

# ACCELERATED DOCUMENT DISTRIBUTION SYSTEM

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 9307190241 DOC. DATE: 93/07/09 NOTARIZED: YES DOCKET #  
 FACIL: 50-316 Donald C. Cook Nuclear Power Plant, Unit 2, Indiana M 05000316  
 AUTH. NAME AUTHOR AFFILIATION  
 FITZPATRICK, E. Indiana Michigan Power Co. (formerly Indiana & Michigan Ele  
 RECIP. NAME RECIPIENT AFFILIATION  
 MARTIN, J.B. Document Control Branch (Document Control Desk)

SUBJECT: Documents results of 930708 telcon re util request for  
 exercise of enforcement discretion for TS 3.1.2.4 (charging  
 pumps - operating) & 3.5.2 (ECCS subsys). Requests that 72 h  
 action statements be extended for addl 60 h.

DISTRIBUTION CODE: A001D COPIES RECEIVED: LTR 1 ENCL 1 SIZE: 10  
 TITLE: OR Submittal: General Distribution

## NOTES:

RECIPIENT ID CODE/NAME	COPIES LTTR ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL
PD3-1 LA	1 1	PD3-1 PD	1 1
DEAN, W	2 2		
INTERNAL: NRR/DE/EELB	1 1	NRR/DRCH/HICB	1 1
NRR/DRPW/OTSB	1 1	NRR/DSSA/SPLB	1 1
NRR/DSSA/SRXB	1 1	NUDOCS-ABSTRACT	1 1
OG/LEDCEB	1 0	OGC/HDS2	1 0
REG FILE 01	1 1		
EXTERNAL: NRC PDR	1 1	NSIC	1 1

## NOTE TO ALL "RIDS" RECIPIENTS:

PLEASE HELP US TO REDUCE WASTE! CONTACT THE DOCUMENT CONTROL DESK,  
 ROOM P1-37 (EXT. 504-2065) TO ELIMINATE YOUR NAME FROM DISTRIBUTION  
 LISTS FOR DOCUMENTS YOU DON'T NEED!

TOTAL NUMBER OF COPIES REQUIRED: LTTR 15 ENCL 13

AA-2  
 JLP

10-10-68



Donald C. Cook Nuclear Plant Unit 2

AEP:NRC:1191

Docket No. 50-316

License No. DPR-74

REQUEST FOR EXERCISE OF ENFORCEMENT DISCRETION

FOR TECHNICAL SPECIFICATIONS 3.1.2.4 (CHARGING PUMPS -  
OPERATING) AND 3.5.2 (ECCS SUBSYSTEMS)

U. S. Nuclear Regulatory Commission

Document Control Desk

Washington, D. C. 20555

Attn: Mr. J. B. Martin

July 9, 1993

Dear Mr. Martin:

The purpose of this letter is to document the results of a teleconference held at 1500 hours on July 8, 1993, among American Electric Power Service Corp. (AEPSC), Indiana Michigan Power Company (I&M), and the NRC Regional and NRR staffs in which AEPSC/I&M requested Regional Exercise of Enforcement Discretion for Technical Specifications (T/S) 3.1.2.4 and 3.5.2 for Unit 2 of the Donald C. Cook Nuclear Plant. Currently, Unit 2 is at 70% power with the West centrifugal charging pump (CCP) inoperable. The unit is therefore in action statements for T/S 3.1.2.4 and 3.5.2 which allow 72 hours to restore the pump to operable status or commence a unit shutdown. The 72 hour action statement time clock began at 2237 hours on July 6 and expires at 2237 hours on July 9. We are requesting that the 72 hour action statements be extended an additional 60 hours to allow repairs to the inoperable pump to be performed without the need to shut the unit down.

The basis for this request is provided in the attachment and may be summarized as follows:

- (1) A discussion of the requirements for which an exercise of enforcement discretion is requested.
- (2) A discussion of the circumstances surrounding the situation, including the need for prompt action.
- (3) A description of why the situation could not have been avoided.

150020 930709  
9307190241 930709  
PDR ADOCK 05000316  
P PDR

ADD 1/1

- (4) An evaluation of the safety significance and potential consequences of the proposed request.
- (5) A discussion of compensatory actions.
- (6) A discussion which justifies the duration of the request.
- (7) The basis for concluding that the request does not involve a significant hazards consideration.
- (8) The basis for concluding that the request does not involve irreversible environmental consequences.

If the West CCP remains inoperable as of 1037 hours on July 12, (the expiration of the Exercise of Enforcement Discretion) Unit 2 will be placed in Mode 3 within 6 hours and then Mode 4 within the next 6 hours, as required by T/S 3.1.2.4 and 3.5.2.

This request for Exercise of Enforcement Discretion has been reviewed by the Plant Nuclear Safety Review Committee. It will be presented to the Nuclear Safety and Design Review Committee at its next regularly scheduled meeting.

This letter is submitted pursuant to 10 CFR 50.54(f) and, as such, an oath statement is attached.

Sincerely,



E. E. Fitzpatrick  
Vice President

dr

Attachment

cc: A. A. Blind - Bridgman  
J. R. Padgett  
G. Charnoff  
NRC Resident Inspector - Bridgman  
NFEM Section Chief

STATE OF OHIO)  
COUNTY OF FRANKLIN)

E. E. Fitzpatrick, being duly sworn, deposes and says that he is the Vice President of licensee Indiana Michigan Power Company, that he has read the forgoing Request For Exercise of Enforcement Discretion for Technical Specifications 3.1.2.4 (Charging Pumps - Operating) and 3.5.2 (ECCS Subsystems) and knows the contents thereof; and that said contents are true to the best of his knowledge and belief.

E E Fitzpatrick

Subscribed and sworn to before me this 9th

day of July, 1993

Rita D. Hill  
NOTARY PUBLIC  
RITA D. HILL  
NOTARY PUBLIC, STATE OF OHIO  
MY COMMISSION EXPIRES 6-28-94

ATTACHMENT TO AEP:NRC:1191

ENFORCEMENT DISCRETION FOR UNIT 2

WEST CENTRIFUGAL CHARGING PUMP



(1) DISCUSSION OF REQUIREMENTS FOR WHICH THE EXERCISE OF ENFORCEMENT DISCRETION IS REQUESTED

This letter requests an Exercise of Enforcement Discretion from the requirements of Technical Specification (T/S) 3.1.2.4 (Charging Pumps - Operating) and 3.5.2 (ECCS Subsystems). For T/S 3.1.2.4, relief is requested from the requirement to have two charging pumps operable in Modes 1 through 4. With only one charging pump operable, 72 hours is allowed to restore two pumps to operable status or the unit must be placed in Mode 3 within 6 hours (and borated to a shutdown margin equivalent to at least  $1\% \Delta k$  over  $k$  at 200 deg. F). Both charging pumps must be restored to operable status within the next 7 days, or the unit must be placed in Mode 5 within the next 30 hours. For T/S 3.5.2, relief is requested from the requirement to have two independent ECCS subsystems operable in Modes 1 through 3. With one ECCS subsystem inoperable, 72 hours is allowed to restore the inoperable subsystem to operable status or the unit must be in mode 4 within the next 12 hours.

The basis for T/S 3.1.2.4 is to ensure that negative reactivity control is available. A minimum of two separate and redundant boron injection systems are provided to ensure functional capability in the event an assumed failure renders one of the systems inoperable.

The basis for T/S 3.5.2 is to ensure that sufficient emergency core cooling capability will be available in the event of a LOCA assuming the loss of one train of ECCS. Although not specifically discussed in the basis, the charging and other ECCS pumps are also modeled in other UFSAR analyses such as steamline break.

Since the duration of the requested Exercise of Enforcement Discretion is brief (60 hours), we believe the extension is preferable to imposing a thermal transient on the plant as would occur if the unit must be shut down. Additionally, we note that warm weather conditions have resulted in an increased demand for power within our region, making it undesirable from a system operation's perspective to unnecessarily remove the unit from service. As discussed below, the increased risk to core damage frequency, as determined by our individual plant examination, is small.

(2) DISCUSSION OF THE CIRCUMSTANCES SURROUNDING THE SITUATION

On July 6, 1993, at approximately 2200 hours, the unit was in operation at 70% power. The shift experienced difficulty in maintaining constant pressurizer level at the program value with



the West CCP in service. Manipulation of various valves in the system was required in order to attain consistent pressurizer level control. At 2237 hours, the East CCP was placed in service and the West CCP placed in standby due to this condition. (The pump was not declared inoperable at that time because, based on observed pump discharge and suction pressure, the ASME Section XI and T/S pressure requirements were satisfied.)

On the morning of July 7, troubleshooting of the pump was performed. The West CCP was started at 1032 hours, and shut down quickly due to high vibrations. Another start was made, this time with additional instrumentation. Although discharge pressure was greater than required by the T/S, vibration at the outboard pump bearing was abnormally high. The pump was shut down and declared inoperable. Although during the evening of July 6 the pump appeared to be operable, the decision was made retroactively to conservatively declare the pump inoperable as of 2237 hours on July 6, 1993.

At the present time, replacement of the pump internal assembly is in progress. It is currently anticipated that the pump will be returned to operable status no later than 1000 hours on July 12. Therefore, we are requesting 60 hours of time (beyond the original 72 hours allowed by the T/S) that the pump may be inoperable before a shutdown must be initiated, as required by T/S 3.1.2.4 and 3.5.2.

(3) DESCRIPTION OF WHY THE SITUATION COULD NOT BE AVOIDED

The pump undergoes ASME Section XI testing, as required by T/S 4.0.5, on a quarterly basis. The surveillance was last run on May 6, 1993, and indicated no abnormalities. Since there were no indications of problems with the pump prior to those on the night of July 6, the situation could not have been avoided.

(4) EVALUATION OF THE SAFETY SIGNIFICANCE AND POTENTIAL CONSEQUENCES OF THE PROPOSED RELIEF.

The proposed relief only impacts the West CCP. The train associated with the redundant East CCP will remain operable during this period, or the unit will be shutdown in accordance with the requirements of T/S 3.0.3. The severe accident risk of core damage, as determined during the Cook Nuclear Plant Individual Plant Examination project, was calculated to be  $6.26\text{E-}05$  per year. The increase to this core damage frequency that the West CCP represents while unavailable on a one-time basis for 60 hours beyond the LCO time limit is  $1.82\text{E-}06$  per year. This is only a 2.9% increase to the baseline core damage



frequency. This slight increase is not considered to have significant implications for public health and safety.

(5) DISCUSSION OF COMPENSATORY ACTIONS

During the period that the requested Exercise of Enforcement Discretion is in effect, we will not conduct any non-emergency or non T/S-required work activities involving either train of emergency core cooling, including associated emergency electrical distribution. Additionally, we will conduct T/S surveillance 4.5.2.b (ECCS valve lineup verification) and T/S surveillance 4.1.2.2.b (Reactivity Control Systems valve lineup verification) prior to implementation of the Exercise of Enforcement Discretion. These measures will give increased confidence in the operability of the charging and ECCS systems.

Also, we will not conduct any non-emergency or non T/S-required work activities involving certain equipment that could help to mitigate the consequences of a LOCA or steamline break accident. The specific equipment involved is the Unit 2 auxiliary feedwater pumps, the cross-tie connecting the chemical and volume control systems of Units 1 and 2, the Unit 2 main steam isolation valves, and the Unit 1 CCPs.

(6) DISCUSSION WHICH JUSTIFIES THE DURATION OF THE RELIEF

The duration of the requested enforcement discretion is 60 hours. We believe that during this period we will be able to effect the necessary repairs and perform necessary post-maintenance testing to return the pump to operable status. As discussed under item 4, above, the waiver is not considered to have significant implications for public health and safety.

Should operability of the West CCP be restored prior to expiration of the Exercise of Enforcement Discretion, the Exercise of Enforcement Discretion will be concluded.

(7) THE BASIS FOR CONCLUDING THAT THE REQUEST DOES NOT INVOLVE A SIGNIFICANT HAZARDS CONSIDERATIONS

We have evaluated the proposed Exercise of Enforcement Discretion against the criteria of 10 CFR 50.92 regarding significant hazards considerations. Per 10 CFR 50.92, a proposed change does not involve a significant hazards consideration if the change does not:

1. Involve a significant increase in the probability or consequences of an accident previously evaluated,
2. Create the possibility of a new or different kind of accident from any accident previously evaluated, or
3. Involve a significant reduction in a margin of safety.

Criteria 1 and 2:

The requested waiver of compliance only impacts the amount of time that the West CCP may be inoperable. It does not introduce any new modes of plant operation or physical changes to the plant. This extension will not alter or change initiating aspects of previously evaluated accidents, since this extension will not initiate or create a precursor to a previously evaluated accident. With regard to the consequences of accidents previously evaluated, this extension will have no significant impact because of the redundancy of the East CCP. Therefore, the waiver does not significantly increase the probability or consequences of an accident previously evaluated or create the possibility of a new or different kind of accident from any previously evaluated.

Criterion 3:

The proposed Exercise of Enforcement Discretion allows continued operation of the unit with a CCP inoperable for a time period in excess of the 72 hours permitted by the T/S. This is a one-time change, requested to allow repair of an inoperable CCP. To allow for the possibility of a failure in one train of a function, the accident analyses only credit one train of charging pumps. The proposed relief only impacts the train involving the West CCP. The train associated with the redundant east pump will remain operable during this period, or the unit will be shut down in accordance with the requirements of T/S 3.0.3. The severe accident risk of core damage, as determined during the Cook Nuclear Plant Individual Plant Examination project, was calculated to be  $6.26\text{E-}05$  per year. The increase to this core damage frequency that the West CCP represents while unavailable on a one-time basis for 60 hours beyond the LCO time limit is  $1.82\text{E-}06$ . This is only a 2.9% increase to the baseline core damage frequency. This slight increase is not considered to have significant implications for public health and safety, or to constitute a significant reduction in a margin of safety.

(8) BASIS FOR CONCLUDING THAT THE REQUEST DOES NOT INVOLVE  
IRREVERSIBLE ENVIRONMENTAL CONSEQUENCES

This proposed Exercise of Enforcement Discretion does not involve a change in the installation or use of the facilities or components located within the restricted areas as defined in 10 CFR 20. We have determined that this proposed Exercise of Enforcement Discretion does not involve a significant increase in the amount, or a significant change in the types, of any effluent that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. Accordingly, this proposed Exercise of Enforcement Discretion meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with granting of this proposed Exercise of Enforcement Discretion.

BASIS FOR 60 HOURS REQUESTED FOR  
EXERCISE OF ENFORCEMENT DISCRETION

The schedule below was used as the basis for determination of the need for 60 hours of additional allowable outage time to restore the West CCP to operable status.

ACTIVITY	ENDPOINT
Install Pump Head 4 hrs.	7/8 2100
Center Shaft, Prepare Bearing Housings 10 hrs.	7/9 0700
Install Seals 5 hrs.	7/9 1200
Reinstall Bearings 10 hrs.	7/9 2200
Finish Assembly, Alignment, Sign off clearance 36 hrs.	7/11 1000
Pick up clearance, Fill & Vent 6 hrs.	7/11 1600
Operations Run Surveillance Test, Coordinate flow changes for pump curve with Plant Engineering 12 hrs.	7/12 0400
Evaluate flow data 6 hrs. (Pump operable at this time)	7/12 1000