Stamm, Eric

From: Holmberg, Mel - RIII
Sent: Monday, August 31, 2009 11:38 AM
To: Michel, Eric
Subject: RE: OCO SSF ASW leak

Eric, Sounds like you have all the basis covered! Please let me know how this issue turns out, since we will all likely be seing more buried pipe corrosion issues.

Thanks,

Mel

From: Michel, Eric
Sent: Monday, August 31, 2009 10:31 AM
To: Holmberg, Mel; Tsao, John
Cc: Riggs, Eric; Chan, Terence; Franke, Mark; Sabisch, Andrew
Subject: RE: OCO SSF ASW leak

Thanks Mel,

When the issue came up I went back to the email you'd sent me regarding your finding at Monticello. I agree this is potential issue here at OCO too.

They used a procedure based on SE-797 to do thickness measurements for their flaw evaluation. Could be an issue because it's not a qualified procedure - see Section XI, App I, Table I-2000-1, Supplement 12. Additionally, they didn't use an SE-213 based procedure to do any augmented exams (especially in the vicinity of the original flaw). If there were non-through-wall defects near the TW flaw they wouldn't detect them with the SE-797 procedure, and therefore may exclude potential defects that are required to be combined with the TW defect from the GL 90-05 analysis.

I've also got a concern with the use of GL 90-05 Enclosure 1. Limitations of the Enclosure state that the "flaw...originates from the inner diameter of the pipe..." I haven't seen any justification to use GL 90-05 for a flaw initiating from the OD (the source of corrosion is considered to be a very narrow pit of general corrosion caused by a failure of the coal tar coating on the outside of the pipe).

Thanks for keeping us in mind! Any thoughts on the above would be appreciated.

Eric

From: Holmberg, Mel
Sent: Monday, August 31, 2009 11:17 AM
To: Tsao, John; Michel, Eric
Cc: Riggs, Eric; Chan, Terence
Subject: RE: OCO SSF ASW leak

I do not know any of the specific details for this issue. I would presume that the licensee's quality assurance requirements mimic our Appendix B criterion IX requirement that NDE is a special process that is required to be performed by staff, procedures and equipment qualified to applicable Codes and Standards. For piping products, you may start with the construction Code say Section III or perhaps B31.1. These construction Codes typically send you to Section V, Article 5 related to UT of materials. This then would send you to an SE type standard for thickness measurements. From the 2001 Code this is ASTM E-797-95 (attached). Also note

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that thickness measurements are not considered effective for pitting type defects (see table A-110 on Page 18 from Section V general requirements in second document).

Mel

From: Tsao, John
Sent: Friday, August 28, 2009 12:28 PM
To: Michel, Eric
Cc: Riggs, Eric; Chan, Terence; Holmberg, Mel
Subject: RE: OCO SSF ASW leak

Eric,

The end of next week is okay.

I think that the licensee performed wall thinning inspection to satisfy the ASME Code Section III requirements regarding wall thickness (i.e., to satisfy the design basis regarding the pipe wall thickness).

I do not know much about the specific UT requirements for the Section III wall thickness requirement.

The licensee needs to perform a wall thickness calculations in the PDO to show that the existing and degraded wall thickness satisfy Section III requirements. so far I have not seen in the PDO that a wall thinning calc was done.

Licensees (e.g., Byron) have used Appendix F of the ASME Code Section III to calculate an allowable wall thickness to demonstrate that a reduced wall thickness will still satisfy the Section III requirement.
Byron also inspected many regions of the service water pipes using UT to show that the wall thickness satisfy the allowable. Call Mel Holmberg. He has lots info on the Byron service water leak event in 2008.

I do not know if wall thinning inspection by UT is part of the Section XI UT requirement. I could be wrong but I do not think Section XI, IWB-3000 provides acceptance criteria for dispositioning wall thinning. IWB-3000 is for planar flaws or laminar flaws.

Thanks.

John

From: Michel, Eric
Sent: Friday, August 28, 2009 10:55 AM
To: Tsao, John
Cc: Riggs, Eric
Subject: RE: OCO SSF ASW leak

John,

Will the end of next week work?

One thing I noticed in the operability determination was that they're saying the UT method wasn't qualified, so they didn't meet Section XI requirements. I imagine this is something they'd at least need relief for if we're going to accept the idea that is was a "best effort examination."

Eric

From: Tsao, John
Sent: Friday, August 28, 2009 9:36 AM

To: Michel, Eric; Chan, Terence
Cc: Franke, Mark; Riggs, Eric
Subject: RE: OCO SSF ASW leak

Eric,

Terence may assign the review of the prompt determination of operability to someone else in my branch, but I will be reviewing it also.

when do you want our feedback? please give us a date and time.

Thanks.

John

From: Michel, Eric
Sent: Friday, August 28, 2009 9:28 AM
To: Chan, Terence
Cc: Tsao, John; Franke, Mark; Riggs, Eric
Subject: OCO SSF ASW leak

Terence,

We received the OCO operability determination for their SSF ASW piping leak yesterday. We'd appreciate someone taking a look at the sections associated with the ASME Code compliance (GL 90-05), and the water hammer evaluation. The overall PDO starts on page 3, the water hammer analysis starts on page 5, and the Code compliance section starts on page 10. Of course, if you find any other areas of concern we'd appreciate your thoughts. Thanks.

Eric