

POLICY ISSUE INFORMATION

April 15, 2013

SECY-13-0042

FOR: The Commissioners

FROM: R. W. Borchardt */RA Mike Johnson Acting for/*
Executive Director for Operations

SUBJECT: CONSTRUCTION REACTOR OVERSIGHT PROCESS
SELF-ASSESSMENT FOR CALENDAR YEAR 2012

PURPOSE:

The purpose of this paper is to present the results of the U.S. Nuclear Regulatory Commission (NRC) staff's calendar year (CY) 2012 self-assessment of the Construction Reactor Oversight Process (cROP) and inform the Commission of the cROP pilot results and proposed program changes. This paper does not address any new resource implications.

SUMMARY:

The NRC staff has concluded that the new construction assessment and enforcement approach employing a regulatory structure, construction significance determination process, and construction action matrix is effective in ensuring that new reactors are built in accordance with an approved design. All pre-established cROP pilot success criteria were met. The cROP self-assessment for CY 2012 shows that the process met the agency's organizational excellence objectives (e.g., openness and effectiveness) from the NRC's Strategic Plan for Fiscal Years (FY) 2008–2013 and the strategic goals of ensuring safety and security through objective, risk-informed, understandable, and predictable oversight.

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During the pilot, the staff revised guidance documents to address lessons learned regarding issues such as tracking findings associated with inspections, tests, analyses, and acceptance criteria (ITAAC); the ITAAC Closure Verification Process (ICVP); and corrective action program effectiveness reviews. The staff plans to continue its use of the latest versions of the cROP pilot guidance documents while incorporating needed revisions into final guidance documents, which will be issued to support the full implementation of the new cROP on July 1, 2013.

Planned revisions to the cROP include changing applicable guidance such that findings will be designated as either construction findings or ITAAC findings, adding guidance to require inspectors to gather the necessary information regarding a finding's impact on the respective system or structure's design function before conducting the Significance and Enforcement Review Panel, clarifying guidance on the construction significance determination process (SDP), and increasing the time to consider findings with cross-cutting aspects in the performance assessment program. The staff also plans to reiterate the NRC's policy to hold licensees responsible for the acts of their contractors and vendors. After the new cROP programs are fully implemented, the staff will continue to routinely solicit input from the NRC's internal and external stakeholders to strengthen program effectiveness and implementation as part of the annual cROP self-assessment.

BACKGROUND:

In Staff Requirements Memorandum (SRM)-SECY-10-0140, "Options for Revising the Construction Reactor Oversight Process Assessment Program," dated March 21, 2011, the Commission approved the staff's recommendation to develop and pilot a construction assessment program that includes a regulatory framework, the use of a construction SDP to determine the significance of findings identified during the construction inspection program (CIP), and the use of a construction action matrix to determine the appropriate NRC response to findings. The Commission also directed the staff to provide the pilot results to the Advisory Committee for Reactor Safeguards (ACRS) for review and to inform the Commission of the pilot results and proposed changes, if any, to the program before implementation of the revised cROP. In addition, the Commission directed that in the annual cROP self-assessment, the staff should assess the construction inspection resource estimate for each construction unit and inform the estimate on the basis of experience in the field.

In SECY-12-0059, "Construction Reactor Oversight Process Self-Assessment for Calendar Year 2011," dated April 16, 2012, the staff reported to the Commission the results of its first annual cROP self-assessment. The CY 2011 self-assessment was conducted in accordance with draft Inspection Manual Chapter (IMC) 2522, "Construction Reactor Oversight Process Self-Assessment Program." The staff finalized IMC 2522 in CY 2012 and plans to issue a cROP self-assessment Commission paper before the Agency Action Review Meeting (AARM) each year going forward. The staff also revised Management Directive 8.14, "Agency Action Review Meeting," to incorporate guidelines for the participation of the Office of New Reactors (NRO) in the AARM and associated Commission briefings each year.

In SECY-11-0111, "Staff Progress in Resolving Issues Associated with Inspections, Tests, Analyses, and Acceptance Criteria," dated August 12, 2011, the staff proposed that ITAAC and construction experience (ConE) program updates be included with the annual cROP self-assessment report beginning in April 2012. The Commission subsequently approved this proposal. ITAAC and ConE program updates are included in Enclosures 1 and 2, respectively.

The cROP does not apply to NRC oversight of construction activities at Watts Bar Nuclear Plant (WBN), Unit 2. Staff guidance for the oversight of WBN Unit 2 is in IMC 2517, "Watts Bar Unit 2 Construction Inspection Program." The staff updated the Commission on the status of the WBN Unit 2 CIP in SECY-12-0103, "Sixth Report on the Status of Reactivation of Construction and Licensing for Watts Bar Nuclear Plant, Unit 2," dated July 24, 2012. The staff plans to incorporate lessons learned from the implementation of the WBN Unit 2 CIP into the cROP, as appropriate.

DISCUSSION:

As directed by the Commission, the staff developed a new cROP that consists of many of the same objective elements as those used in the Reactor Oversight Process (ROP), starting with a construction regulatory framework and including a construction significance determination process, a construction action matrix, and a similar enforcement approach to that which is in use in the ROP. Beginning on January 1, 2012, the staff conducted a 12-month pilot program for the new cROP in accordance with the guidance in memorandum, "Pilot Program for the Construction Reactor Oversight Process Assessment and Enforcement Programs," dated January 5, 2012 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML113120210). The pilot was conducted at Southern Nuclear Operating Company's (SNC's) Vogtle, Units 3 and 4, and South Carolina Electric and Gas Company's (SCE&G's) Virgil C. Summer, Units 2 and 3.

The staff conducted numerous activities during the cROP pilot and obtained data from many sources to ensure that it performed a comprehensive and robust self-assessment. The staff conducted four public meetings to solicit input on the effectiveness of the cROP. The staff issued an external survey in a *Federal Register* (FR) notice (77 FR 64565, "Solicitation of Feedback and Lessons-Learned from the Pilot of the Revised Construction Reactor Oversight Process," October 22, 2012), and used many other methods to maximize awareness of the survey's availability. The staff also conducted an internal survey through the NRC internal SharePoint site. The internal and external surveys were identical and requested responses to 13 questions specifically related to program attributes and success criteria listed in the January 5, 2012 cROP pilot memorandum. The NRC received two external survey responses, which are included in Enclosures 3 and 4, and 22 internal survey responses were received. In addition to analyzing the survey responses, the staff performed an evaluation of the pilot program using 11 metrics that were specifically developed for the pilot and 11 additional metrics listed in IMC 2522. The staff determined that all 22 performance metrics for the cROP met the established criteria.

The staff analyzed information gathered during the self-assessment to gauge cROP effectiveness and potential areas for improvement. Based on its analysis of the cROP pilot results, the NRC staff has concluded that the new construction assessment and enforcement approach is effective in ensuring that new reactors are built in accordance with an approved design. As discussed below, the staff identified areas for improvement during the pilot and revised program guidance documents, as necessary. In addition, the staff identified additional lessons-learned that will be incorporated into final program guidance documents before full implementation on July 1, 2013.

Resident inspectors, with assistance from other regional inspectors, inspected SNC's and SCE&G's construction activities during the pilot. Although the construction inspection program was fully implemented at Vogtle, Units 3 and 4; and Virgil C. Summer, Units 2 and 3, construction sites, and construction inspection hours significantly increased from CY 2011 to CY 2012, a meaningful analysis of the initial estimate of 35,000 inspection hours per unit under construction is not possible given the fact that construction was limited to activities associated with a very small number of ITAACs and only one ITAAC closure notification was received by the staff during the assessment period. The staff will continue to monitor expenditures of CIP resources closely and will revise the estimated inspection resources per unit based on experience gained in the field for CY 2013, as construction activities increase.

During the pilot, the inspection staff processed 13 findings through the construction SDP. In a review of the inspection findings, the staff identified the following lessons learned:

- The staff determined that ITAAC finding documentation was not as specific as is necessary to ensure clear communication of the nexus of the finding to the ITAAC acceptance criteria. Finding documentation guidance was revised to address this issue, and recent feedback indicates that the new approach to finding documentation is much clearer.
- During the ICVP, the staff plans to search the Construction Inspection Program Information Management System (CIPIMS) to ensure all documented findings associated with an ITAAC have been closed. Typically, the staff does not assign a tracking number to documented licensee-identified violations. However, to support the ICVP, the staff determined that it was necessary to track licensee-identified violations that are material to the acceptance criteria as an ITAAC. Program guidance was updated to include this requirement.
- Staff guidance to designate findings as programmatic findings, technical findings, ITAAC findings, or construction findings has proven to be confusing to both internal and external stakeholders. Therefore, the staff plans to revise applicable guidance such that findings will be designated as either construction findings or ITAAC findings.

The staff determined that the construction SDP provides a more predictable, repeatable, and objective significance determination than is achieved by the use of the traditional enforcement approach. However, the staff identified the following lessons learned that will be addressed before full implementation of the new construction enforcement and assessment programs:

- The staff determined that an update is necessary to the construction SDP to more closely align with the ROP SDPs in terms of interactions with the licensees on the safety significance of NRC compliance issues. A major aspect of the ROP SDP is the interaction that the regional senior reactor analysts have with the licensees to obtain the most accurate, yet timely, quantification of risk before the conduct of a Significance and Enforcement Review Panel. While the construction SDP does not employ senior reactor analysts or have quantified risk numbers, the staff must determine a finding's impact on the design function of the respective system or structure. The staff plans to add guidance to require inspectors to gather the necessary information regarding the

finding's impact on the respective system and structure's design function before conducting the Significance and Enforcement Review Panel.

- The staff plans to clearly designate the appropriate time in construction when a finding can be considered to have an impact on the respective system or structure's design function. For example, the staff will clarify whether or not a design control finding can be considered to have an impact on the design function of a respective system or structure prior to the actual installation of a portion of the system or structure.

The cROP pilot included a new assessment program that was closely modeled after the operating reactor assessment program. The staff transitioned to an annual assessment cycle that includes quarterly, mid-cycle, and end-of-cycle reviews. The staff developed a new construction action matrix with the same column designations as those in the ROP. The significance of findings is represented by green, white, yellow, or red, and this will determine the appropriate construction action matrix column for each unit being assessed. The staff has not deviated from the guidance in the construction action matrix. Virgil C. Summer, Units 2 and 3, and Vogtle, Units 3 and 4, have remained in the Licensee Response column of the construction action matrix throughout the pilot.

Implementation of the NRC's assessment program ensured that staff and licensees focused on performance issues commensurate with their safety significance. To improve the construction assessment program, the following lessons learned and guidance revisions were implemented during the pilot:

- Typically, the staff does not discuss specific inspection program findings in the mid-cycle or end-of-cycle assessment letters unless the findings are of greater than green significance. However, the staff determined that the results should be communicated in the assessment letters if they lead to a focus in specific areas during planned baseline inspections. Therefore, a brief discussion of inspection results has been added for consideration in the mid-cycle and end-of-cycle assessment letters. Specifically, for both Vogtle and Summer, the end-of-cycle assessment letters included a statement that the NRC plans to include design control and receipt inspection as focus areas during upcoming baseline inspections based on the assessment of inspection findings at the two construction sites.
- The licensee's corrective action program should be inspected shortly after the issuance of the combined license to determine whether it has been effectively developed and implemented. The staff found that the corrective action program effectiveness review inspection guidance in place at the start of the cROP pilot had an unintended consequence of delaying this determination. To ensure a more timely corrective action program effectiveness determination is made, the staff revised the program guidance to require that this determination be made as part of the mid-cycle and end-of-cycle performance assessment meetings. The new guidance was implemented for the 2012 end-of-cycle performance review meeting for both Vogtle and Summer.

Enforcement Guidance Memorandum (EGM) 11-006, "Enforcement Actions Related to the Construction Reactor Oversight Process," dated December 21, 2011 (ADAMS Accession No. ML11354A092), provided enforcement guidance for use during the cROP pilot program. The

guidance in this EGM will remain in effect until the NRC issues a revision to the Enforcement Policy using the principles in this EGM. In addition, the staff plans to develop a construction chapter for inclusion in the Enforcement Manual.

The external survey responses indicated that the cROP was meeting its goals, but the responses also included recommendations for program clarifications and areas for improvement. In particular, the external survey respondents stated that the AP1000 advanced pressurized-water reactor design authority is acting in the role of a vendor as it translates the approved design to specifications, drawings, procedures, and instructions for use during plant construction and should be held accountable for design errors as a vendor by the NRC. The staff has considered, but it does not agree with, this point of view. The staff issued combined licenses that authorize SNC and SCE&G to build and operate two AP1000 reactors at the Vogtle and Virgil C. Summer sites, respectively. The licensees entered into separate Engineering, Procurement, and Construction (EPC) agreements that contract construction activities to a consortium that consist of Westinghouse Electric Company, LLC (WEC) and Chicago Bridge and Iron (CB&I-formerly Shaw). The staff considers plant construction activities conducted by WEC and CB&I pursuant to the EPC agreements to be work conducted by contractors on behalf of the licensees. The NRC Enforcement Policy states that it is NRC policy to hold licensees, certificate holders, and applicants responsible for the acts of their contractors. The staff plans to clarify this position in IMC 2506, "Construction Reactor Oversight Process General Guidance and Basis Document," before full implementation of the new construction enforcement and assessment programs. Additionally the staff continues to communicate to licensees the findings from vendor inspections, as well as its expectations regarding the licensees' responsibilities for their oversight of suppliers and related ITAAC.

The staff recognizes that a positive safety culture during new reactor construction is paramount. An organization's culture should emphasize safety over competing goals and focus on the traits of a positive nuclear safety culture, articulated in the NRC's Safety Culture Policy Statement, during plant design, construction, and operation. The staff's current safety culture approach includes identifying findings with construction cross-cutting aspects, evaluating these findings against a predefined set of criteria to determine if a substantive cross-cutting issue exists, and conducting appropriate follow-up actions using a graded approach. During its assessment of licensee performance, the staff did not identify that a substantive cross-cutting issue exists at Vogtle, Units 3 and 4, or Virgil C. Summer, Units 2 and 3. A review of the identified findings revealed that cross-cutting aspects were not consistently assigned to inspection findings. While there would not have been a substantive cross-cutting issue at either site if cross-cutting aspects were consistently assigned to inspection findings, additional training was provided in this area at a Region II inspector counterpart meeting.

The staff plans to increase the timeframe for considering findings with cross-cutting aspects in the assessment process from 6 months to 12 months. The response to the external survey question regarding this revision suggested that the staff keep the timeframe for counting findings with cross-cutting aspects at 6 months. However, the staff has determined that the increased timeframe will provide for a more thorough analysis of licensee performance trends. This timeframe is consistent with the ROP approach to cross-cutting aspects and will be implemented for the 2013 mid-cycle performance review meetings. The staff intends to continue to work with industry and other stakeholders, to ensure that the long-term approach to new reactor construction safety culture remains aligned with the agency-level approach.

On February 7, 2013, during the 601st meeting of the ACRS, the staff provided the cROP pilot results. In a letter from J. Sam Armijo, ACRS Chairman, to Allison M. Macfarlane, NRC Chairman, "Construction Reactor Oversight Process (cROP) Program and the cROP Pilot Program Results," dated February 26, 2013 (ADAMS Accession No. ML13051A337), the ACRS concluded that the new cROP pilot program is a meaningful first step in assessing construction performance and that the objectives outlined in SRM-SECY-10-0140 are being adequately addressed.

During CY 2013, the staff will continue to solicit input from the NRC's internal and external stakeholders to further improve the cROP. To accomplish this, the staff plans to conduct periodic public meetings with interested external stakeholders to solicit input regarding cROP programs and discuss needed improvements.

COMMITMENT:

The staff plans to continue its use of the latest revision of pilot guidance documents throughout the year, and will incorporate needed revisions into final guidance documents to support full implementation of the revised cROP on July 1, 2013.

CONCLUSION:

Based on its analysis of the cROP pilot results, the staff concludes that the new construction enforcement and assessment approach employing a regulatory structure, construction significance determination process, and construction action matrix is effective in ensuring that new reactors are built in accordance with an approved design. Before full implementation of the new assessment and enforcement programs on July 1, 2013, the staff plans to issue final program guidance documents that include additional lessons learned, such as clarifying construction SDP guidance and increasing the time to consider findings with cross-cutting aspects in the performance assessment program, and the importance of developing and maintaining a positive safety culture as articulated in the NRC Safety Culture Policy Statement.

The self-assessment results for CY 2012 show that the cROP provided effective oversight by meeting program goals and achieving intended outcomes. The cROP was successful in being objective, risk-informed, understandable, and predictable. The cROP also ensured openness and effectiveness in support of the agency's mission and its strategic goals of safety and security. During CY 2012, the staff continued to identify opportunities to strengthen program effectiveness and implementation. The staff recognizes the value of continuous improvement and, therefore, will continue to actively solicit stakeholder feedback to apply lessons learned and improve various aspects of the cROP.

COORDINATION:

The Office of the General Counsel has reviewed this Commission paper and has no legal objection. The Office of the Chief Financial Officer has reviewed this Commission paper and determined that there is no financial impact.

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Enclosures:

1. Staff Progress in Resolving Issues
Associated with ITAAC
2. Construction Experience Update
3. 2012 cROP External Survey Response 1
4. 2012 cROP External Survey Response 2

Staff Progress in Resolving Issues Associated with Inspections, Tests, Analyses, and Acceptance Criteria

The staff continues to implement and refine the processes and guidance developed for inspections, tests, analyses, and acceptance criteria (ITAAC) closure. Since the last ITAAC update in SECY-12-0059, "Construction Reactor Oversight Process Self-Assessment for Calendar Year 2011," dated April 16, 2012, the staff facilitated nine public workshops to solicit input, exchange views, and reach consensus on issues involving industry guidance on ITAAC closure, develop additional ITAAC closure notification (ICN) examples for use in guidance, and other construction inspection program topics. Members of the public, the Nuclear Energy Institute (NEI), industry representatives, and other external stakeholders participated in these public workshops. Staff is anticipating the first significant population of ICNs to be submitted over the next year for the Vogtle and Virgil C. Summer new plant construction sites as more ITAAC are completed.

First ITAAC Closure Notification Received

The first ICN was submitted on November 6, 2012, by Southern Nuclear Operating Company for the backfill compaction under the Seismic Category 1 structures. This submittal is publically available at Agencywide Documents Access and Management System (ADAMS) Accession No. ML12328A160. The ICN was reviewed for acceptance by the U.S. Nuclear Regulatory Commission's (NRC's) Office of New Reactors (NRO) staff, in accordance with the new ITAAC Closure Verification Process Office Instruction discussed below. The staff completed its review of the ICN and determined that it did not contain sufficient information to demonstrate that the ITAAC had been successfully completed by the licensee, as required by Title 10 of the *Code of Federal Regulations* (10 CFR) 52.99(c)(1). On January 8, 2013, the staff issued a notice of insufficient information (ADAMS Accession No. ML12356A469) that provided feedback on the level of detail contained in the ICN and explained what additional information is needed. On February 1, 2013, Southern Nuclear Operating Company resubmitted the ICN, which included the additional information (ADAMS Accession No. ML13032A592).

ITAAC Maintenance Rulemaking and Regulatory Guide 1.215

The staff simultaneously published the final ITAAC maintenance rulemaking (*Federal Register* (FR) notice 77 FR 51880, and ADAMS Accession No. ML12143A161) and the associated revision to Regulatory Guide (RG) 1.215, "Guidance for ITAAC Closure under 10 CFR Part 52" (ADAMS Accession No. ML112580018) in August 2012. The revision to RG 1.215 endorses the methodologies described in the industry guidance document NEI 08-01, "Industry Guidance for the ITAAC Closure Process under 10 CFR Part 52," Revision 4, issued July 2010. The final rule and RG 1.215 revision define additional ITAAC reporting requirements during construction.

Continuing Enhancements to Industry Guidance on ITAAC Closure

Since the last update on ITAAC process development activities, staff and industry have been proactive in refining industry guidance by discussing issues and developments during the public ITAAC workshop series. For example, the staff continues to work with industry and public stakeholders to develop additional ITAAC closure notification examples. The resulting set of closure notification examples to be included in the next revision of NEI 08-01 will cover approximately 80 percent of the Westinghouse AP1000 ITAAC, giving industry clearer direction for preparing ITAAC closure notification submittals. The staff will continue to refine guidance, as

needed, as experience is acquired through performance of ITAAC and ICN submittals commence.

ITAAC Process Development Documentation

The staff issued Office Instruction NRO-REG-102, "Prioritization of Inspections, Tests, Analyses, and Acceptance Criteria for Inspection" on November 6, 2012 (ADAMS Accession No. ML12111A186) to provide the instructions and associated methodology, to prioritize (i.e., "target") NRC inspection resources for performing ITAAC inspections per Inspection Manual Chapter 2503, "Construction Inspection Program: Inspections of Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) Related Work." The staff also issued Office Instruction NRO-REG-103, "Inspections, Tests, Analyses, and Acceptance Criteria Closure Verification Process" (Accession No. ML12088A040) on November 13, 2012, to provide guidance for verifying the completion of ITAAC in accordance with the requirements of 10 CFR 52, "Licenses, Certifications, and Approvals for Nuclear Power Plants." These office instructions define staff roles and responsibilities, and clearly outline each process.

Office of the Inspector General Audit Report

The Office of the Inspector General (OIG) completed its audit of the ITAAC process, and subsequently issued its ITAAC audit report, dated July 12, 2012 (ADAMS Accession No. ML12194A434). The report includes 10 recommendations, and the staff addressed each in its response memorandum, dated August 16, 2012 (ADAMS Accession No. ML12212A177). In an October 4, 2012, memorandum to the staff (ADAMS Accession No. ML12279A263), the OIG requested that the NRC issue a recommendation status update. The staff issued the status update for all 10 recommendations on January 31, 2013 (ADAMS Accession No. ML13002A423). This update listed nine of the recommendations as resolved and provided information related to the unresolved recommendation.

Construction Experience Update

The staff continued to screen daily event issues (through the Operating Experience Clearinghouse meetings) to ensure that all relevant construction experience (ConE), both domestic and international, was evaluated for applicability to the U.S. Nuclear Regulatory Commission's new reactor licensing, vendor, and construction inspection programs. The ConE program supported the issuance of 4 information notices, 11 operating experience communications on construction related insights and lessons-learned, and 11 ConE issues for resolution of events requiring further technical evaluation. Furthermore, the staff is incorporating lessons-learned from the ConE Program's event evaluations and reviews into NRC programs. For example, the staff is revising two inspection procedures and is developing new ITAAC for the advanced boiling water reactor turbine building seismic design. In addition, one of these evaluations resulted in the change to the corrective action program effectiveness review. Another evaluation resulted in a modification to the assessment program that authorizes the staff to include a discussion in the mid-cycle and end-of-cycle assessment letters of inspection program results that lead to a focus in specific areas during planned baseline inspections.

In addition, the staff exchanged ConE information with international partners and domestically with the Institute of Nuclear Power Operations. Through these efforts, insights were offered to internal and external stakeholders on the design, construction, and operation of new reactors. The staff will continue to focus on the timely evaluation and dissemination of domestic and international construction experience.

The staff continued the implementation of the center of expertise between the Office of Nuclear Reactor Regulation and the Office of New Reactors for operating and construction experience programs. The purpose of this effort is to combine ConE program activities with those of the operating experience (OpE) program to improve the overall efficiency and effectiveness of both programs, and to ensure that the technical consistency between the two program offices is maintained. In support of this effort, the staff combined the OpE and ConE office instructions, revised an associated Inspection Manual Chapter (IMC), and submitted them for concurrence. In addition, OpE and ConE staff transitioned to joint review and evaluation of applicable OpE and ConE events and modified the Reactor Operating Events database accordingly. The staff will continue to focus on the implementation of the center of expertise in 2013.

2012 Construction Reactor Oversight Process (cROP) Survey Input from Southern Company December 2012

Thank you for participating in the survey. Your feedback is important to us and will be used in the cROP self-assessment program to evaluate the effectiveness of the cROP pilot program. There are 14 questions in the survey and places for written comments. We seek constructive feedback to improve the program, and your comments with specific examples are welcomed. If you are filling out a hard copy, please use additional sheets for comments if needed.

Because your comments will not be edited to remove any identifying or contact information, the NRC cautions you against including any information in your submission that you do not want to be publicly disclosed. If you cannot fill/save the pdf file, please fill out the Word version of the survey <http://www.nrc.gov/reactors/new-reactors/oversight/crop/con-pilot.html> or print out a hard copy. The survey ends on December 31, 2012.

Instruction: For each of the statements, please indicate if it's **reasonably** true. If you don't have enough knowledge/experience, please select U/A (unable to answer).

1. Are inspection findings being processed in a timely manner?

Yes No U/A

Can you recommend any improvements? :

- a) *The definition of an Unresolved Item is much broader for the pilot inspection procedure (compare IMC 0613 with 0613P). This has resulted delays in processing of inspection findings in a timely manner.*

- b) *A large number of inspection findings are being identified on the last day of an inspection that had not been previously identified as issues of concern. This leads to additional URIs at the exit.*

- c) *Construction cross-cutting components and aspects are not always being debriefed at NRC exits. (Note that these are also confusingly called construction safety focus components and aspects in NRC guidance (IMC 0613P) and in inspection reports).*

2. Can inspection findings be properly assigned a safety significance rating in accordance with established guidance?

Yes No U/A

Can you recommend any improvements? :

3. Can the assessment process be performed within the scheduled time?

Yes No U/A

Can you recommend any improvements? :

4. Can the construction action matrix be used to take appropriate NRC actions in response to indications of licensee performance?

Yes No U/A

Can you recommend any improvements? :

5. Do the inspection findings provide an adequate indication of licensee performance?

Yes No U/A

Can you recommend any improvements? :

The responsibility of licensee contractors in the design and construction of new plants is different than for operating plants and the NRC may wish to reconsider their current definitions. For example, the design authority for an approved design is considered a licensee contractor by the NRC and thus the licensee is held responsible for design errors by the design authority. In actuality, the design authority is providing the licensee with a pre-approved design and is acting in the role of a vendor and should be held accountable for design errors as a vendor by the NRC. Examples:

- a) NOV 05200025/2012009-01, " Inadequate Design Control of Software Development" was a WEC design control issue.*
- b) NOV 05200025/2012004-01, " Criterion III violation, Stud spacing and conduit spacing" was a WEC design issue.*
- c) NOV 05200025/2012004-02, " Criterion VII violation, source/receipt inspection" was a problem with Shaw Source Inspection.*

These are examples of the process not letting the Finding go to the organization that has the issue.

6. Does the process provide a reasonable assurance that the cornerstone objectives are being met and the plant is being constructed in accordance with its design?

Yes No U/A

Can you recommend any improvements? :

7. Are the mid-cycle and end-of-cycle assessments effective in communicating licensee performance?

Yes No U/A

Can you recommend any improvements? :

8. Does the use of the new assessment program and action matrix result in more consistent and predictable NRC action decisions?

Yes No U/A

Can you recommend any improvements? :

9. Are enforcement actions taken in a manner consistent with the assessment of inspection findings by the risk characterization guidance?

Yes No U/A

Can you recommend any improvements? :

10. Are the assessment data and results readily available to the public?

Yes No U/A

Can you recommend any improvements? :

11. Are there any lessons learned regarding Corrective Action Program implementation and NRC verification?

Yes No U/A

Can you recommend any improvements? :

It is presumed that this question refers to NRC evaluation and acceptance of the CAP.

a) Although criteria have been provided in IMC 2505P as to what constitutes an acceptable CAP, the guidance is lacking in how and when the NRC will make this determination.

- b) *It is unclear as to what level of degradation of CAP (as defined in 2505P) would result in a CAP being disqualified and how the NRC would make this determination.*
- c) *CAP inspections for construction are conducted on a more frequent basis than they are for operating plants. Why is the inspection frequency greater for a construction site than an operating plant where the risk related to CAP inadequacies is potentially greater?*

12. The current timeframe for counting findings and baseline program cross-cutting aspects in the assessment program is 6 months. Is this sufficient time to effectively evaluate licensee performance?

Yes No U/A

Can you recommend any improvements? :

This timeframe is correct for the amount of inspections hours being invested at each site.

13. Has there been sufficient activity during the pilot to end the pilot and fully implement the new construction assessment and enforcement approaches?

Yes No U/A

If yes, can you recommend any improvements to the construction and assessment approaches?
If no, how long should the pilot continue and what specifically would be gained by continuing the pilot?

14. Please provide any additional feedback you would like to share regarding the construction reactor oversight process that was not covered in the questions listed above.

Other:

In describing Notices of Noncompliance, vendor inspection reports have been using the term, "if not corrected, may impact the ability of NRC licensees to meet applicable Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC)." Use of this term is unclear—either the ITAAC is impacted or it is not. This needs to be clarified for the industry and public. It is our understanding that if an issue affects an ITAAC, it will be an ITAAC finding and the inspection report will specifically state the ITAAC finding and justification for impact to the acceptance criteria.

The NRC should continue to stress in written communications and meetings that cROP findings are construction findings and that there is no hazard to the health or safety of the public from the findings, regardless of the identified safety significance.

Please email survey to cROPFeedback.Resource@nrc.gov, or mail a hard copy (with docket ID NRC-2011-0270) to:

**Cindy Bladey Chief, Rules, Announcements, and Directives Branch Office of Administration
(Mail Stop: TWB-05-B01M) U.S. Nuclear Regulatory Commission Washington, DC
20555_0001**

If you submit this survey by email, you will receive an acknowledge email. If you do not receive such email in two business days, please contact us at cROPFeedback.Resource@nrc.gov. Please save a copy of the filled survey for your record.

Paperwork Reduction Act This survey contains information collections that are subject to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.). These information collections were approved by the Office of Management and Budget, approval number 3150-0197, which expires August 31, 2012.

The burden to the public for these voluntary information collections is estimated to be 45 minutes per response. The information gathered will be used in the NRC's self-assessment of the reactor oversight process. Send comments regarding this burden estimate to the Information Services Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by Internet electronic mail to INFCOLLECTS.RESOURCE@NRC.GOV; and to the Desk Officer, Chad Whiteman, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0197), Office of Management and Budget, Washington, DC 20503.

Public Protection Notification The NRC may not conduct or sponsor, and a person is not required to respond to, a request for information or an information collection requirement unless the requesting document displays a currently valid OMB control number.

2012 Construction Reactor Oversight Process (cROP) Survey

Thank you for participating in the survey. Your feedback is important to us and will be used in the cROP self-assessment program to evaluate the effectiveness of the cROP pilot program. There are 14 questions in the survey and places for written comments. We seek constructive feedback to improve the program, and your comments with specific examples are welcomed. If you are filling out a hard copy, please use additional sheets for comments if needed.

Because your comments will not be edited to remove any identifying or contact information, the NRC cautions you against including any information in your submission that you do not want to be publicly disclosed. If you cannot fill/save the pdf file, please fill out the Word version of the survey <http://www.nrc.gov/reactors/new-reactors/oversight/crop/con-pilot.html> or print out a hard copy. The survey ends on December 31, 2012.

Instruction: For each of the statements, please indicate if it's **reasonably** true. If you don't have enough knowledge/experience, please select U/A (unable to answer).

1. Are inspection findings being processed in a timely manner?

Yes No U/A

Can you recommend any improvements? :

(1) The definition of an Unresolved Item is much broader for the pilot inspection procedure (compare IMC 0613 with 0613P). This has resulted in delays in processing of inspection findings in a timely manner.

(2) A large number of inspection findings are being identified on the last day of inspections that had not been previously identified as issues of concern.

(3) Construction cross-cutting components and aspects are not always being debriefed at NRC exits. (Note these are also confusingly called both "construction cross-cutting components and aspects" and "construction safety focus components and aspects" in NRC guidance (IMC 0613P) and in inspection reports).

2. Can inspection findings be properly assigned a safety significance rating in accordance with established guidance?

Yes No U/A

Can you recommend any improvements? :

3. Can the assessment process be performed within the scheduled time?

Yes No U/A

Can you recommend any improvements? :

4. Can the construction action matrix be used to take appropriate NRC actions in response to indications of licensee performance?

Yes No U/A

Can you recommend any improvements? :

5. Do the inspection findings provide an adequate indication of licensee performance?

Yes No U/A

Can you recommend any improvements? :

The responsibility of licensee contractors in the design and construction of new plants is different than for operating plants and the NRC may wish to reconsider their current definitions. For example, the design authority for an approved design is considered a licensee contractor by the NRC and thus the licensee is held responsible for design errors by the design authority. In actuality, the design authority is providing the licensee with a pre-approved design and is acting in the role of a vendor and should be held accountable for design errors as a vendor by the NRC. Unresolved Item (URI) 05200027/2012-004-002 is an example of this type of situation.

6. Does the process provide a reasonable assurance that the cornerstone objectives are being met and the plant is being constructed in accordance with its design?

Yes No U/A

Can you recommend any improvements? :

7. Are the mid-cycle and end-of-cycle assessments effective in communicating licensee performance?

Yes No U/A

Can you recommend any improvements? :

There were improvement opportunities in the last public meeting. Specifically:

(1) The presentation was at a high, almost expert, level with many undefined terms and acronyms. This resulted in some confusion and additional questions.

(2) An example finding was used to demonstrate effectiveness of the program, yet at no time was it mentioned that it was a finding from another site and not a finding for the site at which the public meeting was being conducted.

(3) The presenters seemed somewhat poorly prepared to respond to questions.

(4) The meeting notification methods could be improved, as some local officials were unaware of the meeting until the day of the meeting.

8. Does the use of the new assessment program and action matrix result in more consistent and predictable NRC action decisions?

Yes No U/A

Can you recommend any improvements? :

9. Are enforcement actions taken in a manner consistent with the assessment of inspection findings by the risk characterization guidance?

Yes No U/A

Can you recommend any improvements? :

10. Are the assessment data and results readily available to the public?

Yes No U/A

Can you recommend any improvements? :

11. Are there any lessons learned regarding Corrective Action Program implementation and NRC verification?

Yes No U/A

Can you recommend any improvements? :

It is presumed that this question refers to NRC evaluation and acceptance of the CAP.

(1) Although criteria have been provided in IMC 2505P as to what constitutes an acceptable CAP, the guidance is lacking in how and when the NRC will make this determination.

(2) It is unclear as to what level of degradation of CAP (as mentioned in 2505P) would result in a CAP being disqualified and how the NRC would make this determination.

(3) CAP inspections for construction are conducted on a more frequent basis than they are for operating plants. Why is the inspection frequency greater for a construction site than an operating plant where the risk related to CAP inadequacies is potentially greater?

12. The current timeframe for counting findings and baseline program cross-cutting aspects in the assessment program is 6 months. Is this sufficient time to effectively evaluate licensee performance?

Yes No U/A

Can you recommend any improvements? :

13. Has there been sufficient activity during the pilot to end the pilot and fully implement the new construction assessment and enforcement approaches?

Yes No U/A

If yes, can you recommend any improvements to the construction and assessment approaches? If no, how long should the pilot continue and what specifically would be gained by continuing the pilot?

14. Please provide any additional feedback you would like to share regarding the construction reactor oversight process that was not covered in the questions listed above.

Other:

The NRC should continue to stress in written communications and meetings that cROP findings are construction findings related to building the facility in accordance with the design and the license and that there is no hazard to the health or safety of the public from the findings, regardless of the identified safety significance.

In describing Notices of Noncompliance, vendor inspection reports have been using the term, "if not corrected, may impact the ability of NRC licensees to meet applicable Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC)." Use of this term is unclear—either the ITAAC is

impacted or it is not. This needs to be clarified for the industry and public. It is our understanding that if an issue affects an ITAAC, it will be an ITAAC finding and the inspection report will specifically state the ITAAC finding and justification for impact to the acceptance criteria.

Please email survey to cROPFeedback.Resource@nrc.gov, or mail a hard copy (with docket ID NRC-2011-0270) to:

**Cindy Bladey Chief, Rules, Announcements, and Directives Branch Office of Administration
(Mail Stop: TWB-05-B01M) U.S. Nuclear Regulatory Commission Washington, DC
20555_0001**

If you submit this survey by email, you will receive an acknowledge email. If you do not receive such email in two business days, please contact us at cROPFeedback.Resource@nrc.gov. Please save a copy of the filled survey for your record.

Paperwork Reduction Act This survey contains information collections that are subject to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.). These information collections were approved by the Office of Management and Budget, approval number 3150-0197, which expires August 31, 2012.

The burden to the public for these voluntary information collections is estimated to be 45 minutes per response. The information gathered will be used in the NRC's self-assessment of the reactor oversight process. Send comments regarding this burden estimate to the Information Services Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by Internet electronic mail to INFCOLLECTS.RESOURCE@NRC.GOV; and to the Desk Officer, Chad Whiteman, Office of Information and Regulatory Affairs, NEOF-10202, (3150-0197), Office of Management and Budget, Washington, DC 20503.

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