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PG&E Letter DCL-01-028

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

Docket No. 50-275, OL-DPR-80
Docket No. 50-323, OL-DPR-82
Diablo Canyon Units 1 and 2
Inservice Inspection Relief Request - Use of ASME Code Case N-597

Dear Commissioners and Staff:

Pursuant to 10 CFR 50.55a(g)(5)(iii), enclosed is an Inservice Inspection relief request (RR) for Units 1 and 2 to use ASME Code Case N-597, "Requirements for Analytical Evaluation of Pipe Wall Thinning, Section XI, Division 1."

The 1989 Edition, Article IWA-3000, "Standards for Examination Evaluation," provides the process for assessing a component for continued service after a defect has been identified. ASME Code Case N-597 provides the analytical evaluation criteria to evaluate wall thinning applicable to nonplanar flaws that provides a level of quality and safety consistent with the requirements of Section XI, IWA-3000. The NRC has previously approved use of Code Case N-597 for Northeast Nuclear Energy Company's Millstone Units 2 and 3 in a safety evaluation report dated February 23, 1999 (TAC Nos. MA3889 and MA3884), and Public Service Electric and Gas Company's Hope Creek and Salem units in a safety evaluation report dated October 12, 2000 (TAC Nos. MA8595, MA8600, MA8601).

PG&E requests that the NRC assign a medium priority and approve this relief request prior to the potential need during piping examinations to be performed during the Unit 1 eleventh refueling outage, currently scheduled to begin May 5, 2002.

Sincerely,

David H. Oatley

A047

cc: Ellis W. Merschoff
David L. Proulx
Girija S. Shukla
State of California
Diablo Distribution

Enclosure

DDM/469

INSERVICE INSPECTION (ISI) RELIEF REQUEST #CCN-597

System/Component for Which Relief is Requested

Relief is requested for Class 2 and 3 carbon and low-alloy steel piping items (e.g., piping and fittings) with internal or external wall thinning as a result of corrosion phenomena, including flow-accelerated corrosion, where the section thickness has been reduced below the design wall thickness. PG&E does not utilize carbon and low-alloy steel piping items in Class 1 applications; therefore, this relief is limited to Class 2 and 3 piping items.

ASME Section XI Code Requirements

1989 Edition, Article IWA-3000, "Standards for Examination Evaluation."

Code Requirement from Which Relief is Requested

IWA-3000 provides the process for assessing a piping component for continued service after a defect has been identified. This provision stipulates that where the wall thickness has been reduced below the minimum design thickness, the component shall be repaired. As an alternative, the component may be evaluated and accepted in accordance with the design rules of either the construction Code or Section III.

Basis for Relief Request

The ASME Code Committee approved Code Case N-597, "Requirements for Analytical Evaluation of Pipe Wall Thinning, Section XI, Division 1," on March 2, 1998. Code Case N-597 is not currently approved for use in Regulatory Guide 1.147, "Inservice Inspection Code Case Acceptability, ASME Section XI, Division 1." However, footnote 6 to 10 CFR 50.55a(a)(3) provides for the use of other Code Cases upon request, if approved by the Director of the Office of Nuclear Reactor Regulation pursuant to 10 CFR 50.55a(a)(3). The use of the analytical evaluation criteria specified in Code Case N-597 to evaluate wall thinning applicable to nonplanar flaws will provide a level of quality and safety consistent with the requirements of Section XI, IWA-3000, in accordance with 10 CFR 50.55a(a)(3)(i).

INSERVICE INSPECTION RELIEF REQUEST # CCN-597

Proposed Alternative

The requirements of ASME Code Case N-597 may be used for the analytical evaluation of Class 2 and 3 carbon and low alloy steel piping components (e.g., piping and fittings) subject to wall thinning as a result of flow-accelerated or other corrosion phenomena where the thickness has been reduced below the minimum design thickness, instead of the requirements of IWA-3000.

Justification for Granting of Relief

The ASME Code Committee has approved Code Case N-597 as an alternative to the requirements of IWA-3000, for the condition of internal or external wall thinning as a result of flow-accelerated or other corrosion phenomena. PG&E has reviewed Code Case N-597, which is issued for Class 1, 2 and 3 systems; however, Diablo Canyon Units 1 and 2 have no carbon or low-alloy steel piping items (e.g., piping and fittings) classified as Code Class 1. Therefore, the use of Code Case N-597 would be applicable to Class 2 and 3 systems only.

The Electric Power Research Institute document NSAC 202L, "Recommendations for an Effective Flow Accelerated Corrosion Program," provides specific guidance that is implemented in PG&E's Flow Accelerated Corrosion (FAC) program Department Level Administrative Procedure TS1.NE1, "Erosion/Corrosion Monitoring Program." This procedure establishes the required basis for the specific procedures used to calculate wear rates, forecast remaining life, and conduct inspections of FAC degradation at Diablo Canyon Power Plant (DCPP).

Code Case N-597 provides an equivalent level of quality and safety in accordance with 10 CFR 50.55a(a)(3)(i).

Implementation Schedule

This relief request will be implemented during the DCPP Units 1 and 2 second ISI intervals.

This is a new request based on ASME approval of Code Case N-597 on March 2, 1998, and prior NRC acceptance for use.