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San Onofre Nuclear Generating Station (SONGS) 2013

## *The Director's Cut*



**Andrea Valentin, Deputy Director of Division of Construction Inspection and Operational Programs**

Operating nuclear power plants safely and constructing new nuclear power facilities in an acceptable manner requires the licensees, the vendors and everyone in the supply chain to focus on the quality of their activities and to maintain a strong safety culture in their organizations. With that focus, the Nuclear Regulatory Commission (NRC) continues to perform routine and reactive vendor and quality assurance (QA) inspections for the commercial nuclear power industry, including both new and operating reactors. In 2013, the NRC conducted over 30 routine and reactive inspections of vendors performing design verification and qualification testing for the AP1000 construction and other vendor activities. In the near future, the NRC's procurement inspections for the operating reactor fleet will increase awareness and address issues within commercial grade dedication (CGD) programs. This work will provide reasonable assurance that licensees and applicants properly dedicate commercial items and services so those products will meet their intended safety function. In addition, the NRC staff will



**Michael Cheok, Acting Director of Division of Construction Inspection and Operational Programs**

continue to work with foreign regulatory authorities to provide additional insights relative to the effectiveness of international vendor oversight by both foreign and U.S. licensees. In 2014, we will continue to perform inspections to verify that design requirements are preserved and effectively translated through the design, procurement, and manufacturing process, and that safety-related goods and services meet the regulatory requirements. Safe construction and manufacturing activities are one of the major keys to safe nuclear power!

# Commercial Grade Dedication Activities and Findings

In efforts to ensure the safe operation of plants, the NRC vendor staff continues to perform inspections to verify that commercial grade items have been properly designated for use as basic components through a CGD program that verifies that items can perform their intended safety functions. The NRC has recently seen increases in CGD inspection findings at U.S. and overseas vendor facilities (both primary and sub-suppliers) and nuclear plants. Current vendor inspection findings focused on the areas of technical evaluations, selection of critical characteristics, conducting commercial grade surveys, source verifications, and maintaining material traceability. Recently, the Watts Bar Unit 2 project received escalated enforcement for CGD inadequacies primarily in the areas of technical evaluations, and selection and verification of critical characteristics. In another event, the South Korean regulator ordered several nuclear sites in the country to shut down due to falsified safety certificates of conformance for nuclear reactor parts. Only when the CGD process is used properly by licensees and vendors can the NRC have reasonable assurance that basic components will perform their safety functions. The NRC staff is therefore preparing a pilot program to inspect current operating reactors' procurement and dedication programs, including industry oversight for detecting and preventing counterfeit, fraudulent, and suspect items. This will ensure appropriate subcontractor oversight and implementation of internal dedication practices. The NRC staff expects this pilot initiative to determine if the need for additional focus on CGD activities at operating reactor facilities is warranted. Stay tuned for more updates on CGD activities!



Can you tell which Cutler Hammer (Eaton) Circuit Breaker is counterfeit?



Is it this one?



Or this one?

Can you tell which Square D Circuit (Schneider Electric) Breaker is counterfeit?



Is it this one?



Or this one?

See answers on page 4!



# Regulatory Guide 1.33



## Staff Continues Progress on Updating Guidance Documents

Another of the NRC's 2013 milestones involved issuing Regulatory Guide (RG) 1.33, "Quality Assurance Program Requirements (Operation)," Revision 3. In preparing to license new facilities, the staff recognized a need to update guidance for QA activities to ensure license applications committed to the latest endorsed versions of industry standards.

For example, Revision 2 of RG 1.33 endorsed American National Standard 3.2/American National Standards Institute 18.7-1976 (ANS 3.2/ANSI 18.7-1976), "Managerial, Administrative, and Quality Assurance Controls for the Operational Phase of Nuclear Power Plants." The NRC had to issue several clarifications or modifications of the standard in the RG's Regulatory Position section.

The NRC staff's subsequent work with stakeholders updated operational QA program guidance, resulting in ANSI/ANS 3.2-2012. The revised industry standard was developed to work with American Society of Mechanical Engineers (ASME) QA program requirements for nuclear power plants, which focuses on design and construction issues and incorporates the NRC-approved alternate positions since ANS 3.2/ANSI 18.7-1976 was issued. Revision 3 of RG 1.33 clarifies the distinction of the QA program during design and construction from those managerial and administrative controls implemented during the operational phase of nuclear power plants. The NRC staff also recently revised RG (RG 1.28) to endorse ASME NQA-1-2008 and the NQA-1a-2009 Addenda, "Quality Assurance Requirements for Nuclear Facility Applications."

The Chair of the ANS Standards Board recently told NRC, "Thus the industry now finds itself with two recently revised, nuclear standards for design & construction and for operations both of which will have received formal NRC endorsement. This truly is a "win-win" for the nuclear industry and the regulatory environment. A clear delineation of quality assurance requirements is now available for the new generation of plants as well as for consideration of existing licensees who may want to migrate to a consistent set of requirements for their fleet of reactors within their company."

ANSI/ANS 3.2-2012 continues to follow the philosophy that the responsibility for assuring quality lies primarily with the individual performing the task, as opposed to the formally established QA organizational group. Therefore, this standard focuses on the managerial and administrative controls that support this philosophy.

The NRC staff is currently focused on updating the staff's quality assurance program review guidance in Standard Review Plan (SRP) 17.5, "Quality Assurance Description – Design Certification, Early Site Permit and New License Applicants." The revised SRP aims to conform to industry standards and capture the quality assurance requirements for all phases of a nuclear power plant's lifecycle; design, construction and operation.

The NRC has formed a Vendor Center of Expertise, working on other critical industry documents in both CGD and Part 21. Additionally, the staff has introduced these changes to stakeholders by conducting workshops and continuing to stay current with industry practices through participation in working groups.

## *Updated Inspection Procedures and Guidance Documents of 2013*

Here are some of the updated guidance documents applicable to vendor and QA Implementation Inspections. Click each link to catch up on all the new changes!!!

- IMC 2705 Vendor Inspections  
<http://pbadupws.nrc.gov/docs/ML1324/ML13247A725.pdf>
- IMC 0617 Vendor and Quality Assurance Implementation Inspection Reports  
<http://pbadupws.nrc.gov/docs/ML1324/ML13246A450.pdf>
- IP 43002 Routine Inspections of Nuclear Vendors  
<http://pbadupws.nrc.gov/docs/ML1314/ML13148A361.pdf>
- IP 43003 Reactive Inspections of Nuclear Vendors  
<http://pbadupws.nrc.gov/docs/ML1324/ML13248A332.pdf>
- IP 43004 Inspection of Commercial-Grade Dedication Programs  
<http://pbadupws.nrc.gov/docs/ML1328/ML13280A478.pdf>



# What's Hot in the Vendor World!

## Hot Off the Press! The Vendor Inspection Plan Updates

The Office of New Reactors (NRO) staff has successfully achieved another milestone within the Vendor Inspection Program (VIP) plan by completing the strategies for vendor outreach and communications which will enhance NRC's commitment to openness, efficiency, and clarity with our stakeholders. These strategies include reconstruction of the NRC's vendor oversight public Web page, which includes categorizing findings and violations from NRC vendor inspection reports. The strategy also includes hosting vendor oversight workshops on a biennial basis and provides a list of vendors to solicit stakeholder interest in our outreach and communications activities. In addition, NRO recently revised the VIP plan to include a strategy for coordinating vendor inspections. This strategy coordinates resources between NRO and NRC's Region II staff to support the inspections, testing, analyses, and acceptance criteria (ITAAC) related activities at vendors manufacturing safety-related components and modular assemblies for new reactor construction. This strategy regularly updates of the vendor inspection schedule, coordinates inspection plans, requests of inspection support from Region II staff, and discusses any on-site vendor issues identified by the NRC resident inspectors, Region II construction inspectors, or the vendor inspection staff. This more effective and efficient organization of the agency's ITAAC inspection resources will enable the NRC to facilitate the ITAAC closure process. Inspection Manual Chapter (IMC) 2507 has been updated to reflect these changes and to provide guidance to the staff. For more information on VIP activities, please visit the NRC's public Web site at <http://pbadupws.nrc.gov/docs/ML1523/ML15239A806.pdf>.



## 2014 VENDOR WORKSHOP

NRO's Division of Construction Inspection is planning the fourth Workshop on Vendor Oversight for New Reactor Construction on Thursday, June 12, 2014, in Portland, OR. This workshop brings together members of the public, licensees, applicants, vendors, suppliers of basic components and industry organizations. The NRC will provide information and training to the industry on specific topics related to issues identified by the staff during routine vendor inspection and interaction activities. The workshop will begin at 8 a.m. and will continue until approximately 5:30 p.m. Potential topics include upcoming changes to 10 CFR Part 21, the use of international calibration laboratories, and the use of commercial-grade dedication in safety-related applications. Any stakeholders with feedback related to the planning and coordination of the vendor workshop or anyone who would like to suggest a topic or volunteer as a speaker for the workshop are encouraged to contact Raju Patel at [raju.patel@nrc.gov](mailto:raju.patel@nrc.gov).



Would you like to be added to this newsletter distribution? Or suggest other topics?



We welcome useful and informative feedback on the contents of this newsletter. If you would like to suggest topics, please contact Shavon Edmonds from the Electrical Vendor Branch at 301-415-6773 or via email at [shavon.edmonds@nrc.gov](mailto:shavon.edmonds@nrc.gov).

**Answer for Cutler Hammer Breaker: The 200A is the counterfeit. The left nameplate and UL label are fakes. Answer for Square D Breaker: The breaker on the left is the counterfeit.**