

NUCLEAR REGULATORY COMMISSIONNUREG-0619NOTICE OF ISSUANCE AND AVAILABILITYBWR FEEDWATER NOZZLE AND CONTROL RODDRIVE RETURN LINE NOZZLE CRACKING

A task group with members from the Nuclear Regulatory Commission (NRC) staff has prepared a report entitled "BWR Feedwater Nozzle and Control Rod Drive Return Line Nozzle Cracking" (NUREG-0619), dated April 1980. The report provides the staff's resolution of the NRC's Generic Technical Activity A-10, which was an "Unresolved Safety Issue" pursuant to Section 210 of the Energy Reorganization Act of 1974.

The generic study resulted from the inservice discovery of cracking in feedwater nozzles and control rod drive return line nozzles.

NUREG-0619 describes the technical issues, the technical studies and analyses performed by the General Electric Company and the NRC staff, the staff's technical positions based on these studies, and the staff's plans for continued implementation of its technical positions.

The NRC staff has concluded, in the case of the feedwater nozzles, that the combination of nozzle clad removal, installation of triple sleeve spargers designed by General Electric (or others with satisfactory characteristics), procedural changes, and systems changes where deemed necessary, will assure the goal of long term operation without significant crack growth. However,

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no operating reactor currently satisfies all requirements, and plant specific implementation will be necessary. The staff has established proposed in-service inspection intervals based upon its evaluation of the combined proposed solutions.

With regard to the control rod drive return line nozzle, the staff has concluded that certain control rod drive hydraulic system modifications will be necessary on all operating reactors. The staff's principal considerations were the need to prevent cracking of the nozzle and the need to assure high pressure control rod drive system flow to the reactor vessel sufficient to cover the core when other sources of water are unavailable. This was the case at some times during the fire at Brown's Ferry Unit No. 1. The staff report recommends that each operating plant be required to prove this capability, which may require the simultaneous operation of the two control rod drive pumps, and that plants currently under licensing review should be required to conform to the criteria developed for operating reactors for both the feedwater nozzle and control rod drive return line nozzle issues. This requirement, plus others contained in Part II of NUREG-0619, represents a conservative departure from current licensing criteria.

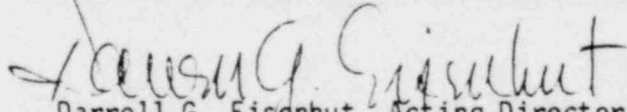
Public comments on the report, including the proposed new requirements and implementation schedules, are being solicited from interested organizations, groups and individuals. Public comments will be considered before taking final action on any particular case. The staff will evaluate the comments received and, if needed, will issue a supplement or revision to NUREG-0619.

Copies of the report will be available after May 5, 1980. Copies will be sent directly to utilities, utility industry groups and associations and environmental and public interest groups. Other copies will be available for review at the NRC Public Document Room, 1717 H Street, N.W., Washington, D.C., and the Commission's local public document rooms located in the vicinity of existing nuclear power plants. Addresses of these local public document rooms can be obtained by contacting the Chief, Local Public Document Rooms Branch, Mail Stop 309, Nuclear Regulatory Commission, Washington, D.C. 20555, telephone 301/492-7536.

Comments should be forwarded to Mr. Richard P. Snaider, Generic Issues Branch, Nuclear Regulatory Commission, Washington, D.C. 20555, by July 7, 1980.

Dated at Bethesda, Maryland, this 17 day of April 1980.

FOR THE NUCLEAR REGULATORY COMMISSION


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Office of Nuclear Reactor Regulation

SUMMARY STATEMENTNotice

NUREG-0619 - The Nuclear Regulatory Commission has issued (for public comment) its report no. NUREG-0619, entitled "BWR Feedwater Nozzle and Control Rod Drive Return Line Nozzle Cracking". This report provides the NRC staff's resolution of Generic Technical Activity A-10, which was identified as an "Unresolved Safety Issue" in the 1978 NRC Annual Report pursuant to Section 210 of the Energy Reorganization Act of 1974.