August 16, 2012

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

FROM: Michael R. Johnson */RA by G. Tracy, Acting/*
                      Deputy Executive Director for Reactor
                       and Preparedness Programs
                      Office of the Executive Director for Operations

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

The staff has received the Office of the Inspectors General's (OIG's) report for Audit
OIG-12-A-16, "Audit of the Nuclear Regulatory Commission Inspections, Tests, Analyses, and
Acceptance Criteria (ITAAC) Process," dated July 12, 2012. This memorandum provides the
staff's responses to the 10 OIG recommendations, including the staff's planned actions and
target dates for completion.

The U.S. Nuclear Regulatory Commission's (NRC's) role in construction oversight includes
inspection of construction and operational programs, inspection of vendors supplying
components and services for construction, and inspections of the licensee's completion of their
ITAAC. The combined license (COL) includes ITAAC to provide reasonable assurance that, if
the inspections, tests, and analyses are performed and the acceptance criteria are met, the
facility has been constructed and will operate in conformity with the COL, the Atomic Energy
Act, and the NRC's rules and regulations. Completion of the ITAAC is the responsibility of the
licensee. The NRC's inspection program samples the licensee's processes and procedures for
ITAAC completion to provide reasonable assurance that the acceptance criteria for all ITAAC
are met. The inspection program also incorporates lessons learned from the inspection
program used for the construction of plants licensed under Title 10 of the *Code of Federal
Regulations* (10 CFR) Part 50; and considers modular construction at remote locations. The
ITAAC process encompasses those activities for the staff's verification that a licensee has
successfully completed all ITAAC and includes the staff's review of ITAAC closure notifications
(ICN), which is supported by construction oversight and inspection.

CONTACT: Perry H. Buckberg, NRO/DCIP
          301-415-1383

          Mahmond Jardaneh, NRO/DCIP
          301-415-2753

Recommendation 1:

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

Response:

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 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.

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, the 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 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

Recommendation 2:

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

Response:

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 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

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.

Response:

The staff agrees with the recommendation.

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: The Office of New Reactors (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: Jim Beardsley, NRO/DCIP
          301-415-5998

The specific roles and responsibilities of various stakeholders for ICN review have been defined in the NRO ITAAC closure verification office instruction, 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 office instruction. The office instruction will be issued by September 30, 2012. The staff will also refine the office instruction as needed, including roles and responsibilities, once experience with ICN reviews is acquired.

Planned Action: NRO staff will issue the ITAAC closure verification office instruction.

Target date for completion: September 30, 2012.

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

Recommendation 4:

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

Response:

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, office instructions, 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, 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, the Division of Construction Inspection and Operational Programs (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.

Planned actions: 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.

Target date for completion: June 28, 2013.

Contact: John Ricci, OCHCO
        423-855-6514

Recommendation 5:

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

Response:

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 annually that a certified project manager has been assigned cognizant oversight of the project.

Planned Actions: 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: Carl Konzman, NRO/PMDA
          301-415-0592

Recommendation 6:

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

Response:

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, 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 Actions: 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: Carl Konzman, NRO/PMDA
          301-415-0592

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.

Response:

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 actions: 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

Recommendation 8:

Develop a formal vendor inspection coordination strategy to ensure appropriate inspections of modular systems, structures, and components assembled or manufactured off-site.

Response:

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 actions: 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 COL sites.

Target date for completion: September 30, 2013.

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

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.

Response:

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 office instruction 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), and 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 Construction Reactor Oversight Program and to train and inform NRC staff.

Planned Action: NRO will issue the office instruction 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

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.

Response:

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

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

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    SECY   **Distribution: (See next page)**

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