

NUPIC Vendor Meeting

June 2016

NRC Vendor Inspection Update

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QA Vendor Inspection Branch 1

Office of New Reactors

AGENDA

- New items
- Update on other initiatives
- Recent NRC vendor inspections
- Specific inspection insights
- Questions

NEW ITEMS

Topics

- Software-CGD (Regulatory Guide 1.231)
- Use of ILAC for services (RIS 2016-01 / Callaway SE)
- Vendor workshop overview - Thursday

NEW ITEMS

Software - CGD

- Existing CGD process was applied to software
- Need for software-specific guidance:
 - Coordination of EPRI, NEI, industry, NRC
 - Creation of original EPRI 1025243
 - Request for NRC endorsement
- Revision 1 of EPRI 1025243
- First software-specific CGD Guidance
- EPRI documents - <http://www.epri.com>

NEW ITEMS

DGs and RGs

- Purpose of Regulatory Guides (RG)
- Draft Regulatory Guides (DG)
- Applicability
- Staff Regulatory Guidance (regulatory positions)
- Implementation

NEW ITEMS

DG-1305 / RG 1.231

- DG-1305 application:
 - Design and analysis computer programs
 - Non-process computer programs
- Public comments complete
- RG 1.231 drafted
- Expected RG 1.231 next steps

NEW ITEMS

Regulatory Guide 1.231

- What regulatory requirements does it meet?
- What are the proposed regulatory positions?
- What is different / special about the guidance?
- What changes with existing programs when it is issued?
- Is it required to be implemented?
- More info - Track 1 at Vendor Workshop



NEW ITEMS

ILAC Accreditation

- Initial review and approval APS SE
- Use of accreditation in lieu of survey under CGD
- ILAC Task Force formed
 - Coordination of NEI, NUPIC, industry, NRC
 - Creation of original NEI 14-05
 - Use of domestic calibration labs
- NEI 14-05A accepted by SE

<http://www.nrc.gov/reactors/new-reactors/oversight/quality-assurance/qual-assure-safety.html>

NEW ITEMS

RIS 2016-01

Regulatory Issue Summary (RIS) 2016-01

- Expansion of ILAC accreditation process:
 - Domestic and international labs
 - Calibration and testing services
- NRC expectations for use of expanded process:
 - NEI 14-05A acceptable methodology
 - Provides (2) conditions to use ILAC accreditation process in lieu of commercial-grade survey as part of dedication
- <http://www.nrc.gov/docs/ML1532/ML15323A346.pdf>

NEW ITEMS

Callaway SE

- Callaway Unit 1 SE
 - Change to operating QAM under 10 CFR 50.54(a)
 - Reduction in commitment for use of ILAC process
 - <http://www.nrc.gov/docs/ML1608/ML16089A167.pdf>
- Accepted QA alternative under 10 CFR 50.54(a)(3)(ii)
- May be applicable to other licensees - bases evaluation
- More info - Track 2 at Vendor Workshop



UPDATES

Topics

- Regulatory Guide 1.28 update (Draft DG-1326)
- Part 21 reporting guidance (Draft DG-1291)
- Use of EPRI guidance for CGD (Draft DG-1292)
- CFSI update
- SONGS major plant mod pilot inspections
- Communication initiatives

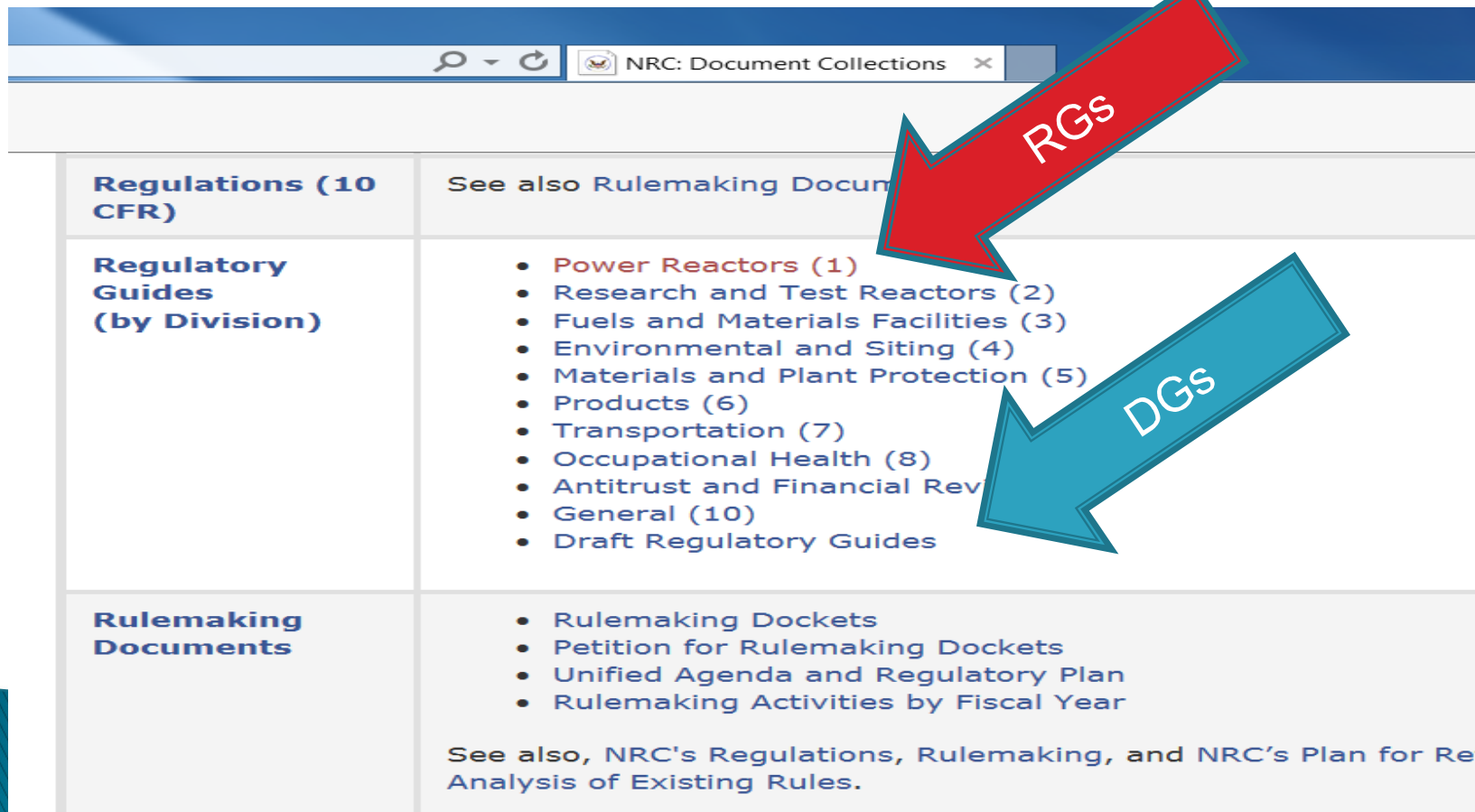
UPDATES

All the Draft DGs

- Draft DG-1326:
 - Update of RG 1.28, Rev 4 (NQA-1-2008 with 2009a)
 - Use of NQA-1-2011b, 2012, and 2015
- Draft DG-1291:
 - Accepts NEI 14-09, Rev 1 for Part 21 reporting
- Draft DG-1292:
 - Accepts EPRI NP-5652 / TR-102260, Rev 1 (aka - EPRI 3002002982) for CGD
 - Proposed regulatory positions

UPDATES

Finding the DGs



The screenshot shows a web browser window with the address bar displaying 'NRC: Document Collections'. The main content area is a table with three rows. A red arrow labeled 'RGs' points to the 'Regulations (10 CFR)' row. A blue arrow labeled 'DGs' points to the 'Regulatory Guides (by Division)' row.

Regulations (10 CFR)	See also Rulemaking Documents
Regulatory Guides (by Division)	<ul style="list-style-type: none">• Power Reactors (1)• Research and Test Reactors (2)• Fuels and Materials Facilities (3)• Environmental and Siting (4)• Materials and Plant Protection (5)• Products (6)• Transportation (7)• Occupational Health (8)• Antitrust and Financial Review (9)• General (10)• Draft Regulatory Guides
Rulemaking Documents	<ul style="list-style-type: none">• Rulemaking Dockets• Petition for Rulemaking Dockets• Unified Agenda and Regulatory Plan• Rulemaking Activities by Fiscal Year <p>See also, NRC's Regulations, Rulemaking, and NRC's Plan for Retrospective Analysis of Existing Rules.</p>

UPDATES

CFSI

- Proactive approach to CFSI
- NRC coordinating with other federal agencies
- Coordinated effort within the industry
- Resources:
 - SECY 15-0003 (NRC staff activities)
<http://www.nrc.gov/reading-rm/doc-collections/commission/secys/2015/>
 - RIS 2015-08 (NRC oversight)
<http://www.nrc.gov/reading-rm/doc-collections/gen-comm/reg-issues/2015/>
- More info - Vendor Workshop (AM session)

UPDATES

Major plant mod pilot

- Recommendation from SONGS Lessons Learned
- Five pilot design-aspect vendor inspections
- First inspection completed April 2016
 - Design and fabrication of Steam Generators
 - 3 findings (Criterion III, IX and VII)
- Control of sub-suppliers:
 - International suppliers
 - Evaluation of supplier Part 21 programs



UPDATES

Communications

Annual vendor newsletter:

<http://www.nrc.gov/reactors/new-reactors/oversight/quality-assurance/vendor-insp/vendor-newsletters.html>

Quality Assurance FAQ:

<http://www.nrc.gov/reactors/new-reactors/oversight/quality-assurance/qual-assure-faqs.html>

Categories of Notice of Nonconformance (NON) or Notice of Violation (NOV):

<http://www.nrc.gov/reactors/new-reactors/oversight/quality-assurance/nonconformances-violations.html>

Vendor Inspection Program (VIP) Plan:

<http://www.nrc.gov/reactors/new-reactors/oversight/quality-assurance/vendor-insp/vendor-insp-prog-plan.html>

UPDATES

Communications

Vendor inspection information:

<http://www.nrc.gov/reactors/new-reactors/oversight/quality-assurance/vendor-insp.html>

NRC Vendor Workshops:

<http://www.nrc.gov/reactors/new-reactors/oversight/quality-assurance/vendor-oversight.html>

Trip reports issued for the NUPIC audit observations:

<http://www.nrc.gov/reactors/new-reactors/oversight/quality-assurance/nupic-industry.html>

Advanced reactors and small modular reactors:

<http://www.nrc.gov/reactors/advanced.html>

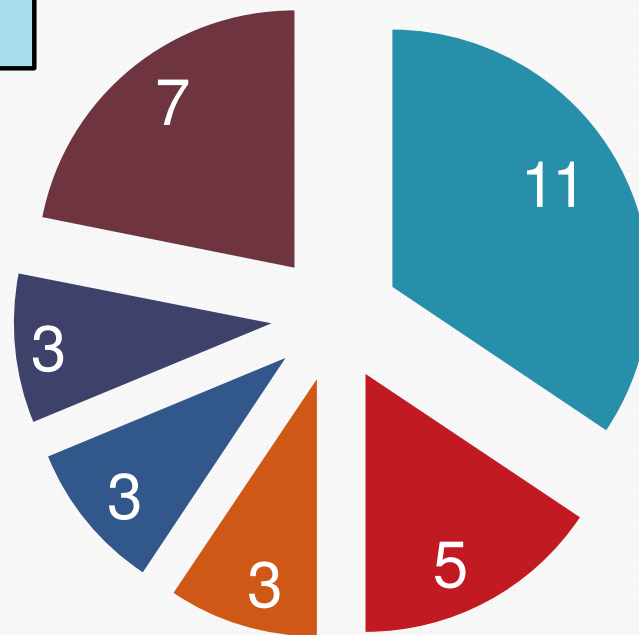
2016 VENDOR INSPECTIONS

- Cameron Measurement Systems, City of Industry, CA – February 2016
- Westinghouse Electric Company, Warrendale, PA – February 2016*
- ASCO Valve, Inc., Aiken, SC – February 2016
- Carboline Corporate, St. Louis, MO – March 2016
- Exelon Power Labs, Coatesville, PA – March 2016
- Electros witch, Weymouth, MA – April 2016
- Equipos Nucleares, S.A. (ENSA), Cantabria, Spain – April 2016^
- Lisega, Inc., Kodak, TN - April 2016*
- GE Oil & Gas, Pineville, LA – May 2016*

ONE YEAR INSPECTION FINDING SUMMARY

26
Inspections

Findings



- III: "Design Control"
- VII: "Control of Purchased Material"
- IX: "Special Processes"
- XVI: "Corrective Actions"
- Part 21
- Other

INSPECTION RESULTS

Common Areas

- Part 21:
 - Timeliness of evaluations
 - Thorough evaluations and documentation
- Commercial-grade dedication (Criterion III)
 - Use of Commercial-grade Surveys (Method 2)
 - Inadequate critical characteristic verification
 - Sample selection methodology
- Maintaining design qualification (Criterion III)
 - Continued adherence to industry standards
 - Sub-supplier material change control

INSPECTION RESULTS

Inspection insights

- Early identification in NUPIC audits:
 - CGD deficiencies
 - Corrective action program deficiencies
- Continued identification in NRC inspections:
 - CGD deficiencies
 - Qualification deficiencies
 - Corrective actions / Part 21 deficiencies
- Thoroughness of vendor corrective actions
- Thoroughness of vendor internal audits

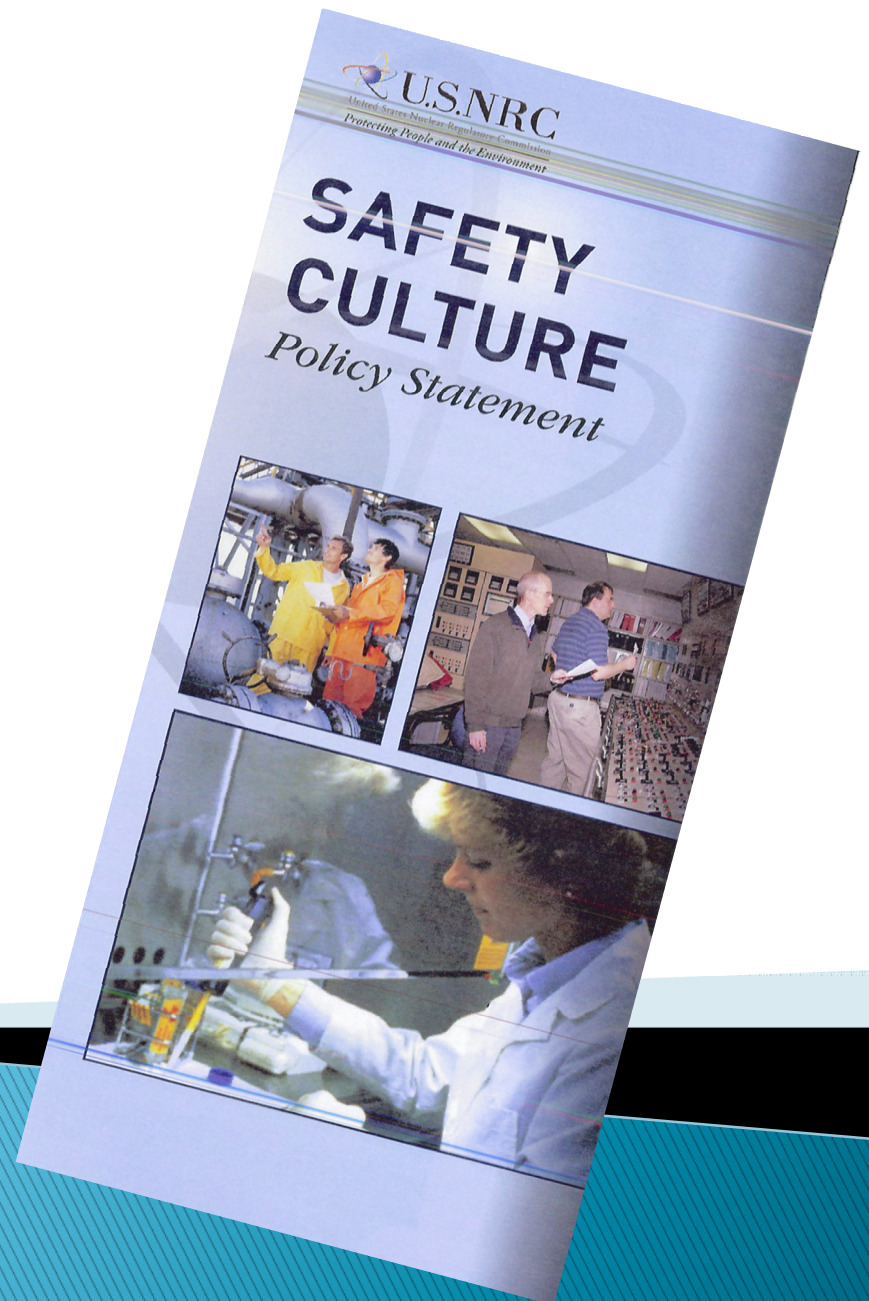
FUTURE INSPECTIONS

Technically-focused vendor inspections of design, procurement, fabrication, and testing of safety-related SSCs:

- AP1000 piping and electrical system design
- AP1000 electrical and qualification testing
- AP1000 digital instrumentation and control
- AP1000 modules
- Valve and pump manufacturing
- Commercial-grade dedication organizations
- Reverse engineering organizations

The Commission defines **nuclear safety culture** as the core values and behaviors resulting from a collective commitment by leaders and individuals to emphasize safety over competing goals to ensure protection of people and the environment.

NUREG/BR-0500, Rev. 3, March 2015



Questions

