

UNITED STATES  
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OFFICE OF INSPECTION AND ENFORCEMENT  
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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.

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Enclosure

RECENTLY ISSUED  
IE INFORMATION NOTICES

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