

October 31, 2007

Mr. Rick A. Muench  
President and Chief Executive Officer  
Wolf Creek Nuclear Operating Corporation  
Post Office Box 411  
Burlington, KS 66839

SUBJECT: WOLF CREEK GENERATING STATION - AUDIT OF LICENSEE REGULATORY  
COMMITMENT MANAGEMENT PROGRAM (TAC NO. MD6619)

Dear Mr. Muench:

An audit of the Wolf Creek Nuclear Operating Corporation (WCNOC) regulatory commitment management program was performed at the Wolf Creek Generating Station on August 20-21, 2007. Based on this audit, the NRC staff concludes that WCNOC has an adequate program to implement and manage regulatory commitments. Details of the audit are provided in the enclosed audit report, including our observations and recommendations.

Sincerely,

/RA/

Jack Donohew, Senior Project Manager  
Plant Licensing Branch IV  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-482

Enclosure: Audit Report

cc w/encl: See next page

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**OFFICIAL RECORD COPY**

Wolf Creek Generating Station

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February 2006

AUDIT REPORT BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
REGULATORY COMMITMENTS MADE BY THE LICENSEE TO  
THE U.S. NUCLEAR REGULATORY COMMISSION  
WOLF CREEK NUCLEAR OPERATING CORPORATION  
WOLF CREEK GENERATING STATION  
DOCKET NO. 50-482

1.0 INTRODUCTION AND BACKGROUND

In SECY-00-045, "Acceptance of NEI [Nuclear Energy Institute] 99-04, 'Guidelines for Managing NRC Commitments,'" the U.S. Nuclear Regulatory Commission (NRC, the Commission) staff informed the Commission that it found that industry guidance document NEI 99-04 contains acceptable guidance for controlling regulatory commitments made by commercial reactor licensees to the NRC and the Commission endorsed NEI 99-04. The guidance in NEI 99-04 provides the NRC staff and its stakeholders with a common reference for handling regulatory commitments, which are defined as "explicit statement[s] to take a specific action agreed to, or volunteered by, a licensee *and* submitted in writing on the docket to the NRC."

The NRC staff has agreed that NEI 99-04 provides acceptable guidance to licensees for the control of regulatory commitments made to the NRC staff. See Regulatory Issue Summary 2000-17, "Managing Regulatory Commitments Made by Power Reactor Licensees to the NRC Staff," dated September 21, 2000. The commitments will be controlled in accordance with the licensee's Commitment Management Program (CMP) in accordance with NEI 99-04. Any change to the regulatory commitments is subject to licensee management approval and subject to the procedural controls established at the plant for commitment management in accordance with NEI 99-04, which include appropriate notification of the NRC.

The NRC's Office of Nuclear Reactor Regulation (NRR) performs audits of regulatory commitments made by commercial reactor licensees. An NRR project manager audits the licensee's CMP by assessing the adequacy of the licensee's implementation of a sample of commitments made to the NRC in past licensing actions (e.g., amendments, relief requests, exemptions) and activities (e.g., bulletins, generic letters). An audit is to be performed every 3 years.

## 2.0 AUDIT PROCEDURE AND RESULTS

An audit of the Wolf Creek Nuclear Operating Corporation's (WCNOC's, the licensee's) program for managing regulatory commitments at the Wolf Creek Generating Station, the Commitment Management System (CMS), was performed at the plant site on August 20-21, 2007. Since no such audit was performed prior to this date, the NRC staff defined the period of this audit to encompass approximately 6 years prior to the date of the audit, twice the normal period of 3 years.

### 2.1 Verification of Licensee's Implementation of NRC Commitments

The primary focus of this part of the audit is to confirm that the licensee has implemented those commitments made to the NRC as part of past licensing activities, satisfying both the action committed to and the overall intent of the commitment.

The NRC staff selected a sample of individual and unrelated regulatory commitments that were approved by the NRC to justify a licensing action or resolve a licensing activity. This sample emphasized regulatory commitments encompassing a variety of systems, a variety of engineering disciplines, and a variety of licensing actions.

The NRC staff reviewed reports generated by the licensee's CMS along with other relevant documentation to evaluate the status of the completion of regulatory commitments. The results of this review are listed in the attached Table 1. The NRC staff found that the licensee's CMS had adequately incorporated and implemented all of the regulatory commitments that were selected by the NRC staff for this audit.

### 2.2 Verification of Licensee's Program for Managing NRC Commitment Changes

The primary focus of this part of the audit is the licensee's performance related to implementing controls for modifying or deleting regulatory commitments made to the NRC in order to ensure that changes to regulatory commitments are evaluated in accordance with the licensee's programs and procedures, that the licensee's technical evaluations adequately justify the change, and that the NRC is informed of regulatory commitment changes that have safety or regulatory significance in accordance with NEI 99-04.

The licensee manages regulatory commitments using procedure AI 26D-001, "Commitment Management System." In accordance with this procedure, commitment changes are evaluated using procedure AI 26A-003, "Evaluation of Proposed Change (Other than [Part 50, Section 59 of Title 10 of the *Code of Federal Regulations*])" with the aid of the flowchart in ATTACHMENT A to AI 26D-001. The NRC staff reviewed Revision 5 of these procedures and concluded that they are consistent with the guidance of NEI 99-04; that the procedures constitute adequate administrative controls for modifying and deleting regulatory commitments made to the NRC; that the programs provide guidance regarding the evaluation of proposed changes to regulatory commitments in terms of safety and regulatory significance; and that the guidance included criteria consistent with NEI 99-04 for determining when it would be appropriate to notify the NRC of a regulatory commitment change.

The NRC staff selected a sample of regulatory commitment changes that were reported to the NRC. In addition, the licensee provided examples of regulatory commitment changes that the licensee has not and does not plan to report to the NRC. The samples of reported and non-reported regulatory commitments are listed in the attached Table 2. The NRC staff found that the licensee's CMS had adequately evaluated all of the regulatory commitments that were sampled and reported those changes to NRC that met the criteria in NEI 99-04.

### 2.3 Additional Observations and Recommendations

- (a) The licensee explicitly identifies regulatory commitments in outgoing correspondence to the NRC and when such correspondence does not include any commitments, the licensee will include a statement to the effect, "There are no commitments associated with this submittal" in the cover letter. When such commitments are included in the letter, there is an attachment to the letter that clearly states that the attachment contains regulatory commitments, what these commitments are, and when the commitments will be implemented. These explicit statements that the correspondence contain or do not contain regulatory commitments represent clear and effective communications, and is considered by the NRC staff to be a positive initiative on the part of the licensee.
- (b) The licensee's commitment tracking software as a part of their document management system was a powerful tool that facilitated the straightforward location of not only information pertaining to the implementation and management of the commitment but also the location of related documents (e.g., the source document, procedures in which the commitment was implemented, reports documenting the implementation of the procedure). The licensee staff member assigned to support this audit had very little difficulty retrieving the required documentation.
- (c) Some sampled entries within the commitment tracking software had incorrect or absent information (e.g., incorrect status, no closure date). In spite of these inconsistencies and omissions, the correct information was generally available elsewhere within the document management system.

### 3.0 CONCLUSION

Based on the above audit, the NRC staff concludes that (1) the licensee has an adequate program to implement and manage regulatory commitments, and (2) the licensee has an adequate program to implement and manage changes to regulatory commitments.

4.0 LICENSEE PERSONNEL CONTACTED AT SITE FOR THIS AUDIT

Bill Muilenberg

Attachments:

1. Table 1: Implemented Regulatory Commitments
2. Table 2: Revised or Deleted Regulatory Commitments

Principal Contributor: Adam Hoffman, NRR

Date: October 31, 2007

AUDIT OF WOLF CREEK NUCLEAR OPERATING CORPORATION (WCNOC)

MANAGEMENT OF REGULATORY COMMITMENTS

AT WOLF CREEK NUCLEAR GENERATING STATION

PERFORMED AUGUST 20-21, 2007

LIST OF COMMITMENTS INCLUDED IN AUDIT

**Table 1. Implemented Regulatory Commitments**

<b>Item No.</b>	<b>Commitment No.</b>	<b>Commitment Date</b>	<b>Description of Commitment</b>	<b>Status</b>	<b>Method of Closure</b>
1	2001-026	11/14/2001	WCNOC will provide the requested information (NRC Bulletin 2001-01, Request 5) or indicate no leakage was found, within 30 days after plant restart following the next refueling outage.	Closed 5/22/2002	During refueling outage 12, a remote visual inspection of the top of the reactor vessel head was performed to support an engineering evaluation of its condition. No evidence of leakage through reactor vessel penetrations or reactor vessel penetration nozzle cracking was found. These results were communicated by licensee submittal ET 02-0023 (Agencywide Documents Access and Management System Accession No. ML021610273).

<b>Item No.</b>	<b>Commitment No.</b>	<b>Commitment Date</b>	<b>Description of Commitment</b>	<b>Status</b>	<b>Method of Closure</b>
2	2002-025	12/4/2002	WCNOC will conduct a MRP inspection plan "supplemental visual examination" in Refueling Outage #14, currently scheduled for spring 2005.	Closed (No date in CMS)	This commitment was superseded by NRC Revised Order EA-03-009, Issuance of First Revised Order (EA-03-009) Establishing Interim Inspection Requirements For Reactor Pressure Vessel Heads at Pressurized Water Reactors.
3	2003-058	9/19/2003	A surveillance procedure for inspection of the lower RPV head will be developed and will include the following elements: * Use of VT-2 examination techniques * 100% circumferential examination of the all penetration tubing below the lower RPV head (58 total penetrations) * 100% circumferential examination of the annulus region between the lower RPV head and the penetration tubing * 100% examination of the lower head surface * Requirements for pictorial documentation as well as written descriptions of all relevant Indications	Closed 12/12/2003	The required elements developed for the lower head inspection are contained in a surveillance procedure.
4	2003-059	9/19/2003	A bare-metal visual inspection of the lower RPV head will be performed.	Closed 11/27/2003	The appropriate surveillance procedure was performed.

<b>Item No.</b>	<b>Commitment No.</b>	<b>Commitment Date</b>	<b>Description of Commitment</b>	<b>Status</b>	<b>Method of Closure</b>
5	2003-060	9/19/2003	WCNOC will submit to the NRC: * a summary of the inspections performed, * the extent of the Inspections, * the methods used, * a description of the as-found condition of the lower head, * any findings of relevant indications of through-wall leakage, and * a summary of the disposition of any findings of boric acid deposits and any corrective actions taken as a result of indications found.	Closed (No date in CMS)	The required information was provided in licensee submittal WM 04-0002.
6	2003-066	12/15/2003	The proposed changes to the WCGS Technical Specifications (Reactor Trip System Instrumentation and Engineered Safety Features Actuation System Instrumentation) will be implemented within 90 days of NRC approval.	Closed (No date in CMS)	NRC issued Amendment No. 156 on 1/31/2005. Amendment No. 156 was implemented on 2/16/2005.
7	2003-067	12/15/2003	Activities that degrade the availability of the auxiliary feedwater system, RCS pressure relief system (pressurizer PORVs and safety valves), AMSAC, or turbine trip should not be scheduled when a logic train or RTB train is inoperable for maintenance.	Closed (No date in CMS)	These restrictions have been implemented in procedures.
8	2003-068	12/15/2003	One complete ECCS train that can be actuated automatically must be maintained when a logic train is inoperable for maintenance.	Closed (No date in CMS)	This restriction has been implemented in procedures.

Item No.	Commitment No.	Commitment Date	Description of Commitment	Status	Method of Closure
9	2003-069	12/15/2003	Activities that cause master relays or slave relays in the available train to be unavailable and activities that cause analog channels to be unavailable should not be scheduled when a logic train or RTB train is inoperable for maintenance.	Closed (No date in CMS)	These restrictions have been implemented in procedures.
10	2003-070	12/15/2003	Activities on electrical systems (e.g., AC and DC power) and cooling systems (e.g., essential service water and component cooling water (CCW only for an inoperable logic train)) that support the systems or functions listed above should not be scheduled when a logic train or RTB train is inoperable for maintenance. That is, one complete train of a function that supports a complete train of a function noted above must be available.	Closed (No date in CMS)	These restrictions have been implemented in procedures.
11	2003-071	12/15/2003	The drift term used in the WCGS setpoint study was originally based on a 30 day surveillance interval for COTs. From historical experience, instrument drift is expected to remain within the assumptions of the existing setpoint study with the proposed change to a COT Frequency of 184 days. However, this expectation will be validated using future surveillance results subsequent to changing the COT Frequency to a 184 day interval.	Closed (No date in CMS)	I&C is required to collect this information with each surveillance. Trends are monitored and the results are provided to Safety Analysis.

<b>Item No.</b>	<b>Commitment No.</b>	<b>Commitment Date</b>	<b>Description of Commitment</b>	<b>Status</b>	<b>Method of Closure</b>
12	2004-080	7/23/2004	The proposed changes to the WCGS Technical Specifications (eliminating requirement for hydrogen recombiners and hydrogen monitors) will be implemented within 90 days of NRC approval. Revision to the TS Bases will be implemented pursuant to the TS Bases Control Program, TS 5.5.14, upon implementation of this license amendment.	Closed (No date in CMS, incorrectly listed as Open)	The licensee implemented the changes to the Technical Specifications and Technical Specification Bases.
13	2004-081	7/23/2004	WCNOC has verified that a hydrogen monitoring system capable of diagnosing beyond design-basis accidents is installed at WCGS and is making a regulatory commitment to maintain that capability. The hydrogen monitors will be included in the Technical Requirements Manual. This regulatory commitment will be implemented within 90 days of NRC approval of this amendment request.	Closed (No date in CMS, incorrectly listed as Open)	Hydrogen monitors have been included in the Technical Requirements Manual.
14	2005-107	7/31/2005	Submit an update to information contained in WCNOC's response to Generic Letter 2004-02 Requested Information Item 2.	Closed 5/31/2006	The licensee submitted the information requested in letter WO 06-0028.
15	2006-237	9/27/2006	WCNOC will notify the NRC Project Manager for Wolf Creek Generating Station (WCGS) when the ultrasonic (UT) examination of the final full structural weld overlay is complete.	Closed 11/06/2006	The licensee notified the Project Manager (Jack Donohew) by email on 11/06/2006.

Item No.	Commitment No.	Commitment Date	Description of Commitment	Status	Method of Closure
16	2006-238	9/27/2006	<p>WCNOC will provide the results of the UT examinations of the full structural weld overlays of the WCGS Pressurizer safety, relief, spray and surge line nozzle welds to the NRC.</p> <p>The results will include:</p> <ul style="list-style-type: none"> <li>* A listing of indications detected;</li> <li>* The disposition of all indications using the standards of ASME Section XI, Table IWB-3514-2 and/or Table IWB-3514-3; and, if possible,</li> <li>* The type and nature of the indications</li> </ul> <p>Also included in the results will be a discussion of any repairs to the overlay material and/or base metal and the reason for the repair.</p>	Closed 11/17/2006	The results of the UT examinations were provided in letter ET 06-0055.
17	Not in CMS	4/18/2005	If cracking is found in the sample population of bulges or overexpansions, the inspection scope will be increased to 100% of the bulges and overexpansions population for the region from the top of the hot leg tubesheet to 17 inches below the top of the tubesheet in the affected steam generator and 20% of the bulges and overexpansions population in the unaffected steam generators from the top of the hot leg tubesheet to 17 inches below the top of the tubesheet.	Closed (No date in CMS)	The inspection was performed by Westinghouse Electric Corporation on 4/22/2005, the results of which were reported to the NRC in letter ET 06-0016.

<b>Item No.</b>	<b>Commitment No.</b>	<b>Commitment Date</b>	<b>Description of Commitment</b>	<b>Status</b>	<b>Method of Closure</b>
18	Not in CMS	4/18/2005	If cracking is reported at one or more tube locations not designated as either a top of the tubesheet expansion transition, a bulge or an overexpansion, an engineering evaluation will be performed. This evaluation will determine the cause for the signal, e.g., some other tube anomaly, in order to identify a critical area for the expansion of the inspection. This expanded inspection will be limited to the identified critical area within 17 inches from the top of the hot leg tubesheet.	Closed (No date in CMS)	Since no cracking was reported, no action was required to fulfill this commitment.
19	Not in CMS	6/26/2006	The license amendment (to remove containment atmosphere gaseous radioactivity monitor from Technical Specification 3.14.15) will be implemented within 90 days of issuance. Final TS Bases changes will be implemented pursuant to TS 5.5.14 at the time the amendment is implemented.	Closed (No date in CMS)	The licensee implemented the changes to the Technical Specifications and Technical Specification Bases.

**Table 2. Revised or Deleted Regulatory Commitments**

Item No.	Commitment No.	Commitment Change Date	Description of Commitment	Change to Commitment	Reported to NRC?	Evaluation Consistent with Procedure?
20	1997-179	5/10/2006	The Plant Manager will establish a performance indicator on approved work hour deviations. This indicator is a tool for management monitoring of authorization frequency and justification.	Work hour limitations will be tracked in the cross functional team panels. The Plant Manager will remain cognizant of any deviations through review of the division clock resets and related Condition Reports.	Yes	Yes
21	1997-181	5/10/2006	Procedure AP 13-001, Revision 2, "Guidelines for WCGS Staff Working Hours," will be enhanced to provide better guidance.	Procedure was changed to state that work hour limitations will be included in the cross functional team panels.	Yes	Yes
22	1986-265	12/10/2003	Compliance with administrative controls [for combustible materials] will be maintained by increased inspections by the station fire protection specialist.	Commitment remarks was edited to provide clarification of the implementation of the commitment.	No	Yes
23	2003-032	8/5/2004	WCNOC will revise administrative controls for monitoring and evaluating the containment atmosphere to require initiation of corrective action documentation when sample results indicate potential RCS leakage or changes to RCS leakage.	Additional guidance is implemented by a second procedure to provide specific visual inspection parameters, limits, and notes to define specific actions needed based on the results.	No	Yes

Item No.	Commitment No.	Commitment Change Date	Description of Commitment	Change to Commitment	Reported to NRC?	Evaluation Consistent with Procedure?
24	Not Assigned	2/6/2004	Following an unscheduled reactor shutdown, the Independent Safety Evaluation Group (ISEG) is responsible for performing an independent evaluation of the unscheduled reactor trip data package in the same manner as the Plant Safety Review Committee.	Only the Plant Safety Review Committee will review the post-trip review, in fulfillment of requirement 1.1 of Generic Letter 83-28, "Required Actions Based on Generic Implications of Salem ATWS Events."	No	Yes