**Inquiry:** What alternative requirements to the ASME OM Code, Appendix I, “Inservice Testing of Pressure Relief Devices in Water-Cooled Reactor Nuclear Power Plants,” sample plan approach described by the paragraphs I-1320, “Test Frequencies, Class 1 Pressure Relief Valves,” and I-1350, “Test Frequency, Classes 2 and 3 Pressure Relief Valves Except PWR Main Steam Safety Valves,” may be used to test pressure relief valves?

**Reply:** It is the opinion of the Committee that the following alternative may be used.

**Applicability:** See Applicability Index

1 **INTRODUCTION**

This Code Case establishes alternative requirements for testing Pressure Relief Valves that would normally be tested per paragraph I-1320 or I-1350 in Appendix I to the ASME OM Code.

2 **PERFORMANCE BASED TEST PLAN**

(a) Each individual valve shall be tracked by its unique serial number as provided by its manufacturer or a unique identification as applied by the owner.

(b) Upon adoption of this Code Case, the initial test interval shall be the effective interval between tests that was established under the ASME OM Code Appendix I sample plan requirements. The initial test-to-test interval shall be at least 24 months up to a maximum 72 months for Class 1 and at least 48 months up to a maximum of 120 months for Class 2 and 3.

(c) The test interval for new valves added to the program scope subsequent to the adoption of this Code Case that have not previously been assigned a test interval as prescribed by ASME OM Code shall not exceed 24 months for ASME Class 1 or 48 months for ASME Class 2 and 3.

(d) For each valve tested for which the as-found set-pressure is within the ±tolerance limit of the Owner-established set-pressure acceptance criteria of subpara. I-1310(e) or ±3% of valve nameplate set-pressure, the test interval may be extended by up to 24 months.

(e) A valve that fails the as-found set-pressure test shall have its test interval reduced by 24 months. The minimum required test interval is at least once every 24 months.

(f) The owner may satisfy testing requirements by installing a pretested spare valve to replace the valve that has been in service. Class 1 valves shall be tested before the resumption of electric power generation. Class 2 and 3 valves removed from
service shall be tested within 3 months or before resumption of electric power generation, whichever is later.

(g) For replacement of a full complement of valves in a group, the valves removed from service shall be tested within 12 months of removal from the system.

(h) The test interval for any individual ASME Class 1 or ASME Class 2 PWR Main Steam Safety valve that is in service shall not exceed 72 months.

(i) The test interval for any individual ASME Class 2 or 3 valve that is in service shall not exceed 120 months.

3 CORRECTIVE ACTION

(a) Valves that fail the as-found set-pressure test shall have their test interval reduced as described by 2(e). Repeated failures of the same serial numbered valve shall be evaluated to determine if adjustments are needed to the refurbishment schedule.

(b) If a valve that is currently on the minimum required test interval fails its set-pressure test, the valve shall either be permanently removed from service or completely refurbished. If the valve is completely refurbished, performance testing shall be conducted in accordance with I-3400 to qualify repeatable acceptable set-pressure performance prior to re-installation.

(c) Upon identification of two consecutive valve failures of set-pressure tests for the same installed plant location, whether it be the same physical (serial numbered) valve or two different valves, the Owner shall conduct an evaluation to determine whether factors related to that location contributed to the set pressure test failures.

(d) The Owner shall evaluate the cause and effect of valves that fail to comply with their set-pressure acceptance criteria, or the Owner established acceptance criteria for other required tests, such as the acceptance of auxiliary actuating devices, compliance with the Owner’s seat-tightness criteria, etc. Based upon this evaluation, the Owner shall determine the need for testing in addition to the minimum tests specified in I-3300, as applicable to address any generic concerns that could apply to additional valves.

4 DOCUMENTATION

Corrective actions and changes to the test intervals, with the basis for doing so, shall be documented in the record of tests described by section I-5000 “Records and Record Keeping” in Appendix I to the ASME OM Code.