

Docket Nos. 50-438
50-439

FEB 19 1976

Tennessee Valley Authority
ATTN: Mr. James E. Watson
Manager of Power
818 Power Building
Chattanooga, Tennessee 37401

Gentlemen:

Mr. J. E. Gilleland's letter to Mr. A. Schwencer dated November 10, 1975, requested our consideration of a proposal by TVA to relieve the requirement for inservice volumetric inspection of high-energy fluid system piping enclosed in guard pipes. The proposal included a 10 percent increase in nominal thickness of the piping over the entire length of the penetration between the attachment welds inside and outside of the containment, and the addition of ultrasonic test requirements for the flued head to process pipe weld during fabrication. The result of the proposal is to reduce the inservice inspection requirements for these welds to visual examination of surrounding areas for signs of leakage or distress.

The NRC staff has completed its review of this proposal and concludes that the additional design characteristics do not constitute sufficient technical justification for waiving the required inservice inspection. However, the following alternatives provide acceptable design configurations to relieve the requirement for inservice volumetric inspection.

1. The welds can be eliminated in the area of concern by using seamless process piping within the guard pipe region and a flued head integrally forged to the process pipe.
2. Volumetric inspection of high energy process pipe welds enclosed within penetration guard pipes can be omitted if the applicant elects to position pipe whip restraints in relation to the guard pipe and the process pipe isolation valves as depicted in Figure IWC-122008, which is scheduled to appear in the "Summer 1976 Addendum" to Section XI of the *ASME Boiler and Pressure Vessel Code*. This change to Section XI, recently approved by the ASME Boiler and Pressure Vessel Committee, omits the requirement to inspect these welds provided that a pipe whip restraint is positioned between the open end of the guard pipe and the first process pipe isolation valve. The restraint is intended to neutralize the effects of a moment generated by a postulated pipe break occurring in the portion of the process pipe enclosed by the guard pipe. This provides additional assurance of isolation valve operability should a break occur in this region of the pipe where inspection will not be performed.

OFFICE >						
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If you believe there is a need to appeal a staff position because of disagreement, this need should be brought to the staff's attention as early as possible so that an appropriate appeals process can be initiated on a timely basis. A written request is not necessary and all such requests should be initiated through Walter Pike, the assigned staff project manager. This procedure is an informal one, designed to allow opportunity to discuss areas of disagreement at high levels of management in both the staff's and the applicant's organization.

Sincerely,

Karl Kniel, Chief
Light Water Reactors Branch #2
Division of Project Management

cc: Robert H. Marquis, Esq.
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629 New Sprinkle Building
Knoxville, Tennessee 37919

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

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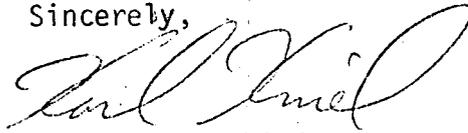
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2. Volumetric inspection of high energy process pipe welds enclosed within penetration guard pipes can be omitted if the applicant elects to position pipe whip restraints in relation to the guard pipe and the process pipe isolation valves as depicted in Figure IWC-122001, which is scheduled to appear in the "Summer 1976 Addendum" to Section XI of the *ASME Boiler and Pressure Vessel Code*. This change to Section XI, recently approved by the ASME Boiler and Pressure Vessel Committee, omits the requirement to inspect these welds provided that a pipe whip restraint is positioned between the open end of the guard pipe and the first process pipe isolation valve. The restraint is intended to neutralize the effects of a moment generated by a postulated pipe break occurring in the portion of the process pipe enclosed by the guard pipe. This provides additional assurance of isolation valve operability should a break occur in this region of the pipe where inspection will not be performed.

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