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RECIP.NAME RECIPIENT AFFILIATION
EISENHUT,D.G. Division of Licensing

SUBJECT: Informs that implementation of Rev 1 to emergency response guidelines in plant-specific procedures w/appropriate reactor coolant pump trip setpoint specified resolves all issues associated w/TMI Item II.K.3.5.

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... to emergency response
... procedures w/appropriate
... contact ... specific resolve all
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TITLE: ... Action Plan ...

[illegible]

INDIANA & MICHIGAN ELECTRIC COMPANY

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May 30, 1984

AEP:NRC:0785A

Donald C. Cook Nuclear Plant Unit Nos. 1 and 2
Docket Nos. 50-315 and 50-316
License Nos. DPR-58 and DPR-74
NUREG-0737-II.K.3.5
Trip Criteria For Reactor Coolant Pumps
(Generic Letter No. 83-10d)

Mr. Darrell G. Eisenhut, Director
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Mr. Eisenhut:

In our previous AEP:NRC:0785 submittal dated June 2, 1983, we presented a plan for demonstrating compliance with the criteria for resolution of TMI Action Plan requirements item II.K.3.5. These requirements were established in letters from Mr. Darrell G. Eisenhut of the Nuclear Regulatory Commission to all Applicants and Licensees with Westinghouse designed Nuclear Steam Supply Systems (Generic Letters 83-10 c and d) dated February 8, 1983. The submittals which fulfill the established requirements have been transmitted to you by WOG letters OG-117, dated March 12, 1984 and OG-110, dated December 1, 1984.

Section I of the attachment to Generic Letters 83-10 c and d discusses "Pump Operation Criteria which can Result in RCP Trip During Transients and Accidents." Subsection 1 of Section I presents guidelines for establishing setpoints for RCP trip. The Westinghouse Owners Group response to this section of Generic Letters 83-10 c and d is contained in Revision 1 to the WOG Emergency Response Guidelines, which has been issued to member utilities. The implementation of ERGs is included in our plan to update our Emergency Operating Procedures.

The RCP trip criterion being adopted in the D. C. Cook Plant specific procedure not only assures RCP trip for all losses of primary coolant for which trip is considered necessary, but also permits RCP operation to continue during most non-LOCA accidents, including steam generator tube rupture events up to the design basis double-ended tube rupture. The generic applicability of the RCP trip criterion selected has been documented by the Westinghouse Owners Group Report entitled, "Evaluation of Alternate RCP Trip Criteria," which has been submitted to the NRC for review in letter OG-110.

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The Westinghouse Owners Group has also submitted to the NRC, via letter OG-117, the report entitled "Justification of Manual RCP Trip for Small Break LOCA Events." As stated above, these submittals completed the WOG documentation comprising a generic reply to NRC Generic Letters 83-10 c and d.

Subsection 2 of Section I of the attachment to Generic Letters 83-10 c and d provides guidance for justification of manual RCP trip. Subsection 2a requires that compliance with 10 CFR 50.46 be demonstrated in an Appendix K small break LOCA analysis, given that the RCPs are tripped two minutes after the onset of reactor conditions corresponding to the RCP trip setpoint. The Westinghouse Owners Group has generically verified in the OG-117 submittal, that predicted LOCA transients presuming the two-minute delayed RCP trip are nearly identical to those presented in Safety Analysis Reports utilizing the WFLASH evaluation model. Thus, the final Safety Analysis Report for the D. C. Cook Plant demonstrates its compliance with the Subsection 2a guidelines.

The WOG has also performed most probable, best estimate, WFLASH analyses to demonstrate, generically, compliance with the guidelines presented in Subsection 2b of Section I of the attachment to Generic Letters 83-10 c and d. These analyses identify that the minimum time available for operator action for the complete range of LOCA break sizes exceeds the value contained in N660 (the proposed American Nuclear Society guideline on operator action time). They show that the reactor coolant pumps may be tripped at any time during a LOCA event without resulting in excessive clad temperatures. The applicability information presented in the generic report affirms the applicability of these best estimate analyses to the D. C. Cook Plant. Therefore, in combination with the Subsection 2a justification cited above, the best estimate analyses justify that manual RCP trip is acceptable for the Donald C. Cook Plant when RCP trip setpoints consistent with Revision 1 to the Emergency Response Guidelines are in use. Furthermore, the generic report demonstrates that no additional contingency emergency procedures are required to address the scenarios which may follow a missed RCP trip setpoint.

In summary, the generic information presented by the Westinghouse Owners Group in a report entitled "Evaluation of Alternate RCP Trip for Small Break LOCA Events," provides the response to NRC Generic Letters 83-10 c and d for the D. C. Cook Plant. The implementation of Revision 1 to the Emergency Response Guidelines in the plant specific procedures with an appropriate RCP trip setpoint specified resolves all issues associated with automatic tripping of the reactor coolant pumps.

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

Very truly yours,

M. P. Alexich
Vice President

5/20/84

MPA/cm

cc: John E. Dolan
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