

NRC UPDATE

January 28 - 30, 2020
EPRI JUTG
St. Petersburg, Florida



Aaron Armstrong and Jonathan Ortega-Luciano
Quality Assurance Vendor Inspection Branch, Office of Nuclear Reactor
Regulation



Topics

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- ❑ 2020 Vendor Workshop Announcement
- ❑ Vendor Inspection Findings
- ❑ Open Panel Discussion – Distinction between Minor and More than Minor NRC Inspection Findings
- ❑ Benefits of Evaluating Operating Experience (OpE) Reported to the NRC

Vendor Workshop

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- The NRC will be holding the 2020 Vendor Workshop in Baltimore on June 18, 2020 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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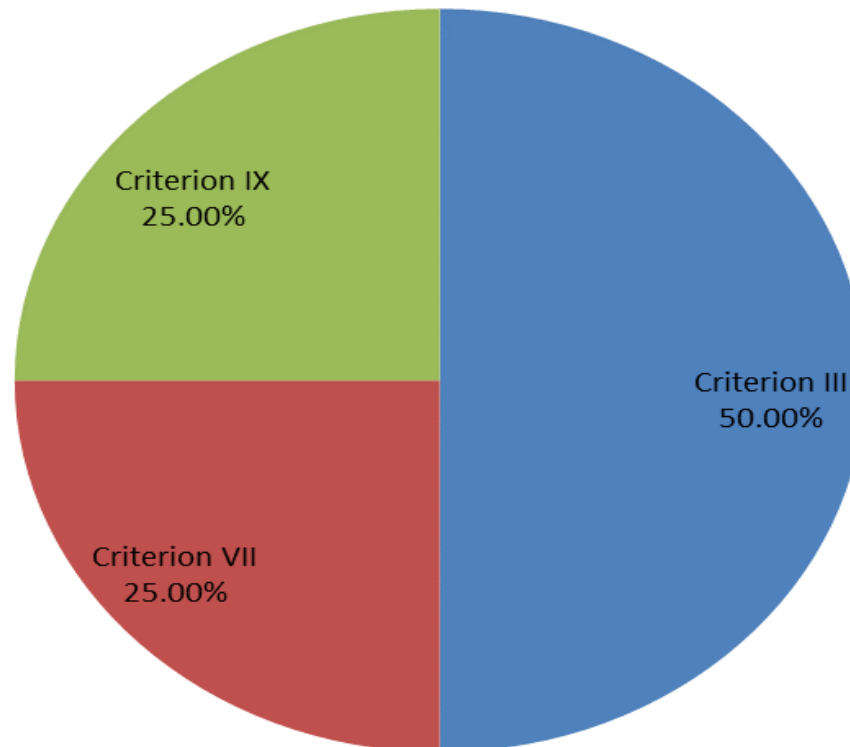
NRC Vendor Inspection Findings



Breakdown of Vendor Inspection Findings

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FINDINGS BETWEEN AUGUST 2019 AND JANUARY 2020



7 inspections - 4 NONs

Vendor Inspection Findings

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- Significant Findings
 - ▣ Control of Purchased Material, Equipment, and Services
 - ▣ Control of Special Processes
 - ▣ Design Control



Control of Purchased Material, Equipment, and Services

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Enertech issued September 6, 2019

- Criterion VII, “Control of Purchased Material, Equipment, and Services,” of Appendix B
- Inspection conducted in July 2019 to assess Enertech’s implementation of quality activities associated with design, fabrication, assembly, and testing of safety-related pumps being supplied to licensees.
- Inspection Results
 - Inspectors identified that Enertech procured safety-related forgings from a commercial supplier that was inadequately qualified by Enertech as a Material Organization with a quality program that meets the applicable requirements of the ASME B&PV Code. Enertech’s qualification record did not contain sufficient objective evidence to support the conclusion that the commercial supplier had met the applicable requirements of ASME.

Control of Special Processes

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ENSA issued December 16, 2019

Criterion IX, “Control of Special Processes,” of Appendix B

The NRC led the multinational inspection with our international counterparts of ONR and ASN.

- Inspections Results

- ENSA failed to assure that special processes were controlled and accomplished using qualified procedures in accordance with specifications and acceptance criteria for liquid penetrant examination prior to welding of a backing plate.
- The ENSA Level II inspector did not ensure the primary area was adequately accessible and examined with appropriate illumination. These processes were the same processes used on US safety-related products.

Design Control

Fisher Controls issued January 8, 2020

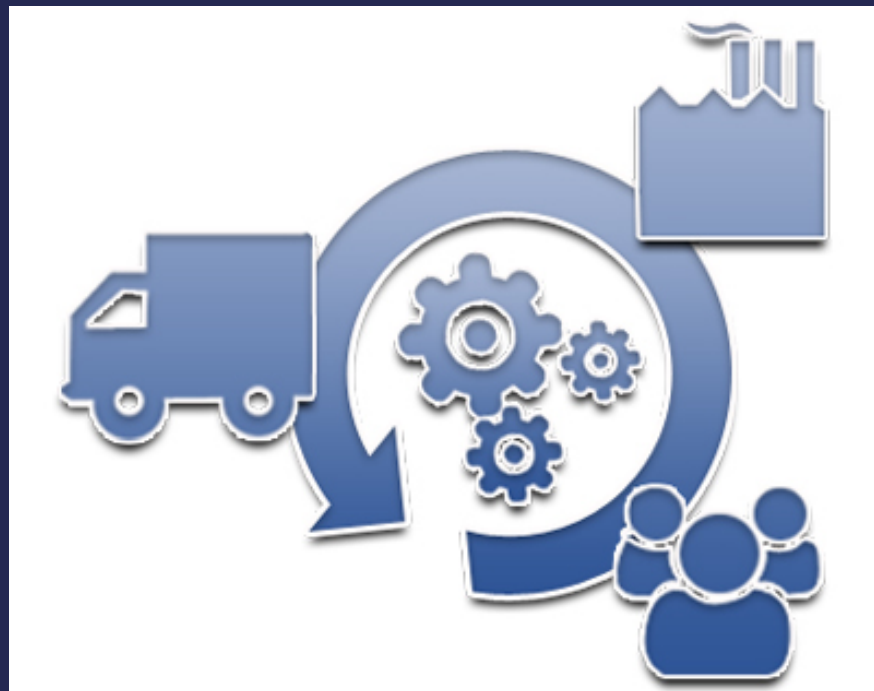
Two Criterion III, “Design Control,” of Appendix B

- Inspection conducted in November 2019 to verify QA activities associated with the design, fabrication, assembly, and testing of valves, actuators, replacement parts and/or appurtenances being supplied to the U.S. nuclear power plants.
- Inspection Results
 - Fisher Controls failed to perform the operating basis earthquake and safe shutdown earthquake testing to demonstrate the transducers can withstand the effects of earthquakes without the loss of their capability to perform their intended safety function.
 - Fisher Controls failed to meet the requirements of the 1983 Edition of IEEE standard No. 323, “Standard for Qualifying Class 1E Equipment for Nuclear Power Generating Stations.”

Open Panel Discussion

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Distinction between Minor and More than Minor NRC Inspection Findings



Open Panel Discussion

Distinction between Findings

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- Inspection Manual Chapter (IMC) 0617 provides guidance on what is Minor Violation/Nonconformance (VIO/NON):
 - isolated failures to implement a requirement that do not result in significant safety or regulatory consequences;
 - record keeping issues that do not preclude the applicant or vendor from taking appropriate action on safety-related issues;
 - insignificant dimensional, time, calculation, or drawing discrepancies or procedural errors, and;
 - typographical or clerical errors in quality documents that do not affect QA program functionality or the validity of QA records.
- Inspectors should treat minor VIO/NONs in the same manner with respect to documentation and screening

Open Panel Discussion

Definition of Minor

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- Minor VIOs/NONs:
 - Minor VIOs/NONs are below the significance of that associated with Severity Level IV violations and are not the subject of formal enforcement action or documentation.
 - Failures to implement requirements that have insignificant safety or regulatory impact or findings that have no more than minimal risk should normally be categorized as minor.

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Benefits of Evaluating Operating Experience (OpE) Reported to the NRC



Benefits of Evaluating OpE Reported to the NRC

- Part 21 was designed to implement Section 206 of the Energy Reorganization Act of 1974
- Purpose: “to upgrade the system of detecting and anticipating the effects that increasingly have plagued the nuclear power industry and threatens its safety record...”
 - One of a few regulations with reporting requirements.
 - OpE is tracked and trended by the NRC staff.
 - Focus is on highly safety significant items or services.
 - Easily accessible at: <https://www.nrc.gov/reading-rm/doc-collections/event-status/part21/>

Benefits of Evaluating OpE Reported to the NRC

- Recognition of OpE as a potential contributor to safety for a plant was identified as a TMI Action Item:
 - Provide administrative **procedures** for **evaluating operating, design and construction experience** and for ensuring that applicable important industry experiences will be provided in a timely manner to those designing and constructing the plant. (I.C.5)

Evaluation of OpE Including Part 21's Reported to the NRC

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Licensee failed to prevent installation of relays identified in a Part 21

- Part 21 2009-01-00, dated January 26, 2009, Ametek Tyco/Potter & Brumfield Relays - age degradation
- The licensee installed the defective AMETEK board, PC201, with the defective relay identified on the Part 21 above into the Unit 2 control room indicating and display (CRID) 3.
- On March 2017, the defective relay in CRID 3 inverter failed and subsequently resulted in the inverter transferring to the alternate power supply.

Evaluation of OpE Including Part 21's Reported to the NRC

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Failure to Account for Potential Age-Related Degradation in EDG Governors

- Part 21 2001-21-0, dated June 19, 2001, Engine Systems, Inc. - Woodward electronic controls with electrolytic capacitors
- Installed capacitors were found beyond industry and vendor recommended useful life. Degradation, would impact safety-related functions of the EDGs.
- The licensee had an opportunity to identify the condition in March 2011, when researching the acceptability of the capacitors in the EGAs during the 2011 EDG outage

Evaluation of OpE Including Part 21's Reported to the NRC

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Failure to Control Nonconforming Parts

- Part 21 2016-19-00, dated May 10, 2016, Electros witch - Various Electros witch products
- The Licensee received information from a vendor that more than 124 relays installed in SR applications did not potentially conform to Appendix B QA requirements.
- 2018, the NRC identified that the licensee failed to take appropriate steps to accept these commercial-grade relays as basic components by dedicating the relays for use in their safety-related applications.

Benefits of Evaluating OpE Reported to the NRC

- Conclusion:

- It is important to consider evaluating Part 21 reports to make a determination if your plant is affected and take preventive action in a timely manner.
- Part 21 reports provide stakeholders with information that could increase the level of safety by the reducing the probability of a failure in a basic component while it is performing a safety function.



References

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- ▣ Enertech Inspection Report (IR): Agencywide Documents Management System (ADAMS) Accession No. ML090280042
- ▣ ENSA Nuclear IR: ADAMS Accession No. ML19331A615
- ▣ Fisher Controls IR: ADAMS Accession No. ML19339F625