differing Professional Views or Opinions Directive 10.159

Policy

(10.159-01)

It is the policy of the U.S. Nuclear Regulatory Commission to maintain a working environment that encourages employees to make known their best professional judgments even though they may differ from a prevailing staff view, disagree with a management decision or policy position, or take issue with proposed or established agency practices.

Objectives

(10.159-02)

- To establish an informal process for expressing differing professional views (DPVs) and a formal process for expressing differing professional opinions (DPOs) concerning issues directly related to the mission of the NRC. (021)
- To ensure the full consideration and prompt disposition of DPVs and DPOs by affording an independent, impartial review by qualified personnel. (022)
- To ensure that all employees have the opportunity to express DPVs and DPOs in good faith, have these views heard and considered by NRC management, and, to the extent practicable, participate fully in the process from beginning to end. (023)
- To protect employees from retaliation in any form for expressing a differing viewpoint. (024)
- To recognize submitters of DPVs and DPOs when they have contributed significantly to the mission of the agency. (025)
- To provide for periodic assessment, as necessary, to ensure that implementation of these procedures accomplishes the stated objectives and to recommend appropriate changes. (026)

Volume 10, Part 7 – General Personnel Management Provisions
Differing Professional Views or Opinions
Directive 10.159

Organizational Responsibilities
and Delegations of Authority
(10.159-03)

The Commission
(031)

- Notifies the Director, Office of Human Resources (HR), that a DPO has been received. (a)
- Convenes an ad hoc review panel for the review of a DPO. (See Handbook 10.159(C)(2) for more information on the panel.) (b)
- Determines the disposition of DPOs submitted by employees in offices reporting directly to the Chairman or Commission and informs the DPO submitter of the final decision and the rationale for it. (c)
- Takes action, as appropriate, on matters that appear to be of immediate health or safety significance. (d)
- Utilizes appropriate and qualified sources inside and outside the NRC to assist in reviewing a DPO. (e)
- Provides to the Office of the Executive Director for Operations (EDO) a summary of the issue and its disposition for the Weekly Information Report. (f)
- Reviews applicable portions of DPV/DPO files for information exempt under the Freedom of Information Act (FOIA), and identifies such information, if any, to the Freedom of Information/Local Public Document Room Branch (FOI/LPDRB), Office of the Chief Information Officer (OCIO). (g)
- Sends all completed DPO case files to HR in accordance with Handbook 10.159(C)(4). (h)
- Periodically reviews and modifies the DPV and DPO process based on recommendations from the EDO and the special review panel. (i)

Executive Director for Operations (EDO)
(032)

- Notifies the Director, HR, that a DPO has been received. (a)

Approved: August 29, 1991
(Revised: August 15, 1997)

**Volume 10, Part 7 – General Personnel Management Provisions
Differing Professional Views or Opinions
Directive 10.159**

Executive Director for Operations (EDO)

(032) (continued)

- Convenes an ad hoc review panel for the review of a DPO (see Handbook 10.159 (C)(2) for more information on the panel). (b)
- Determines the disposition of DPOs submitted by employees in offices reporting directly to the EDO and informs the DPO submitter of the final decision and the rationale for it. (c)
- Takes action, as appropriate, on matters that appear to be of immediate health or safety significance. (d)
- Utilizes appropriate and qualified sources inside and outside the NRC to assist in reviewing a DPO. (e)
- Provides a summary of the issue and its disposition in the Weekly Information Report (NRC weekly memorandum from the Office of the EDO to the Commissioners). (f)
- Reviews applicable portions of DPV/DPO files for information exempt under FOIA regulations, and identifies such information, if any, to the FOI/LPDRB, OCIO. (g)
- Sends all completed DPO case files to HR in accordance with Handbook 10.159(C)(4). (h)
- Periodically appoints members to a special review panel to review the effectiveness of the DPV and DPO process. (i)
- Reviews the special review panel's report and makes recommendations to the Commission, as necessary. (j)
- Publishes periodic announcements declaring that diversity of viewpoints is a strength and a potential source of valuable ideas. (k)

Chief Information Officer (CIO)

(033)

- Establishes records disposition schedules for DPVs and DPOs in accordance with regulations of the National Archives and Records Administration. (a)

Volume 10, Part 7 – General Personnel Management Provisions
Differing Professional Views or Opinions
Directive 10.159

■ **Chief Information Officer (CIO)**
(033) (continued)

- Maintains at the NRC File Center all completed DPOs according to the authorized disposition contained in NUREG-0910, "NRC Comprehensive Records Disposition Schedule." (b)

■ **Director, Office of Human Resources (HR)**
(034)

- Monitors the number of DPO submittals being processed in the agency. (a)
- Transmits all completed DPO case files for review and disposition in accordance with Handbook 10.159(C)(4). (b)
- Ensures that appropriate parts of DPOs and their dispositions are disseminated or made available to the public in accordance with the provisions of the Freedom of Information Act. (c)
- Provides administrative support to the Commission, EDO, office directors, regional administrators, and the special review panel in carrying out their responsibilities for DPV and DPO processing. (d)

**Office Directors and
Regional Administrators**
(035)

- Determine the disposition of a DPV submitted by an employee within their office or region and inform the DPV submitter of the decision and its rationale. (a)
- Appoint an ad hoc review panel when a DPV is submitted by an employee assigned to their office or region, and include an employee designated by the Office of Enforcement to be a fourth member of a review panel when the subject of the DPV involves an enforcement issue. (See Handbook 10.159 (B)(3)(b) for more information about the panel.) (b)
- Take action on and advise the EDO or Commission of submittals that appear to be of immediate health or safety significance. (c)
- Utilize technical assistance from other NRC offices and regions or from outside the agency, as necessary, to address a highly specialized issue. (d)

Approved: August 29, 1991
(Revised: August 15, 1997)

**Volume 10, Part 7 – General Personnel Management Provisions
Differing Professional Views or Opinions
Directive 10.159**

**Office Directors and
Regional Administrators**
(035) (continued)

- Provide a summary of the issue and its disposition in the Weekly Information Report. (e)
- Submit a completed DPV (or applicable portions of DPV) through the Director, HR, to the PDR when the submitter requests in writing that the DPV be made public in accordance with Handbook 10.159(B)(4)(e). (f)
- Maintain documentation necessary to preserve an accurate record of the DPV proceedings in accordance with Handbook 10.159(B)(5). (g)
- Review applicable portions of DPV/DPO files for information exempt under FOIA regulations, and identify such information, if any, to the FOI/LPDRB, OCIO. (h)
- When an employee chooses to continue the issue through the formal DPO process, a copy of the DPV records should be provided to the EDO or Commission, as appropriate. (i)

Definitions
(10.159-04)

Confidential Submittal. A DPV or DPO that is submitted by an employee through an NRC manager who knows that the submitter is an agency employee.

Differing Professional Opinion. A DPV becomes a DPO after it has been processed and decided and the submitter requests that the matter be considered further by the EDO or Commission.

Differing Professional View. A conscientious expression of a professional judgment that differs from the prevailing staff view, disagrees with a management decision or policy position, or takes issue with a proposed or an established agency practice involving technical, legal, or policy issues.

Retaliation. Personnel action that is taken (or not taken in the case of a personnel benefit), recommended, or threatened because of the expression or support of a DPV or DPO (see "Prohibited Personnel Practices").

**Volume 10, Part 7 – General Personnel Management Provisions
Differing Professional Views or Opinions
Directive 10.159**

Applicability

(10.159-05)

The policy and guidance in this directive and handbook apply to all NRC employees, including supervisors and managers.

Handbook

(10.159-06)

The handbook provides procedures for the expression and disposition of DPVs or DPOs.

References

(10.159-07)

Federal Advisory Committee Act (5 U.S.C. App. I).

Freedom of Information Act (5 U.S.C. 552).

Management Directive 10.72, "Incentive Awards."

--- 10.99, "Discipline, Adverse Actions, and Separations."

--- 10.101, "Employee Grievances."

NUREG-0910, "NRC Comprehensive Records Disposition Schedule."

"Prohibited Personnel Practices," Merit System Principles (5 U.S.C. 2302(a)(2)(A)).

Differing Professional Views or Opinions

***Handbook
10.159***

Contents

Procedures for the Expression and Disposition of Differing Professional Views and Opinions	1
Introduction (A)	1
Informal Process for Expressing Differing Professional Views (B).....	3
Submittals (1)	3
Confidentiality (2)	3
DPV Ad Hoc Review Panel (3)	4
Review and Decision (4)	5
Records (5)	6
Formal Process for Expressing Differing Professional Opinions (C)	7
Submittals (1)	7
DPO Ad Hoc Review Panel (2)	7
Review and Decision (3)	8
Records (4)	9
Resources To Assist Originators of Differing Professional Views or Opinions (D)	10
Special Review Panel (E)	10
Prevention of Retaliation (F).....	11
 Exhibit	
Processing Differing Professional Views or Opinions	12

Procedures for the Expression and Disposition of Differing Professional Views and Opinions

Introduction (A)

In the free and open discussion of agency issues, professional differences of opinion are common. Employees normally try, and are encouraged, to resolve their concerns through discussions with their co-workers and immediate supervisors. Individual employees are permitted to document their differing professional viewpoints and attach them to proposed staff positions or other documents, to be forwarded with the position as it moves through the management approval chain. Individual employees are strongly encouraged to discuss their differing professional viewpoints within the chain of command, especially with their immediate supervisors, as a first step towards resolution of the issue. No recordkeeping or documentation of this discussion is required. (1)

A difference of opinion, developed in the free and open discussion of work matters, only becomes a differing professional view (DPV) or a differing professional opinion (DPO) when the employee brings it to management's attention in accordance with these procedures. (2)

In some cases, informal discussions may not resolve the matter and an employee may be convinced that the agency and the public would be better served if another opinion prevailed. To file a differing professional view, an employee must submit a written statement to his or her supervisor, line management official, office director, or regional administrator using the procedures in this handbook. Anonymous submittals will not be considered under the provisions of this process. (3)

Volume 10, Part 7 – General Personnel Management Provisions
Differing Professional Views or Opinions
Handbook 10.159

Introduction (A) (continued)

Issues that do not qualify as differing professional views or opinions include issues that are or could have been appropriately addressed under grievance procedures, personnel appeal procedures, or are governed by law or Governmentwide regulation; issues that are subject to collective bargaining; issues involving allegations of wrongdoing that are appropriately addressed by the Office of the Inspector General; issues submitted anonymously which, if safety significant, are appropriately addressed under NRC's Allegation Program; issues that are deemed to be frivolous or otherwise not in accordance with the policy underlying these procedures; and issues raised by an employee that already have been considered, addressed, or rejected pursuant to this directive absent significant new information. (4)

Issues raised through the informal process are called DPVs. Responsibility for ensuring review of the DPV and making and communicating a decision on the issue rests within the office or region of the submitter. This office or region may utilize expertise elsewhere in the agency to assess or resolve the issue. Although the informal process may appear to be structured, it is intended to be a vehicle for the prompt, nonconfrontational consideration of issues by an impartial review panel, independent of an employee's direct supervisors, with a minimum of documentation. (5)

If the employee is not satisfied with the disposition of the issue through the informal process of a DPV, the employee may file a DPO. The DPO would be filed with the Executive Director for Operations (EDO) if working in a region or an office reporting to the EDO, or with the Commission if working in an office reporting to the Chairman or Commission. If an issue is submitted directly to the EDO or Commission before consideration as a DPV, it is immediately forwarded to the submitter's office or region for review as a DPV through the informal process before action is considered through the formal DPO process. (6)

The exhibit to this handbook provides a quick-reference guide for processing DPVs and DPOs. (7)

Informal Process for Expressing Differing Professional Views (B)

Submittals (1)

The DPV process is initiated by a written statement submitted by an employee of NRC either through the management chain or directly to the office director or regional administrator who will then forward it to a specially convened ad hoc review panel within 5 calendar days. Employees who are contemplating the submittal of a DPV and officials who receive a DPV are encouraged to contact the Director, Office of Human Resources (HR), for guidance on the process. (a)

The written statement, while being brief, must in all cases include—(b)

- A summary of the prevailing staff view, existing management decision or stated position, or the proposed or established agency practice (i)
- A description of the submitter's views and how they differ from any issues discussed in item (i) above (ii)
- An assessment of the consequences should the submitter's position not be adopted by the agency (iii)

All submittals must go through the DPV process before they can be processed as a DPO. (c)

Certain types of issues are excluded from this process and may be rejected by the office director or regional administrator. These include those issues that do not qualify as a DPV as stated in Section (A)(4) of this handbook. (d)

Confidentiality (2)

If an employee wishes to submit a DPV but desires confidentiality, the employee may submit an unsigned DPV to an NRC manager who agrees to act as a surrogate submitter. Disposition of the DPV will then be completed in accordance with these procedures. To protect the employee's confidentiality in such cases, it may not be possible to provide acknowledgment of receipt of the statement or disposition directly to the submitter. In these cases, the manager who forwarded the DPV shall relay to the originator both the acknowledgment of receipt and all reports received by that manager concerning disposition or resolution of the DPV. (a)

Informal Process for Expressing Differing Professional Views (B) (continued)

Confidentiality (2) (continued)

Anonymously submitted DPVs are not covered by the provisions of this directive and handbook. Anonymous submissions will be referred to the Office of Investigations, the Office of the Inspector General, or the appropriate Allegation Program Manager. (b)

DPV Ad Hoc Review Panel (3)

An ad hoc review panel will be established on a case-by-case basis in each office and region to review each DPV. The panel is appointed in writing by the regional administrator or office director. (a)

The panel should include—(b)

- A chairperson and one member appointed by management who is technically qualified in the subject area being reviewed (i)
- A third panel member chosen by the ad hoc panel chairperson from a list proposed by the employee submitting the DPV (The submitter may consult with the exclusive bargaining unit representative to nominate qualified individuals who are willing to serve as a third panel member.) (ii)
- A fourth panel member chosen by the Director, Office of Enforcement (OE), when the subject of the DPV involves an enforcement issue (iii)
- When deemed appropriate by the office director or regional administrator, one member of the Atomic Safety and Licensing Board Panel may be appointed as an additional member of the ad hoc panel (iv)

The panel shall—(c)

- Review the DPV and make recommendations to the office director or regional administrator (i)
- Determine whether sufficient documentation was provided by the DPV submitter for the panel to undertake a detailed review (ii)
- Request technical assistance through the submitter's office director or regional administrator, if necessary (iii)

Informal Process for Expressing Differing Professional Views (B) (continued)

DPV Ad Hoc Review Panel (3) (continued)

The panel should normally review the DPV within 7 calendar days of receipt to determine if enough information has been supplied to undertake a detailed review of the issue. The panel should informally contact the employee or the manager who forwarded the DPV to discuss the information provided and request any additional information, if needed. (d)

Those involved in the informal review process shall give priority handling to an issue that may involve immediate or significant health and safety concerns. This includes calling the issue to the immediate attention of higher management. (e)

Review and Decision (4)

To the extent possible, DPV reviews should be conducted independently and not involve individuals who have directly participated in the formulation of the agency position that is at issue. The review should include communication with submitters (or their representative) to provide them with the opportunity to further clarify their views. (a)

Office directors or regional administrators may utilize technically qualified sources inside and outside the NRC to assist in reviewing the DPV. If assistance from outside the agency is required, the requirements of the Federal Advisory Committee Act must be considered. (b)

Once the panel has received the necessary information to begin a review, the panel normally should take no more than 30 calendar days to make a recommendation to the office director or regional administrator. (c)

The office director or regional administrator should review the panel's recommendations and provide the employee or manager who submitted the DPV with a decision and rationale for that decision. Normally, this should occur within 7 calendar days after receipt of the panel's recommendations. (d)

Informal Process for Expressing Differing Professional Views (B) (continued)

Review and Decision (4) (continued)

A summary of the issue and its disposition should be included in the Weekly Information Report to advise interested employees of the outcome. If the submitter indicates in writing a desire to have his or her DPV made available to the public, with or without release of his or her name, the appropriate office director or regional administrator should send the completed DPV case file to the Freedom of Information/Local Public Document Room Branch (FOI-LPDRB), Office of the Chief Information Officer (OCIO). The FOI-LPDRB will coordinate the review of the records in the DPV case file with the originating offices/regions for a releasability determination. When the review is complete, the FOI-LPDRB will return the DPV case file to the appropriate director or regional administrator. The office director or regional administrator will send the releasable portions of the DPV case file to the Public Document Room (PDR). (e)

Extenuating circumstances may cause delays in concluding the DPV process. Notice of delays should be communicated to the submitter or, in the event of a confidential statement, communicated to the manager who forwarded the DPV. If the review and disposition of the DPV does not occur within 60 calendar days from the date of receipt by the office director or regional administrator, the reason for delay should be reported to the EDO for employees of these offices reporting directly to the EDO or to the Commission for employees in offices reporting directly to the Commission. (f)

Records (5)

DPV records should be maintained and available only within the region or office unless the DPV was sent to the PDR, where it also will be available. A copy of the panel report and decision memorandum should be sent to the Director, OE, whenever a DPV ad hoc review panel includes a member chosen by OE. (a)

If the DPV is not settled to the satisfaction of the submitter and the submitter requests in writing that the issue be further reviewed under formal DPO procedures, the office director or regional administrator will forward the original case file along with a statement of views on the unresolved issue(s) to the EDO or Commission, as appropriate, for consideration as a formal DPO. (b)

Informal Process for Expressing Differing Professional Views (B) (continued)

Records (5) (continued)

Offices and regions shall maintain files of resolved DPVs for 2 years after a special review panel has published the report of its review. Then the DPV files shall be retired to the NRC Archival Facility through the OCIO for a 10-year retention in accordance with NRC Schedule 1–2.2.b. (c)

Formal Process for Expressing Differing Professional Opinions (C)

Submittals (1)

The formal DPO review process may be initiated by an employee, after the DPV process has been completed, by submitting a written statement to the EDO, for employees in offices reporting to the EDO, or to the Commission, for employees in offices reporting to the Chairman or Commission. (a)

Written DPO submittals must meet the same criteria established for the submittals of a DPV. Certain types of issues are excluded from this process and may be rejected by the EDO or Commission. Issues that do not qualify as a DPO are stated in Section (A)(4) of this handbook. (b)

If the EDO or Commission receives a DPO that has not been considered through the DPV process, the EDO or Commission shall forward it within 5 calendar days to the appropriate office director or regional administrator for processing as a DPV. Offices and regions will then operate under the provisions of Section (B) of this handbook. (c)

DPO Ad Hoc Review Panel (2)

The EDO or Commission will convene an ad hoc review panel and appoint a chairperson and second technically qualified panel member. The submitter of the DPO may submit names for the chairperson to select a third panel member. Also, when deemed appropriate by the EDO or Commission, one member of the Atomic Safety and Licensing Board Panel may be appointed as an additional member of the ad hoc panel. (a)

Formal Process for Expressing Differing Professional Opinions (C) (continued)

DPO Ad Hoc Review Panel (2) (continued)

The panel—(b)

- Reviews the DPO and makes recommendations to the EDO or Commission (i)
- Determines whether sufficient documentation was provided by the DPO submitter for the panel to complete a detailed review (ii)
- Requests technical assistance from appropriate source(s) within or outside the agency, as necessary (iii)

Any NRC employee or manager involved in the DPO process shall give immediate priority attention to issues involving significant health and safety concerns. This includes advising the office director, regional administrator, or the EDO or Commission, as appropriate, of any immediate safety concerns. (c)

Review and Decision (3)

To the extent possible, DPO reviews should be conducted independently and not involve individuals who have directly participated in the formulation of the agency position that is at issue. (a)

The EDO or Commission may utilize technically qualified sources inside and outside the NRC to assist in reviewing the DPO. In considering the DPO, the EDO or Commission should review the decision of the office director or regional administrator as well as the ad hoc review panel's recommendations and any other source who has reviewed the issue. (b)

The EDO or the Commission will provide the submitter with a decision and rationale for that decision. Normally, this should occur within 30 calendar days after receipt of all solicited views requested by the EDO or Commission. (c)

Extenuating circumstances may cause the EDO or Commission to delay in making a final decision. In such cases, the submitter should be advised of the timeframe for considering the issue. (d)

Formal Process for Expressing Differing Professional Opinions (C) (continued)

Review and Decision (3) (continued)

After the EDO or Commission makes a decision on a DPO and communicates the outcome to the submitter (or to the manager who forwarded the DPO), the matter is considered closed and will not be considered further absent significant new information. (e)

Records (4)

The EDO and Commission will send all completed DPO case files to HR. Normally, the case file will include, at a minimum, the DPVs and DPOs submitted by the filer, the DPV and DPO panel reports, and the DPV and DPO decision memoranda. Any other documents, such as other correspondence related to the DPV and DPO between the submitter and the EDO or the Commission, deemed by the EDO or Commission to be essential to an understanding of the case also may be forwarded as a part of the case file. The memorandum transmitting the file to HR should include a list of documents contained in the file and a statement indicating which documents, or portions of documents, may be released to the public, subject to a routine Freedom of Information Act review. (a)

HR will make the file, or appropriate portions of the file, available to the public in accordance with the provisions of the Freedom of Information Act. To accomplish this, HR will request the FOI/LPDRB; OCIO to initiate a review of the documents identified by the EDO or Commission as releasable to ascertain which portions of the record, if any, are exempt from disclosure to the public. The Freedom of Information (FOI) staff will request offices and regions to review the documents to determine which documents or portions of documents should or should not be released to the public. The offices and regions conducting the reviews should then advise FOI staff of those documents or portions of documents that should or should not be released to the public. FOI staff will then resolve any discrepancies and return the case file to HR, indicating which documents or portions of documents the reviewers have identified as releasable to the public. (b)

HR will transmit a copy of the releasable portions of the file to the Document Control Desk, OCIO, for Nuclear Documents System processing and distribution to the PDR. PDR staff will maintain the sanitized copy consistent with the retention of the official record. HR

Formal Process for Expressing Differing Professional Opinions (C) (continued)

Records (4) (continued)

also will transmit the original DPO file to the NRC File Center, OCIO, for retention. DPO files are not currently scheduled and must be retained by the NRC File Center until a records disposition schedule for this material is approved by the National Archive and Records Administration. (c)

Resources To Assist Originators of Differing Professional Views or Opinions (D)

To assist submitters in preparing adequate written DPV or DPO statements, the submitter's immediate supervisor, in consultation with other management officials, will determine the amount of the employee's work time and administrative support to be provided in response to the employee's request for assistance. If called to testify before a licensing board or presiding officer, the employee may receive, upon request, assistance from the legal staff to prepare testimony or other documents to be filed with the board. Such assistance will be solely for the purpose of facilitating the filing of the necessary documents and will not constitute legal representation of the employee by the legal staff.

Special Review Panel (E)

A special review panel periodically assesses the DPV and DPO process, including its effectiveness, how well it is understood by employees, and the organizational climate for having such views aired and properly decided. Members of the special review panel are appointed by the EDO after consultation with the Chairman. (1)

The special review panel will prepare a report on the basis of its assessment and submit it to the EDO for consideration. The EDO will forward the report with any comments or recommendations to the Commission for approval. The report or its executive summary also will be distributed to all employees. (2)

In addition, the special review panel will review DPVs and DPOs completed since the last review to identify employees who have made significant contributions to the agency or to public health and safety but have not been adequately recognized for this contribution. When

Special Review Panel (E) (continued)

award recommendations have not been made, they may be made by the special review panel in accordance with provisions of NRC's "Incentive Awards Program" (Management Directive (MD) 10.72). Recommendations for awards will be included in the special review panel's report. (3)

Prevention of Retaliation (F)

Any NRC employee who retaliates against another employee for submitting or supporting a DPV or DPO is subject to disciplinary action in accordance with MD 10.99, "Discipline, Adverse Actions, and Separations." This applies to retaliatory actions as defined in the directive and to all prohibited personnel practices specified in the Civil Service Reform Act of 1978, as amended. (1)

Employees who allege that retaliatory actions have been taken because of their submittal or support of a DPV or DPO may seek redress through the negotiated grievance procedure or through the grievance procedure described in Directive 10.101, "Employee Grievances." (2)

**Exhibit
 Processing Differing Professional Views or Opinions
 INFORMAL (DPV) PROCESS**

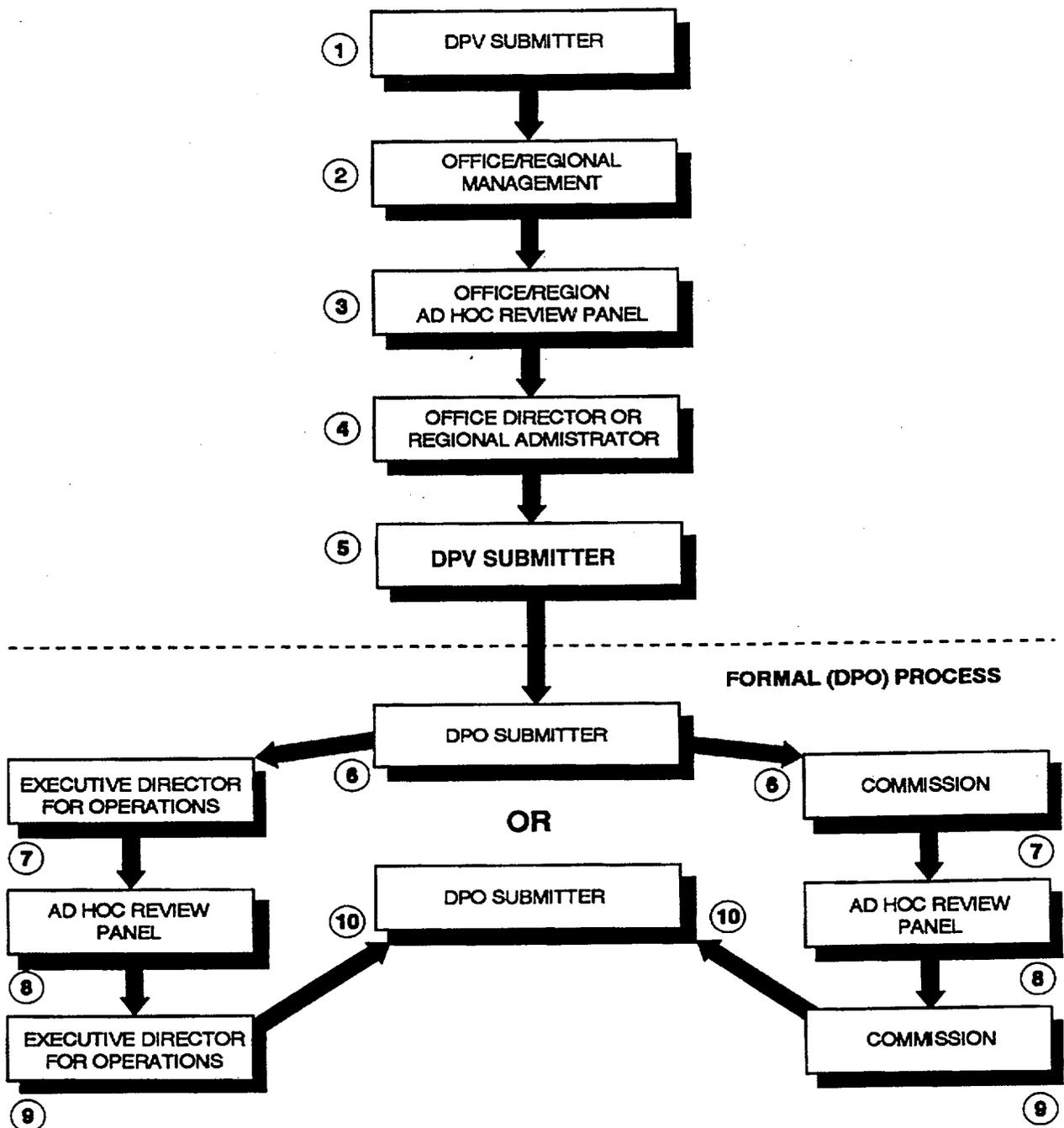


Exhibit (continued)

Key:

- ① Employee writes a differing professional view (DPV).
- ② The DPV should be submitted directly or through line management to the employee's office director or regional administrator. If submitted to another NRC organization, it is forwarded to the employee's office director or regional administrator for processing through the informal DPV process. The employee's office director or regional administrator acknowledges receipt and forwards the submittal to the ad hoc review panel for action within 5 days. The office director or the regional administrator appoints the panel chairperson and a technically qualified panel member. The submitter may provide a list of qualified individuals to the panel chairperson who selects one of them to serve as a third member of the ad hoc review panel.
- ③ The ad hoc review panel considers the DPV and provides the submitter's office director or regional administrator a report of the findings and a recommended course of action, usually within 7 calendar days.
- ④ The office director or the regional administrator considers the ad hoc review panel's report, makes a decision on the DPV, provides a written decision to the submitter, and includes a summary of the issue and its disposition in the NRC Weekly Information Report, usually within 30 calendar days. The DPV file is retained in the office or region. If the submitter has indicated in writing a desire to have his or her DPV made available to the public, with or without release of his or her name, portions of the DPV releasable under the Freedom of Information Act will be submitted through the Director, HR, to the Public Document Room by the office director or regional administrator at that time.
- ⑤ On the basis of the office director's report, the submitter may consider the matter closed.
- ⑥ If the submitter does not consider the matter closed, a written differing professional opinion (DPO) statement expressing continuing concerns may be submitted to the Commission, for offices reporting directly to the Chairman or Commission, or to the Executive Director for Operations (EDO), for offices reporting to the EDO.
- ⑦ Upon receipt of a formal DPO and after making sure that the issues contained therein have first been processed as a DPV, the Commission or the EDO contacts HR and may contact the submitter's office director or regional administrator to obtain all records that may aid in the formal DPO review process. The Commission or EDO convenes an ad hoc review panel and appoints a chairperson and second technically qualified panel member. The submitter of the DPO submits names for the chairperson to select a third panel member.
- ⑧ The ad hoc review panel considers the DPO and provides the Commission or EDO a report of findings and a recommended course of action.
- ⑨ The Commission or EDO considers the ad hoc review panel's report, makes a decision on the DPO, and provides a written decision to the submitter within 30 days of receipt of the panel's recommendation. The case file is then forwarded to HR.
- ⑩ Upon the submitter's receipt of a decision from the Commission or EDO, the DPO process is concluded.



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

NRC INSPECTION MANUAL

OTSB

PART 9900: TECHNICAL GUIDANCE

STS30DEG.TG

RESOLUTION OF
DEGRADED AND NONCONFORMING CONDITIONS

Issue Date: 10/08/97

9900 Degraded Conditions

A/4

RESOLUTION OF
DEGRADED AND NONCONFORMING CONDITIONS

Table of Contents

	<u>Page</u>
1.0 PURPOSE AND SCOPE.....	1
2.0 DEFINITIONS.....	1
2.1 Current Licensing Basis.....	1
2.2 Design Basis.....	2
2.3 Degraded Condition.....	2
2.4 Nonconforming Condition.....	2
2.5 Full Qualification.....	2
3.0 BACKGROUND.....	2
4.0 DISCUSSION OF NOTABLE PROVISIONS.....	3
4.1 Public Health and Safety.....	3
4.2 Operability Determinations.....	3
4.3 The Current Licensing Basis and 10 CFR 50 Appendix B.....	3
4.4 Discovery of an Existing But Previously Unanalyzed Condition or Accident.....	4
4.5 Justification for Continued Operation (JCO).....	4
4.5.1 Background.....	4
4.5.2 JCO Definition.....	4
4.5.3 Items for Consideration in a JCO.....	5
4.5.4 Discussion of Industry-Type JCOs.....	5
4.6 Reasonable Assurance of Safety.....	5
4.7 Evaluation of Compensatory Measures	6
4.8 Final Corrective Action	6
5.0 REFERENCE.....	8

RESOLUTION OF
DEGRADED AND NONCONFORMING CONDITIONS

1.0 PURPOSE AND SCOPE

To provide guidance to NRC inspectors on resolution of degraded and nonconforming conditions affecting the following systems, structures, or components (SSCs):

- (i) Safety-related SSCs, which are those relied upon to remain functional during and following design basis events (A) to ensure the integrity of the reactor coolant pressure boundary, (B) to ensure the capability to shut down the reactor and maintain it in a safe shutdown condition, or (C) to ensure the capability to prevent or mitigate the consequences of accidents that could result in potential offsite consequences comparable to the 10 CFR Part 100 guidelines. Design basis events are defined the same as in 10 CFR 50.49(b)(1).
- (ii) All SSCs whose failure could prevent satisfactory accomplishment of any of the required functions identified in (i) A, B, and C.
- (iii) All SSCs relied on in the safety analyses or plant evaluations that are a part of the plant's current licensing basis. Such analyses and evaluations include those submitted to support license amendment requests, exemption requests, or relief requests, and those submitted to demonstrate compliance with the Commission's regulations such as fire protection (10 CFR 50.48), environmental qualification (10 CFR 50.49), pressurized thermal shock (10 CFR 50.61), anticipated transients without scram (10 CFR 50.62), and station blackout (10 CFR 50.63).
- (iv) Any SSCs subject to 10 CFR Part 50, Appendix B.
- (v) Any SSCs subject to 10 CFR Part 50, Appendix A, Criterion 1.
- (vi) Any SSCs explicitly subject to facility Technical Specifications (TS).
- (vii) Any SSCs subject to facility TS through the definition of operability (i.e., support SSCs outside TS).
- (viii) Any SSCs described in the FSAR.

This guidance is directed toward NRC inspectors that are reviewing actions of licensees that hold an operating license. Although this guidance generally reflects existing staff practices, application on specific plants may constitute a backfit. Consequently, significant differences in licensee practices should be discussed with NRC management to ensure that the guidance is applied in a reasonable and consistent manner for all licensees.

2.0 DEFINITIONS:

2.1 Current Licensing Basis

Current licensing basis (CLB) is the set of NRC requirements applicable to a specific plant, and a licensee's written commitments for assuring compliance with and operation within applicable NRC requirements and the plant-specific design basis (including all modifications and additions to such commitments over the

life of the license) that are docketed and in effect. The CLB includes the NRC regulations contained in 10 CFR Parts 2, 19, 20, 21, 30, 40, 50, 51, 55, 72, 73, 100 and appendices thereto; orders; license conditions; exemptions, and Technical Specifications (TS). It also includes the plant-specific design basis information defined in 10 CFR 50.2 as documented in the most recent Final Safety Analysis Report (FSAR) as required by 10 CFR 50.71 and the licensee's commitments remaining in effect that were made in docketed licensing correspondence such as licensee responses to NRC bulletins, generic letters, and enforcement actions, as well as licensee commitments documented in NRC safety evaluations or licensee event reports.

2.2 Design Basis

Design basis is that body of plant-specific design bases information defined by 10 CFR 50.2.

2.3 Degraded Condition

A condition of an SSC in which there has been any loss of quality or functional capability.

2.4 Nonconforming Condition

A condition of an SSC in which there is failure to meet requirements or licensee commitments. Some examples of nonconforming conditions include the following:

1. There is failure to conform to one or more applicable codes or standards specified in the FSAR.
2. As-built equipment, or as-modified equipment, does not meet FSAR descriptions.
3. Operating experience or engineering reviews demonstrate a design inadequacy.
4. Documentation required by NRC requirements such as 10 CFR 50.49 is not available or deficient.

2.5 Full Qualification

Full qualification constitutes conforming to all aspects of the current licensing basis, including codes and standards, design criteria, and commitments.

3.0 BACKGROUND

A nuclear power plant's SSCs are designed to meet NRC requirements, satisfy the current licensing basis, and conform to specified codes and standards. For degraded or nonconforming conditions of these SSCs, the licensee may be required to take actions required by the Technical Specifications (TS). The provisions of Title 10 of the Code of Federal Regulations (10 CFR), Part 50, Appendix B, Criteria XVI, may apply requiring the licensee to identify promptly and correct conditions adverse to safety or quality. Reporting may be required in accordance with Sections 50.72, 50.73, and 50.9(b) of 10 CFR Part 50, 10 CFR Part 21, and the Technical Specifications (TS). Collectively, these requirements may be viewed as a process for licensees to develop a basis to continue operation or to place the plant in a safe condition, and to take prompt corrective action.

Changes to the facility in accordance with 10 CFR 50.59 may be made as part of the corrective action required by Appendix B. The process displayed by means of the attached chart titled, "Resolution of Degraded and Nonconforming Conditions," recognizes these and other provisions that a licensee may follow to restore or establish acceptable conditions. These provisions are success paths that enable licensees to continue safe operation of their facilities.

4.0 DISCUSSION OF NOTABLE PROVISIONS

4.1 Public Health and Safety

All success paths, whether specifically stated or not, are first directed to ensuring public health and safety and second to restoring the systems, structures, or components (SSCs) to the current licensing basis of the plant as an acceptable level of safety. Identification of a degraded or nonconforming condition that may pose an immediate threat to the public health and safety requires the plant to be placed in a safe condition.

Technical Specifications (TS) address the safety systems and provide Limiting Conditions for Operation (LCOs) and Allowed Outage Times (AOTs) required to ensure public health and safety.

4.2 Operability Determinations

For guidance on operability see the Inspection Manual, Part 9900, "OPERABLE/OPERABILITY: ENSURING THE FUNCTIONAL CAPABILITY OF A SYSTEM OR COMPONENT," and see the Inspection Manual, Part 9900, "STANDARD TECHNICAL SPECIFICATIONS STS SECTION 1, OPERABILITY."

4.3 The Current Licensing Basis and 10 CFR 50, Appendix B

The design and operation of a nuclear plant is to be consistent with the current licensing basis. Whenever degraded or nonconforming conditions of SSCs subject to Appendix B are identified, Appendix B requires prompt corrective action to correct or resolve the condition. The licensee must establish a time frame for completion of corrective action. The timeliness of this corrective action should be commensurate with the safety significance of the issue. The time frame governing corrective action begins with the discovery of the condition, not with the time when it is reported to the NRC. In determining whether the licensee is making reasonable efforts to complete corrective action promptly, NRC will consider whether corrective action was taken at the first opportunity, as determined by safety significance (effects on operability, significance of degradation) and by what is necessary to implement the corrective action. Factors that might be included are the amount of time required for design, review, approval, or procurement of the repair/modification; availability of specialized equipment to perform the repair; or the need to be in a hot or cold shutdown to implement the actions. The NRC expects time frames longer than the next refueling outage to be explicitly justified by the licensee as part of the deficiency tracking documentation. If the licensee does not resolve the degraded or nonconforming condition at the first available opportunity or does not appropriately justify a longer completion schedule, the staff would conclude that corrective action has not been timely and would consider taking enforcement action.

4.4 Discovery of an Existing But Previously Unanalyzed Condition or Accident

In the course of its activities, the licensee may discover a previously unanalyzed condition or accident. Upon discovery of an existing but previously unanalyzed condition that significantly compromises plant safety, the licensee shall report that condition in accordance with 10 CFR 50.72 and 50.73, and put the plant in a safe condition.

For a previously unanalyzed condition or accident that is considered a significant safety concern, but is not part of the design basis, the licensee may subsequently be required to take additional action after consideration of backfit issues (see Section 50.109(a)(5)).

4.5 Justification for Continued Operation (JCO)

4.5.1 Background

The license authorizes the licensee to operate the plant in accordance with the regulations, license conditions and the TS. If an SSC is degraded or nonconforming but operable, the license establishes an acceptable basis to continue to operate and the licensee does not need to take any further actions. The licensee must, however, promptly identify and correct the condition adverse to safety or quality in accordance with 10 CFR Part 50, Appendix B, Criterion XVI.

The basis for this authority to continue to operate arises because the TS contain the specific characteristics and conditions of operation necessary to obviate the possibility of an abnormal situation or event giving rise to an immediate threat to public health and safety. Thus, if the TS are satisfied, and required equipment is operable, and the licensee is correcting the degraded or nonconforming condition in a timely manner, continued plant operation does not pose an undue risk to public health and safety.

Under certain defined and limited circumstances, the licensee may find that strict compliance with the TS would cause an unnecessary plant action not in the best interest of public health and safety. NRC review and action is required prior to the licensee taking actions that are contrary to compliance with the license conditions or TS unless an emergency situation is present such that 10 CFR 50.54(x) and (y) is applied. A JCO, as defined herein for general NRC purposes, is the licensee's technical basis for requesting NRC responses to such action.

4.5.2 JCO Definition

A Justification for Continued Operation¹ (JCO) is the licensee's technical basis for requesting authorization to operate in a manner that is prohibited (e.g., outside TS or license) absent such authorization. The preparation of JCOs does not constitute authorization to continue operation.

¹ Regulations, generic letters, and bulletins may provide direction on specific issue JCOs, which do not require that they be submitted. Licensees may also use the JCO for situations other than for operating in a prohibited manner. The JCO term has been used in Generic Letters 88-07 on Environmental Qualifications of Electrical Equipment and 87-02 on Seismic Adequacy. Licensees should continue to follow earlier guidance regarding the preparation of JCOs on specific issues.

4.5.3 Items for Consideration in a JCO

Some items which are appropriate for consideration in a licensee's development of a JCO include:

- o Availability of redundant or backup equipment
- o Compensatory measures including limited administrative controls
- o Safety function and events protected against
- o Conservatism and margins, and
- o Probability of needing the safety function.
- o PRA or Individual Plant Evaluation (IPE) results that determine how operating the facility in the manner proposed in the JCO will impact the core damage frequency.

4.5.4 Discussion of Industry-Type JCOs

Currently, some licensees refer to two other documents or processes as JCOs that are not equivalent to and do not perform the same function as the NRC-recognized JCO (as defined in 4.5.2). This is an acceptable industry practice and to the extent the industry JCO fulfills other NRC requirements, the JCOs will be selectively reviewed and audited accordingly.

In the first industry-type JCO, the licensee may consider the entire process depicted in the attached chart as a single JCO that includes such things as the basis for operability, PRA, corrective action elements, and alternative operations.

In the second industry-type JCO, the licensee may consider the documentation that is developed to support facility operation after the operability decision has been made as a JCO. This documentation can cover any or all of the items listed under "Interim Operation" on the attached chart.

Although the "JCO" is used differently by some licensees, the NRC concern is that the operability decision is correct, documentation of licensee's actions are appropriate, and submittals to the NRC are complete. The licensee's documentation of the JCO's is normally proceduralized through the existing plant record system, which is auditable.

4.6 Reasonable Assurance of Safety

For SSCs that are not expressly subject to TS and that are determined to be inoperable, the licensee should assess the reasonable assurance of safety. If the assessment is successful, then the facility may continue to operate while prompt corrective action is taken. Items to be considered for such an assessment include the following:

- o Availability of redundant or backup equipment
- o Compensatory measures including limited administrative controls
- o Safety function and events protected against
- o Conservatism and margins, and
- o Probability of needing the safety function.
- o PRA or Individual Plant Evaluation (IPE) results that determine how operating the facility in the manner proposed in the JCO will impact the core damage frequency.

4.7 Evaluation of Compensatory Measures

In its evaluation of the impact of a degraded or nonconforming condition on plant operation and on operability of SSCs, a licensee may decide to implement a compensatory measure as an interim step to restore operability or to otherwise enhance the capability of SSCs until the final corrective action is complete. Reliance on a compensatory measure for operability should be an important consideration in establishing the "reasonable time frame" to complete the corrective action process. NRC would normally expect that conditions that require interim compensatory measures to demonstrate operability would be resolved more promptly than conditions that are not dependent on compensatory measures to show operability, because such reliance suggests a greater degree of degradation. Similarly, if an operability determination is based upon operator action, NRC would expect the nonconforming condition to be resolved expeditiously.

On July 21, 1997, the Nuclear Energy Institute (NEI) submitted to the NRC a guidance document, NEI 96-07 [Final Draft], "Guidelines for 10 CFR 50.59 Safety Evaluations." Part of this guidance relates to applicability of 10 CFR 50.59 to degraded and nonconforming conditions. With respect to the use of compensatory measures, the guidance states:

- If an interim compensatory action is taken to address the condition and involves a procedure change or temporary modification, a 10 CFR 50.59 review should be conducted and may result in a safety evaluation. The intent is to determine whether the compensatory action itself (not the degraded condition) impacts other aspects of the facility described in the SAR.

The staff concludes that this is an acceptable approach for dealing with compensatory actions within the context of a corrective action process.

In considering whether a compensatory measure may affect other aspects of the facility, a licensee should pay particular attention to ancillary aspects of the compensatory measure that may result from actions taken to directly compensate for the degraded condition. As an example, suppose a licensee plans to close a valve to isolate a leak. Although that action would temporarily resolve the leak, it has the potential to affect flow distribution to other components or systems, may complicate required operator responses, or could have other effects that should be evaluated before the compensatory measures are implemented. In accordance with 10 CFR 50.59, should the evaluation determine that implementation of the compensatory action itself would involve a TS change or an unreviewed safety question (USQ), NRC approval, in accordance with 10 CFR 50.90 and 50.92, is required prior to implementation of the compensatory action.

4.8 Final Corrective Action

The responsibility for corrective action rests squarely on the licensee. A licensee's range of corrective action could include (1) full restoration to the SAR-described condition, (2) NRC approval for a change to its licensing basis to accept the as-found condition as is, or (3) some modification of the facility other than restoration to the original FSAR condition. If corrective action is taken so that the degraded or nonconforming condition is restored to its original configuration, no 10 CFR 50.59 evaluation is required. The 10 CFR 50.59 process is entered when the final resolution to the degraded or nonconforming condition is to be different than the established FSAR requirement. At this point, the

licensee is planning (in a prospective sense) to make a change to the facility or procedures as described in the SAR. The proposed change is now subject to the evaluation process established by 10 CFR 50.59. A change can be safe, but can still require NRC approval. The proposed final resolution can be under staff review and not affect the continued operation of the plant, because interim operation is being governed by the processes of the operability determination and corrective action of Appendix B.

In two situations, the identification of a final resolution or final corrective action would trigger a 10 CFR 50.59 evaluation, unless another regulation applies (i.e., 10 CFR 50.55a): (1) when a licensee decides to change its facility or procedures to something other than full restoration to the FSAR-described condition, as the final corrective action, or (2) when a licensee decides to change its licensing basis as described in the SAR to accept the degraded or nonconforming condition as its revised licensing basis. This guidance is consistent with the July 21, 1997, revision of NEI 96-07.

Change to Facility or Procedures

The first circumstance is if the licensee plans for its final resolution of the degraded or nonconforming condition to include other change(s) to the facility or procedures in order to cope with the (uncorrected, including only partially corrected) nonconforming condition. Rather than fully correcting the nonconforming condition, the licensee decides to restore capability or margin by another change. In this case, the licensee needs to evaluate the change from the SAR-described condition to the final condition in which the licensee proposes to operate its facility. If the 10 CFR 50.59 evaluation concludes that a change to the TS or a USQ is involved, a license amendment must be requested, and the corrective action process is not complete until the approval is received, or other resolution occurs.

Change to Current Licensing Basis

The other situation is a final resolution in which the licensee proposes to change the current licensing basis to accept the as-found nonconforming condition. In this case, the 10 CFR 50.59 evaluation is of the change from the SAR-described condition to the existing condition in which the licensee plans to remain (i.e., the licensee will exit the corrective action process by revising its licensing basis to document acceptance of the condition). If the 10 CFR 50.59 evaluation concludes that a change to the TS or a USQ is involved, a license amendment must be requested, and the corrective action process is not complete until the approval is received, or other resolution occurs. In order to resolve the degraded or nonconforming condition without restoring the affected equipment to its original design, a licensee may need to obtain an exemption from 10 CFR Part 50 in accordance with 10 CFR 50.12, or relief from a design code in accordance with 10 CFR 50.55a. The use of 10 CFR 50.59, 50.12, or 50.55a in fulfillment of Appendix B corrective action requirements does not relieve the licensee of the responsibility to determine the root cause, to examine other affected systems, or to report the original condition, as appropriate.

In both of these situations, the need to obtain NRC approval for a change (e.g., because it involves a USQ) does not affect the licensee's authority to operate the plant. The licensee may make mode changes, restart from outages, etc., provided that necessary equipment is operable and the degraded condition is not in conflict with the TS or the license. The basis for this position was previously discussed in Section 4.5.1.

ENFORCEMENT

If the licensee, without good cause, does not correct the nonconformance at the first available opportunity, the staff concludes that the licensee has failed to take prompt corrective action and, thus, is in violation of 10 CFR Part 50 Appendix B (Criterion XVI).² When the NRC concludes that corrective action to implement the final resolution of the degraded or nonconforming condition is not prompt, or that the operability determination is not valid, enforcement action (Notice of Violation, orders) will be taken. Enforcement action may include restrictions on continued operation.

Implementation of complete corrective action within a reasonable time frame does not mitigate the potential for taking enforcement action for the root causes that initially created the degraded or nonconforming condition or for violations of other regulatory requirements. The nonconforming condition may have resulted from (1) earlier changes performed without a 10 CFR 50.59 evaluation or (2) inadequate reviews; or may be a *de facto* change for which the facility never met the SAR description. The staff may determine that the "change" from the FSAR-described condition to the discovered nonconforming condition involved a USQ (or a TS change), and that enforcement action is appropriate for the time frame up to time of discovery.

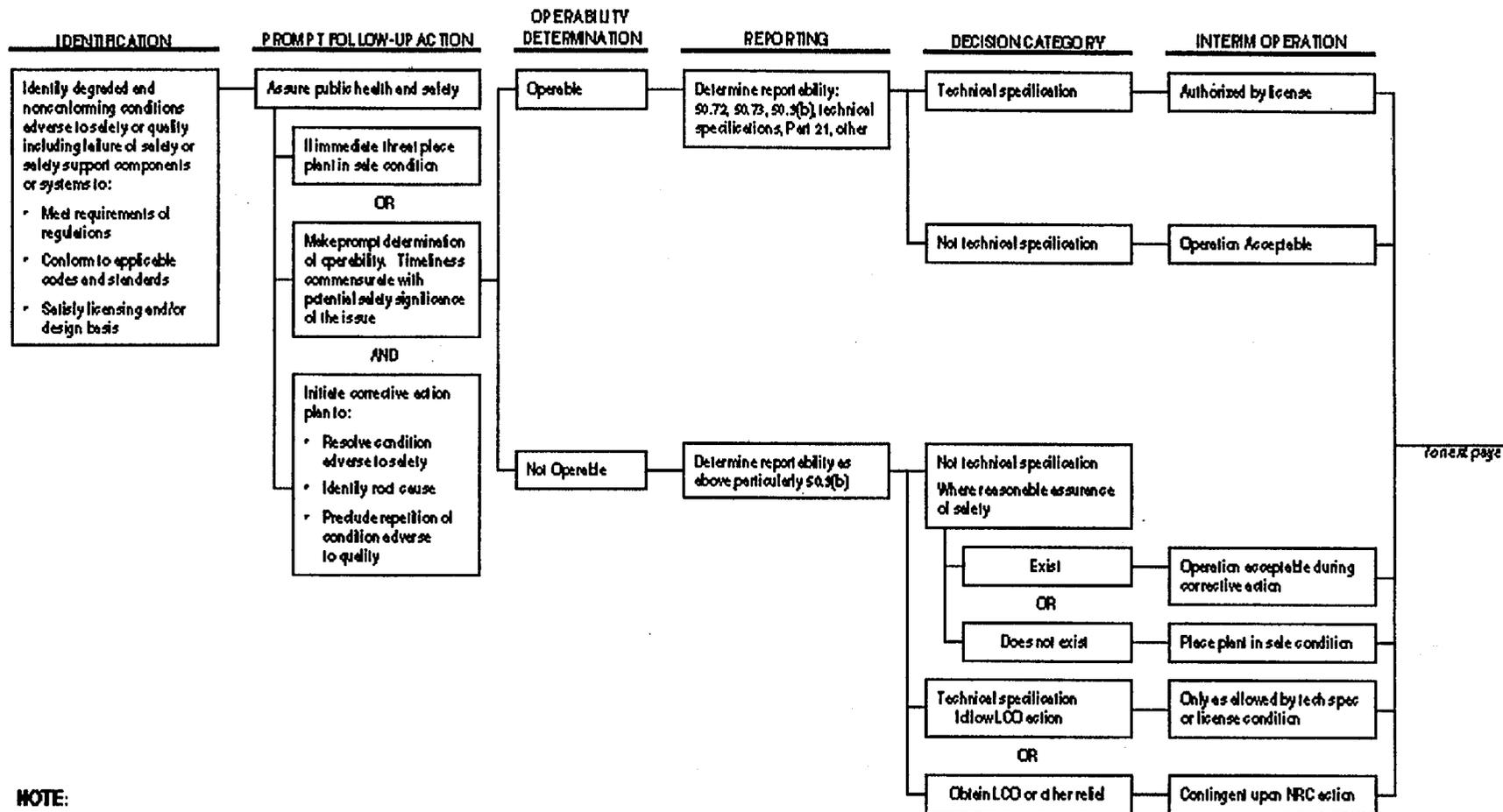
5.0 REFERENCE

See attached charts titled, "Resolution of Degraded and Nonconforming Conditions."

END

² Since Appendix B is only applicable to safety-related SSCs, this approach could not be used if the delay in resolution of a nonconforming condition from the SAR involved only non-safety-related SSCs and did not affect any safety-related SSCs. However, NRC expects licensees to take corrective action for nonconformances with the SAR consistent with Criterion XVI in a time frame commensurate with safety.

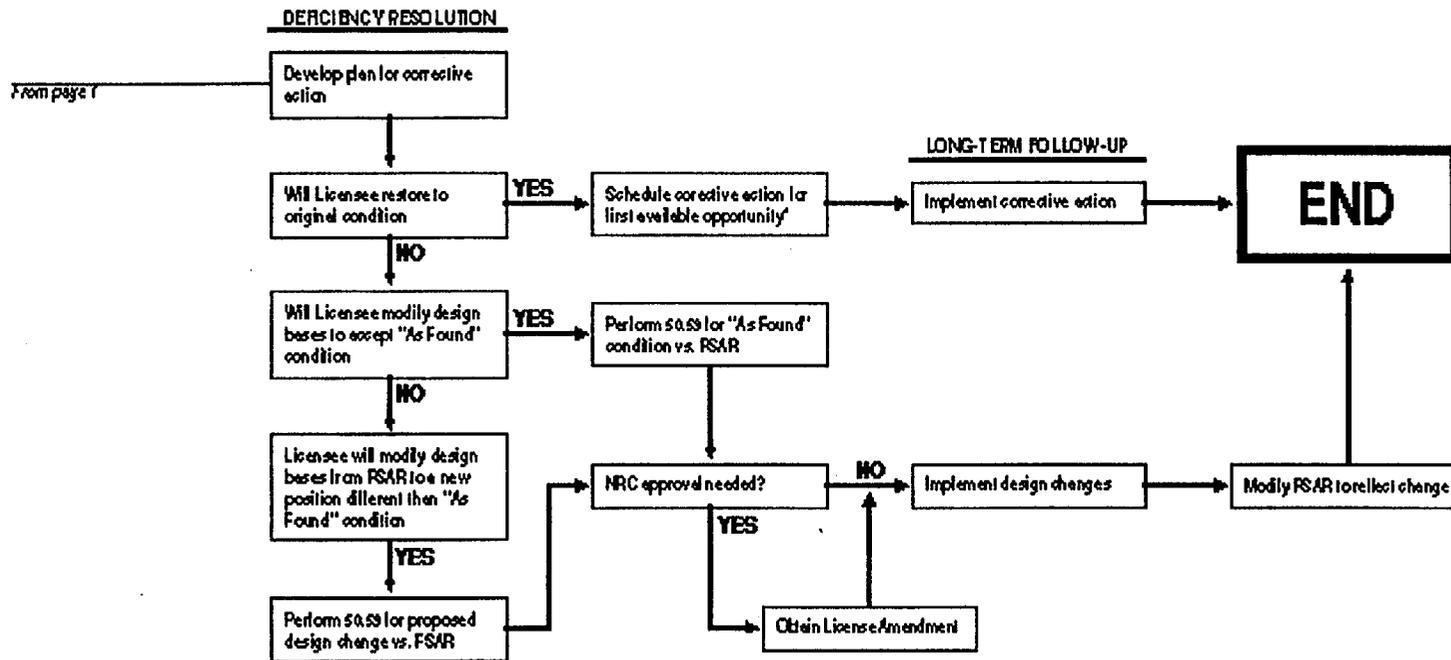
RESOLUTION OF DEGRADED AND NONCONFORMING CONDITIONS



NOTE:

Bulletins and generic letters, among others may provide guidance specific to an issue but counter to the generally accepted approach herein. Examples of deviations from the above approach include generic letter 89-07 on environmental qualification of electrical equipment and generic letter 87-02 on seismic adequacy (See use of JCO)

RESOLUTION OF DEGRADED AND NONCONFORMING CONDITIONS



* See section 4.3

REGIONAL PROCEDURE RP-1206
DIFFERING PROFESSIONAL VIEWS: KEY ACTIVITIES AND TIME LINE

Effective Date: June 5, 2000

Point of Contact: Regional Counsel

Supersedes: (N.A.)

Approval: /RA JCaldwell for

J. E. Dyer

Title: Regional Administrator

A. Purpose

To establish a regional procedure to supplement and implement Management Directive (MD) 10.159, "Differing Professional Views or Opinions" and to provide a list of key activities and a time line for processing Differing Professional Views

B. References

MD 10.159, "Differing Professional Views or Opinions"

C. Discussion

This regional procedure is to be used in conjunction with MD 10.159, "Differing Professional View or Opinions." MD 10.159 contains detailed guidance on the Differing Professional View (DPV) and Differing Professional Opinion (DPO) processes. The MD should be consulted by employees contemplating utilizing these processes and by employees involved in dispositioning DPVs or DPOs. Any employee may file a DPV and, subsequently, a DPO.

This regional procedure supplements the MD to assist Region III in complying with the MD in processing and reviewing DPV's. The attachment summarizes the key activities prescribed in the MD for processing DPVs. However, the MD must be consulted for specific actions.

The DPO process is not addressed in this procedure because, per the MD, DPO's are not filed in the regional office. The DPO process is fully described in the MD.

D. Definitions

For purposes of this regional procedure, the definitions and terminology used in MD 10.159 are incorporated by reference.

A/S

E. Organizational Responsibilities

Regional Administrator/Deputy Regional Administrator

- a. Maintains overall responsibility for ensuring that Region III complies with the requirements of MD 10.159 and this regional procedure.
- b. See MD 10.159 and attachment 1 for other specific responsibilities.

F. Implementation

Region III shall fully implement MD 10.159 and this regional procedure. Attachment 1 summarizes the key activities and time line in processing DPVS filed in Region III.

ATTACHMENT 1

KEY DPV ACTIVITIES AND TIME LINE

CAUTION: The information provided below is intended to assist individuals involved in the DPV process to meet key milestones. Management Directive (MD) 10.159 needs to be consulted for a full explanation of the process and additional details.

Day 0: Employee submits DPV to management as described in MD 10.159

By Day 5: Action: Regional Administrator appoints ad hoc review panel in writing within 5 calendar days

DPV Ad Hoc Review Panel Actions

By Day 12: Action: The Panel normally reviews the DPV within 7 calendar days of receipt by the panel to determine whether enough information has been supplied to undertake a detailed review; informally contacts the employee or manager who forwarded the DPV to discuss the information provided and requests any needed additional information; and promptly informs management of any issues involving immediate or significant health and safety concerns.

By Day 42*: Action: After necessary information has been received, normally take no more than 30 calendar days to make a written recommendation to the Regional Administrator.

Regional Administrator (RA) Actions Following Receipt of DPV Panel Report

By Day 49*: Action: RA reviews the panel's recommendation and provides the employee or manager who submitted the DPV with a written decision and the rationale for the decision, normally within 7 calendar days after receipt of the panel's recommendation.

- By Day 59*: Action: Submit a summary of the issue and its disposition to be included in the Weekly Information Report.
- If requested: Action: If the DPV requester had indicated in writing a desire to have the DPV made public, with or without the release of his or her name, the RA sends the completed DPV case file to the FOIA/PA Officer. The RA sends the releaseable portions of the file to the PDR following FOIA review.

Delays

- Action: Notice of delays should be communicated to the submitter or, in the case of a confidential statement, to the manager who forwarded the DPV. If review and disposition of a DPV does not occur with **60 calendar days** from the date of receipt of the DPV by the regional administrator, the reason for the delay should be reported to the Deputy Executive Director for Management Services (DEDM) by the regional administrator.

Followup Actions

- Action: Completion dates for any follow up items or additional information needs recommended by the panel and agreed to by the Regional Administrator are to be established and communicated to the submitter. If the follow up schedule is not met, the RA will communicate the reason for the delay and a revised completion schedule to the submitter and the DEDM.
- Action: The Regional Administrator will issue an Action Item to ensure timely closure of any follow up items and inform the submitter in writing when the follow up items have been completed.

File Maintenance

- Action: The RA maintains resolved DPV files in Region III for **2 years** after the Special Review Panel has published its review of the DPV/DPO process. (The Special Review Panel periodically assesses the DPV/DPO process); then retire the files through the OCIO for a **10 year retention period**.

*These dates would be extended on a day by day basis pending the DPV Panel's receipt of any necessary additional information from the submitter.



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION III
801 WARRENVILLE ROAD
LISLE, ILLINOIS 60532-4351

June 6, 2000

MEMORANDUM TO: J. E. Dyer, Regional Administrator

FROM: Ross Landsman, Project Engineer
Division of Materials and Nuclear Safety *Ross Landsman*

SUBJECT: DIFFERING PROFESSIONAL VIEW CONCERNING THE
STARTUP OF D.C. COOK, UNIT 2

The licensee's operability of the CEQ Fan Room walls is very unconservative due to the following:

- There was either no and/or inadequate QC/QA on this containment as evidenced by the construction discrepancies that have been identified. These discrepancies have resulted in the following uncertainties:
 - Depth of cover of the reinforcing steel
 - Spacing of the reinforcing steel
 - Undocumented cutting of the reinforcing steel
 - Quality of the grout
 - Quality of the concrete
 - The thickness differences identified on various pours
- These uncertainties have resulted in a reduction in conservatism which results in no margin left on the CEQ wall. The licensee calculations, minus our questions on the concrete strength and dynamic load factors, have resulted in a 1.047 margin.
- In addition, in view of the undocumented findings on these walls, we do not know the extent of the condition of the balance of the containment. What confidence do we have that the other concrete structures are built as designed and meet their intent?
- Westinghouse, in a 4/27/00 letter to AEP, recommended at least a 40% margin on pressure walls since the pressure inputs were not exact. This is a long way from 4.7% that we have.

A16

G.L. 91-18 allows a licensee to resume operation provided the necessary equipment is operable within some reasonable assurance of safety with the following guidelines:

- Availability of redundant or backup equipment -- we have none.
- Compensatory measures -- the licensee has stated that we would over pressurize the upper containment and possibly release radioactivity.
- Conservatism and margins -- already explained above.
- G.L. 91-18 refers to impact on core damage frequency. The containment is not needed for core damage frequency, but it is needed for the large early release frequency (LERF).
- G.L. 91-18 refers to timeliness. The licensee first identified problems with this wall on February 11, 1998. They did not start working on it in earnest until I became involved - over two years later. G.L. 91-18 allows the licensee to declare operability providing they implement corrective action at the first available opportunity, not to exceed the next fueling outage (usually 18 months). We are considerably past that time limit. Currently, the licensee has no plans to do any more on these walls than we have seen (calculations), as told to us during the June 1st meeting.

In summary, allowing a plant to start up without an intact containment does not meet the intent of our regulations. There is an unreviewed safety question on the containment which must be resolved prior to startup.



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION III
801 WARRENVILLE ROAD
LISLE, ILLINOIS 60532-4351

June 7, 2000

MEMORANDUM TO: J. A. Grobe, Chairman
Manual Chapter 0350 Panel For D. C. Cook

FROM: J. E. Dyer, Regional Administrator *J. E. Dyer*

SUBJECT: RESOLUTION OF DEGRADED CEQ FAN ROOM WALL

The D. C. Cook MC 0350 Oversight Panel is currently reviewing the closeout activities for restart of Unit 2. One issue remaining open is Restart Action Matrix Item R.2.13.3, "Operability of Degraded Unit 2 CEQ Fan Room Concrete Wall." This item was the topic of a public meeting in NRC headquarters on June 1, 2000, and at the public MC 0350 meeting on June 5, 2000, the staff tentatively agreed with the licensee that the wall was degraded, but operable under Generic Letter 91-18. In your final closeout review I request that you specifically address the following concerns that I have received about this item:

1. Nonconservatisms in the licensee's analysis:
 - There was either no and/or inadequate QC/QA on this containment as evidenced by the construction discrepancies that have been identified. These discrepancies have resulted in the following uncertainties:
 - Depth of cover of the reinforcing steel
 - Spacing of the reinforcing steel
 - Undocumented cutting of the reinforcing steel
 - Quality of the grout
 - Quality of the concrete
 - The thickness differences identified on various pours
 - These uncertainties have resulted in a reduction in conservatism which results in no margin left on the CEQ wall. The licensee calculations, minus our questions on the concrete strength and dynamic load factors, have resulted in a 1.047 margin.
 - In addition, in view of the undocumented findings on these walls, we do not know the extent of the condition of the balance of the containment. What confidence do we have that the other concrete structures are built as designed and meet their intent?
 - Westinghouse, in a April 27, 2000 letter to AEP, recommended at least a 40% margin on pressure walls since the pressure inputs were not exact. This is a long way from 4.7% that we have.

A/7

2. G.L. 91-18 allows a licensee to resume operation provided the necessary equipment is operable within some reasonable assurance of safety with the following guidelines:
- Availability of redundant or backup equipment -- we have none.
 - Compensatory measures -- the licensee has stated that we would over pressurize the upper containment and possibly release radioactivity.
 - Conservatism and margins -- already explained above.
 - G.L. 91-18 refers to impact on core damage frequency. The containment is not needed for core damage frequency, but it is needed for the large early release frequency (LERF).
 - G.L. 91-18 refers to timeliness. The licensee first identified problems with this wall on February 11, 1998. They did not start working on it in earnest until over two years later. G.L. 91-18 allows the licensee to declare operability providing they implement corrective action at the first available opportunity, not to exceed the next fueling outage (usually 18 months). We are considerably past that time limit. Currently, the licensee has no plans to do any more on these walls than we have seen (calculations), as told to us during the June 1st meeting.

No formal response to this memo is necessary. This memo and your response should be documented in the internal meeting minutes.



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION III
801 WARRENVILLE ROAD
LISLE, ILLINOIS 60532-4351
June 23, 2000

MEMORANDUM TO: Geoffrey E. Grant, Director, Division of Reactor Projects

FROM: J. E. Dyer, Regional Administrator *J. E. Dyer*

SUBJECT: AD HOC REVIEW PANEL FOR DIFFERING PROFESSIONAL
VIEW: CEQ FAN ROOM WALL OPERABILITY (D. C. COOK
UNIT 2 STARTUP)

This memorandum is to confirm our conversation regarding the Differing Professional View (DPV): CEQ Fan Room Wall Operability (D. C. Cook Unit 2 Startup). In accordance with Management Directive 10.159, Differing Professional Views or Opinions, you have been appointed as the chairperson for the ad hoc review panel. Additionally, Yong Kim, NRR, has been appointed as a technically qualified member of the panel.

This memorandum also confirms that for your other panel member you have selected Patrick Hiland, DNMS, RIII, from the list provided from the employee submitting the DPV.

You are to conduct the review of this DPV in accordance with Management Directive 10.159. You should complete your review and forward your recommendation to me by July 26, 2000.

cc: J. McDermott, HR/OD
J. Grobe, RIII
D. Sotiropoulos, RIII
C. Pederson, RIII
P. Hiland, RIII
Y. Kim, NRR
G. Imbro, NRR

AIX



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION III
801 WARRENVILLE ROAD
LISLE, ILLINOIS 60532-4351

June 23, 2000

MEMORANDUM TO : File
FROM: J. L. Caldwell *J. L. Caldwell*
Deputy Regional Administrator
SUBJECT: DPV FILE

On June 21, 2000 I placed a call to Ross Landsman at the Dresden Site where he was conducting an inspection. The subject of the call was a DPV Ross had submitted on June 6, 2000 concerning Cook issues. Based on a conversation between Ross and Jim Dyer, Ross agreed to hold the DPV until the Cook 0350 Panel could address his issues. Ross would then review the 0350 Panel response and decide whether he wanted to continue with the DPV, modify the DPV or terminate the DPV.

The 0350 Panel response to Ross' issues, as well as other issues, was issued June 12, 2000. A copy of the response was provided to Ross. Since we had not heard from Ross concerning his decision regarding the status of his DPV, I called him on June 21, 2000. During this call, Ross indicated he wanted his DPV to go forward as written, he also indicated he might change it later after reviewing the 0350 Panel response.

Ross and I agreed that the start date for the DPV would be June 21, 2000 instead of the June 6, 2000 date. Ross also gave me three names to pick from for the panel. The names are: Jim Gavula, Pat Hiland and Bruce Jorgensen.

I told Ross we would get started on his DPV right away.

cc: J. Dyer ✓
G. Grant
B. Berson
R. Landsman
DPV File

A/19

From: Geoffrey Grant , *RG*
To: Ross Landsman *RL*
Date: Fri, Jun 23, 2000 4:45 PM
Subject: DPV

Ross - the RA has designated me as the chairman of the panel for review of your DC Cook CEQ Fan Wall Operability DPV. As of now (and barring any unforeseen changes) the other panel members are Yong Kim of NRR and Pat Hiland of RIII (chosen from your list). We have your DPV and the staff position that was provided to the DC Cook Oversight Panel and will be reviewing them early next week. I foresee the potential need for additional information or clarification of your position and would like the panel to meet with you next week. The best time for this is next Thursday 6/29 from 10:00 to 12:00 and I am making arrangements for this time. As you can imagine, finding a common free time for four busy professionals is difficult, so if this time is unacceptable to you please let me know ASAP. Feel free to contact me with any questions you might have on the process.

CC: Patrick Hiland, Yong Kim

A/10

From: Geoffrey Grant
To: Ross Landsman
Date: Mon, Jun 26, 2000 2:37 PM
Subject: Re: DPV

Ross, I think it would be beneficial if you could be here for the discussion. In-person (when possible) always seems to work better in fostering understanding. In fact, Yong Kim is going to travel to the region for the meeting. However, if you can't make it, I'd rather have the meeting over the telephone than delay it. If you need help with getting your supervisor's support for you to be here in the region, please let me know and I'll talk with him.

>>> Ross Landsman 06/26 1:46 PM >>>
I'm at Dresden, can we do it by phone?

>>> Geoffrey Grant 06/23 4:45 PM >>>

Ross - the RA has designated me as the chairman of the panel for review of your DC Cook CEQ Fan Wall Operability DPV. As of now (and barring any unforeseen changes) the other panel members are Yong Kim of NRR and Pat Hiland of RIII (chosen from your list). We have your DPV and the staff position that was provided to the DC Cook Oversight Panel and will be reviewing them early next week. I foresee the potential need for additional information or clarification of your position and would like the panel to meet with you next week. The best time for this is next Thursday 6/29 from 10:00 to 12:00 and I am making arrangements for this time. As you can imagine, finding a common free time for four busy professionals is difficult, so if this time is unacceptable to you please let me know ASAP. Feel free to contact me with any questions you might have on the process.

CC: Patrick Hiland, Yong Kim

A/11

From: Geoffrey Grant
To: Patrick Hiland, Ross Landsman, Yong Kim
Date: Tue, Jun 27, 2000 1:23 PM
Subject: Re: DPV

I think it would be best to at least have an initial discussion on the DPV even if it is over the phone. We can follow-up with a more detailed discussion when everyone can attend in person if that appears necessary. So, we'll leave the meeting as planned (time and date) with Ross participating by phone from Dresden (Ross, give me the phone number you'll be at).

Yong, sorry for any inconvenience. I believe you will now participate from headquarters by phone as well. I'll see about getting a bridge number so everyone can tie in. I'll be in RIV tomorrow and back in office Thursday morning. If any one has a problem with being able to participate, leave a message with a DRP secy, or try and get me in RIV.

>>> Ross Landsman 06/27 8:31 AM >>>

No, I'm the only one who knows what's going on. Delay the meeting until they load the cask then.

>>> Geoffrey Grant 06/26 6:09 PM >>>

Should/could I have Bruce provide a stand-in for Thursday morning then?

>>> Ross Landsman 06/26 5:36 PM >>>

There is too much work going on to load the first cast, please let me do it by phone, I'm a good communicator by phone.

>>> Geoffrey Grant 06/26 2:37 PM >>>

Ross, I think it would be beneficial if you could be here for the discussion. In-person (when possible) always seems to work better in fostering understanding. In fact, Yong Kim is going to travel to the region for the meeting. However, if you can't make it, I'd rather have the meeting over the telephone than delay it. If you need help with getting your supervisor's support for you to be here in the region, please let me know and I'll talk with him.

>>> Ross Landsman 06/26 1:46 PM >>>

I'm at Dresden, can we do it by phone?

>>> Geoffrey Grant 06/23 4:45 PM >>>

Ross - the RA has designated me as the chairman of the panel for review of your DC Cook CEQ Fan Wall Operability DPV. As of now (and barring any unforeseen changes) the other panel members are Yong Kim of NRR and Pat Hiland of RIII (chosen from your list). We have your DPV and the staff position that was provided to the DC Cook Oversight Panel and will be reviewing them early next week. I foresee the potential need for additional information or clarification of your position and would like the panel to meet with you next week. The best time for this is next Thursday 6/29 from 10:00 to 12:00 and I am making arrangements for this time. As you can imagine, finding a common free time for four busy professionals is difficult, so if this time is unacceptable to you please let me know ASAP. Feel free to contact me with any questions you might have on the process.

A/1/2

From: Geoffrey Grant , *RTT*
To: plh, ysk *P. Berson, Ross*
Date: Fri, Jul 14, 2000 6:59 AM
Subject: DPV

Status: we now have (I believe) all of the documents that we determined we needed in our first panel. Pat, if you haven't already, please fax these to Yong. I will be requesting/informing the Regional Administrator that the panel will need to extend it's completion date from 7/26 by a few weeks. This is mainly due to schedules (I'm on vavcation next week). While I'm out next week, I suggest you continue to pursue your areas so that the following week we can have a panel meeting and start drawing some conclusions. I'll be in touch early that week to set up a date for the panel to meet. I'll also be informing Ross of the slippage. I don't see the need right now to meet with Ross, if you do for some reason, let me know. Any questions, send me an e-mail, I'll be checking over the weekend.

CC: Jlc1

A/13



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION III
801 WARRENVILLE ROAD
LISLE, ILLINOIS 60532-4351

July 27, 2000

DRA an
Borson File

MEMORANDUM TO: J. E. Dyer, Regional Administrator *Per 7/28*

FROM: Geoffrey E. Grant, Director, Division of Reactor Projects *Geoffrey E. Grant*

SUBJECT: STATUS OF AD HOC REVIEW PANEL FOR DIFFERING
PROFESSIONAL VIEW: CEQ FAN ROOM WALL OPERABILITY

In accordance with your memo of June 23, 2000, to me, I formed a Panel in accordance with Management Directive 10.159. The Panel conducted an initial meeting on June 29, 2000, to discuss the Differing Professional View (DPV) process and this particular DPV, and to formulate additional questions and areas for clarification. We met the same day with the employee and covered those areas.

The Panel determined that some additional documentation was needed to support its review of the DPV. That additional information was obtained in early July and is being reviewed by the Panel. Consequently, the initial anticipated completion and recommendation date for the Panel of July 26, 2000, will need to be extended to mid-August. This will still meet the Management Directive 10.159 guidance to complete a DPV Panel within 60 days.

cc: J. McDermott, HR/OD
D. Sotiropoulos, RIII
P. Hiland, RIII
Y. Kim, NRR
G. Imbro, NRR

A/14

From: Geoffrey Grant, RIT
To: jed2, J. DYER
Date: Thu, Aug 3, 2000 3:36 PM
Subject: DPV

FYI - attached is the e-mail I sent Ross on 7/25 to give him an update - I also had left a voice mail to the same effect - I assumed if he had questions or wanted to discuss further, he would contact me. However, I'll search him out and talk with him.

CC: jlc1

A/IS

From: Geoffrey Grant
To: rbl
Date: Tue, Jul 25, 2000 7:03 AM
Subject: DPV

R. LANDISFAD, RE

Ross - you called and asked about the status of your DPV last week - I was out on vacation - I'll try and get back to you today - but, briefly, the panel believes it now has all the information it needs and will be meeting this week or next to discuss the issues - the original target date of 7/26 for completion will need to be extended, but should be done well within the MD required 60 days



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION III
801 WARRENVILLE ROAD
LISLE, ILLINOIS 60532-4351

August 11, 2000

MEMORANDUM TO: J. E. Dyer, Regional Administrator

FROM: Geoffrey E. Grant, Director, Division of Reactor Projects

SUBJECT: RECOMMENDATION OF AD HOC REVIEW PANEL FOR
DIFFERING PROFESSIONAL VIEW: CEQ FAN ROOM WALL
OPERABILITY

Pub 8/12/00
Geoffrey E. Grant

REFERENCES:

1. Memorandum Dyer to Grant: AD HOC REVIEW PANEL FOR DIFFERING PROFESSIONAL VIEW: CEQ FAN ROOM WALL OPERABILITY (D. C. COOK UNIT 2 STARTUP), dated June 23, 2000.
2. Memorandum Bajwa to Grobe: RESOLUTION OF DEGRADED CEQ FAN ROOM WALL, dated June 12, 1999.
3. D. C. Cook Action Request Status Report for AR A0156971, printed May 2, 2000.
4. D. C. Cook Condition Report P-99-27755 status screen page, printed April 18, 2000.
5. Summary of pour card data for CEQ walls, Calc. No. SD-000510-003, Page No. F5.
6. Westinghouse letter Rice to Hoskins: REACTOR CAVITY LOOP SUBCOMPARTMENT - PRESSURE TIME HISTORIES, dated April 27, 2000.
7. Westinghouse letter Rice to Greenlee: TMD ANALYSIS - CLARIFICATION OF 40 PERCENT DESIGN MARGIN, dated June 1, 2000.
8. Summary of May 4, 2000, D. C. Cook public meeting, dated May 17, 2000.
9. NRC Manual Chapter (MC) 9900, "Resolution of Degraded and Nonconforming Conditions," dated October 8, 1997.

In accordance with your memo of June 23, 2000, to me (Reference 1), an Ad Hoc Differing Professional View (DPV) Review Panel (Panel) was formed in accordance with NRC Management Directive (MD) 10.159 with myself as Chairman and Patrick Hiland (Region III) and Dr. Yong Kim (NRR) as members to review a DPV regarding the operability of CEQ Fan Room Walls at the D. C. Cook site. The purpose of this memorandum is to provide you with the Panel's review, conclusions, and recommendation for this DPV.

A/116

The DPV addressed two main issues related to the operability of the CEQ Fan Room Walls inside containment at D. C. Cook Unit 2. The first issue focused on the technical aspects of the walls and challenged both the conservatisms and uncertainties associated with the design margins of the walls. The second issue focused on the appropriateness of applying Generic Letter (GL) 91-18 to the degraded walls in support of unit restart. In reviewing this DPV, the Panel met on two occasions, had additional dialogue, interviewed the DPV Submitter, interviewed key members of the NRC D. C. Cook 0350 Restart Panel, and reviewed References 2-9. The primary document used was Reference 2 which contained the staff analysis/resolution of the issues the Submitter raised in the DPV and included material from the licensee June 1, 2000, presentation to the staff on the issue of the degraded walls. The issues (and sub-issues in the case of the use of GL 91-18) are discussed below.

ISSUE - Conservatisms and Uncertainties Associated with the CEQ Fan Room Walls

REVIEW

The first issue raised by the Submitter was the uncertainties due to the construction discrepancies of the CEQ Fan Room Walls at D. C. Cook Unit 2. The Submitter identified several construction discrepancies (i.e., cover and spacing of the reinforcing steel, quality of the grout and concrete, thickness differences on various pours, etc.). The Panel reviewed the results of a June 1, 2000, meeting between American Electric Power Company (licensee) and NRC to discuss this issue. The Submitter also participated in that meeting. In the meeting, the licensee acknowledged and addressed the construction discrepancies. The presentation included structural analysis results based on the degraded present structural conditions, and sought to demonstrate that the degraded walls were operable by showing a factor of safety of 1.21. The staff of NRR/DE/EMEB reviewed the analysis results, challenged some aspects of the analysis, and recalculated a factor of safety of roughly 1.05. Overall, the staff concluded that the licensee operability calculations for the walls were reasonable and acceptable.

In the Panel interview with the Submitter on June 28, 2000, he indicated that he accepts the staff calculated factor of safety of 1.05. However, he had an additional concern that the factor of safety of 1.05 would be smaller if: (1) the 28-days concrete strength of 4807 psi was used in the analysis rather than 4867 psi, and (2) 40 percent margin was included in the highest calculated differential pressure in the analysis.

Regarding the use of the concrete strength of 4867 psi, the staff indicated (Reference 2) that the licensee used the 4867 psi in the analysis based on the 95/05 confidence computation from the 28-days strengths of concrete cylinder samples taken during the construction. The 4807 psi was the lowest concrete strength among the samples.

With respect to the 40 percent margin increase, the NRC Standard Review Plan (SRP), Section 6.2.1, requires 40 percent margin to the design differential pressure for plants being reviewed for construction permits. However, the SRP allows the 40 percent margin requirement to be eliminated as long as as-built data is used in the calculations. In the June 1, 2000, meeting, the licensee informed the staff that it used as-built conditions of the structures in

the pressure calculation and the 40 percent allowance was not needed. The staff of NRR/DSSA/SPLB accepted the licensee pressure calculation.

In view of the questions surrounding these walls, the Submitter raised a general question about the confidence in other concrete structures and whether or not they were built as designed and meet their intent (extent of condition). The Panel understood that the licensee described their reviews of construction records and photographs of initial construction showing the placement of concrete reinforcement bars in the June 1, 2000, meeting. In addition, the licensee described the examination of as-built structures that were performed to assess whether the problems identified on the CEQ wall exist in other structures. After extensive discussion, the staff found that the circumstances that resulted in the condition of the CEQ walls were unique based on the provided data and construction information regarding other walls. The Panel reviewed the material presented and discussed the meeting dialogue on this issue with MC 0350 Panel members who were there.

CONCLUSION

The Panel concurs with the staff that the use of 4867 psi based on the 95/05 confidence computation is a generally accepted engineering practice and reasonable approach for determining the operability of the walls and is therefore acceptable.

The Panel concurs with the staff that there is no need for the 40 percent margin requirement in the pressure calculation per the SRP guidelines.

While clearly an area of judgement, the Panel believes enough information was presented for the MC 0350 Panel to make an informed decision on the extent of condition.

RECOMMENDATION

None

ISSUE - Appropriate Use/Application of GL 91-18

SUB-ISSUE - Adequacy of the application of GL 91-18 guidelines regarding: 1) Availability of redundant or backup equipment; 2) Compensatory measures; and 3) Conservatism and margin

REVIEW

The staff response to the above three issues states that the licensee demonstrated operability for the affected structural element, i.e., load factor is above 1.0; therefore, consideration of other factors is not necessary.

As noted in the guidance provided in MC 9900, Resolution of Degraded and Nonconforming Conditions, the above three items are included as items to consider for a "Reasonable Assurance of Safety." Additional items also listed include: safety function and events protected against; probability of needing the safety function; and PRA or IPE results. The guidelines in

MC 9900, Section 4.7, provide some insight into the NRC expectations for when a compensatory action is to be implemented. Since the licensee was not required to establish a compensatory measure to restore operability of the affected structure (load factor was agreed to be greater than 1.0), their decision to use it "as-is" for some interim basis is reasonable. This does not mean that action is not required to restore licensed design margin; rather, the operability demonstration suggests that the degree of degradation is less than for an item which requires compensatory action.

CONCLUSION

The Panel concludes that the licensee use of GL 91-18, and the staff acceptance of the licensee operability evaluations with the interim "use-as-is" disposition (i.e. delay restoration of design margin), was in accordance with existing guidelines.

SUB-ISSUE - GL 91-18 refers to the impact on core damage frequency (CDF), but containment is needed for large early release frequency (LERF)

REVIEW

The conclusion of the NRC staff, as documented for Restart Action Matrix Issue R.3.17, was that the licensee operability determination was reasonable and demonstrated the affected structure was operable. The staff response to this issue stated that since containment was operable but degraded, there was no substantive change in the probability of a large early release.

CONCLUSION

The Panel concurs with the staff position that, based on the capability of the affected structure to perform its intended function as indicated in the operability determination, there was no substantive increase in a large early release frequency.

SUB-ISSUE - Timeliness of licensee actions with regards to GL 91-18

REVIEW

The staff response to this issue described the sequence of observations and identified problems on the affected structure, which eventually led the licensee to conduct a detailed operability evaluation. References 3 and 4 document the licensee initial determination that the affected structure had "...severely degraded concrete coating and grout..." in February 1998. At the time of discovery, the noted discrepancies were believed, as documented in the associated Action Request, not to impact the structure's operability. In November 1999 the severity of the nonconformance was more defined after repair work identified that structural repair, not cosmetic, would be required. In early 2000, the licensee appears to have concentrated their efforts on a "use as-is" disposition for the affected structure. In May 2000 a public meeting was held with the licensee (Reference 8) and the NRC staff identified several pieces of technical

information that the NRC needed to perform a thorough evaluation. The Panel discussion with the NRC staff who were present at the May 2000 meeting indicated that the licensee was not prepared or they did not understand the severity of the nonconformance. On June 1, 2000, another public meeting was held with the licensee to discuss their operability determination. At that meeting, the licensee presented their corrective actions - post restart (Reference 2, Slide 29).

Manual Chapter 9900, Section 4.3, states that when degraded or nonconforming conditions are identified, "The licensee **must** [emphasis added] establish a time frame for completion of corrective action."

CONCLUSION

The licensee use of GL 91-18, and the decision to rely on the demonstrated operability determination without restoring and/or revising their Safety Analysis Report design margin prior to restart of D. C. Cook Unit 2, was reasonable. As stated in the MC, the time frame governing corrective actions begins with the discovery of the condition. At issue is the response of the licensee to a known nonconformance originally identified in 1998. The documented information presents a reasonable argument that the licensee was effectively implementing their corrective actions according to the safety significance of the issue. The original nonconformance was believed to be only "cosmetic" problems with the concrete or grout. In late 1999 the licensee corrective action programs were effective in recognizing that the problem required more than a cosmetic repair.

Considering the analysis required and the increased severity of the degraded condition discovered in 2000, the licensee decision to defer a permanent repair on the degraded structure and address the operability of the current condition was reasonable.

One issue not well documented is the time frame for the licensee to complete corrective actions. Through review of records and interviews of NRC staff present at the June 1, 2000, public meeting, it appears that the licensee did not initially present specific details regarding their time frame for completion of corrective actions. As a matter of record, the licensee deferred development of a schedule for permanent resolution until Unit 1 restart (Reference 2, Slide 29). As noted during interviews, NRC management present at the June 1, 2000, meeting emphasized the NRC expectations that corrective actions be implemented in accordance with current NRC guidance, i.e., as soon as practical commensurate with the safety significance of the deficiency, but not later than the next refueling outage for Unit 2. The acceptability of the licensee "corrective action - post restart" was partially based on verbal agreement from the licensee that adequate corrective actions would be implemented based on a schedule to be presented after Unit 2 restart. While the Panel believes this was acceptable, a more substantive commitment or presentation from the licensee prior to restart of D. C. Cook Unit 2 would have more closely aligned with the guidance of MC 9900.

Overall, the Panel believes the licensee use of the guidance in GL 91-18 to restart D. C. Cook Unit 2 was appropriate. The licensee and the NRC followed the guidance documents with some judgement used for accepting the licensee's commitment for a timeframe for permanent corrective actions.

RECOMMENDATION

The Panel recommends that the MC 0350 Panel address with the licensee the issue of the need for a definitive timeframe for final corrective action.

cc: J. McDermott, HR/OD
J. Caldwell, RIII
D. Sotiropoulos, RIII
B. Berson, RIII
P. Hiland, RIII
Y. Kim, NRR



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION III
801 WARRENVILLE ROAD
LISLE, ILLINOIS 60532-4351

August 17, 2000

MEMORANDUM FOR: Ross Landsman, Project Engineer
Division of Nuclear Materials Safety

FROM: J. E. Dyer, Regional Administrator *J. Dyer*

SUBJECT: RESOLUTION OF DIFFERING PROFESSIONAL VIEW
ON CEQ FAN ROOM WALL OPERABILITY
(D. C. COOK UNIT 2 STARTUP)

Your memorandum to me dated June 6, 2000, identified your Differing Professional View (DPV) with the NRC staff decision to allow the restart of D. C. Cook, Unit 2, with a degraded, but operable CEQ fan room wall. The DPV addressed two concerns related to the operability of the containment wall. The first concern focused on the technical aspects of the operability evaluation for the wall, questioning both the conservatisms and uncertainties used to determine that the design margin of the wall was acceptable. The second concern challenged the appropriateness of applying the criteria of Generic Letter 91-18 to the degraded wall. In a memo dated June 23, 2000, I formed an Ad Hoc DPV Review Panel in accordance with NRC Management Directive 10.159.

I have reviewed the August 11, 2000, report of the Ad Hoc Differing Professional View Panel concerning the CEQ fan room wall operability and agree with the panel's rationale, conclusions, and recommendation. A copy of the panel's report is attached. The panel concluded that the actions taken by the NRC staff were appropriate from both the technical and process perspectives. The panel made a recommendation that the NRC staff address with the licensee a more definitive time frame for the final corrective actions for the degraded wall. By separate correspondence I will direct the MC 0350 panel to address this issue with the licensee to firm up a corrective action schedule.

I appreciate and commend your willingness to utilize the DPV process. Your willingness to bring your concerns to my attention in a timely manner facilitated the NRC staff deliberations before restart and contributed to the quality of the restart decision-making process. In accordance with Management Directive 10.159, a summary of the issue and its disposition will be included in the Weekly Information Report to advise interested employees of the outcome. DPVs are not normally made available to the public. However, if you would like to have your DPV case file made public, with or without the release of your name, please contact Bruce Berson.

CONTACT: Bruce Berson/ORR
630/829-9653

A/17

Ross Landsman

This completes our review of your DPV. Should you wish, you may initiate the Differing Professional Opinion process as described in Management Directive 10.159.

Attachment: As stated

RESPONSE

DPV A BULLSHIT, ANOTHER BLOWOFF, JUST AS BAD AS CHEMETRON
DPV/DPO

THIS IS A WORST BLOWOFF THAN NR DID TO ME AT MEETING
IN WASHINGTON

STILL DO NOT HAVE TIME TABLE TO FIX UNIT 2 WALLS

WAITING FOR MEETING MINUTES OF UNIT 1 CONTAINMENT
MEETING TO WRITE DPO

UNIT 1 ^{CONTAINMENT} IS WORSE THAN UNIT 2 CONTAINMENT
SLAB IS TOO THIN, WOULDN'T LET ME LOOK AT IT

ARE NOT FOLLOWING ~~THE~~ G.L. 92-18 AT ALL

WERE GOING TO
THEY LET COOK STARTUP NO MATTER WHAT, i.e.
EDGE CABLE SEPARATION ISSUE WORSE, MANY
MORE ISSUES JUST CLOSED.



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION III
801 WARRENVILLE ROAD
LISLE, ILLINOIS 60532-4351

August 17, 2000

MEMORANDUM FOR: Ross Landsman, Project Engineer
Division of Nuclear Materials Safety

FROM: J. E. Dyer, Regional Administrator *J. Dyer*

SUBJECT: RESOLUTION OF DIFFERING PROFESSIONAL VIEW
ON CEQ FAN ROOM WALL OPERABILITY
(D. C. COOK UNIT 2 STARTUP)

Your memorandum to me dated June 6, 2000, identified your Differing Professional View (DPV) with the NRC staff decision to allow the restart of D. C. Cook, Unit 2, with a degraded, but operable CEQ fan room wall. The DPV addressed two concerns related to the operability of the containment wall. The first concern focused on the technical aspects of the operability evaluation for the wall, questioning both the conservatisms and uncertainties used to determine that the design margin of the wall was acceptable. The second concern challenged the appropriateness of applying the criteria of Generic Letter 91-18 to the degraded wall. In a memo dated June 23, 2000, I formed an Ad Hoc DPV Review Panel in accordance with NRC Management Directive 10.159.

I have reviewed the August 11, 2000, report of the Ad Hoc Differing Professional View Panel concerning the CEQ fan room wall operability and agree with the panel's rationale, conclusions, and recommendation. A copy of the panel's report is attached. The panel concluded that the actions taken by the NRC staff were appropriate from both the technical and process perspectives. The panel made a recommendation that the NRC staff address with the licensee a more definitive time frame for the final corrective actions for the degraded wall. By separate correspondence I will direct the MC 0350 panel to address this issue with the licensee to firm up a corrective action schedule.

I appreciate and commend your willingness to utilize the DPV process. Your willingness to bring your concerns to my attention in a timely manner facilitated the NRC staff deliberations before restart and contributed to the quality of the restart decision-making process. In accordance with Management Directive 10.159, a summary of the issue and its disposition will be included in the Weekly Information Report to advise interested employees of the outcome. DPVs are not normally made available to the public. However, if you would like to have your DPV case file made public, with or without the release of your name, please contact Bruce Berson.

CONTACT: Bruce Berson/ORA
630/829-9653

A/18

Ross Landsman

This completes our review of your DPV. Should you wish, you may initiate the Differing Professional Opinion process as described in Management Directive 10.159.

Attachment: As stated



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION III
801 WARRENVILLE ROAD
LISLE, ILLINOIS 60532-4351

August 11, 2000

MEMORANDUM TO: J. E. Dyer, Regional Administrator

FROM: Geoffrey E. Grant, Director, Division of Reactor Projects

SUBJECT: RECOMMENDATION OF AD HOC REVIEW PANEL FOR
DIFFERING PROFESSIONAL VIEW: CEQ FAN ROOM WALL
OPERABILITY

Pub 8/12/00
Geoffrey E. Grant

REFERENCES:

1. Memorandum Dyer to Grant: AD HOC REVIEW PANEL FOR DIFFERING PROFESSIONAL VIEW: CEQ FAN ROOM WALL OPERABILITY (D. C. COOK UNIT 2 STARTUP), dated June 23, 2000.
2. Memorandum Bajwa to Grobe: RESOLUTION OF DEGRADED CEQ FAN ROOM WALL, dated June 12, 1999.
3. D. C. Cook Action Request Status Report for AR A0156971, printed May 2, 2000.
4. D. C. Cook Condition Report P-99-27755 status screen page, printed April 18, 2000.
5. Summary of pour card data for CEQ walls, Calc. No. SD-000510-003, Page No. F5.
6. Westinghouse letter Rice to Hoskins: REACTOR CAVITY LOOP SUBCOMPARTMENT - PRESSURE TIME HISTORIES, dated April 27, 2000.
7. Westinghouse letter Rice to Greenlee: TMD ANALYSIS - CLARIFICATION OF 40 PERCENT DESIGN MARGIN, dated June 1, 2000.
8. Summary of May 4, 2000, D. C. Cook public meeting, dated May 17, 2000.
9. NRC Manual Chapter (MC) 9900, "Resolution of Degraded and Nonconforming Conditions," dated October 8, 1997.

In accordance with your memo of June 23, 2000, to me (Reference 1), an Ad Hoc Differing Professional View (DPV) Review Panel (Panel) was formed in accordance with NRC Management Directive (MD) 10.159 with myself as Chairman and Patrick Hiland (Region III) and Dr. Yong Kim (NRR) as members to review a DPV regarding the operability of CEQ Fan Room Walls at the D. C. Cook site. The purpose of this memorandum is to provide you with the Panel's review, conclusions, and recommendation for this DPV.

The DPV addressed two main issues related to the operability of the CEQ Fan Room Walls inside containment at D. C. Cook Unit 2. The first issue focused on the technical aspects of the walls and challenged both the conservatisms and uncertainties associated with the design margins of the walls. The second issue focused on the appropriateness of applying Generic Letter (GL) 91-18 to the degraded walls in support of unit restart. In reviewing this DPV, the Panel met on two occasions, had additional dialogue, interviewed the DPV Submitter, interviewed key members of the NRC D. C. Cook 0350 Restart Panel, and reviewed References 2-9. The primary document used was Reference 2 which contained the staff analysis/resolution of the issues the Submitter raised in the DPV and included material from the licensee June 1, 2000, presentation to the staff on the issue of the degraded walls. The issues (and sub-issues in the case of the use of GL 91-18) are discussed below.

ISSUE - Conservatisms and Uncertainties Associated with the CEQ Fan Room Walls

REVIEW

The first issue raised by the Submitter was the uncertainties due to the construction discrepancies of the CEQ Fan Room Walls at D. C. Cook Unit 2. The Submitter identified several construction discrepancies (i.e., cover and spacing of the reinforcing steel, quality of the grout and concrete, thickness differences on various pours, etc.). The Panel reviewed the results of a June 1, 2000, meeting between American Electric Power Company (licensee) and NRC to discuss this issue. The Submitter also participated in that meeting. In the meeting, the licensee acknowledged and addressed the construction discrepancies. The presentation included structural analysis results based on the degraded present structural conditions, and sought to demonstrate that the degraded walls were operable by showing a factor of safety of 1.21. The staff of NRR/DE/EMEB reviewed the analysis results, challenged some aspects of the analysis, and recalculated a factor of safety of roughly 1.05. Overall, the staff concluded that the licensee operability calculations for the walls were reasonable and acceptable.

In the Panel interview with the Submitter on June 28, 2000, he indicated that he accepts the staff calculated factor of safety of 1.05. However, he had an additional concern that the factor of safety of 1.05 would be smaller if: (1) the 28-days concrete strength of 4807 psi was used in the analysis rather than 4867 psi, and (2) 40 percent margin was included in the highest calculated differential pressure in the analysis.

Regarding the use of the concrete strength of 4867 psi, the staff indicated (Reference 2) that the licensee used the 4867 psi in the analysis based on the 95/05 confidence computation from the 28-days strengths of concrete cylinder samples taken during the construction. The 4807 psi was the lowest concrete strength among the samples.

With respect to the 40 percent margin increase, the NRC Standard Review Plan (SRP), Section 6.2.1, requires 40 percent margin to the design differential pressure for plants being reviewed for construction permits. However, the SRP allows the 40 percent margin requirement to be eliminated as long as as-built data is used in the calculations. In the June 1, 2000, meeting, the licensee informed the staff that it used as-built conditions of the structures in

the pressure calculation and the 40 percent allowance was not needed. The staff of NRR/DSSA/SPLB accepted the licensee pressure calculation.

In view of the questions surrounding these walls, the Submitter raised a general question about the confidence in other concrete structures and whether or not they were built as designed and meet their intent (extent of condition). The Panel understood that the licensee described their reviews of construction records and photographs of initial construction showing the placement of concrete reinforcement bars in the June 1, 2000, meeting. In addition, the licensee described the examination of as-built structures that were performed to assess whether the problems identified on the CEQ wall exist in other structures. After extensive discussion, the staff found that the circumstances that resulted in the condition of the CEQ walls were unique based on the provided data and construction information regarding other walls. The Panel reviewed the material presented and discussed the meeting dialogue on this issue with MC 0350 Panel members who were there.

CONCLUSION

The Panel concurs with the staff that the use of 4867 psi based on the 95/05 confidence computation is a generally accepted engineering practice and reasonable approach for determining the operability of the walls and is therefore acceptable.

The Panel concurs with the staff that there is no need for the 40 percent margin requirement in the pressure calculation per the SRP guidelines.

While clearly an area of judgement, the Panel believes enough information was presented for the MC 0350 Panel to make an informed decision on the extent of condition.

RECOMMENDATION

None

ISSUE - Appropriate Use/Application of GL 91-18

SUB-ISSUE - Adequacy of the application of GL 91-18 guidelines regarding: 1) Availability of redundant or backup equipment; 2) Compensatory measures; and 3) Conservatism and margin

REVIEW

The staff response to the above three issues states that the licensee demonstrated operability for the affected structural element, i.e., load factor is above 1.0; therefore, consideration of other factors is not necessary.

As noted in the guidance provided in MC 9900, Resolution of Degraded and Nonconforming Conditions, the above three items are included as items to consider for a "Reasonable Assurance of Safety." Additional items also listed include: safety function and events protected against; probability of needing the safety function; and PRA or IPE results. The guidelines in

MC 9900, Section 4.7, provide some insight into the NRC expectations for when a compensatory action is to be implemented. Since the licensee was not required to establish a compensatory measure to restore operability of the affected structure (load factor was agreed to be greater than 1.0), their decision to use it "as-is" for some interim basis is reasonable. This does not mean that action is not required to restore licensed design margin; rather, the operability demonstration suggests that the degree of degradation is less than for an item which requires compensatory action.

CONCLUSION

The Panel concludes that the licensee use of GL 91-18, and the staff acceptance of the licensee operability evaluations with the interim "use-as-is" disposition (i.e. delay restoration of design margin), was in accordance with existing guidelines.

SUB-ISSUE - GL 91-18 refers to the impact on core damage frequency (CDF), but containment is needed for large early release frequency (LERF)

REVIEW

The conclusion of the NRC staff, as documented for Restart Action Matrix Issue R.3.17, was that the licensee operability determination was reasonable and demonstrated the affected structure was operable. The staff response to this issue stated that since containment was operable but degraded, there was no substantive change in the probability of a large early release.

CONCLUSION

The Panel concurs with the staff position that, based on the capability of the affected structure to perform its intended function as indicated in the operability determination, there was no substantive increase in a large early release frequency.

SUB-ISSUE - Timeliness of licensee actions with regards to GL 91-18

REVIEW

The staff response to this issue described the sequence of observations and identified problems on the affected structure, which eventually led the licensee to conduct a detailed operability evaluation. References 3 and 4 document the licensee initial determination that the affected structure had "...severely degraded concrete coating and grout..." in February 1998. At the time of discovery, the noted discrepancies were believed, as documented in the associated Action Request, not to impact the structure's operability. In November 1999 the severity of the nonconformance was more defined after repair work identified that structural repair, not cosmetic, would be required. In early 2000, the licensee appears to have concentrated their efforts on a "use as-is" disposition for the affected structure. In May 2000 a public meeting was held with the licensee (Reference 8) and the NRC staff identified several pieces of technical

information that the NRC needed to perform a thorough evaluation. The Panel discussion with the NRC staff who were present at the May 2000 meeting indicated that the licensee was not prepared or they did not understand the severity of the nonconformance. On June 1, 2000, another public meeting was held with the licensee to discuss their operability determination. At that meeting, the licensee presented their corrective actions - post restart (Reference 2, Slide 29).

Manual Chapter 9900, Section 4.3, states that when degraded or nonconforming conditions are identified, "The licensee must [emphasis added] establish a time frame for completion of corrective action."

CONCLUSION

The licensee use of GL 91-18, and the decision to rely on the demonstrated operability determination without restoring and/or revising their Safety Analysis Report design margin prior to restart of D. C. Cook Unit 2, was reasonable. As stated in the MC, the time frame governing corrective actions begins with the discovery of the condition. At issue is the response of the licensee to a known nonconformance originally identified in 1998. The documented information presents a reasonable argument that the licensee was effectively implementing their corrective actions according to the safety significance of the issue. The original nonconformance was believed to be only "cosmetic" problems with the concrete or grout. In late 1999 the licensee corrective action programs were effective in recognizing that the problem required more than a cosmetic repair.

Considering the analysis required and the increased severity of the degraded condition discovered in 2000, the licensee decision to defer a permanent repair on the degraded structure and address the operability of the current condition was reasonable.

One issue not well documented is the time frame for the licensee to complete corrective actions. Through review of records and interviews of NRC staff present at the June 1, 2000, public meeting, it appears that the licensee did not initially present specific details regarding their time frame for completion of corrective actions. As a matter of record, the licensee deferred development of a schedule for permanent resolution until Unit 1 restart (Reference 2, Slide 29). As noted during interviews, NRC management present at the June 1, 2000, meeting emphasized the NRC expectations that corrective actions be implemented in accordance with current NRC guidance, i.e., as soon as practical commensurate with the safety significance of the deficiency, but not later than the next refueling outage for Unit 2. The acceptability of the licensee "corrective action - post restart" was partially based on verbal agreement from the licensee that adequate corrective actions would be implemented based on a schedule to be presented after Unit 2 restart. While the Panel believes this was acceptable, a more substantive commitment or presentation from the licensee prior to restart of D. C. Cook Unit 2 would have more closely aligned with the guidance of MC 9900.

Overall, the Panel believes the licensee use of the guidance in GL 91-18 to restart D. C. Cook Unit 2 was appropriate. The licensee and the NRC followed the guidance documents with some judgement used for accepting the licensee's commitment for a timeframe for permanent corrective actions.

RECOMMENDATION

The Panel recommends that the MC 0350 Panel address with the licensee the issue of the need for a definitive timeframe for final corrective action.

cc: J. McDermott, HR/OD
J. Caldwell, RIII
D. Sotiropoulos, RIII
B. Berson, RIII
P. Hiland, RIII
Y. Kim, NRR



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION III
801 WARRENVILLE ROAD
LISLE, ILLINOIS 60532-4351

August 22, 2000

K. Zardemas
DKMB

MEMORANDUM TO: Jack Grobe, Director
Division of Reactor Safety

FROM:

for J. E. Dyer *James F. Caldwell*
Regional Administrator

SUBJECT: CORRECTIVE ACTIONS FOR D. C. COOK CEQ FAN ROOM
DEGRADED WALL

I have reviewed the recent Ad Hoc Review Panel's report on a differing professional view associated with the D. C. Cook CEQ fan room wall. I accepted the Panel's recommendation that the licensee should develop a more definitive time frame for the final corrective actions it will take on the degraded walls. Since you chair the MC 0350 panel for D.C. Cook, please ensure that the MC 0350 panel promptly addresses this issue with the licensee to firm up a corrective action schedule and inform me of our progress on this issue.

cc: G. Grant, DRP

A/19

From: Patrick Hiland
To: Geoffrey Grant, Ross Landsman, Yong Kim
Date: Thu, Jul 6, 2000 9:18 AM
Subject: DPV notes from 6/29 telecon. Update 07/06

07/06 Update:

During our first meeting regarding implementation of G.L. 91-018 at D.C. Cook, we agreed and/or clarified the current concerns were as follows:

1. As a starting point, the calculated "factor of safety" value of **1.05** is not being challenged as the staff is in general agreement with the basis for that value.
2. The as-built strength of the concrete reported to be 4867 vs. 5300 may be acceptable, but need to verify the number used. **Ross** will review material and verify acceptability.

7/06-Update: The recorded low 28-day break strengths on AZ-126 and AZ-234 were 4807 not 4867.

3. The original letter from Westinghouse stated that a 40% margin should be applied. That original letter was reported to be revised to 0% following use of as-found data in calculations. **Panel members** are to retrieve Westinghouse revised letter from the Project's Branch Chief.

7/06-Update: Pat has call in to Dave Passehl to request W document. Both Tony Vogel and Bruce Bartlett on A/L.

4. On Page # 3 of the 6/12/00 memo from Bajwa to Grobe it states: "...The NRC staff questioned this assertion and ultimately agreed that the circumstances that resulted in the condition of the CEQ wall were unique...." There is not full agreement on this statement and there was not sufficient info presented at the June 1, 2000, meeting to justify that statement.
5. On Page #4 of the 6/12/00 memo from Bajwa to Grobe it states: "...Since the affected structures are operable, that is the load factor is above 1.0, the consideration of other factors (e.g. redundant equipment or compensatory actions) is not necessary." This statement appears to be in conflict with NRC M.C. Part 9900, TECHNICAL GUIDANCE, "Resolution of degraded and nonconforming conditions," dated 10/08/97. Specifically, Section 4.5.3 and Section 4.6 provide guidance which includes items such as comp measures, redundant equipment, conservatism, etc.
6. The 6/12/00 memo from Bajwa to Grobe also implies that the licensee's corrective action is timely and in accordance with G.L. 91-18 guidance. Since the discrepant condition was first discovered in Feb. '98 and action is still not complete, how does that meet G.L. 91-018 guidance?

7/06 Update: Action Request # A0156971 initiated on **02/11/98** documented "...severely degraded concrete coating and grout..." CR #99-27755 initiated **11/22/99** written to identify extent of concrete degradation greater than anticipated while doing repair work. Original repair work-order authorized excavation to a depth of 3" was later revised to 14". When sound concrete was not found at 14" depth, wrote CR.

August 22, 2000

MEMORANDUM TO: Jack Grobe, Director
Division of Reactor Safety

FROM: J. E. Dyer (Original signed by James L. Caldwell for)
Regional Administrator

SUBJECT: CORRECTIVE ACTIONS FOR D. C. COOK CEQ FAN ROOM
DEGRADED WALL

I have reviewed the recent Ad Hoc Review Panel's report on a differing professional view associated with the D. C. Cook CEQ fan room wall. I accepted the Panel's recommendation that the licensee should develop a more definitive time frame for the final corrective actions it will take on the degraded walls. Since you chair the MC 0350 panel for D.C. Cook, please ensure that the MC 0350 panel promptly addresses this issue with the licensee to firm up a corrective action schedule and inform me of our progress on this issue.

cc: G. Grant, DRP

bcc: R. Landsman, DNMS

Document Name: P:\DPVCOOK.WPD

To receive a copy of this document, indicate in the box "C" = Copy without attach/encl
"E" = Copy with attach/encl "N" = No copy

OFFICE	RC:RIII	C	RA:RIII					
NAME	BBerson		JDyer					
DATE	08/22/00		08/22/00					

OFFICIAL RECORD COPY

A/20



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION III
801 WARRENVILLE ROAD
LISLE, ILLINOIS 60532-4351

August 22, 2000

MEMORANDUM TO: Jack Grobe, Director
Division of Reactor Safety

FROM:

for J. E. Dyer *James F. Caldwell*
Regional Administrator

SUBJECT: CORRECTIVE ACTIONS FOR D. C. COOK CEQ FAN ROOM
DEGRADED WALL

I have reviewed the recent Ad Hoc Review Panel's report on a differing professional view associated with the D. C. Cook CEQ fan room wall. I accepted the Panel's recommendation that the licensee should develop a more definitive time frame for the final corrective actions it will take on the degraded walls. Since you chair the MC 0350 panel for D.C. Cook, please ensure that the MC 0350 panel promptly addresses this issue with the licensee to firm up a corrective action schedule and inform me of our progress on this issue.

cc: G. Grant, DRP