



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION IV  
612 EAST LAMAR BLVD, SUITE 400  
ARLINGTON, TEXAS 76011-4125

September 1, 2011

Matthew W. Sunseri, President and  
Chief Executive Officer  
Wolf Creek Nuclear Operating Corporation  
P.O. Box 411  
Burlington, KS 66839

SUBJECT: MID-CYCLE PERFORMANCE REVIEW AND INSPECTION PLAN –  
WOLF CREEK GENERATING STATION

Dear Mr. Sunseri:

On August 16, 2011, the NRC completed its mid-cycle performance review of Wolf Creek Generating Station. The NRC reviewed the most recent quarterly performance indicators (PIs) in addition to inspection results and enforcement actions from July 1, 2010, through June 30, 2011. This letter informs you of the NRC's assessment of your facility during this period and its plans for future inspections at your facility. This performance review and enclosed inspection plan do not include security information. A separate letter will include the NRC's assessment of your performance in the Security Cornerstone and its security-related inspection plan.

Overall, Wolf Creek Generating Station operated in a manner that preserved public health and safety and fully met all cornerstone objectives. The NRC determined the performance at Wolf Creek Generating Station during the most recent quarter was within the Licensee Response Column of the NRC's Reactor Oversight Process (ROP) Action Matrix because all inspection findings had very low (i.e., Green) safety significance, and all PIs indicated that your performance was within the nominal, expected range (i.e., Green). Therefore, the NRC plans to conduct ROP baseline inspections at your facility.

In the first quarter of 2011, plant performance at Wolf Creek Generating Station was within the Degraded Cornerstone Column of the NRC's Action Matrix based on two White performance indicators for Unplanned Scrams and Unplanned Scrams with Complications in the first quarter of 2010 involving the Initiating Events Cornerstone and a White performance indicator for Safety System Functional Failures involving the Mitigating Systems Cornerstone. The Unplanned Scrams with Complications performance indicator originally crossed the Green-White threshold in the third quarter of 2009. As a result, when the performance indicator for Unplanned Scrams crossed the Green-White threshold in the first quarter of 2010, the station entered the Degraded Cornerstone column of the Action Matrix as discussed in our assessment follow-up letter dated June 7, 2010 (ADAMS ML101590249). Although the performance indicators for Unplanned Scrams and Unplanned Scrams with Complications both returned to Green in the second quarter of 2010, the station remained in the Degraded Cornerstone column pending successful completion of the supplemental inspection conducted using Inspection Procedure 95002,

“Inspection for One Degraded Cornerstone or Any Three White Inputs in a Strategic Performance Area,” as required by the NRC ROP Action Matrix. The NRC conducted this supplemental inspection in the first quarter of 2011. During the inspection, the inspectors determined that your staff performed a comprehensive evaluation of the individual and collective causes of the three White performance indicators and proposed appropriate corrective actions which, if successfully implemented, would resolve the identified performance issues. Also, the NRC noted that the Safety Systems Functional Failure performance indicator returned to Green at the beginning of the second quarter of 2011. On May 20, 2011, the NRC issued a follow-up assessment letter in conjunction with the supplemental inspection report (ML111400351) documenting a quarterly review of plant performance in which the NRC assessed Wolf Creek Generating Station performance to have returned within the Licensee Response Column of the Action Matrix.

In its assessment letter dated March 4, 2011, (ML110630083) the NRC outlined substantive cross-cutting issues in the areas of human performance and problem identification and resolution associated with themes in the aspects of: (1) thoroughness of evaluating problems such that resolutions address causes and extent of condition [P.1(c)]; (2) appropriateness and timeliness of corrective actions [P.1(d)]; and (3) completeness and accuracy of design documentation, procedures, and work packages [H.2(c)]. We also detailed that we would conduct additional inspections above the ROP baseline inspection program as described in Section 13.03 of Inspection Manual Chapter 0305, “Operating Reactor Assessment Program,” to evaluate the effectiveness of your performance improvement efforts related to these substantive cross-cutting issues. We requested you provide us a letter informing us of your readiness for inspection of your corrective actions in addressing each of the three identified themes. Through our baseline inspection efforts and through communications with station management, we have kept abreast of your most recent efforts to improve performance in these areas and recognize that you have not yet determined you are ready for this inspection. Therefore, the three substantive cross-cutting issues described above will remain open. As stated in previous assessment letters, these items will remain open pending your notifying us of your readiness and when we determine through our inspection that your corrective actions have been effective and the station has demonstrated sustained and measurable improvement.

During the current assessment period the NRC identified a new substantive cross-cutting issue in the area of problem identification and resolution associated with the use of a low threshold for identifying issues in the corrective action program [P.1(a)]. This theme was comprised of four findings in the Mitigating Systems cornerstone and was also present in our 2010 end-of-cycle assessment. At that time, we did not open a substantive cross-cutting issue since a reasonable duration of time had not passed to determine the effectiveness of your corrective actions. Since then, we have noted that you have incorporated your corrective actions for this issue into a broader root cause evaluation for site problem identification and resolution issues recently completed in June 2011. We plan to inspect your efforts to address this issue along with the other previously opened substantive cross-cutting issues, and request you provide us a letter informing us of your readiness for inspection of your corrective actions in this safety culture theme as well. This substantive cross-cutting issue will remain open until we determine through our inspection that your corrective actions have been effective and the station has demonstrated sustained and measurable improvement.

The NRC also identified a new substantive cross-cutting issue in the area of human performance associated with the use of conservative assumptions in decision-making [H.1(b)]. This theme is comprised of four findings affecting the Mitigating Systems cornerstone. In evaluating the scope of efforts and progress in addressing this theme, we noted that you entered this issue into your corrective action program for evaluation; however, the cause evaluation for this theme had not been completed at the end of the assessment period. We note that corrective actions for this issue are included in the broader root cause evaluation for site human performance issues completed in June 2011. We plan to inspect your efforts to address this issue in conjunction with the other previously opened substantive cross-cutting issues and request you provide us a letter informing us of your readiness for inspection of your corrective actions in this safety culture theme. The substantive cross-cutting issue will remain open until we determine through our inspection that your corrective actions have been effective and the station has demonstrated sustained and measurable improvement.

In addition, the NRC identified a cross-cutting theme with four findings in the resources component of the human performance area associated with training of personnel [H.2(b)]. In addressing the scope of efforts and progress in addressing this theme, we noted your staff appropriately recognized the declining trend and entered the trend into the corrective action program; however, a reasonable duration of time has not passed to determine the effectiveness of your corrective actions since two of the findings comprising this theme were identified during the last quarter of the assessment period. Therefore, the NRC has determined that a substantive cross-cutting issue does not exist at this time. The NRC will continue to monitor your staff's effort and progress in addressing the theme through the baseline inspection program.

We request that you schedule a public meeting before the end of the calendar year to discuss your progress and the status of your plans for addressing the substantive cross-cutting issues described above. Also, we request you provide a written response within 30 days of the date of this letter that provides details of your planned corrective actions and a schedule outlining when you expect to be ready for inspection of your corrective actions for each of the safety culture themes.


In the days following the Fukushima Dai-ichi nuclear accident in Japan, the Commission directed the staff to establish a senior-level agency task force to conduct a methodical and systematic review of the NRC's processes and regulations to determine whether the agency should make additional improvements to its regulatory system. The NRC has since completed Temporary Instruction (TI) 183, "Follow-up to Fukushima Dai-ichi Nuclear Station Fuel Damage Event," and TI-184, "Availability and Readiness Inspection of Severe Accident Management Guidelines (SAMGs)" at your facility. Results of these inspections can be found here: <http://www.nrc.gov/japan/japan-activities.html>. Additionally, on May 11, 2011, the agency issued NRC Bulletin 2011-01, "Mitigating Strategies," to confirm compliance with Order EA-02-026, subsequently imposed license conditions, and 10 CFR 50.54(hh)(2), and to determine the status of licensee mitigating strategies programs. On July 12, 2011, the NRC's Task Force made its recommendations to the Commission in its report, "Recommendations for Enhancing Reactor Safety in the 21st Century: The Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident." The Commission is currently reviewing the Task Force's recommendations to determine whether additional actions may be warranted.

The enclosed inspection plan lists the inspections scheduled through December 31, 2012. Routine inspections performed by resident inspectors are not included in the inspection plan. The inspections listed during the last nine months of the inspection plan are tentative and may be revised at the end-of-cycle performance review. The NRC provides the inspection plan to allow for the resolution of any scheduling conflicts and personnel availability issues. The NRC will contact you as soon as possible to discuss changes to the inspection plan should circumstances warrant any changes.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Please contact Geoffrey Miller at 817-860-8141 with any questions you have regarding this letter.

Sincerely,

A handwritten signature in black ink that reads "Elmo E. Collins". The signature is written in a cursive style with a large, prominent "E" and "C".

Elmo E. Collins  
Regional Administrator

Docket No. 50-482  
License No. NPF-42

Enclosure:  
Wolf Creek Generating Station Inspection Plan

cc: Distribution via ListServ

Wolf Creek  
 Inspection / Activity Plan  
 09/01/2011 - 12/31/2012

Unit Number	Planned Dates Start End	Inspection Activity	Title	No. of Staff on Site
1	08/29/2011 09/02/2011	<b>EXAM</b> X02451	<b>- INITIAL OPERATOR EXAM</b> INITIAL EXAM -WC (11/2011)	4
1	10/17/2011 10/21/2011	<b>EB2-05T</b> IP 7111105T	<b>- TRIENNIAL FIRE PROTECTION</b> Fire Protection [Triennial]	4
1	10/31/2011 11/04/2011	IP 7111105T	Fire Protection [Triennial]	
1	11/14/2011 11/18/2011	<b>EP1</b> IP 7111401	<b>- BIENNIAL EP EXERCISE INSPECTION</b> Exercise Evaluation	3
1	11/14/2011 11/18/2011	IP 7111404	Emergency Action Level and Emergency Plan Changes	
1	11/14/2011 11/18/2011	IP 71151	Performance Indicator Verification	
1	04/23/2012 04/27/2012	<b>RS5678</b> IP 71124.05	<b>- RADIATION SAFETY TEAM</b> Radiation Monitoring Instrumentation	4
1	04/23/2012 04/27/2012	IP 71124.06	Radioactive Gaseous and Liquid Effluent Treatment	
1	04/23/2012 04/27/2012	IP 71124.07	Radiological Environmental Monitoring Program	
1	04/23/2012 04/27/2012	IP 71124.08	Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation	
1	05/06/2012 05/10/2012	<b>TSB-52B</b> IP 71152B	<b>- BIENNIAL PI&amp;R INSPECTION</b> Problem Identification and Resolution	4
1	05/22/2012 05/26/2012	IP 71152B	Problem Identification and Resolution	
1	08/13/2012 08/24/2012	<b>EB1-17T</b> IP 7111117T	<b>- 50.59 &amp; PERM PLANT MODS</b> Evaluations of Changes, Tests, or Experiments and Permanent Plant Modifications	3
1	08/13/2012 08/17/2012	<b>BRQ</b> IP 7111111B	<b>- BRQ INSPECTION</b> Licensed Operator Requalification Program	2
1	09/24/2012 09/28/2012	<b>RS12</b> IP 71124.01	<b>- RADIATION SAFETY</b> Radiological Hazard Assessment and Exposure Controls	2
1	09/24/2012 09/28/2012	IP 71124.02	Occupational ALARA Planning and Controls	
1	09/24/2012 09/28/2012	IP 71151-OR01	Occupational Exposure Control Effectiveness	
1	09/24/2012 09/28/2012	IP 71151-PR01	RETS/ODCM Radiological Effluent	
1	09/24/2012 10/01/2012	<b>PSB2-08P</b> IP 2515/065	<b>- INSERVICE INSPECTION</b> Tmi Action Plan Requirement Followup	4
1	10/22/2012 10/26/2012	<b>EP-1</b> IP 7111402	<b>- BIENNIAL EP PROGRAM INSPECTION</b> Alert and Notification System Testing	1
1	10/22/2012 10/26/2012	IP 7111403	Emergency Preparedness Organization Staffing and Augmentation System	
1	10/22/2012 10/26/2012	IP 7111404	Emergency Action Level and Emergency Plan Changes	
1	10/22/2012 10/26/2012	IP 7111405	Correction of Emergency Preparedness Weaknesses and Deficiencies	
1	10/22/2012 10/26/2012	IP 71151-EP01	Drill/Exercise Performance	

This report does not include INPO and OUTAGE activities.  
 This report shows only on-site and announced inspection procedures.

Inspection / Activity Plan

09/01/2011 - 12/31/2012

08/31/2011 14:05:01

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Unit Number	Planned Dates Start End	Inspection Activity	Title	No. of Staff on Site
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1	10/22/2012 10/26/2012	EP-1 - BIENNIAL EP PROGRAM INSPECTION		1
1	10/22/2012 10/26/2012	IP 71151-EP02 IP 71151-EP03	ERO Drill Participation Alert & Notification System	

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