

D Continue to accept compliance with the current detailed requirements in appendix J (i.e., licensees presently in compliance with Appendix J will not need to do anything if they do not wish to change their practice).

A public workshop on the subject was held by the NRC on April 27 and 28, 1993.⁴

Public Comments and Issues

Listed below are the categories of relevant issues identified by the public, the nuclear industry, and the NRC at the public workshop and in response to earlier solicitations for comments on this rulemaking, and a summary of interests expressed. Summaries of individual comments earlier solicitations were published on November 1992 (57 FR 55156). The comments at the public workshop are documented in NUREG/CP-0129, September 1993. The comments are available for inspection in the NRC Public Document Room.

1. Is there a continuing need for this regulation?

Most commenters agree that there is a continuing need for a regulation on containment leak testing. While some commenters believe the regulation should be tightened, most commenters believe appendix J requirements should be relaxed. Industry representatives presented a wealth of data on the cost and benefits of containment leak testing.

2. Should the NRC replace appendix J to 10 CFR part 50, "Primary Reactor Containment Leak Testing for Water-Cooled Power Reactors," with a non-prescriptive, performance-based rule?

One commenter believed that using conservatism that may far exceed performance-based regulations is in the public's interest. Some misallocation of resources does exist that could be corrected, although there may be varying opinions concerning where they are. One commenter believed that, from a public perception viewpoint, there would be dissatisfaction with changing to performance-based regulation. It appears to represent a streamlining or deregulation of standards. Another view held that because there is no consistent regulatory basis, there are inconsistencies in regulation.

Performance-based regulations would get rid of these inconsistencies. A move to performance-based regulations would uncover marginal requirements. Performance-based requirements would depend on the functional importance of a component and might include

deterministic performance standards for components. A component that did not meet the performance standard would be rejected. Another view was that the industry can use increased knowledge about reactors and regulations within the existing technology to improve the regulations and reduce risk, without relying on risk assessments. This approach might result in earlier benefits. Industry generally encouraged the NRC to proceed with its initiative to decrease the prescriptiveness of its regulations and adopt more performance-based approaches.

3. Should the NRC increase allowable containment leakage rates?

Some commenters believe that the existing appendix J requirements for allowable leakage should not be relaxed and, based on their interpretation of NUREG/CR-5747, "Estimate of Radionuclide Releases Characteristics into Containment Under Severe Accident Conditions," suggests that more stringent leakage limits, not relaxation of these requirements, is appropriate. Because the current leakage rates specified in plant technical specifications are based on relatively conservative assumptions, the majority of commenters believe that a more realistic representation of loss-of-coolant accidents should be used to calculate dose to the public. These commenters believe that more realistic accident scenarios would support a relaxation in the containment leak-rate.

4. Should the NRC decrease Type A, B, and C test frequencies?

While some commenters had opinions on proper test frequencies, and most believed that test frequencies could be relaxed, overall, the technical community believed that examination of the technical data and the objectives of the test should be used to determine the appropriate test frequency. One commenter believed that both increased and decreased frequencies might be appropriate. For example, tests might be increased in frequency for valves that play a risk-significant role, and test interval or allowable leak-rate could be increased for less important components.

5. Can the new rule and its implementation yield an equivalent level of, or only have a marginal impact on, safety?

Most commenters believe that a move to performance-based regulations would uncover marginal requirements. Some believe that by conserving resources in areas where safety is not a significant issue, more resources can be devoted to more risk-significant areas with a net increase in the overall safety margin.

6. Can the regulatory/safety objective (qualitative or quantitative) be established in an objective manner to allow a common understanding between licensees and the NRC on how the performance or results will be measured or judged?

Several commenters believe that the regulatory process should integrate deterministic, risk-based, and performance-based regulation and allow for case-specific evaluation, with a goal of protecting the health and safety of the public and at the same time minimizing the cost to the licensee. Others believe that the opinions of public interest groups should also be sought in deriving safety goals/objectives. Overall, no comments were presented that would suggest that a common understanding could not be achieved on goals and performance measurements.

7. Can the regulation and implementation documents be developed in such a manner that they can be objectively and consistently inspected and enforced against?

Several commenters believe that the regulations should be performance-based and the associated guidance documents should be prescriptive so that only the guidance documents not the regulations will need to be changed as more information is gained on compliance issues. Many commenters believe that PRAs should not be the sole basis for regulatory decisions due to the uncertainty in their results; however, if the results indicate that a particular requirement has a contribution to risk significantly below the Safety Goal thresholds, the PRA information should be considered sufficient to justify elimination of the requirement as marginal to safety.

Proposed Revision

Based on several advance notices for rulemaking and significant public comment and discussion, risks and costs evaluated, and consideration of which modifications are feasible and practical at this time, the NRC proposes two phases for modifications of requirements to containment leakage testing. The first phase, for which modifications are proposed in this notice, will allow leak-rate testing intervals to be based on the performance of the containment system structures and components. The second phase will further examine the needed requirements of the containment function (i.e. structural and leak-tight integrity of containment system structures and components, and prevention of inadvertent bypass), and include consideration of the potential of on-line monitoring of containment

⁴ "Workshop on Program for Elimination of Requirements Marginal to Safety." NUREG/CP-0129, September 1994.