

No. 95-69  
Tel. 301/415-8200

FOR IMMEDIATE RELEASE  
(Monday, May 22, 1995)

NRC REQUESTS ADDITIONAL INFORMATION  
ON REACTOR VESSEL INTEGRITY

The Nuclear Regulatory Commission staff has requested utilities licensed to operate pressurized nuclear reactors to collect and submit any new data pertinent to the structural integrity of their reactor vessels.

A recent staff review of information from several licensees after a similar request in 1992 showed that they may not have considered all the necessary data on whether their vessels meet NRC requirements for fracture toughness and protection against pressurized thermal shock.

Pressurized thermal shock (PTS) events are those which result in sudden decreases in temperature in a reactor vessel while the pressure remains high, such as would be caused by a main steamline break. These events could lead to vessel cracking if the vessel were sufficiently embrittled due to neutron irradiation.

A complicating element in the licensee submittals is that of proprietary information. The licensees may not have had all the data needed to evaluate the structural integrity of their vessels. Licensees, therefore, are encouraged to work closely with their respective vessel owners groups to ensure that all sources of information necessary for an analysis have been considered.

In addition, the staff has determined that some evaluations of vessel integrity are very sensitive to new data. For example, new data changing the amount of copper content for a vessel's beltline by a few hundredths weight percent can, for some plants, change the predicted date for reaching the NRC's screening criteria sooner by several years. If that were to happen, a plant would need to do a further analysis to determine whether operation beyond the screening criteria is acceptable.

Within 90 days, licensees are required to provide to the NRC:

1) A description of actions taken to locate all data relevant to determining reactor pressure vessel integrity, or an explanation of why the existing data is considered complete as previously submitted.

2) A statement of whether any previously unreviewed data has been located.

3) If previously unreviewed data has been located, submit a schedule for providing it to the NRC and an assessment of the impact of the new data on vessel integrity evaluations.

Within six months, licensees are required to submit to the NRC a written report that provides any new data and the results of evaluating that data and its impact on vessel integrity.

The NRC staff will consider the impact of these findings in plant-specific evaluations and in a longer-term reassessment of its PTS rule.

#