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 FACILITY:50-315 Donald C. Cook Nuclear Power Plant, Unit 1, Indiana M 05000315
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 FITZPATRICK,E.E Indiana Michigan Power Co. (formerly Indiana & Michigan Ele
 RECIP.NAME RECIPIENT AFFILIATION
 MURLEY,T.E. Document Control Branch (Document Control Desk)

SUBJECT: Informs that util will continue to implement primary-to-secondary leak rate monitoring program described in 880331 response to NRC Bulletin 88-002,w/one exception,in response to NRC 920810 ltr.

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Indiana Michigan
Power Company
P.O. Box 16631
Columbus, OH 43216



AEP:NRC:1056D

Donald C. Cook Nuclear Plant Unit 1
Docket Nos. 50-315
License Nos. DPR-58
NRC BULLETIN 88-02, "RAPIDLY PROPAGATING
FATIGUE CRACKS IN STEAM GENERATOR TUBES"

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

Attn: T. E. Murley

October 16, 1992

Dear Mr. Murley:

Reference: Letter, J. F. Stang (NRC) to E. E. Fitzpatrick (AEP),
"Donald C. Cook Nuclear Plant, Unit 1, NRC Bulletin 88-
02, Rapidly Propagating Fatigue Cracks in Steam
Generator Tubes," August 10, 1992

This letter responds to a request from the NRC staff for Indiana Michigan Power Company (I&M) to provide details of its program to ensure that Cook Nuclear Plant Unit 1 is in compliance with paragraph C of the "Actions Requested" section of NRC Bulletin 88-02. The following provides the response to this request.

Response to Action C.1

Primary-to-Secondary Leak Rate Monitoring Program

Indiana & Michigan will continue to implement the primary-to-secondary leak rate monitoring program previously described in the original response to the bulletin, which was provided in AEP:NRC:1056 dated March 31, 1988, with one exception. The maximum steam generator leak rate given in the Unit 1 Technical Specifications has been recently revised from 500 to 150 gallons per day per steam generator, equivalent to 0.347 gpm and 0.1 gpm, respectively, (Amendment 166). Administrative limits are being revised to reflect the lower limit. Increase in blowdown sampling frequency to every eight hours will be initiated if primary-to-secondary leak rates exceed 0.01 gpm.

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Alarm setpoints are being evaluated and actions to be taken will be determined by December 31, 1992. Procedural changes for leak rate determination are complete.

The monitoring program has also been reviewed against NRC Information Notice 91-43, "Recent Incidents Involving Rapid Increases In Primary to Secondary Leak Rate." It was determined that the program established at the Cook Nuclear Plant provides a comprehensive means to monitor, trend and react to steam generator tube leaks.

Response to Action C.2

Minimize The Probability of a Fatigue Failure

A program will be implemented to minimize the probability of a rapidly propagating fatigue failure. The program will be based on analysis performed by Westinghouse Electric Corporation. This analysis will include the assessment of stability ratios and flow peaking effects for the most limiting tube locations as well as an assessment of the depth of penetration of each anti-vibration bar. The Westinghouse effort will also take into account thermal/hydraulic analysis, unit operating history, and tube vibration effects to identify those unsupported U-bend tubes with denting at the top support plate that may develop fatigue failure similar to North Anna Unit 1.

Results from the analysis will establish Cook Nuclear Plant's long-term preventive action to preclude such failures. Tube plugging and the installation of dampeners are considered the most likely preventative actions for those tubes not meeting acceptance criteria. The detailed analysis will require 12 to 20 weeks. Release of a purchase order to Westinghouse is scheduled in the last quarter of this year. Implementation of preventive actions, if required, will be scheduled for the next Unit 1 refueling outage, currently estimated to commence in the first quarter of 1994.

Tube conditions on the cold leg and hot leg sides at the top support plate have remained constant since the original submittal. Eddy current inspection results for the Unit 1 1992 refueling outage were compared to the reported dents identified in the past examinations. No changes were found. Based on the stable tube conditions at the top support plate, continued operation until the 1994 refueling outage is considered acceptable.

Sincerely,



E. E. Fitzpatrick
Vice President



Dr. T. E. Murley

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AEP:NRC:1056D

tjw

cc: D. H. Williams, Jr.
A. A. Blind - Bridgman
J. R. Padgett
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NRC Resident Inspector - Bridgman
NFEM Section Chief



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