U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Reports No. 50-315/87025(DRS); 50-316/87025(DRS)

Docket Nos. 50-315; 50-316 Licenses No. DPR-58; DPR-74

Licensee: American Electric Power Service Corporation
Indiana & Michigan Power Company
1 Riverside Plaza
Columbus, OH 43216

Facility Name: D.C. Cook Nuclear Plant, Units 1 and 2

Inspection At: D.C. Cook Site, Bridgman, Michigan

Inspection Conducted: August 24-25, 1987

Inspector: for W. A. Gavula — 9/4/87 Date

Approved By: D. H. Danielson, Chief
Materials and Processes Section — 9/4/87 Date

Inspection Summary

Inspection on August 24-25, 1987 (Reports No. 50-315/87025(DRS); No. 50-316/87025(DRS))
Areas Inspected: Routine safety inspection of snubber surveillance and functional testing (70370), training (41400), and licensee action on previous inspection finding (92701).
Results: No violations or deviations were identified.

DETAILS

1. Persons Contacted

American Electric Power Service (AEPSC)
Indiana and Michigan Power Company (IMPC)

J. B. Droste, Maintenance Supervisor
B. Svensson, Manager/Licensing Activities Coordinator
J. Sampson, Safety and Assessment Superintendent
E. Morse, Safety and Assessment QC/NDE
D. Gallagher, Maintenance A.C.C.
M. Hess, Maintenance Temporary Supervisor
R. Rickman, Technical Engineer/ISI Supervisor
C. Freer, Technical Engineer/ISI Coordinator
A. Barker, AEPSC Quality Assurance
T. Satyan-Sharma, AEPSC NS&L

2. Licensee Action on Previous Inspection Findings

(Closed) Unresolved Item (315/87005-01; 316/87005-01): The transient thermal movements for the steam generator snubbers should be verified to be less than the acceptance criteria of 0.1 inches per minute (IPM).

The NRC inspector reviewed letters from R. S. Rapps to J. A. Kobrya dated May 14, 1987, and May 27, 1987. These letters stated that the maximum average rate of thermal expansion will be 0.008 IPM. Also, the lowest bleed rate measured during in-service testing was 0.038 IPM. Both of these values indicate that the current acceptance criteria of 0.1 IPM for the minimum lock-up velocity and the low bleed rate are acceptable.

This item is considered closed.

3. Snubber Visual Inspection and Functional Testing

a. Background

D.C. Cook Unit 1 has approximately 78 safety-related small bore hydraulic snubbers. These are currently listed in the Technical Specification (Tech Spec) Paragraph 3/4.7.8. The functional test sample size is specified as 10% of the total safety related snubber population. However, for this outage, the initial sample size was increased to approximately 14%. The increased sample size was necessary to provide the same level of confidence for snubber operability based on an extension of the surveillance interval from 18 months to 24 months. This is documented in a letter from M. P. Alexich of AEPSC to T. E. Murley of the NRC dated July 22, 1987.

b. Procedure and Documentation Review

The following procedures were reviewed for compliance with NRC requirements and licensee commitments:

- Procedure No. 12MHP4030.STP.029, "Test of ITT Grinnell Hydraulic Snubbers," Revision 2, March 20, 1986.

- Procedure No. 12MHP5021.001.028, "Maintenance Procedure for Repair of ITT Grinnell Figure 200 and Figure 201 Hydraulic Shock and Sway Suppressors (Snubbers)," Revision 5, July 18, 1985.

- Procedure No. 12MHP4030.STP.004, "Visual Inspection of Grinnell Hydraulic Shock and Sway Suppressors (Snubbers)," Revision 13, July 9, 1987.

- Procedure No. 12QHP7091.NDE.003, "Visual Examination - VT1, VT3 and VT4," Revision 0, December 6, 1985.

The calibration documentation was reviewed for the snubber test equipment.

- ITT Grinnell Shock and Sway Suppressor Tester, Model 5434-3, Serial No. 010.

  Gages were calibrated August 6, 1987.

- Wahl Temperature Probe, Model 2500M, Serial No. 12591.

  Instrument was calibrated August 5, 1987.

Within the areas reviewed, no violations or deviations were identified.

c. Test Results

An initial sample of eleven snubbers was functionally tested during the current refueling outage. Of these eleven, snubber 1GRC-5519 marginally exceeded the lock-up velocity acceptance rate for the test temperature. An additional sample of eight snubbers was tested as required by Tech Specs. Snubber 1GRC-608 marginally exceeded the bleed rate acceptance criteria in tension. As a result, a second additional sample of eight snubbers was tested with all these snubbers meeting the acceptance criteria.

The nature and extent of the snubber "failures" indicated that there was no significant safety concern associated with these failures. However, as required by the Tech Spec, an engineering evaluation was initiated as a result of the snubber inoperability. The NRC inspector discussed the approach and methodology to be utilized in

the evaluations with the cognizant engineer in AEPSC. No documentation was available during the inspection at the sight. Based on the discussion, the NRC inspector had no adverse comments relative to the engineering evaluations being performed.

No violations or deviations were identified.

d. Visual Inspections of Snubbers and Component Supports

The required Tech Spec visual inspection for the snubbers was reviewed by the NRC inspector. For the 32 accessible snubbers, all were found to be acceptable except for snubber 1GSI-5128. For the noted snubber, the reservoir was completely drained and therefore declared inoperable. As a result of this, the next visual inspection interval will be reduced to 12 months.

The component support inspection portion of the In-Service Inspection (ISI) program was also reviewed by the NRC inspector. The documentation and drawings appeared to be well organized and easily accessible. No adverse comments were made during the inspection.

Within the areas reviewed, no violations or deviations were identified.

e. Training

The training records for the following snubber test technicians were reviewed:

R. Imler	Certified	December 4, 1986
M. Hess	Certified	October 17, 1986

Observation of the functional tests and snubber maintenance activities indicated that the technicians performing the work were familiar with the appropriate procedures and test equipment.

No violations or deviations were identified.

4. Exit Interview

The Region III inspector met with the licensee representatives (denoted in Paragraph 1) at the conclusion of the inspection on August 25, 1987. The inspector summarized the purpose and findings of the inspection. The licensee representatives acknowledged this information. The inspector also discussed the likely informational content of the inspection report with regard to documents or processes reviewed during the inspection. The licensee representatives did not identify any such documents/processes as proprietary.