

Vogle PEmails

From: Hoellman, Jordan
Sent: Friday, May 20, 2016 11:39 AM
To: Vogle PEmails
Subject: Update on the Tensile Testing Resolution Paths for Welds Joining Couplers to Carbon Steel and Stainless Steel Embedment Plates (Non-Proprietary) - 5/26/16 Public Meeting
-
Attachments: 2016-05-26 APP-GW-GLY-103_Non-proprietary Slides_2016-05-26 Meeting.pdf

Jordan Hoellman
Project Manager
NRO / DNRL / LB4
U.S. Nuclear Regulatory Commission
office: TWFN 6-F33
phone: (301) 415-5481
email: Jordan.Hoellman2@nrc.gov

Hearing Identifier: Vogtle_COL_Docs_Public
Email Number: 29

Mail Envelope Properties (82561e88699344acb46286b015454f85)

Subject: Update on the Tensile Testing Resolution Paths for Welds Joining Couplers to Carbon Steel and Stainless Steel Embedment Plates (Non-Proprietary) - 5/26/16 Public Meeting -
Sent Date: 5/20/2016 11:38:51 AM
Received Date: 5/20/2016 11:38:53 AM
From: Hoellman, Jordan

Created By: Jordan.Hoellman2@nrc.gov

Recipients:
"Vogtle PEmails" <Vogtle.PEmails@nrc.gov>
Tracking Status: None

Post Office: HQPWMSMRS03.nrc.gov

Files	Size	Date & Time	
MESSAGE	229	5/20/2016 11:38:53 AM	
2016-05-26 APP-GW-GLY-103_Non-proprietary Slides_2016-05-26 Meeting.pdf			688806

Options
Priority: Standard
Return Notification: No
Reply Requested: No
Sensitivity: Normal
Expiration Date:
Recipients Received:

ENCLOSURE 5

APP-GW-GLY-103, Rev. 0, "Update on the Tensile Testing Resolution Paths for Welds Joining Couplers to Carbon Steel and Stainless Steel Embedment Plates (Non-Proprietary)"

Non-Proprietary Version of the Presentation



Update on the Tensile Testing Resolution Paths for Welds Joining Couplers to Carbon Steel and Stainless Steel Embedment Plates (Non-Proprietary)

May 26, 2016



Meeting Purpose and Agenda

Meeting Purpose

- Address Staff feedback received on 4/14 related to the nondestructive examination (NDE) code nonconformance
 - Perform NDE on all welds with UNSAT Visual Examination (VT)
 - Ensure static sample size is sufficient to represent installed population
- Provide update on stainless steel embedment testing
- Receive and address Staff feedback

Agenda

- Recall Problem Statement & Initial Proposed Resolution Paths
 - Vogtle Carbon Steel (CS) Couplers
 - V.C. Summer (VCS) CS Couplers
- Updated CS Proposed Resolution Paths
- Carbon Steel Coupler Tensile Testing
- LAR Submittal Timing



Recall Problem Statement & Initial Proposed Resolution for Carbon Steel

Problem Statement:

- Contrary to AISI N690-1994, Q1.26 MT/PT examination requirements, populations of CS embedment plates with weldable couplers were installed at Vogtle and VCS without the requisite NDE having been performed

Proposed Resolution Paths:

- NDE code nonconformance to be addressed via two independent CS LARs:
 1. LAR-134 for CS weld population at Vogtle
 2. LAR-140 for CS weld population at VCS
- Differences between the Vogtle and VCS LARs is primarily in the data and the vendors supplying the welds



LAR-134: Vogtle Carbon Steel

LAR-140: VCS Carbon Steel



LAR Approach Prior to 4/14/2016 NRC Technical Exchange Meeting

- Licensing Basis Change
 - LAR to demonstrate that the coupler welds are suitable for performing their intended design function
- The evidence of suitability to perform intended design function will be demonstrated by a combination of:
 1. VT successfully performed on original weld population
 2. Static testing successfully performed on original weld population
 3. MT successfully performed
 - Recognizing that the MT sample population was not completely representative of the installed welds

LAR Approach Following 4/14/2016 NRC Technical Exchange Meeting

- NRC provided feedback on 4/14
 - WEC/Licensees need to further review the evaluation methods for the testing of the CS populations and determine if additional tensile testing is warranted for these populations
- WEC has reviewed the evaluation of CS static testing populations and has determined that additional static testing is needed
 - Tensile testing method is being developed and will be performed on uninstalled coupler welds from original population
 - Sample preparation and testing methods will be similar to the stainless steel (SS) coupler testing as discussed on 4/14
 - Tensile testing to demonstrate that the strength of the welds meets or exceeds the design strength



Carbon Steel Coupler Testing

- Selection of welding considered factors such as: Welder ID, Welding Process and Procedure, Coupler Size, Start & Finish Date of Plate Production and VT/NDE Status

--	--

a,b,c

Carbon Steel Coupler Testing (cont.)



a,b,c

Stainless Steel Testing for LAR-129



Update on Stainless Steel Testing

- Tensile testing is progressing for the Vogtle and VCS SS coupler weld populations
- Hardness testing complete on SS coupler weld samples

a,b,c

a,b,c



LAR Submittal Dates

a, c



Questions & Discussion

