January 31, 2013

MEMORANDUM TO: Stephen D. Dingbaum
                 Assistant Inspector General for Audits

FROM: Glenn M. Tracy, Director */RA/ M. Mayfield for*
                 Office of New Reactors

SUBJECT: STATUS OF RECOMMENDATIONS AND STAFF RESPONSE TO
                 THE OFFICE OF THE INSPECTOR GENERAL'S AUDIT OF THE
                 U.S. NUCLEAR REGULATORY COMMISSION'S INSPECTIONS,
                 TESTS, ANALYSES, AND ACCEPTANCE CRITERIA PROCESS
                 (OIG-12-A-16)

This memorandum provides the U.S. Nuclear Regulatory Commission (NRC) staff's updates for
all 10 recommendations from the Office of the Inspector General's (OIG) audit OIG-12-A-16,
"Audit of the NRC's Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) Process,"
dated July 12, 2012. In a response to OIG dated August 16, 2012, the staff outlined planned
actions and target dates for completion. OIG responded with an analysis and status of
recommendations dated October 4, 2012. The staff believes that the updated planned actions
for resolved Recommendations 1 thru 9, and unresolved Recommendation 10, are responsive
to OIG's analysis. The staff has completed actions for Recommendations 1, 2, 3, 5, 6, and 9.

Recommendation 1:

Develop formal guidelines governing the use of Strategy Documents in the context of
construction inspection.

Agency response dated August 16, 2012:

The staff agrees with the recommendation.

The Strategy Documents are used by regional managers and inspection staff to plan and
prepare for inspections of reactors under construction. Each Strategy Document is related to a
specific grouping of related Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) for a
given reactor type and includes the text of ITAAC selected for inspection, references to
appropriate inspection procedures, and descriptions of relevant structures, systems, and
components to which the ITAAC apply.

CONTACT: Steven Bloom, NRO/DCIP
          301-415-2431

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Region II developed a system of interdivisional desktop guides to supplement the formal construction inspection program guidance in the NRC Manual Chapters. At the time of the OIG's audit, Region II desktop guides did not contain adequate formal guidance for the use of ITAAC Strategy Documents. Desktop Guide Division of Construction Projects-12, "Developing Smart Plans for Scheduling AP1000 [Design Control Document] DCD Revision 19 Inspections," was then implemented in November 2011 to provide guidance for using ITAAC Strategy Documents for the development of inspection plans and in coordinating inspection activities with the licensee's construction schedule.

Planned actions: Region II will review the existing guidance and revise as needed to provide clarification regarding the use of ITAAC Strategy Documents in the context of construction inspections.

Target date for completion: November 2, 2012.

Contact: David Ayres, RII
          404-997-4407

OIG analysis dated October 4, 2012:

The proposed actions meet the intent of OIG's recommendation. OIG will close this recommendation upon issuance and OIG review of the revised Region II desktop guide (Projects-12, "Developing Smart Plans for Scheduling AP1000 DCD Revision 19 Inspections") and Strategy Documents as noted in the agency response.

Status: Resolved.

Staff Update:

Actions taken and planned: Region II updated the Desktop Guide Division of Construction Projects-12, renamed "Inspection Smart Planning Desktop Guide," to include reviewing the Strategy Document associated with an ITAAC family to understand the overall strategy for inspecting that family of ITAAC prior to developing Smart Plans for that ITAAC family.

In addition, the staff revised Desktop Guide Division of Construction Inspection-01, "ITAAC Family Inspection Strategies," to include a provision for determining when updated Strategy Documents warrant a change in the associated Smart Plans for that ITAAC family.

Target date for completion: Completed.

Recommendation 2:

Specify procedures for updating Strategy Documents and communicating changes in a systematic and coordinated fashion.

Agency response dated August 16, 2012:

The staff agrees with the recommendation.

To provide guidance for composing, reviewing, and approving ITAAC Strategy Documents, Desktop Guide Division of Construction Inspection-01, "ITAAC Family Inspection Strategies," was implemented in July 2009. At the time of the OIG's audit, Region II did not have formal guidance specifically for updating ITAAC Strategy Documents. Desktop Guide Division of Construction Inspection (DCI)-01 was revised in March 2012 to include instructions for updating ITAAC Strategy Documents, and several have been updated since DCI-01 was revised.

Planned actions: Region II will review the existing guidance and revise as needed to provide further instruction for updating and maintaining the ITAAC Strategy Documents. Region II will also specify the procedures to be used for communicating changes to ITAAC Strategy Documents in a systematic and coordinated fashion.

Target date for completion: November 2, 2012

Contact: David Ayres, RII
              404-997-4407

OIG analysis dated October 4, 2012:

The proposed actions meet the intent of OIG's recommendation. OIG will close this recommendation upon issuance and OIG review of the revised guidance and procedures for updating Strategy Documents and communicating the changes in a systematic and coordinated fashion.

Status: Resolved.

Staff Update:

Actions taken and planned: Region II updated Desktop Guide DCI-01, "ITAAC Family Inspection Strategies," to include additional guidance on reviewing Strategy Documents for revision when initiating the development of inspection Smart Plans for an ITAAC family. Region II also added a provision to notify staff of changes to Strategy Documents once the agency has approved them and placed them on the Strategy Document SharePoint site.

Target date for completion: Completed.

Recommendation 3:

Provide specific guidance for inspection of non-targeted ITAAC and clarify the specific roles and responsibilities of various stakeholders during ITAAC closure notification review.

In response to Recommendation 3, the Office of New Reactors (NRO) staff has taken two sets of actions, 3a and 3b, as discussed below.

Agency response dated August 16, 2012:

The staff agrees with the recommendation.

3a: The construction inspection program includes inspection of the licensee's construction and operational programs and also the ITAAC. For planning and resource purposes, the staff has selected a sample of the ITAAC for targeted inspection based on a ranking of inspection value. The targeted ITAAC are the minimum sample of ITAAC whose inspection will be used as a basis for the NRC's verification of ITAAC closure. Through the inspection planning process and licensee performance assessment, the inspection program includes the option of expanding the inspection scope to include non-targeted ITAAC.

Planned action: NRO staff will update Inspection Manual Chapter (IMC) 2503 and IMC 2506 to clarify guidance on the inspection of non-targeted ITAAC.

Target date for completion: December 31, 2012

Contact: James Beardsley, NRO/DCIP
         301-415-5998

3b: The specific roles and responsibilities of various stakeholders for ITAAC closure notification (ICN) review have been defined in the NRO ITAAC closure verification office instruction (OI), which at the time of the OIG ITAAC audit, was still under development. NRO has continued to work with all stakeholders and has clarified the specific roles and responsibilities for ITAAC closure notification review in this OI. The OI will be issued by September 30, 2012. The staff will also refine the OI as needed, including roles and responsibilities, once experience with ICN reviews is acquired.

Planned action: NRO staff will issue the ITAAC closure verification OI.

Target date for completion: September 30, 2012

Contact: Mark Kowal, NRO/DCIP
         301-415-7744

OIG analysis dated October 4, 2012:

The proposed actions meet the intent of OIG's recommendation. OIG will close this recommendation upon issuance and OIG review of IMC 2503 and 2506, as well as the NRO ITAAC closure verification OI.

Status: Resolved

Staff Update:

3a: Actions taken and planned: After analyzing the potential changes needed to provide guidance for inspection of non-targeted ITAAC, NRO, Division of Construction Inspection and Operational Programs (DCIP) staff elected to include the guidance only in IMC 2506 and not IMC 2503. This will ensure that the guidance appears concisely in one document instead of

being unnecessarily repeated in two documents. IMC 2506 is the overall guidance and basis document for the construction inspection program. It provides guidance for all processes and procedures used for construction inspection under Title 10 of the *Code of Federal Regulations* (10 CFR) Part 52, "Licenses, Certifications, and Approvals for Nuclear Power Plants." The staff completed Revision 2 to IMC 2506 on November 19, 2012 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML12297A077).

Target date for completion: Completed.

3b: Actions taken and planned: Staff issued the NRO ITAAC closure verification OI, NRO-REG-103, "Inspections, Tests, Analyses, and Acceptance Criteria Closure Verification Process," on November 13, 2012 (ADAMS Accession No. ML12088A040). This OI defines the specific roles and responsibilities of various stakeholders for ICN reviews. As the agency continues to gain experience with ICN reviews, NRO will work with stakeholders as needed to clarify specific roles and responsibilities, and will refine the OI as needed.

Target date for completion: Completed.

Recommendation 4:

Develop and deliver training for the ITAAC process based on the results of needs assessments.

Agency response dated August 16, 2012:

The staff agrees with the recommendation.

The staff has developed governing policies and procedures defining NRC's role in verification that the licensee has completed the ITAAC. These have been documented in Commission papers, IMCs, OIs, and regulatory guides. As this guidance has been developed, appropriate NRO and Regional staff have received training on an as needed basis. For example, training sessions have been provided on ITAAC quality and inspectability, the Construction Reactor Oversight Process (cROP), and ITAAC development within the Construction Inspection Program. The training materials and video recordings of some of the actual training sessions are available to the staff through the Enterprise Project Management (EPM) system.

Additionally, in the spring of 2012, DCIP established a working group to assess the Construction Inspector Training and Qualification Program (IMC 1252). That working group is assessing the qualification process to ensure that the most up-to-date guidance on ITAAC, licensing, and the overall construction inspection program is provided to the inspectors during their initial and continuing qualification.

As the governing policies and procedures for the ITAAC verification process are further clarified, as a result of lessons learned, NRO will support the Office of the Chief Human Capital Officer/Human Resource Training Development's (OCHCO/HRTD) development of training. The training will be based upon the policies referenced on the NRC's internal training website and include a needs assessment. The needs assessment will be premised on an instructional systems development approach that includes an analysis, design, development, implementation, and evaluation model.

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Planned action: NRO will work with OCHCO/HRTD as office instructions, policies, and procedures are issued to ensure that a needs assessment is initiated and needed training is established.

Contact: John Ricci, OCHCO
                 423-855-6514

OIG analysis dated October 4, 2012:

The proposed actions meet the intent of OIG's recommendation. OIG will close this recommendation upon issuance and OIG review of training needs assessment guidance, to include the three stage training needs evaluation process that includes guidance for conducting organizational, occupational, and individual assessments as outlined in existing NRC and Office of Personnel Management (OPM) guidance as well as development and delivery of training.

Status: Resolved.

Staff Update:

Actions taken and planned: OPM guidance for conducting needs assessments focuses on three areas: organizational, occupational, and individual needs. The development of IMC 2506 (Recommendation 3), addresses the organizational and occupational needs. OCHCO/HRTD developed the needs assessment process included in HRTD Operating Procedure (OP) 0406a, "Training Program Development Process," and has introduced it to NRO. The process mimics OPM guidance for conducting an individual needs assessment and accomplishes the same goal. Specifically, this process is based on a working group of subject matter experts soliciting responses to established questions that relate to the needs assessment purpose, information gap, and training success criteria.

Now that NRO has issued its ITAAC closure verification OI and other relevant guidance documents, NRO will implement the above process to conduct the final needs analysis.

A newly developed process called "Technology-in-Training" formalized in HRTD OP 0406a will help staff evaluate options for delivering needed training. The agency should be able to offer training materials in approximately 7 months from completion of the needs assessment (barring any changes to the program which might impact the needs analysis already accomplished).

The completion date has been modified slightly to account for the issuance of the OIs later than originally anticipated.

Target date for completion: September 30, 2013.

Recommendation 5:

Designate a specific project manager for Construction Inspection Program Information Management Systems (CIPIMS) as required by the Project Management Methodology (PMM).

Agency response dated August 16, 2012:

The staff agrees with the recommendation.

The CIPIMS is a function of the EPM Program. EPM has had an assigned project manager consistent with PMM since its inception in 2007. NRC certifies to the Office of Management and Budget (OMB) annually that a certified project manager has been assigned cognizant oversight of the project.

Planned action: The staff has confirmed that the EPM project manager is also designated as the CIPIMS project manager and that this individual and the associated staff are aware of this role and responsibility. The roles and responsibilities of the EPM project manager will be updated in this year's EPM/CIPIMS OMB 300 submission to be consistent with the PMM and OMB guidance.

Target date for completion: September 30, 2012

Contact: Roya Noory, NRO/PMDA
              301-415-6868

OIG analysis dated October 4, 2012:

The planned actions, as indicated above, meet the intent of OIG's recommendation. OIG will close this recommendation upon issuance and review of this year's EPM/CIPIMS OMB 300 submission with the PMM and OMB guidance that specifically identifies an EPM project manager and updates the EPM project manager's role and responsibilities.

Status: Resolved.

Staff Update:

Actions taken and planned: NRO has updated the EPM OMB 300 submission in FY2012 to reflect that the EPM project manager is also the designated CIPIMS project manager. OMB 300 investment detail section, field number five has been expanded to include project management support for the construction oversight and inspection program.

Target date for completion: Completed.

Recommendation 6:

Develop and maintain project artifacts for CIPIMS as required in the PMM.

Agency response dated August 16, 2012:

The staff agrees with the recommendation.

CIPIMS is a function of the EPM program. EPM has developed and maintained all requisite project artifacts including those for the CIPIMS function. The NRC Office of Information

Services (OIS), as part of the Capital Planning Investment and Control Process, reviews the EPM programmatic artifacts, including those specifically for CIPIMS, on an annual basis.

Planned action: The staff has confirmed that the EPM program has developed and maintained all requisite CIPIMS project artifacts per the PMM and the EPM project manager is aware of this role and responsibility. The roles and responsibilities of the EPM project manager will be updated in this year's EPM/CIPIMS OMB 300 submission to be consistent with the PMM and OMB guidance.

Target date for completion: Completed

Contact: Roya Norry, NRO/PMDA
                 301-415-6868

OIG analysis dated October 4, 2012:

The planned actions meet the intent of OIG's recommendation. OIG notes that the information listed above was requested, but not fully provided during the audit. OIG will close this recommendation upon: (1) its review of the requisite CIPIMS and PMM project artifacts developed and maintained to date, (2) issuance and OIG review of this year's EPM/CIPIMS OMB 300 submission with the PMM and OMB guidance (as previously noted in the OIG analysis for Recommendation 5), and (3) evaluation of the results of the OIS EPM programmatic reviews performed to date.

Status: Resolved.

Staff Update:

Actions taken and planned:

1.) Since CIPIMS is a function of the EPM program it inherits the relevant EPM PMM artifacts. Please see ADAMS Accession No. ML13024A175 for the table that identifies artifacts developed and maintained to date for both EPM and CIPIMS (to access documents listed in the table, a request must be made through Rational.Support@nrc.gov). Rational is the agency's system of records for the PMM artifacts.

2.) NRO submitted EPM's OMB 300 for fiscal year 2012 to OIS for submission to OMB.

3.) On August 07, 2012, NRO completed an OIS Touch Point Control Phase Review of EPM. (See ADAMS Accession No. ML13024A170 for the briefing and minutes).

Target date for completion: Completed.

Recommendation 7:

Determine what systems, structures, and components assembled or manufactured off-site need to be inspected prior to arrival at the construction site in support of the ITAAC closure process.

Agency response dated August 16, 2012:

The staff agrees with the recommendation.

Region II is the lead organization for the inspection of ITAAC and as such will recommend which inspections should be conducted. Region II has reviewed the ITAAC for each licensee and identified which ITAAC will be inspected to verify the licensee's ITAAC closure process.

ITAAC inspection Strategy Documents, which identify the targeted ITAAC for inspection, are maintained on the Region II SharePoint site for construction inspection. Specific information related to the affected systems, structures, and components (SSCs) is captured on the Region II and vendor inspection SharePoint sites.

NRO's vendor inspection staff and Region II construction inspection staff will review and identify SSCs assembled or manufactured off-site which need to be inspected prior to arrival at the construction site in support of the ITAAC closure process. Off-site inspection of identified SSCs are then coordinated between NRO vendor inspection staff and Region II construction inspection staff.

NRO vendor inspection staff and Region II construction inspection staff mutually developed the approach to implement vendor inspection of targeted ITAAC, including the related SSCs constructed off-site.

Planned action: NRO staff will revise the Vendor Inspection Program (VIP) plan and IMCs 2503, 2506, and 2507 to reflect the vendor inspection coordination strategy and its relationship to vendor inspection activities, while taking into consideration lessons learned from VIP plan implementation.

Target date for completion: September 30, 2013.

Contact: David Ayres, RII
              404-997-4407

OIG analysis dated October 4, 2012:

The proposed actions meet the intent of OIG's recommendation. OIG will close this recommendation upon issuance and OIG review of the VIP and IMCs 2503, 2506, and 2507.

Status: Resolved.

Staff Update:

Actions taken and planned: Region II establishes the recommended list of off-site inspections after a combined license is issued and then updates the list, as necessary, as construction progresses. Region II provides the current list to NRO, which allows the agency to coordinate resources from NRO's vendor inspection staff and Region II's construction inspection staff to support the ITAAC related inspections. On November 16, 2012, NRO revised IMC 2506 to reflect roles and responsibilities of Region II and NRO concerning inspections of ITAAC related components. Currently, NRO is reviewing the VIP plan as well as IMCs 2503, 2506, and 2507 to determine the appropriate approach for the current and future construction activities involving SSCs manufactured or assembled off-site and will update these documents as necessary.

Target date for completion: September 30, 2013.

Recommendation 8:

Develop a formal vendor inspection coordination strategy to ensure appropriate inspections of modular SSC assembled or manufactured off-site.

Agency response dated August 16, 2012:

The staff agrees with the recommendation.

NRO vendor inspection staff and Region II construction inspection staff mutually developed the approach to implement vendor inspection of targeted ITAAC.

Planned action: NRO will document the process for the selection of inspections of targeted ITAAC at vendor facilities by revising the VIP plan and IMCs 2503, 2506, and 2507. These changes will reflect the vendor inspection coordination strategy and its relationship to vendor inspection activities.

NRO and Region II have established communications regarding this coordination strategy to ensure appropriate inspections of modular SSCs assembled or manufactured off-site.

NRO and Region II conduct weekly teleconferences, which aid in identifying inspection resource needs, including technical staff, to participate in inspections at vendors or on the combined license (COL) sites.

Target date for completion: September 30, 2013.

Contact: Edward Roach, NRO/DCIP
            301-415-1973

OIG analysis dated October 4, 2012:

The proposed actions meet the intent of OIG's recommendation. OIG will close this recommendation upon issuance and OIG review of revised guidance addressing headquarters and Region II coordination pertaining to inspection of modular SSCs assembled or

manufactured off-site, in addition to the proposed revisions to the VIP plan and IMCs 2503, 2506, and 2507.

Status: Resolved.

<u>Staff Update</u>:

Actions taken and planned: Region II establishes the recommended list of off-site inspections after a combined license is issued and then updates the list, as necessary, as construction progresses. Region II provides the current list to NRO, which allows the agency to coordinate resources from NRO's vendor inspection staff and Region II's construction inspection staff to support the ITAAC related inspections. The coordination will be a normal activity of the weekly Region II-NRO vendor inspection teleconference concerning Vogtle Units 3 and 4 and Summer Units 2 and 3 construction activities. Staff will include the off-site inspection topic in the teleconference meeting agenda. On November 16, 2012, NRO revised IMC 2506 to reflect roles and responsibilities of Region II and NRO concerning inspections of ITAAC related components. Currently, NRO is reviewing the VIP plan as well as IMCs 2503, 2506, and 2507 to determine the appropriate approach for the current and future offsite activities and will revise these documents as necessary.

Target date for completion: September 30, 2013.

Recommendation 9:

Develop a plan to correct the existing communication and coordination problems between headquarters and Region II that resulted from lack of a change management process for ITAAC-related issues.

<u>Agency response dated August 16, 2012</u>:

The staff agrees with the recommendation.

Following the initiation of the OIG audit, NRO and Region II staff have continued to refine communication and coordination in support of the construction inspection program, in particular ITAAC related issues. NRO has developed an OI entitled, "NRO Construction Inspection Interfaces with Region II," to document formal methods for communication between NRO and Region II including the Technical Assistance Request (TAR) process. TARs are used for multiple purposes, including transmitting technical questions from the inspectors to the headquarters (HQ) technical staff in support of inspection and communicating requests by HQ for additional inspection. NRO has also designated a Construction Operation Engineer (COE) for each site under construction. The COEs coordinate a wide range of activities involving NRO and Region II and are the primary HQ point of contact for questions related to the sites under construction. Regularly scheduled meetings between HQ (DCIP, Division of New Reactor Licensing (DNRL)), the technical divisions, and the inspection staff continue to address licensing, technical, and programmatic issues. NRO and Region II staff conduct joint bi-annual counterpart meetings to discuss and align on Construction Inspection Program related issues. NRO also developed the integrated construction oversight model (iCOM) to document all aspects of the cROP and to train and inform NRC staff.

Planned action: NRO will issue the OI entitled, "NRO Construction Inspection Interfaces with Region II." NRO will periodically evaluate the communication and coordination mechanisms in place for opportunities to enhance or improve them. NRO and RII will continue to conduct bi-annual counterpart meetings.

Target date for completion: September 30, 2012.

Contact: James Beardsley, NRO/DCIP
            301-415-5998

OIG analysis dated October 4, 2012:

The proposed actions meet the intent of OIG's recommendation. OIG will close this recommendation upon issuance and OIG review of the office instruction titled, "NRO Construction Inspection Interfaces with Region II," as well as the official position description and listing of current Construction Operation Engineers, and documentation supporting the design and implementation of the iCOM.

Status: Resolved.

Staff Update:

Actions taken and planned: The NRO/DCIP staff issued NRO OI NRO-COM-108, "NRO Construction Inspection Interfaces with Region II," on October 18, 2012 (ADAMS Accession No. ML113220316). The instruction defines the duties and responsibilities of the COE. NRO maintains a current list of COEs on the Construction Inspection Program SharePoint site at http://epm.nrc.gov/inspection/cip/default.aspx.

The NRO DCIP staff attended the Construction Inspector Counterpart Meeting in Atlanta, GA on December 12, 2012. A number of programmatic status briefs (many using the iCOM brief) were provided to the construction inspection staff. Staff maintains the iCOM on the Construction Inspection Program SharePoint site at http://epm.nrc.gov/inspection/ITAAC_DAC/roadshow/default.aspx. In addition, during the counterpart meeting, the staff participated in a construction inspection program lessons learned exercise to improve understanding and communication.

Regularly scheduled meetings between headquarter staff (DCIP, DNRL); the NRO technical divisions, and the inspection staff continue to address licensing, technical, and programmatic issues.

Following development of the iCOM in the spring of 2012, the DCIP staff has used the presentation to explain the structure and implementation of the cROP, ITAAC, and other processes to numerous internal and external audiences. The DCIP staff also conducted the G-113 course, "Construction Inspection Program Overview," on November 14, 2012, using many of the slides from the iCOM.

Target date for completion: Completed.

Recommendation 10:

Develop and implement a change management process to address future change in the ITAAC process that can create barriers to effective communication and coordination.

Agency response dated August 16, 2012:

The staff agrees with the recommendation.

In 2010 and 2011, NRO and Region II implemented phases 1 & 2 of the Oversight Infrastructure Program (OIP). That effort resulted in the development of process and communication maps for all the functions managed by NRO and the Region II inspection team.

The OIP data collection process involved personnel from throughout NRO and Region II and assisted the staff in identifying interfaces that required management and attention. The foremost result of OIP phases 1 & 2 was the development of System Requirements Specifications for the CIPIMS and verification of ITAAC closure, evaluation, and status (VOICES) tools. The on-time delivery of CIPIMS in the spring of 2012 and VOICES in the summer of 2012 were significantly influenced by the DCIP-Region II communication solidified during the OIP process. OIP phase 3 is currently underway and includes a continued effort to maintain the business process maps along with updates to CIPIMS and VOICES.

NRO and Region II have implemented change management processes as the construction inspection program has shifted from development to implementation over the past 6 months. The processes include the tracking database for changes to the IMCs and procedures, the deployment and updates for CIPIMS and headquarters technical staff input to the ITAAC Strategy Documents. In addition, the training conducted by NRO (DCIP and DNRL) and Region II at the June 2012 Construction Inspection Counterpart meeting greatly enhanced the overall understanding of the construction oversight, inspection, and licensing programs. Continued interaction at this level is planned through the biannual counterpart meetings and the bimonthly construction inspection public meetings.

Planned action: NRO and Region II will identify and review existing guidance and program process documents and revise them as needed to incorporate specific guidance to address future changes in the ITAAC Process.

Target date for completion: September 30, 2013.

Contact: James Beardsley, NRO/DCIP
301-415-5998

OIG analysis dated October 4, 2012:

While the agency states agreement with the recommendation, the described agency actions do not meet the intent of OIG's recommendation. OIG's recommendation was for NRO to develop a change management process as outlined in the report. As described in the audit report, a change management process includes facilitating and enabling change by preparing staff to understand the purpose of the change. It also includes features such as executive sponsorship, detailed schedules and milestones, periodic oversight review of progress against milestones,

communications plans, identification and assignment of staff members as change agents, a review of guidance that may need to be changed or developed for change implementation, identification of barriers to a successful change and plans to overcome the barriers, needs assessments for training that may be necessary to implement the change, and other tools to help change occur successfully. Using such a change management process, management should clearly articulate to affected staff what their role is in facilitating the change, including the new roles and responsibilities they will be expected to perform and how they will interact with other entities within the organization. Furthermore, management is responsible for identifying potential barriers to change and developing plans to address them, in addition to providing a systematic transition plan and schedule to guide the organizational change.

A formal change management process is characterized by detailed, comprehensive guidance that facilitates the implementation of changes. This may include screening criteria for applying more rigor and effort to manage change depending on the importance and difficulty of the change. The guidance may include tools such as checklists that include the items discussed above. Such processes are normally stand alone and not part of existing guidance and/or procedures. For example, NRC's OIS published change management guidance in 2005 (OIS-0203, Rev. 1); the International Atomic Energy Agency (IAEA) published *Managing Change in Nuclear Facilities* in 2001, both stand alone guidance documents.

The actions described in the agency's August 16, 2012, response do not constitute development and implementation of a formal change management process. Rather, the actions described can be more appropriately categorized as tools that promote communication and coordination between headquarters and Region II.

OIG will close this recommendation upon issuance and review of a formal guidance document that describes in detail a formal change management process, including its intended application and use.

Status: Unresolved.

Staff Update:

Actions taken and planned: As stated in our original response, the staff agrees with the implementation of a change management process to address future changes in the ITAAC process that can create barriers to effective communication and coordination. There are many different approaches to change management. NRO management has received training on the principles of change management from the process known as "Leading Change" by John P. Kotter. This training was presented by Dr. Les Wallace, Ph.D., to NRO senior management on September 8, 2010. The process focuses on the eight steps to transformational change. The principles of these steps serve as a guide for the staff during the continued development and implementation of the ITAAC process.

Step 1 - Create/Articulate a Sense of Urgency

NRO used the lessons learned from the Department of Energy (DOE) ITAAC demonstration project and recognized that for each COL there could be over 800 ITAAC that would have to be closed in a very short time period. The ITAAC process includes the prioritization and subsequent inspection of the targeted ITAAC by NRC inspectors and review of the ICNs

submitted by the licensees. The sense of urgency was established and the staff developed processes that would effectively plan and execute the necessary ITAAC inspections to be completed and to effectively mitigate the surge of ICNs which will be submitted during the last year of construction.

Step 2 - Create a Guiding Coalition

This step continues to be implemented through the close working relationship between DCIP and Region II management, which provides executive sponsorship and communicates with one voice to NRC staff regarding the importance of the ITAAC process as it has been developed. This is accomplished through routine dialogue amongst the staff, counterparts meetings, leadership presentations, and specific working groups that were established in developing the ITAAC process.

Step 3 - Develop a Vision and Strategy

As the ITAAC process has evolved, the vision and strategies for the key elements have been communicated in Commission papers and IMCs as follows:

- ITAAC prioritization for targeted inspections

  - SECY-07-0047, "Staff Approach To Verifying the Closure of Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) Through a Sample-Based Inspection Program," dated March 8, 2007

- ITAAC closure verification process

  - SECY-08-0117, "Staff Approach To Verify Closure of Inspections, Tests, Analyses, and Acceptance Criteria and To Implement Title 10 CFR 52.99, 'Inspection During Construction,' and Related Portion of 10 CFR 52.103(g) on the Commission Finding," dated August 7, 2008
  - SECY-09-0119, "Staff Progress in Resolving Issues Associated with Inspections, Tests, Analyses, and Acceptance Criteria," dated August 26, 2009
  - SECY-10-0100, "Staff Progress in Resolving Issues Associated with Inspections, Tests, Analyses, and Acceptance Criteria," dated August 5, 2010
  - SECY-11-0111, "Staff Progress in Resolving Issues Associated with Inspection, Tests, Analyses, and Acceptance Criteria," dated August 12, 2011

- Inspection Process

  - SECY-06-114, "Description of the Construction Inspection Program for Plants Licensed Under 10 CFR Part 52," dated May 13, 2006
  - SECY-07-049, "Construction Inspection Roles and Responsibilities," dated March 8, 2007
  - IMC 2503, "Construction Inspection Program: Inspections of Inspections, Tests, Analyses and Acceptance Criteria (ITAAC) Related Work," dated July 5, 2012
  - IMC 2504, "Construction Inspection Program – Inspection of Construction and Operational Programs," dated October 24, 2012

- IMC 2506, "Construction Reactor Oversight Process General Guidance and Basis Document," dated November 19, 2012

Step 4 - Communicate Vision and Plan by a Factor of Ten (10)

This step entails articulating the importance of ITAAC, and the desired outcome for implementing the ITAAC process. During the development of the ITAAC process, NRO continues to communicate its vision and strategy through Commission meetings, public workshops, the DOE ITAAC demonstration project, and the development of iCOM. The ITAAC process also continues to be communicated through training, biannual counterpart meetings, bimonthly construction inspection public meetings, and regularly scheduled weekly phone calls between NRO and the Region II staff.

Step 5 - Empower Broad Based Action

The NRO staff performed an assessment to determine the organizational readiness for the ITAAC process. As an example, in December 2011, NRO reorganized the office to ensure that the oversight program was better prepared to transition from construction inspection infrastructure development to construction oversight and execution of the ITAAC process.

Step 6 - Create/Celebrate Short Term Wins

Step 7 - Consolidate Gains and Produce More Change

The NRO staff revised ITAAC related regulations and guidance and successfully completed the rulemaking to revise 10 CFR 52.99 on ITAAC maintenance, and issued Regulatory Guide 1.215, Revision 1, "Guidance for ITAAC Closure Under 10 CFR Part 52." The staff is now employing these enhancements and other construction inspection program governing documents to inspect ITAAC and review the submitted ICNs. For example, in accordance with the ITAAC closure verification process OI, the staff recently reviewed the first ICN submitted by a licensee and issued an insufficient information letter identifying additional information needed in the ICN to meet the requirements of 10 CFR 52.99(c)(1). The staff was successfully able to document and communicate the insufficient information to the licensee and for all stakeholder awareness. The licensee will submit a new ICN of record addressing this additional information.

Step 8 - Anchor Change in a New Culture

As the organization transitions from the development of the ITAAC process to the execution of the ITAAC process, NRO has developed the OIP, OIs, and IMCs, as well as conducted training on various aspects of the ITAAC process. NRO also has developed and reprioritized new goals for the office including the recognition of the importance of the ITAAC process, as the goals acknowledge that there will be "an increase in implementation of the ITAAC closure verification process with a significant increase in FY 2016 near the completion of construction." Therefore, NRO established as its number one goal the following: "Execute construction oversight at four AP1000 units, including the construction inspection program, ITAAC closure verification reviews, and necessary license amendments to support a recommendation to the Commission that provides the regulatory basis for the Commission to make its 10 CFR Part 52.103(g) finding for a plant ready to operate."

S. Dingbaum   - 17 -

The ITAAC process begins once the ITAAC have been established in either the design certification rulemaking process or the COL issuance. The ITAAC process includes the following activities: prioritization of the ITAAC, vendor and construction inspection of ITAAC related activities, and ITAAC closure verification. The overall relationship between ITAAC and inspection is documented in IMC 2506. When it is determined that these elements of the ITAAC process need to be changed, NRO has processes and procedures for the management of changes to OIs and IMCs. Each of the activities in the ITAAC process is documented in the NRO OI's or IMC's listed below.

- NRO-REG-102, "Prioritization of Inspections, Tests, Analysis, and Acceptance Criteria (ITAAC) for Inspection," (ADAMS Accession No. ML12111A186)
- NRO-REG-103, "Inspections, Tests, Analyses, and Acceptance Criteria Closure Verification Process." (ADAMS Accession No. ML12088A040)
- NRO-COM-108, "NRO Construction Inspection Interfaces with Region II" (ADAMS Accession No. ML113220316)
- IMC 2503, "Construction Inspection Program: Inspections of Inspections, Tests, Analyses and Acceptance Criteria (ITAAC) Related Work"
- IMC 2506, "Construction Reactor Oversight Process General Guidance and Basis Document"
- IMC 2507, "Construction Inspection Program: Vendor Inspections"
- A process is under development to evaluate the impacts of license amendment requests (LAR) and exemptions on the ITAAC. This process will include coordination between the NRO and construction inspection staff to incorporate LAR/exemption changes into ITAAC and the construction inspection program. When the LAR/exemption process is completed it will be incorporated into NRO-REG-102 and NRO-COM-108 as appropriate.

OIP Phase 3 is currently underway and includes a continued effort to maintain the business process maps along with updates to CIPIMS and VOICES. The OIP uses these process maps to ensure that when a reevaluation occurs, all changes are captured.

The staff reviewed the OIS and IAEA documents used to clarify OIG Recommendation 10 in the October 4, 2012, memorandum and determined that these specific processes are not entirely applicable for the ITAAC process. However, the staff will incorporate aspects of these concepts in the ITAAC process as appropriate.

Target date for completion: September 30, 2013.

cc: Chairman Macfarlane
     Commissioner Svinicki
     Commissioner Apostolakis
     Commissioner Magwood
     Commissioner Ostendorff
     SECY
     EDO

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Memo to S Dingbaum From G. Tracy Date January 31, 2013

SUBJECT: STATUS OF RECOMMENDATIONS AND STAFF RESPONSE TO
             THE OFFICE OF THE INSPECTOR GENERAL'S AUDIT OF THE
             U.S. NUCLEAR REGULATORY COMMISSION'S INSPECTIONS,
             TESTS, ANALYSES, AND ACCEPTANCE CRITERIA PROCESS
             (OIG-12-A-16)

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