February 11, 2008

MEMORANDUM TO: Richard Rasmussen, Chief
Construction Inspection & Allegation Branch
Division of Construction Inspection
& Operational Programs
Office of New Reactors

FROM: Michael Webb **/RA/**
Construction Inspection & Allegation Branch
Division of Construction Inspection
& Operational Programs
Office of New Reactors

PARTICIPANTS: Public, Industry, and NRC Staff

SUBJECT: SUMMARY OF PUBLIC MEETING HELD ON JANUARY 31, 2008, TO DISCUSS ITAAC CLOSURE AND ASSESSMENT AND ENFORCEMENT FOR NEW REACTORS

The Construction Inspection and Allegations Branch of the Division of Construction Inspection and Operational Programs in the Office of New Reactors (NRO) conducted a Category 3 meeting on January 31, 2008, in Rockville, Maryland, to discuss Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) closure letters, and assessment and enforcement of postulated construction inspection findings. The meeting, the fifth in a series of meetings discussing these topics, was attended by members of the NRC headquarters staff, NRC Region II, the Nuclear Energy Institute (NEI), industry, and the general public.

The NRC staff opened the meeting by presenting an overview of the meeting objectives and the accomplishments to date. NEI staff then presented an overview and status of its "white paper" (NEI 08-02) that will describe what constitutes an effective corrective action program (CAP) for a reactor facility under construction. (There were no handouts because the paper had not yet received concurrence from the NEI New Plant Working Group). NEI indicated that it had modeled the construction CAP on the operating reactor CAP. Specifically, there would be eight blocks, derived from Appendix B to Title 10 of Part 50 of the Code of Federal Regulations, in the process. The blocks included Design Control (Criterion III); Control of Special Processes (IX); Inspection (X); Test control (XI); Control of Measuring and Test Equipment (XII); Nonconforming Materials, Parts or Components (XV); Corrective Action (XVI), and Audits (XVIII). The process would call for classifying the significance of any non-conformance and, if not significant, correcting it, and trending it. A significant issue would call for a root or common cause analysis and/or a program review, reducing the probability of re-occurrence, verifying implantation of, and determining the effectiveness of, the corrective actions. It would also include a training section and "lessons learned" information.

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The staff then discussed the 225-day uncomplete ITAAC notification template following by its comments for examples of ITAAC closure letters and uncomplete notifications submitted by NEI to the NRC. Four were prepared from the AP 1000 design, two addressed ESBWR, and one covered ABWR. The staff noted that although NEI submitted ESBWR examples for use during the workshop, the staff based its review of the closure letters on the proposed ITAAC as written and is not approving those ITAAC in the General Electric ESBWR design at this time.

With respect to the 225-day uncomplete ITAAC notification template, staff indicated that the format was satisfactory as presented with a cover letter, then attachments representing each individual ITAAC. This format could reduce the number of transmittals for the Licensee. It was noted, though, that the staff encouraged NEI to include ITAAC-related findings in each related section regarding “Actions Achieved toward ITAAC Closure,” and “Actions Remaining to Attain ITAAC Closure.”

The staff then discussed the proposed closure letters for AP 1000 ITAAC items 2.5.2-8; 3.3-6, #2; 3.3-6, #7; and 3.7-3. For the closure letter for ITAAC 2.5.2-8, the staff indicated the proposed example was acceptable. For the closure letter for ITAAC 3.3-6, #2 resubmittal, the staff indicated the proposed example was acceptable with the inclusion of reference to Appendix 3H “Auxiliary Building Critical Sections,” as requested in Workshop 4.

For the uncomplete notification of ITAAC 3.3-6, #7, the staff indicated the example was satisfactory, and appeared very complete with information describing complete and uncomplete items of the ITAAC. For the closure letter for ITAAC 3.7-3, the staff indicated this resubmittal properly connected the engineering reports to the process, and included a description of the resting to support the process.

The staff then discussed the proposed closure letters for ESBWR ITAAC items 2.1.2-3, #8 and 2.4.2-3, #2. The staff stated that the first item appeared well written and acceptable and that the second also appeared straight forward, self explanatory, and acceptable.

The staff then discussed the proposed closure letter for ABWR ITAAC item 2.15.12, #5. The staff stated that it appeared to lack detail and additional information it would prefer to see in the submittal. It also appeared to over rely on processes whereas actual inspection could better verify that the ITAAC had been met.

The staff then introduced a draft flowchart that describes the 10 CFR 52.103(g) process, which states that a licensee shall not operate its facility until the Commission makes a finding that the acceptance criteria in the combined license are met. The flowchart graphically represents the various steps, decision points, and timeline from the start of construction until fuel load. The hybrid timeline and flowchart was prepared to show the major milestones during construction for ITAAC submittals up until the 52.103(g) finding.

The staff then provided a discussion of ITAAC inspection. The first topic was the convention the NRC used for numbering of the ITAAC. The staff used the ITAAC numbering system provided in each approved design to date (AP 1000 and ABWR) with some modifications to enhance inspection planning and implementation. By this accounting, for inspection purposes, the staff had identified 672 ITAAC for the AP 1000 and 881 for the ABWR. The staff noted that industry use of a standard numbering system for counting ITAAC for plants of the same design could facilitate more efficient closure verification.

The staff then discussed its grouping of ITAAC into “families” based on the type of process (19 matrix rows) or program (6 matrix columns) that was being evaluated. The intersection of each row and column are considered an ITAAC family that has common characteristics and uses the same inspection procedure. Observing performance of ITAAC activity within a family will provide insights that are applicable to the remainder of the family. The staff intends to conduct targeted inspection of the ITAAC with a sample size based on having adequate inspection coverage of the systems, structures, and components (SSCs). The same threshold for selection was used for both designs. NRC Region II is developing detailed inspection plans for each ITAAC family. The staff intends to use a family closure strategy in which targeted ITAAC will be inspected and non-targeted ITAAC will be closed by review of licensee closure letters. The closure of the ITAAC will be documented in a Federal Register notice.

Following a lunch break, NRC staff discussed ITAAC inspection scheduling. The staff noted that it had completed a schedule for the AP 1000 and was now working on the ABWR. The generic AP 1000 schedule includes major construction and licensing milestones, inspection-hour estimates for performing the inspection, and indication of NRC vendor inspection needs. It is largely a planning tool to for NRC to determine timing, scheduling, and resources needs whereas Region II is developing a more detailed protocol for actual inspection of the ITAAC families. The staff’s analysis indicated that conducting the inspections of the AP 1000 ITAAC would require approximately 15,000 inspector-hours. This total does not include Pre-COL activities, Post-COL pre-ops test & program reviews, NRC engineering resources, and problem identification & resolution (PI&R), allegations, or other follow-up inspections. The staff estimated that these additional inspection activities are expected to add 12,000 to 20,000 inspection hours to the CIP estimate for planning purposes.

The NRC then led a discussion of assessment and enforcement program development. This disucssion consisted of a follow-on discussion from the December 18, 2007, workshop of the basis for classifying violations as Severity Level (SL) I, II, III, or IV. The discussion focused on staff comments to suggested modifications that NEI had provided to the NRC-staff developed examples that were presented at the workshop held in November.

NEI had provided two examples of SL I violations, each of which included the phrase “safety significant.” The staff indicated that it would not include that phrase to be consistent with the Reactor Oversight Process. The staff also stated it intended to replace the phrase “structures or systems” with “structures, systems, or components” to be consistent with various NRC regulations. Each of these phrases also occurred in other SL examples and the staff repeated its intention to do the same in those instances. For SL II example A, NEI had proposed the modifier “widespread and significant” breakdown in the QA program as a basis for a violation being considered as SL II; the staff is willing to include “significant,” but not “widespread.” The staff’s markups appear as double strikethroughs in ADAMS Accession Number ML080250096.

The staff confirmed that the next meeting would be held on March 6, 2008, and proposed a follow-on session in April. April 3, 2008, was agreed to as an acceptable date.

Enclosure: Attendees List

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The assessment and enforcement program development portion consisted of a follow-on discussion from the December 18, 2007, workshop of the basis for classifying violations as Severity Level (SL) I, II, III, or IV. The discussion focused on staff comments to suggested modifications that NEI had provided to the NRC-staff developed examples that were presented at the workshop held in November.

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ADAMS ACCESSION: Meeting Notice and Agenda: ML080090088, Meeting Summary: ML08yyyxxxx, ITAAC Closure Guidance Development Workshop 5: ML080180344, ITAAC Matrix Families: ML080180393, ITAAC Inspection Schedule: ML080180368, Draft 10 CFR 52.103(g) Flowchart: ML080180388, Enforcement Severity Level Examples: ML080250096

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DATE	2/11/08	2/11/08

OFFICIAL RECORD COPY

Construction Inspection Program Assessment and Enforcement, and ITTAC Closure Letter Workshop
January 31, 2008
Location: Legacy Hotel & Meeting Center (Ramada Inn), Rockville, MD
Meeting Attendees

Name	Organization
Russ Bell	NEI
Leslie Kass	NEI
Jim Fisicaro	NEI
Leonard Loflin	EPRI
Jim Maddox	INPO
Stephen Burdick	Morgan Lewis
John Concklin	AREVA
Les Duncan	AREVA
Seth Bradley	Bechtel
Tom Lieb	Bechtel
Joe Hegner	Dominion
Matthew Williams	Dominion
James Cassidy	Duke Energy
Guy Davant	Entergy
Dana Millar	Entergy
John Murphy	Exelon
Pat Sheppard	Exelon
Lanny Dusek	Fluor
George Garrett	Fluor
John Hammeran	Fluor
Clay Smith	Fluor
Patricia Campbell	GE Hitachi
Eric Hernandez	GE Hitachi
Ron Carver	Luminant
Masayuki Kambara	Mitsubishi
C.K. Paulson	MNES

ENCLOSURE

	Caroline Schlaseman		MPR Associates for Toshiba		
	Hamer Carter		Progress Energy		
	Dave Water		Progress Energy		
	Alan Torres		SCE&G		
	John Oddo		Shaw Stone & Webster		
	Robert Otis		Shaw Stone & Webster		
	Lawrence F. Walsh		Shaw Stone & Webster		
	Larry Arnold		STP		
	Steve Blossom		STP		
	Marion E. Smith		STP Nuclear Operating Co.		
	Gary Curtis		TVA		
	John Traynor		UniStar Nuclear Energy		
	Tom Mudge		URS Washington Div		
	Ted Alexovich		Westinghouse		
	Donald Lindgren		Westinghouse		
	Gene Imbro		NRC/NRO		
	Loren Plisco		NRC/RII		
	Chuck Ogle		NRC/RII		
	Richard Rasmussen		NRC/NRO		
	Jerome Blake		NRC/RII		
	Alan Blamey		NRC/RII		
	Patrick Boyle		NRC/NRO		
	Tony Cerne		NRC/NRO		
	Jim Gaslevic		NRC/NRO		
	Ron Gardner		NRC/NRO		
	Tony Hsia		NRC/NRO		
	Jason Jennings		NRC/NRO		
	Ed Kleeh		NRC/NRO		
	Roger Lanksbury		NRC/RII		
	Rich Laura		NRC/NRO		

	Bob Lukes		NRC/NRO		
	Robert Pascarelli		NRC/NRO		
	Jonathan Rund		NRC/OGC		
	David Shum		NRC/NRO		
	Ian Spivak		NRC/NRO		
	Sue Strosnider		NRC/NRO		
	Omid Tabatabai		NRC/NRO		
	Michael Webb		NRC/NRO		
	Carl Weber		NRC/NRO		
	Zentaro Yamashita		NRC assignee		

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