

# UNITED STATES NUCLEAR REGULATORY COMMISSION REGION II 101 MARIETTA ST., N.W., SUITE 3100 ATLANTA, GEORGIA 30303

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In Reply Refer To: RII:JPO 50-488, 50-489 50-490, 50-491

50-492, 50-493

DEC 2 7 1979

Duke Power Company
Attn: L. C. Dail, Vice President
Design Engineering
Post Office Box 33189
Charlotte, North Carolina 28242

#### Gentlemen:

This Information Notice is provided as an early notification of a possibly significant matter. It is expected that recipients will review the information for possible applicability to their facilities. No specific action or response is requested at this time. If further NRC evaluations so indicate, an IE Circular or Bulletin will be issued to recommend or request specific licensee actions. If you have questions regarding this matter, please contact the Director of the appropriate NRC Regional Office.

Sincerely,

James P. O'Reilly

Director

#### Enclosures:

- IE Information Notice No. 79-34
- 2. List of Recently Issued
  IE Information Notices

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cc w/encl: J. T. Moore, Project Manager Post Office Box 422 Gaffney, South Carolina 29340

### UNITED STATES NUCLEAR REGULATORY COMMISSION OFFICE OF INSPECTION AND ENFOCEMENT WASHINGTON, D.C. 20555

December 27, 1979

Accession No.: 910250517

SSINS No.: 6870

IE Information Notice No. 79-34

INADEQUATE DESIGN OF SAFETY-RELATED HEAT EXCHANGERS

Tennessee Valley Authority (TVA) submitted an initial 50.55(e) report on October 25, 1979, that identified defects in the four Containment Spray (CS) heat exchangers at the Sequoyah facility.

The heat exchanger tube bundles were damaged by excessive vibrations of the tubes against each other. These vibrations were caused by a support arrangement that allows excessive unsupported tube lengths. The large amplitude tube vibration has resulted in reductions in wall thickness and some tube leakage. The CS heat exchangers at Sequoyah had only been in operation for a short period of time prior to the failure being detected.

These heat exchangers were manufactured by Industrial Process Engineers, Inc. (IPE), a vendor now out of business. The Component Cooling Water (CCW) heat exchangers at the Sequoyah facility were also made by IPE. TVA has identified some reduction in wall thickness and minor tube leakage in the CCW heat exchangers. The licensee plans to plug the damaged tubes on the CS heat exchangers and "stake" (support) the tube bundles to prevent further damage. Further corrective action is under review by the licensee. The following data applies to the CS heat exchangers.

Manufacturer:

Industrial Process Engineers, Inc.

Type:

CFU (Special)

Size:

55-342

Serials:

6662-1: 6662-2

6663-1; 6663-2

This Information Notice is provided as an early notification of a possibly significant matter that is still under review by the NRC staff. It is expected that recipients will review the information for possible applicability to their facilities. No specific action or response is requested at this time. If NRC evaluations so indicate, further licensee actions may be requested or required.

No written response to this Information Notice is required. If you have any questions regarding this matter please contact the Director of the appropriate NRC Regional Office.

## RECENTLY ISSUED IE INFORMATION NOTICES

| Information<br>Notice No. | Subject  | Date<br>Issued | Issued To  |
|---------------------------|--|----------------|--|
| 79-34                     | Inadequate Design of Safety-<br>Related Heat Exchangers                                    | 12/27/79       | All holders of power reactor<br>OLs and CPs  |
| 79-33                     | Improper Closure of Primary<br>Containment Equipment Access<br>Hatches                     | 12/21/79       | All holders of power reactor<br>OLs and CPs  |
| 79-32                     | Separation of Electrical<br>Cables for HPCI and ADS  | 12/21/79       | All power reactor facilities holding OLs and CPs                                     |
| 79-31                     | Use of Incorrect Amplified<br>Response Spectra (ARS)                                       | 12/13/79       | All power reactor facilities holding OLs and CPs                                     |
| 79-30                     | Reporting of Defects and<br>Noncompliances, 10 CFR<br>Part 21                              | 12/6/79        | All power reactor facilities holding OLs and CPs and vendors inspected by LCVIP      |
| 79-29                     | Loss of NonSafety-Related<br>Reactor Coolant System<br>Instrumentation During<br>Operation | 11/16/79       | All power reactor facilities holding OLs or CPs                                      |
| 79-28                     | Overloading of Structural<br>Elements Due to Pipe Support<br>Loads                         | 11/16/79       | All power reactor facilities with an OL or CP  |
| 79-27                     | Steam Generator Tube<br>Ruptures At Two PWR<br>Facilities                                  | 11/16/79       | All power reactor facilities<br>holding OLs and CPs                                  |
| 79-12A                    | Attempted Damage To New<br>Fuel Assemblies   | 11/9/79        | All Fuel Facilities,<br>research reactors, and<br>power reactors with an<br>OL or CP |
| 79-26                     | Breach of Containment<br>Integrity   | 11/5/79        | All power reactor facilities holding OLs and CPs                                     |
| 79-25                     | Reactor Trips At Turkey<br>Point Units 3 And 4   | 10/1/79        | All power facilities with an OL or a CP  |
| 79-24                     | Overpressurization Of<br>Containment Of A PWR Plant<br>After A Main Steam Line<br>Break    | 10/1/79        | All power reactor facilities with a CP   |