February 11, 2015

MEMORANDUM TO: Michael C. Cheok, Director Division of Construction, Inspection, and Operational Programs Office of New Reactors

- FROM: James D. Beardsley, Chief /RA/ Construction Inspection Program Branch Division of Construction, Inspection, and Operational Programs Office of New Reactors
- SUBJECT: CONSTRUCTION REACTOR OVERSIGHT PROCESS ANNUAL PERFORMANCE METRIC REPORT FOR CALENDAR YEAR 2014

The Construction Reactor Oversight Process (cROP) self-assessment program evaluates the effectiveness of the cROP through its success in meeting pre-established goals and intended outcomes. The staff evaluates performance metrics to determine the success of the cROP in meeting these goals and outcomes. The staff performed the Calendar Year (CY) 2014 performance metric analysis in accordance with Inspection Manual Chapter (IMC) 2522, "Construction Reactor Oversight Process Self-Assessment Program."

IMC 2522 describes performance metrics associated with each of four cROP program areas: the inspection program (IP), significance determination process (SDP), assessment (AS) program, and inspection, test, analysis, and acceptance criteria program (ITA). The staff designates the program-specific metrics as the IP, SDP, AS, and ITA metrics, respectively. The staff also monitors and analyzes metrics of a more general nature, which are designated as the O metrics, to assess the overall performance of the cROP. The staff uses the metric analyses as an input to the annual Commission paper on cROP self-assessment.

The results of the staff's CY 2014 analysis are enclosed. The staff found that the cROP met 11 out of 11 performance metrics by meeting the criteria defined in Appendix A, "Construction Reactor Oversight Process Self-Assessment Metrics," to IMC 2522.

Enclosure: As stated

CONTACT: Thomas J. Kozak, NRO/DCIP/CIPB 301-415-6892

Michael C. Cheok, Director Division of Construction, Inspection, and Operational Programs Office of New Reactors
Office of New Reactors

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OFFICE	NRO/DCIP/CIPB	BC:NRO/DCIP/CIPB
NAME	TKozak	JBeardsley
DATE	1/28/15	2/11/15

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# CONSTRUCTION REACTOR OVERSIGHT PROCESS CY 2014 SELF-ASSESSMENT METRICS

### I. INSPECTION PROGRAM METRICS

### IP-1 Inspection Results timeliness

- **Definition:** Audit 100% of issued inspection reports in relation to the inspection program timeliness requirements.
- **Criteria:** Expect 90% of inspection report timelines requirements met.

Lead: NRO/DCIP (CIPB)

Goals Supported: Objective, Risk-Informed, Predictable, Effective, Open

- **NOTE:** For inspections not conducted by a resident inspector, inspection completion is normally defined as the day of the final exit meeting. For resident inspector and integrated inspection reports, inspection completion is normally defined as the last day covered by the inspection report.
- Analysis: 100% of the inspection timeliness requirements were met. During CY 2014, the NRC issued 12 inspection reports for Vogtle Units 3 and 4 and Summer Units 2 and 3. Region II exceeded the timeliness goal of 90% of inspection report timelines requirements met, as all inspection report were issued on time.

### Metric Criterion Met: Yes

- IP-2 NRC's Response to Technical Assistance Request (TAR) Is Timely and Effective
- **Definition:** Audit 100% of TARs completed in the assessment year to ensure that timely assistance was provided to the inspection program.
- **Criteria:** Expect 90 % of TARs to be closed within program timeliness goals outlined in NRO Office Instruction NRO-COM-108.

Lead: NRO/DCIP (CIPB)

- Goals Supported: Objective, Risk-Informed, Understandable, Open, Effective
- Analysis: 100% of the TARs were closed within program timeliness goals. 3 TARs were submitted in CY 2014. Of these, 1 was closed (resolved) and two remain open. The TARs due dates for those that remain open have not been exceeded.

Metric Criterion Met: Yes

II. SIGNIFICANCE DETERMINATION PROCESS METRICS

## SDP-1 SDP Results Are Predictable and Repeatable and Focus Stakeholder Attention on Significant Construction Safety Issues

**Definition:** Annually, audit a representative sample (up to four) of inspection findings against the standard criteria set forth in IMC 2519, "Construction Significance Determination Process," and its appendices. To the extent available, samples should include potentially greater-than-green findings that were presented to the Significance Determination Process/Enforcement Review Panel (SERP).

Findings should contain adequate detail to enable an independent auditor to trace through the available documentation and reach the same significance color characterization. Any SDP outcomes determined to be non-conservative will be evaluated and appropriate programmatic changes will be implemented.

- **Criteria:** The target goal is that at least 90% are determined to be predictable and repeatable.
- Lead: NRO/DCIP (CIPB)
- Goals Supported: Risk-Informed, Predictable
- **Analysis:** 100% of findings issued in CY 2014 were determined to be predictable and repeatable. All issued findings were audited against the guidance in IMC 2519 and its appendices. All findings contained adequate detail to enable an independent auditor to trace through the available documentation and reach the same significance color characterization.

Metric Criterion Met: Yes

# SDP-2 SDP Results in an Appropriate Regulatory Response to Performance Issues, Outcomes Are Risk-Informed and Accepted by Stakeholders

- **Definition:** Track the total number of appeals of final SDP results.
- **Criteria:** Expect zero appeals of SDP significance that result in a final determination being overturned. All successful appeals will be assessed to determine causal factors and to recommend process improvements.
- Lead: Regions, NRO/DCIP (CIPB)
- Goals Supported: Risk-Informed, Objective, Predictable, Understandable, Open
- **Analysis:** In CY 2014, there were no appeals of SDP significance that resulted in a final determination being overturned.

Metric Criterion Met: Yes

## III. ASSESSMENT PROGRAM METRICS

## AS-1 Actions Are Determined by Quantifiable Assessment Inputs (i.e., SDP Results) and are Commensurate with the Risk of the Issue and Overall Quality of Construction

**Definition**: Audit all assessment-related letters and count the number of deviations from the Construction Action Matrix. Evaluate the causes for these deviations and identify changes to the cROP, if any, to improve the guidance documents.

**Criteria:** Expect zero deviations.

Lead: NRO/DCIP (CIPB)

Analysis: There were no deviations from the Construction Action Matrix in CY 2014.

Metric Criterion Met: Yes

Goals Supported: Objective, Risk-Informed, Open

# AS-2 Assessment Program Results (Assessment Reviews, Assessment Letters and Public Meetings) Are Completed in a Timely Manner

- **Definition**: Track the number of instances in which the timeliness goals stipulated in IMC 2505, "Periodic Assessment of Construction Inspection Program Results," were not met for: (1) the conduct of quarterly, mid-cycle, and end-of-cycle reviews; (2) the issuance of assessment letters; and (3) the conduct of public meetings.
- **Criteria:** Expect 90% timeliness goals for the assessment process to be met.
- Lead: Region, NRO/DCIP (CIPB)
- **Goals Supported:** Effective, Open, Predictable
- Analysis: 100% of the timeliness goals for the assessment process were met in CY 2014. In CY 2014, all timeliness goals were met for (1) the conduct of quarterly, midcycle, and end-of-cycle reviews; (2) the issuance of assessment letters; and (3) the conduct of public meetings.

# Metric Criterion Met: Yes

### AS-3 NRC's Response to Performance Issues Is Timely

- **Definition**: Count the number of instances where a finding was held open for more than six months due to the need to complete the supplemental inspection.
- **Criteria:** Expect there to be no instances where a supplemental inspection has not been completed within six months for which the licensee had indicated they were prepared for the inspection.
- Lead: Region, NRO/DCIP (CIPB)

Goals Supported: Effective, Predictable

Analysis: In CY 2014, there were no greater than green findings; therefore, no findings were held open greater than six months due to the need to conduct a supplemental inspection.

Metric Criterion Met: Yes

# AS-4 Degradations in Quality of Construction are Gradual and Allow Adequate Agency Engagement of the Licensees

- **Definition**: Track the number of instances each quarter in which construction sites move more than one column to the right in the Construction Action Matrix (as indicated on the Construction Action Matrix Summary).
- **Criteria:** Expect no instances in which performance issues causes a construction site to move more than one column to the right in the Construction Action Matrix.

Lead: NRO/DCIP (CIPB)

Goals Supported: Risk-Informed, Predictable

**Analysis:** No construction sites/units moved more than one column to the right in the Construction Action Matrix during a quarter in CY 2014.

## Metric Criterion Met: Yes

IV. ITAAC METRICS

- ITA-1 Analysis of ITAAC Family Inspection Completion
- **Definition:** Audit inspections completed for each family to ensure high level procedure steps have been completed to ensure proper closure of an ITAAC family.
- **Criteria:** Expect 100% of the high level steps completed.

Lead: NRO/DCIP (IGCB, CIPB)

- **Goals Supported:** Effective, Predictable
- Analysis: In CY 2014, the scheduled inspections were completed for one ITAAC family (01C) at Vogtle Units 3 and 4. There are no targeted ITAAC in ITAAC family 01C at Summer Units 2 and 3. While all of the high level steps were not completed during the inspections conducted to review the targeted ITAAC in family 01C, there are additional inspections planned using the row and column procedures that were used for this family. Therefore, the procedure high level steps may be completed during these inspections and this metric is met.

### Metric Criterion Met: Yes

# ITA-2 Analysis of ITAAC Closure Letter Effectiveness

- **Definition:** Annually, review a sample of ITAAC Closure letters to determine the program's effectiveness and contribution to the overall effectiveness of the inspection program. The objectives of the review are: (1) to determine if ITAAC closure letters reviewed are being completed in a timely manner, (2) to determine if effective communication is being achieved during the process between NRC, Licensees, and the Public, and (3) to ensure ITAAC closure letters reviews are completed properly and effectively. The focus of this effort is to adjust the closure process and existing resources to improve the effectiveness of the ITAAC Closure program in identifying significant deficiencies.
- **Criteria:** Expect no ITAAC closure letters to be reopened because of a deficiency in the process that was within the NRC's ability to identify before closure verification. Summarize and evaluate the ITAAC closure letter reviews and propose program adjustments as necessary to address noted inefficiencies.
- Lead: NRO/DCIP (IGCB)
- Goals Supported: Effective, Risk-Informed
- Analysis: The staff received 27 ITAAC closure notifications in CY 2014. No ITAAC closure notifications were verified as complete and then reopened by the staff. No adjustments to the closure process or existing resources are recommended to improve the effectiveness of the ITAAC Closure program in identifying significant deficiencies.

### Metric Criterion Met: Yes

V. OVERALL cROP METRICS

# O-1 Analysis of NRC's Responses to Significant Events

- **Definition:** Review reports from incident investigation teams (IITs) and augmented inspection teams (AITs) to collect lessons learned regarding cROP programmatic deficiencies (i.e., did the baseline inspection program inspect this area? did the SDP accurately characterize resultant findings?). IITs already have the provision to determine NRC program deficiencies. AITs will be reviewed by NRO/DCIP (CIPB) to identify any weaknesses.
- **Criteria:** Expect no major programmatic voids.

Lead: NRO/DCIP (CIPB)

**Goals Supported:** Effective, Predictable

Analysis: There were no IITs or AITs conducted at the construction sites in CY 2014.

### Metric Criterion Met: Yes