

REQUEST FOR ADDITIONAL INFORMATION
OFFICE OF NUCLEAR REACTOR REGULATION
LICENSE AMENDMENT REQUEST FOR PROPOSED REVISION TO TECHNICAL
SPECIFICATION 3.3.6, "CONTAINMENT PURGE ISOLATION INSTRUMENTATION"
CALLAWAY PLANT UNIT 1
(TAC NO. ME7205)

INTRODUCTION

Technical Specification (TS) 3.6.3, "Containment Purge Isolation Instrumentation," contains requirements for containment isolation valves. The requirements are applicable during MODES 1, 2, 3, and 4. Inoperability of one or more containment isolation valves in a containment penetration flow path requires the affected penetration(s) to be isolated by a closed valve(s) in accordance with the applicable Required Action(s) under TS 3.6.3. The Required Actions, however, are modified by Note 1 which allows penetration flow path(s) except for containment shutdown purge valve flow paths may be unisolated intermittently under administrative controls." A similar allowance is also provided in TS 3.9.4, "Containment Penetrations." The licensee stated that a similar allowance was also present in TS 3.3.6 but was subsequently removed. The licensee stated that at the time of removing this allowance from TS 3.3.6, it was not recognized that it would unduly limit the use of administrative controls to unisolate the containment mini-purge supply and exhaust valves during certain operational needs such as the ability to vent the containment in order to maintain containment pressure within its required limits.

The licensing amendment request (LAR) submittal on September 22, 2011 did not include sufficient information on how the limitation has impacted the ability to vent the containment in terms of frequency and duration. In addition, the proposed note provided in TS 3.3.6 is not sufficiently clear as to what other containment isolation instrumentation could be inoperable when the note is exercised. The NRC staff also requires additional information on the proposed administrative controls and the proposed changes to the TS bases. The NRC staff needs the following information to complete the review of this LAR.

RAI #1

Based on the information in Section 3.3, "ITS Conversion" of Attachment 1 to the LAR, the NRC staff understands that the ability to vent the containment in order to maintain containment pressure within the required limits was impacted at Callaway Plant, Unit 1 since 1999. The plant had operated under this limitation imposed by TS 3.3.6 for the past 12 years. The staff would like to have a better understanding of how this limitation has impacted the ability to vent the containment. Please provide additional information about the venting frequency and how often the need to vent containment does actually coincide with action entries related to TS 3.3.6. Also, please clarify if the limitation ever lead to a plant shutdown, and if so, please clarify how many plant shutdowns actually occurred in the period since 1999 that can be attributed to this limitation.

RAI #2

Please describe how often the containment vented and how long the mini-purge system operated during a typical venting event in MODES 1, 2, 3, and 4.

RAI #3

Table 3.3.6-1 of TS 3.3.6 contains a total of four (4) functions related Containment Purge Isolation instrumentation. The NRC staff understands that the request for TS amendment is limited to the inoperability of Function 3 only in TS Table 3.3.6-1. However, the proposed insert TS-1 to TS page 3.3-60 could be understood to mean that amendment can be applied during inoperability of Function 1 also. The discussion provided in the last paragraph of LAR Section 3.5, "Technical Analysis," appears to imply that the mini-purge valves could be opened when both Functions 1 and 3 are inoperable, please clarify if the intent of the proposed note.

RAI #4

LAR Insert TSB-1 to the TS bases references the minimum containment pressure analysis for emergency core cooling system (ECCS) performance capability, as described in the FSAR, and the effect of having the containment mini-purge system in operation at the onset of the most limiting case (i.e., a double ended cold leg guillotine break). Please clarify if this a new analysis performed in support of the proposed TS change, or if it is an existing analysis. If it is a new analysis, the NRC staff may need to review it.

RAI #5

LAR Insert TSB-2 to the TS bases provides a discussion of administrative controls consisting of a designated control room operator to rapidly close the valves when a need for system isolation is indicated. Please provide additional information on the administrative controls in support of the proposed change including what other means are available for system isolation given that Function 3 isolation instrumentation is inoperable. Please clarify if the administrative controls consist of designating control room operator only or if they include dedicated operator(s) locally at the valves.

RAI #6

Please explain if there are any dose calculations or accident evaluations (e.g., design basis accidents or other events evaluated in FSAR) that rely on the functioning of the instrumentation in Function 3 of Table 3.3.6-1 of TS 3.3.6 and, if there are some, provide justification for the proposed change.

RAI #7

The proposed change does not appear to be consistent with the corresponding TS 3.6.3, "Containment Isolation Valves," that included the following Note 1 for similar situations:

Penetration flow path(s) except for containment shutdown purge valve flow paths may be unisolated intermittently under administrative controls.

Please clarify whether a similar note should be included in the proposed change to TS 3.3.6.