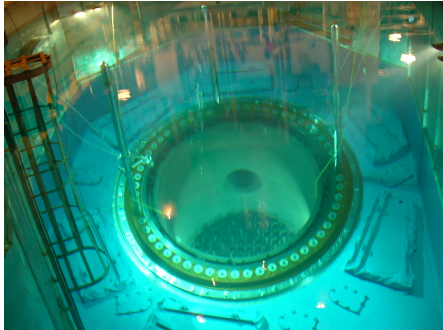




# NRC UPDATE

August 13-16, 2019

## EPRI JUTG

Clearwater, Florida



Aaron Armstrong and Jeff Jacobson  
Quality Assurance Vendor Inspection Branch, Office of Nuclear Reactor  
Regulation



# Topics

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- ❑ 2020 Vendor Workshop Announcement
- ❑ Vendor Inspection Findings
- ❑ Safety Conscious Work Environment (SCWE) and the NRC Vendor Inspection Program (VIP)
- ❑ NRC Review of 17025 Revision 2017 Update
- ❑ Verification and Validation of Circuit

# Vendor Workshop

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- The NRC will be holding the 2020 Vendor Workshop in Baltimore following the Nuclear Procurement Issues Corporation (NUPIC) meeting
- Venue of the vendor workshop TBD
- Early registration will be available on the NRC public website. <https://www.nrc.gov/>

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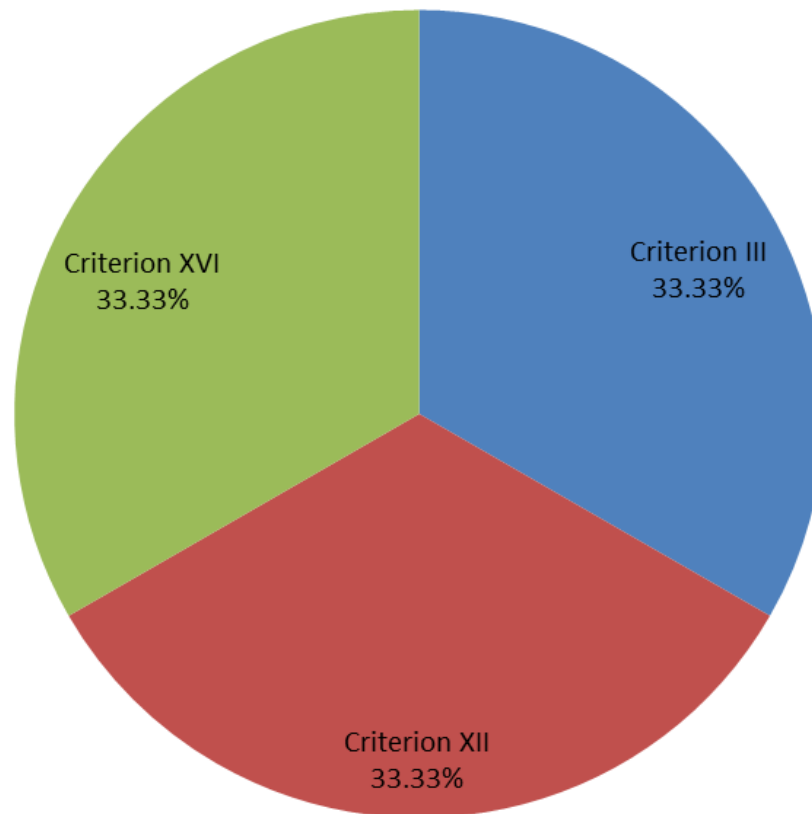
# NRC Vendor Inspection Findings



# Breakdown of Vendor Inspection Findings

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**FINDINGS BETWEEN FEBRUARY 2019 AND JULY 2019**



*12 inspections - 4 NOVs/NONs*

# Vendor Inspection Findings

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- Significant Findings
  - ▣ Control of Measuring and Test Equipment
  - ▣ Design Control
  - ▣ Corrective Action



# Control of Measuring and Test Equipment

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## HydroAire issued March 14, 2019

- Criterion XII, “Control of Measuring and Test Equipment,” of Appendix B Inspection conducted in January 2019 to HydroAire’s implementation of the quality activities associated with design, fabrication, assembly, and testing of safety-related pumps being supplied to the U.S. operating nuclear power plants.
- Inspection Results
  - HydroAire failed to establish adequate measures to assure that pressure gages were properly calibrated and adjusted at specific periods to maintain accuracy within necessary limits and failed to establish documented instructions or a procedure that would prescribe the calibration process of pressure gages for use in activities affecting quality.
  - The NRC inspectors identified twenty-two hydrostatic tests (two safety-related pumps and eighteen pump components) where HydroAire inadequately calibrated the digital pressure gages at an operating range of 1167-7000 psig and used them during testing of ASME Section III safety-related components at a hydrostatic pressure range of 152-370 psig.

# Corrective Action

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## L&S issued June 8, 2019

Criterion XVI, “Corrective Action,” of Appendix B

- Inspection conducted in May 2019 to assess the quality activities associated with fabrication, assembly, and testing of safety-related components for nuclear fuel assemblies being supplied to the U.S. operating nuclear power plants.
- Inspections Results
  - L&S failed to implement corrective actions to address findings from the 2017 NRC Inspection Report 99901476/2017-201 for corrective action report (CAR)-17-17 and CAR-17-4.
  - L&S did not have objective evidence that safety-related material was used on procedure qualification record, PQR-027 and closed the 2017 CAR and L&S failed to ensure audits were performed by personnel not having direct responsibility in the area being audited.



# Design Control

## AZZ Nuclear issued July 3, 2019

Criterion III, “Design Control,” of Appendix B

- Inspection conducted in May 2019 to verify QA activities associated with design control and equipment qualification, commercial-grade dedication, and nonconforming materials/parts/components and corrective action for equipment being supplied to the U.S. operating nuclear power plants.
- Inspection Results
  - ▣ NLI failed to ensure the suitability of equipment that is essential to the safety-related functions for certain components supplied to the nuclear industry associated with the environmental qualification testing of certain relays.
  - ▣ NLI failed to justify the activation energies used in the thermal aging analysis/calculations. And failed to fully evaluate anomalies that were identified during the functional testing portion of the qualification program.

# Corrective Action

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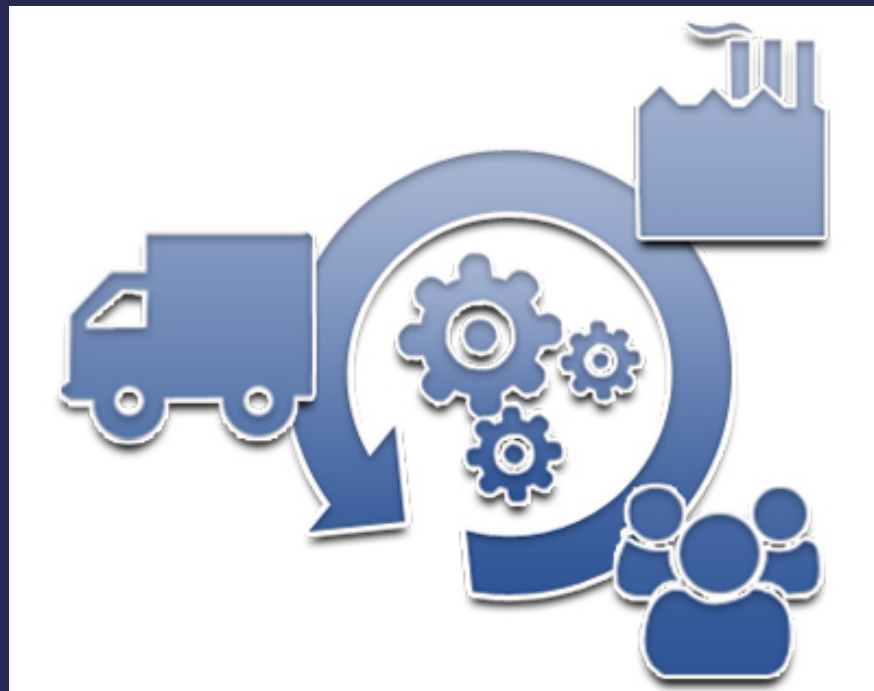
## Arcos Industries issued August 1, 2019

Criterion XVI, “Corrective Action,” of Appendix B

- Inspection conducted in June 2019 to supply of quality activities associated with fabrication and testing of safety-related weld material being supplied to the U.S. nuclear power plants (operating and under construction).
- Inspections Results
  - Arcos failed to promptly correct conditions adverse to quality. Specifically, Arcos failed to enter seven findings identified during the 2018 internal audit into the corrective action program and did not implement any corrective actions to address these seven findings.

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## Safety Conscious Work Environment and the NRC Vendor Inspection Program (SCWE)



# SCWE and the NRC Vendor Inspection Program

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- **The NRC is currently in the process of evaluating including SCWE observations and assessments in the NRR vendor inspection program.**
- **Provides the NRC a measure of the Safety Culture health of an organization which has not been consistently documented in the past. It brings Vendor Inspection program in compliance with the current NRR SCWE mindset for operating reactors.**
- **Changes to include SCWE in the vendor inspection program would minimally impact inspection manual chapters and inspection procedures and therefore the Vendors.**



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# NRC Review of 17025 Revision 2017 Update



# NRC Review of 17025 Revision 2017 Update

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- Still on hold waiting for submittal to the NRC
- Drop in meeting scheduled for the week of July 29<sup>th</sup>
- What do you think?
  - Do you think that NDE services are covered in the NRC SE conditionally finding 17025 as an alternative to a commercial grade survey?
  - Why or Why not?





# References

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- ▣ HydroAire Service Inspection Report (IR): Agencywide Documents Management System (ADAMS) Accession No. ML19065A287
- ▣ AZZ Nuclear | NLI IR: ADAMS Accession No. ML19175A138
- ▣ L&S Machine Company IR: ADAMS Accession No. ML19150A640
- ▣ Arcos Industries, LLC IR: ADAMS Accession No. ML19150A640



# Verification and Validation of Circuit Interrupting Ratings for Low Voltage Protective Equipment

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