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NRC PROPOSES AMENDMENTS TO REGULATIONS GOVERNING  
EMBRITTLMENT OF REACTOR PRESSURE VESSELS

The Nuclear Regulatory Commission is proposing amendments to its regulations governing age and radiation-induced embrittlement of pressure vessels in nuclear power plants licensed by the NRC.

The proposed amendments are, in part, a response to the review of the integrity of the reactor pressure vessel in the Yankee Rowe nuclear power plant in Massachusetts which was shut down permanently by the licensee in October 1991.

The proposed amendments would clarify and make corrections in the pressurized thermal shock (sudden reduction in vessel temperature and pressure which could impact the integrity of embrittled vessel materials) rule, fracture toughness requirements and reactor vessel material surveillance program requirements to address the issues highlighted during the review of the Yankee Rowe pressure vessel.

In addition, requirements governing thermal annealing (a corrective heating process) of reactor pressure vessels to mitigate the effects of embrittlement are being proposed.

The proposed thermal annealing requirements address the critical engineering and metallurgical aspects of the technique by requiring licensees to submit, for NRC staff approval, an application for thermal annealing and, after the process is complete, to submit a certification of its effectiveness. Deviations from the approved application would require a justification, approved by the NRC staff, for continued operation.

Written comments on the proposed amendments to Part 50 of the Commission's regulations should be received by January 3, 1995. They should be addressed to the Secretary of the Commission, Nuclear Regulatory Commission, Washington, D. C. 20555, Attention: Docketing and Service Branch.

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