

CONSTRUCTION REACTOR OVERSIGHT PROCESS (cROP) ASSESSMENT AND ENFORCEMENT PROGRAMS PILOT

1.1 Purpose

The purpose of the cROP assessment and enforcement program pilot is to apply the proposed new construction assessment and enforcement programs described in Commission paper SECY-10-0140 to commercial reactor facilities under construction where the Nuclear Regulatory Commission's (NRC's) annual assessment program described in Inspection Manual Chapter (IMC) 2505, "Periodic Assessment of Construction Inspection Program Results," has been or will be implemented. Lessons learned from this pilot effort will allow the programs and procedures to be refined and revised as necessary prior to full implementation.

1.2 Scope

The pilot program will be a 12-month effort beginning on January 1, 2012. Provided the pilot is successful and major changes to the assessment and enforcement program are not required, the new assessment and enforcement programs will continue to be implemented in the transition period from January 1, 2013, until the new program is fully implemented. If significant changes are needed to the revised program to support its' continued use, then the oversight programs in use prior to the pilot, as described in IMCs 0613 and 2505, will be re-implemented. The pilot will be conducted at Vogtle Units 3 and 4. The pilot will also be conducted at any additional plants for which an Limited Work Authorization (LWA) and/or a Combined License (COL) has been issued, the NRC has implemented (1) pre-construction inspections described in IMC 2502, "Construction Inspection Program: Pre-Combined License (Pre-COL) Phase," (2) inspections described in IMC 2503, "Construction Inspection Program: Inspections of Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC)," or (3) inspections described in IMC 2504, "Construction Inspection Program - Inspection of Construction and Operational Programs," and there is sufficient activity occurring for any assessment to be meaningful. The pilot plants will be inspected by the NRC under the risk-informed baseline construction inspection program, have the significance of findings determined using the construction significance determination process, be assessed under the new assessment program, and have enforcement actions taken in accordance with new enforcement guidance. Each unit at a construction site will be assessed separately based on the findings that are associated with the respective unit (note: similar to the ROP, findings can be applicable to both units).

1.3 Objectives

The objectives of the pilot program are to (1) exercise the new construction assessment and enforcement programs to evaluate whether or not they can function efficiently, (2) identify program and procedure problems and make appropriate changes prior to full implementation, and (3) to the extent possible, evaluate the effectiveness of the new programs. The pilot program will also measure the agency and licensee resources required to implement the new assessment and enforcement processes in order to quantify the resource changes. The results of the pilot program will be evaluated against preestablished success criteria.

Full implementation of the new assessment and enforcement programs will commence pending successful completion of the pilot program, as measured against these success criteria.

Specific objectives of the pilot program are as follows:

1. Perform an exercise of the new assessment and enforcement programs to evaluate whether they can function efficiently, including:
 - Evaluation of inspection results and determination of appropriate actions through the assessment program
 - Implementation of a revised enforcement program that is integrated with the new assessment program
 - NRC time reporting and information management systems
2. Identify problems with programs and implementing procedures and make appropriate changes to support full implementation in 2013, including:
 - Issuing new or revised inspection program documentation (e.g., IMCs 0613, 2505, 2506, 2519, etc.) prior to full implementation
 - Final enforcement policy revisions or Enforcement Guidance Memorandum (EGM) 11-006 in place by full implementation
 - NRC time reporting and information management systems changes identified and accomplished or planned by full implementation
3. To the extent possible, evaluate the effectiveness of the new assessment and enforcement programs to determine whether:
 - The baseline inspection program provides reasonable assurance that the cornerstone objectives are being met
 - The new enforcement policy results in enforcement actions for issues that are consistent with the safety significance resulting from the assessment program
 - The use of the new assessment program and action matrix results in more consistent and predictable NRC action decisions for plants with varying levels of performance
4. Evaluate the impact on NRC and licensee resources required to implement the new assessment and enforcement programs.

1.4 Pilot Program Ground Rules

The following ground rules were developed to ensure that the objectives of the pilot program would be met and define how the pilot program will be conducted. These ground rules were

developed in conjunction with the regions and headquarters program offices. Comments from the industry and the public were considered and incorporated as appropriate.

- The staff will develop the following draft IMC versions for use during the pilot:
 - IMC 0613P - Power Reactor Construction Inspection Reports – Pilot
 - IMC 2505P - Periodic Assessment of Construction Inspection Program Results – Pilot
 - IMC 2519P - Construction Significance Determination Process - Pilot

These draft IMCs will be used to implement the cROP during the pilot, and until full implementation. The official versions of IMCs 0613 and 2505 will remain in place until completion of the pilot and will be revised as appropriate through the incorporation of the guidance in the pilot versions of the IMCs including lessons learned following the pilot. IMC 2519 is a new manual chapter that will be issued in final following the pilot.

- No changes are being considered to the construction inspection program; therefore, the official versions of IMCs 2502, 2503, and 2504 will continue to be implemented during the pilot.
- Inspection findings will be screened and the results will be documented in accordance with IMC 0613P during the pilot.
- The pilot plants will be assessed under the new assessment program documented in IMC 2505P. The pilot plants will undergo a periodic assessment at the mid-cycle review, scheduled to take place in August 2012 and at the end-of-cycle review, scheduled to take place in February 2013.
- The staff will issue an EGM to define the revised enforcement policy for use during the pilot. Enforcement actions will be processed using the guidance in the EGM, in lieu of the current enforcement policy.
- Subsequent to the successful completion of the pilot program, pilot plants will continue under the new assessment and enforcement programs unless major changes to the proposed assessment and enforcement programs are needed. In that case, significant changes needed will be implemented following conclusion of the pilot for the subsequent assessment cycle.
- The pilot plants will be discussed as part of the April 2013 agency action review meeting (AARM) process. At the AARM screening meetings, the pilot plant performance review and discussion of agency action will be based on the baseline inspection findings as applied to the construction action matrix in IMC 2505P. The guidance in IMC 2505P will be used to determine which pilot plants need to be discussed further at the AARM.

1.5 Schedule and Major Milestones

The major milestones for the pilot program are listed below.

1.5.1 Prerequisite Work for Pilot Program

- September 2011 - First draft of IMCs 0613P, 2505P, and 2519P completed
- Oct/Nov 2011 - NRC inspection program training sessions for pilot plant inspectors and managers
- December 2011 - Issue final draft of procedures for pilot program
- Issue enforcement guidance memorandum (EGM) for use during pilot

1.5.2 Pilot Activities

- January 1, 2012 - Commence pilot program
- February 2012 - Industry/NRC public workshop on pilot program activities
- Conduct SPR meeting for Vogtle Units 3 and 4 to assess licensee performance prior to the start of the pilot
- March 2012 - 1st quarter inspection period ends on March 31
- Conduct public meeting near Vogtle to communicate SPR results and describe new assessment program and pilot
- May 2012 - Issue 1st quarter inspection report(s)
- Pilot plant quarterly review
- Industry/NRC public workshop on pilot program activities, if necessary
- June 30, 2012 - 2nd quarter inspection period ends
- August 2012 - Issue 2nd quarter inspection report(s)
- Pilot plant mid-cycle review, inspection planning meeting
- September 2012 - Issue mid-cycle letter
- Industry/NRC public workshop on pilot program activities, if necessary
- November 2012 - Issue 3rd quarter inspection report(s)
- Pilot plant quarterly review
- Industry/NRC public workshop on pilot program activities, if necessary
- February 2013 - Issue 4th quarter inspection report(s)
- Pilot plant end-of-cycle review and inspection planning meeting

- March 2013 - Issue End of Cycle (EOC) letter
- Evaluate new assessment and enforcement program at pilot plants against success criteria
- Industry/NRC public workshop on pilot program results

1.5.3 Final Products

- April 2013 - Enforcement Policy changes drafted and in process to be issued
- Information systems changes in place (CIPIMS) or planned
- Information SECY Paper to Commission documenting pilot results

- June 2013 - Issue revised IMCs 0613, 2505, and initial issuance of IMC 2519

- July 1, 2013 - Provided pilot results are acceptable, fully implement new programs

1.6 Pilot Program Support Organization

The Office of New Reactors (NRO), Construction Assessment, Enforcement & Allegation Branch (CAEB) staff will be assigned as the points of contact (POCs) for Center for Construction Inspection (CCI) and the pilot plants during the pilot program. These pilot program support staff members will be the focal point for regional and industry questions on program implementation, will make periodic site visits to monitor NRC and licensee implementation of the program, and will solicit NRC staff and licensee comments on program effectiveness. The insights gained by the pilot program support staff will be part of the input that is considered during the evaluation of the effectiveness of the pilot program.

NRO CAEB staff will also coordinate and support CCI and site staff in the implementation of the revised enforcement policy as described in the EGM, and the evaluation of the safety significance of construction findings using the construction Significance Determination Process (SDP) as-needed.

1.7 Evaluation of Pilot Program Results

During the pilot, public meetings will be held periodically as necessary with interested stakeholders to review the effectiveness of the new assessment and enforcement programs. These public meetings will be facilitated by the NRC and the purpose of the public meetings will be to review the implementation of the new programs and the results generated by the baseline inspection, assessment, and enforcement activities. A Federal Register Notice (FRN) may be used to solicit specific feedback from both industry and the public to support evaluating the pilot results

After the pilot ends, the pilot program results will be evaluated against the success criteria described in Section 1.8 and a public workshop will be held to evaluate the results of the pilot. At a minimum, expected participants in this meeting will be management-level individuals from the following organizations:

- NRC Office of New Reactors
- NRC Region II, Center for Construction Inspection
- One pilot plant licensee representative
- One Nuclear Energy Institute (NEI) representative

Feedback received during this meeting will be incorporated into program guidance documents and the pilot program results will be documented in an Information SECY Paper to the Commission.

1.8 Pilot Program Success Criteria

The following success criteria will be used to evaluate the results of the cROP assessment and enforcement programs pilot. These criteria will determine whether the overall objectives of the pilot program have been met, and whether the programs (1) ensure that plants are constructed in accordance with the design, (2) enhance public confidence by increasing predictability, consistency and objectivity of the oversight process so that all constituents will be well served by the changes taking place, and (3) improve the efficiency and effectiveness of regulatory oversight by focusing agency and licensee resources on those issues with the most safety significance.

1.8.1 Risk-informed Baseline Inspection Program

The following criteria will measure the efficiency and effectiveness of the baseline inspection program, including inspection planning, conduct of inspections, inspection finding evaluation, and inspection finding documentation.

- Can the inspection finding significance determination guidance be used by inspectors and regional management to efficiently categorize inspection findings in a timely manner? It can, if by the end of the pilot program, inspection reports can be issued on time for the pilot plants and the significance of all findings can be determined within the agency goal of 90 days.
- Can inspection findings be properly assigned a safety significance rating in accordance with established guidance? They can, if by the end of the pilot program, all of the inspection findings were properly categorized and no risk-significant inspection findings were characterized as green. Success will be determined by an evaluation conducted at the March 2013 public meeting.

1.8.2 Assessment

The following criteria will measure the efficiency and effectiveness of the new assessment processes.

- Can the assessment process be performed within the scheduled time? It can, if for the pilot plants, an assessment of the inspection findings can be completed and the assessment letter can be issued on time.

- Can the construction action matrix be used to take appropriate NRC actions in response to indications of licensee performance? It can, if there are no instances in which it is concluded that action required for a pilot plant is different from the range of actions specified by the construction action matrix.
- Do the inspection findings provide an adequate indication of licensee performance? 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? Success will be determined by an evaluation conducted at the March 2013 public meeting.
- Are the mid-cycle and end-of-cycle assessments performed for the pilot plants in a manner that meets the objectives of the assessment program guidance? Success will be determined by an evaluation conducted at the March 2013 public meeting.
- Does the use of the new assessment program and action matrix result in more consistent and predictable NRC action decisions for plants with varying levels of performance? Success will be determined by an evaluation conducted at the March 2013 public meeting.

1.8.3 Enforcement

The following criteria will measure the effectiveness of the new enforcement policy.

- Enforcement actions are taken in a manner consistent with the assessment of inspection findings by the risk characterization guidance. Success will be determined by an evaluation conducted at the March 2013 public meeting.

1.8.4 Information Management Systems and Staff Training

The following criteria will determine whether the NRCs' information management systems are ready to support full implementation of the new assessment and enforcement programs.

- Are the assessment data and results readily available to the public? They are if inspection findings are publicly available on the Internet within 5 days of report issuance for the pilot plants.
- Are the NRC information support systems, such as the Construction Inspection Program Information Management System (CIPIMS) ready to support full implementation of the new programs? They are, as determined by an evaluation by the NRO/CIPB and CCI staffs.
- Have inspectors and managers been adequately trained to successfully implement the new oversight processes? They have, as indicated on training feedback forms received the CCI staff.