PilgrimRenewal NPEmails

From: Regner, Lisa
Sent: Tuesday, November 30, 2010 1:55 PM
To: Mogolesko, Fred; Joe Lynch
Cc: PilgrimRenewal NPEmails
Subject: Small bore piping socket welds draft RAI
Attachments: Pilgrim.docx

Good Afternoon,
Attached is the draft RAI on Small Bore Piping Socket Welds which we will discuss in the conference call scheduled for tomorrow at 10:30 AM.
Lisa

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Pilgrim (MC9669)
DRAFT RAI B.1.23-1 – Small Bore Piping Socket Welds

Background:
During the past year, the NRC staff has worked extensively with license renewal applicants, the NEI, and the industry on socket weld examination issues for license renewal. The efforts also include review of operating experience of socket welds and various techniques for examination of socket welds.

The staff finds that volumetric examination of Class 1 small bore socket weld recommended by GALL AMP M.35 is warranted based on the operating experience review. It provides additional assurance either aging of small-bore ASME Code Class 1 piping is not occurring or the aging is insignificant.

The staff noted that VT-2 examination, as what ASME Sec. XI Code currently requires on socket welds, is only leakage detection and not adequate for license renewal aging management. Since cracking of socket welds in most of the cases starts from the inside surface, by the time a flaw is detected by VT-2 (or a surface examination), the subject component would have already failed and lost its intended function. This is the reason GALL AMP XI.M.35 recommends one time volumetric examinations of small bore piping including socket welds because examination of the external surface is not an adequate way to detect cracks initiating on the interior surface of a pipe.

The staff also finds that several demonstrated UT techniques have been developed and used by the nuclear industry. They provide a go/no go result that would be adequate in the examination of socket welds. Recently developed and improved techniques have increased the capability to differentiate construction flaws and service induced flaws. Measures have been made to minimize the possibility of false-positive calls. Nonetheless, the staff understands that, based on the GALL report, license renewal applicants have the options of performing available industry demonstrated UT, opportunistic destructive examinations or PDI qualified UT when available, on socket welds.

Issue:
A supplemental review of One-Time Inspection of ASME Code Class 1 Small-Bore Piping Program in the SER for PNPS revealed that the examination of socket welds was not adequately addressed and that the inspection only include VT-2 and surface examinations. This is not consistent with the recommendation of GALL AMP XI.M.35.

Request:
Update the One-Time Inspection of ASME Code Class 1 Small-Bore Piping Program to include volumetric examinations or opportunistic destructive examinations of socket welds.