

## Vogle PEmails

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**From:** Hoellman, Jordan  
**Sent:** Friday, October 14, 2016 12:29 PM  
**To:** Vogle PEmails  
**Cc:** Patel, Chandu; Gleaves, Bill  
**Subject:** Inspectability Extent of Condition Review presentation  
**Attachments:** 2016-10-20 Inspectability Extent of Condition Review presentation.pdf

**Hearing Identifier:** Vogtle\_COL\_Docs\_Public  
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**From:** Hoellman, Jordan

**Created By:** Jordan.Hoellman2@nrc.gov

**Recipients:**

"Patel, Chandu" <Chandu.Patel@nrc.gov>  
Tracking Status: None  
"Gleaves, Bill" <Bill.Gleaves@nrc.gov>  
Tracking Status: None  
"Vogtle PEmails" <Vogtle.PEmails@nrc.gov>  
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# VOGTLE UNITS 3&4



## Inspectability Extent of Condition Review



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# Meeting Objective and Agenda


## Meeting Objective

- Inform the NRC of the results of the extent of condition review and current actions
- Receive and address Staff feedback

## Agenda

- Background
- Extent of Condition
- Discussion

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UNITS 3&4

 Georgia Power

 Southern Nuclear

 Westinghouse

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# Background

- At a meeting with the staff on June 9<sup>th</sup>, 2016, Westinghouse presented inspectability issues with performance of specific examinations
  - Specifically, fittings were discussed
  - Action was taken to determine if other locations have inspectability issues

# Fitting to Pipe Welds

- ASME B16.9 tightly controls the pressure class of the fittings. However, the outside dimensions (OD) of standard fittings are not tightly controlled and vary depending on the supplier.
  - The outside dimensions are critical to determining the inspectability of the pipe fitting welds. This results in minor variations in OD configuration which may impact inspection code required volume.
- The fittings used in the AP1000 design are standard fitting designs used throughout the nuclear industry.
- Industry experience has not shown significant issues with coverage limitations on pipe fitting welds.



# Extent of Condition

## (Component/Fitting to Pipe Welds)

- Nozzle safe end and branch connection nozzle to pipe connections, and penetration to pipe connections are inspectable.
- Elbow, tee, reducer, flange and cap to pipe connections are considered inspectable
- Fitting to fitting connections are more challenging; inspectability is dependent on fitting shape and final surface conditioning.
- 14"x4" weldolet-to-pipe weld configurations may have coverage limitations of the exam volume.
- The weldolet welds, as well as the other fitting welds, are being evaluated throughout construction and PSI implementation.

# Extent of Condition (RV Nozzle to Shell Welds)

- Vogtle Unit 3 PSI Program (Table C-1) identifies potential Alternative Request for RV Nozzle to Shell Welds (Exam. Category B-D, Exam. Item B3.90).
- In accessibility investigations, exam of weld + 1/2T of adjacent base material for essentially 100% is not achievable from ID surface due to geometric obstructions (outlet nozzle boss, RV shell ID taper).
- Current approach is to look at ID tooling design changes to increase ID surface coverage and conduct OD surface volumetric UT examinations.
- No alternative request necessary.



# Discussion

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