Docket No. 50-397

50.55(e) Report

Washington Public Power Supply System

P.O. Box 968 3000 George Washington Way Richland, Washington 99352 (509) 372-5000

Docket No. 50-397

April 30, 1982
G02-82-0407

Responds to: NA
Response required by: NA

Mr. R. H. Engelken
U.S. Nuclear Regulatory Commission
Region V
1450 Maria Lane, Suite 210
Walnut Creek, California 94596

Subject: NUCLEAR PROJECT NO. 2
10CFR50.55(e) POTENTIALLY REPORTABLE CONDITION #179
CONTAINMENT PENETRATION PIPING/VALVES

Reference: a) Telephone conversation between RT Johnson (Supply System) and J Elin (NRC) on 2-18-82, Telecon #QA2-82-048.

b) Letter #G02-82-0331, RG Matlock (Supply System) to RH Engelken (NRC), dated 3-19-82, same subject.

In the above referenced telecon the Supply System informed your office of a potentially reportable deficiency under 10CFR50.55(e) and reference (b) was an interim status report on the identified condition.

Attachment (A), to this letter, provides the Supply System's interim report on the above caption condition. The attachment includes a restatement of the problem and an expanded description of the safety implications associated with failure of a containment penetration. Attachment (B) depicts a typical containment configuration for reference.

If there are any questions on this item, please contact R. T. Johnson at (509) 377-2501 extension 2712.

RGMatlock

R. G. Matlock
Program Director, WNP-2

RGM/LCF/ks

Attachments: As stated.

cc: WS Chin BPA
RA Feil, NRC Resident Inspector
A Forrest, B&R HAPO
ND Lewis, NRC
J Plunkett, NUS Corp.
RE Snaith, B&R NY
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ATTACHMENT A

INTERIM REPORT
SUPPLY SYSTEM NUCLEAR PROJECT NO. 2
10CFR50.55(e) #179 CONTAINMENT PENETRATION PIPING/VALVES

Potential Problem

The Architect Engineer may have incorrectly specified design temperatures for certain containment penetration piping and valves. Approximately 21 penetrations have been identified in which piping and/or valves, considered as part of the containment boundary, were specified with a system design temperature lower than the containment design temperature of 340^{o} F. for the drywell or 275^{o} F. for the wetwell.

Because the process fluid temperature was used rather than the containment design temperature, the piping and valves serving as containment boundaries may not meet the post accident function requirements of ASME Section III, Subsection NE.

Safety Implications

A failure of containment piping or isolation valving in the post-LOCA containment environment could result in the loss of certain ECCS functions, a release of radioactivity to the environs in excess of 10CFR100 limits, as well as other implications dependent upon the particular penetration involved.

Action Taken

The AE has conducted an extensive evaluation to confirm that the piping attached to containment penetrations was designed to the applicable code requirements of ASME Section III. The evaluation indicates the following Subsections of ASME Section III as the code requirements utilized for the design of containment penetrations:

- The AE did utilize the applicable design rules of ASME Section III, Subsection NE-3620 for the design of containment piping penetrations.

- ASME Section III, Subsection NB-3620 requires NB-3600 or NC-3600 to be applied to the design of piping systems in the containment system.

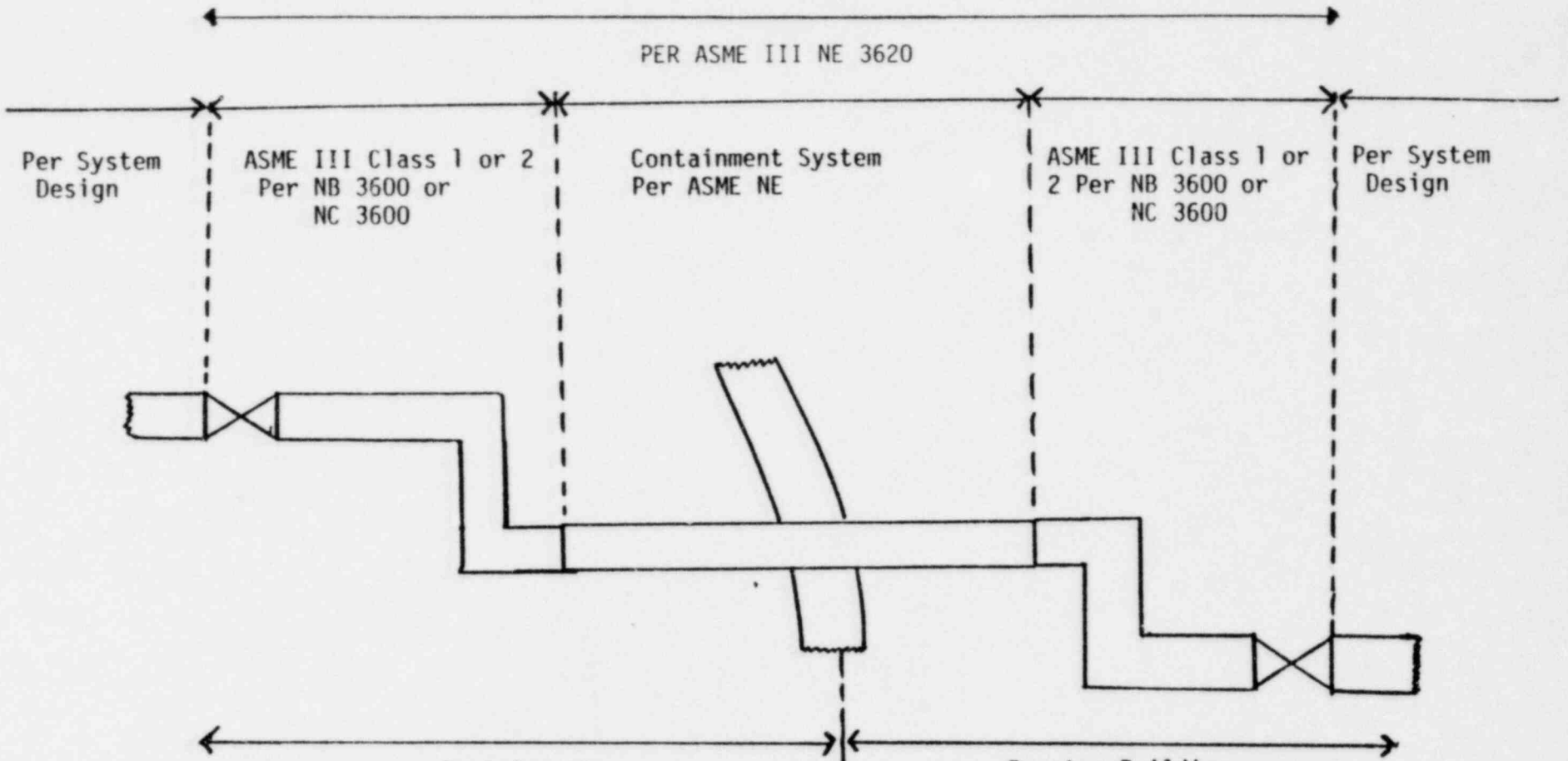
- The above Subsections of ASME Section III do require a stress evaluation for all various postulated combinations of normal and upset conditions; but, do not require a stress evaluation for faulted secondary stresses (as in a post-LOCA condition). Additionally, the application of post-LOCA environmental effects, as referenced in ASME Section III, Subsection NG-3213.9, is not expected to cause a failure.

With respect to the affected containment penetration isolation valves, the AE evaluation of the seismic stress reports and/or valve code data reports for each containment penetration isolation valves indicates the valves meet ASME Section III, Subsection NB-3500 or NC-3500 requirements.

Current Status

Supply System Engineering is conducting a technical evaluation of the report submitted by the AE. To date, we are not able to establish a completion schedule for the technical evaluation being performed. Therefore, we will continue to provide your office with quarterly status reports. The next report will be submitted on or by 7-7-82.

Typical Of 21 Applicable Containment Penetrations



Containment Post-LOCA

	Drywell	Wetwell
Temperature	340° F	275° F
Accident Pressure	34.7 PSIG	34.7 PSIG
Design Pressure	45 PSIG	45 PSIG

ATTACHMENT B