

UNITED STATES NUCLEAR REGULATORY COMMISSION

REGION IV 612 EAST LAMAR BLVD, SUITE 400 ARLINGTON, TEXAS 76011-4125

March 4, 2009

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

SUBJECT: ANNUAL ASSESSMENT LETTER - WOLF CREEK GENERATING STATION

(NRC INSPECTION REPORT 05000482/2009001)

Dear Mr. Muench:

On February 11, 2009, the NRC staff completed its performance review of the Wolf Creek Generating Station. Our technical staff reviewed performance indicators for the most recent quarter and inspection results for the period from January 1 through December 31, 2008. The purpose of this letter is to inform you of our assessment of your safety performance during this period and our plans for future inspections at your facility.

This performance review and enclosed inspection plan do not include security information. A separate letter designated and marked as "Official Use Only - Security-Related Information" will include the security cornerstone review and resultant inspection plan.

Overall, the Wolf Creek Generating Station operated in a manner that preserved public health and safety and fully met all cornerstone objectives. Plant performance for the most recent quarter, as well as for the first three quarters of the assessment cycle, was within the Licensee Response column of the NRC's Action Matrix, based on all inspection findings being classified as having very low safety significance (Green) and all performance indicators indicating performance at a level requiring no additional NRC oversight (Green). Therefore, we plan to conduct reactor oversight process baseline inspections at your facility.

Our mid-cycle assessment letter dated September 2, 2008, identified a substantive cross-cutting issue in the area of human performance associated with instances of failure to have complete, accurate, and up-to-date documentation, procedures, and/or work packages within the resources component [H.2(c)]. The basis for identifying the substantive cross-cutting issue at that time was five findings which composed a theme. During this assessment period, the number of findings increased to six findings related to the theme of failure to have complete, accurate, and up-to-date documentation, procedures, and/or work packages. These findings affected the Initiating Events, Mitigating Systems, and the Pubic Radiation Safety cornerstones. Examples include: an inadequate surveillance procedure that did not include all emergency core cooling vent valves, a procedure that did not include acceptance criteria for gaps in the containment sump, an inadequate procedure that resulted in the loss of all condensate pumps and a subsequent reactor trip, and an inadequate switchyard maintenance procedure that lead to a loss of all offsite power. During a public meeting with the NRC on October 21, 2008, you

informed us that you had recently completed a root cause analysis of your human performance issues. You also provided details on your Human Performance Initiative Plan and your Maintenance Work Package Quality Initiative Plan, which you were using to address human performance issues. The actions that you implemented have not yet proven effective in substantially mitigating this cross-cutting theme as evidenced by the number of existing findings related to the theme. As a result, this substantive cross-cutting issue will remain open until we determine, through our inspections, that corrective actions implemented in accordance with your improvement plan have resulted in sustained improved performance.

Also, our September 2, 2008, mid-cycle assessment letter identified a substantive cross-cutting issue in the area of problem identification and resolution associated with the corrective action program component. Three themes were identified within the corrective action program component for (1) a low enough threshold for identifying problems [P.1 (a)], (2) thoroughness of problem evaluation [P.1(c)], and (3) appropriateness of corrective actions [P.1 (d)] as the basis for the substantive cross-cutting issue. During this assessment, the substantive cross-cutting issue will remain open in all three areas.

First, at the 2008 mid-cycle assessment, a theme for an inadequate threshold for identifying problems was identified as part of a substantive cross-cutting issue in problem identification and resolution. At that time, there were five issues related to this theme. The theme had been identified at the 2007 annual assessment, but no substantive cross-cutting issue was identified because the issue had recently been identified to you and you had not had time to develop corrective action. In our 2008 mid-cycle assessment letter, we stated that this substantive cross-cutting issue would remain open until we determined that your corrective actions had been effective. During a public meeting with the NRC on October 21, 2008, you informed us that you had taken corrective action which had resulted in an increase in the number of items entered into you corrective action program. We noted this specific improvement by observing that during this assessment period, there was only one finding related to the theme of failure to have an adequate threshold for identifying problems. However, we also observed that there were over 30 NRC identified findings in this assessment period. Even though your staff is identifying more issues, your actions have not proven effective based on the large number of NRC identified findings during this assessment period. Therefore the substantive cross-cutting theme associated with a low enough threshold for identifying problems will remain open.

Next, at the 2008 mid-cycle assessment, a theme associated with the thoroughness of problem evaluation was also identified as part of a substantive cross-cutting issue in problem identification and resolution based on seven related findings. During this assessment period, there were eight findings related to the theme of failing to completely evaluate problems, all in the Mitigating Systems cornerstone. Examples include: failing to ensure submerged safetyrelated 4160 volt cables were qualified for service, improper evaluation of mechanical agitation of a check valve, improper use of a calculation to justify the operability of emergency core cooling systems containing voids, and failure to perform an adequate acceptance review of a vendor containment sump calculation. In our 2008 mid-cycle assessment letter, we stated that this new substantive cross-cutting issue would remain open until we determined that your corrective actions had been effective. During a public meeting with the NRC on October 21, 2008, you informed us that you had completed a root cause analysis for noted deficiencies related to problem identification and resolution. You informed us that you had implemented a management review program of all condition reports and established an Engineering Standards Team as part of your corrective actions for this theme. We did not observe improvement during this annual assessment period, based on the continued high

number of findings related to the theme. Therefore, the substantive cross-cutting theme associated with the thoroughness of problem evaluation will remain open.

Finally, at the 2008 mid-cycle assessment, a theme associated with the appropriateness of corrective actions was also identified as part of a substantive cross-cutting issue in problem identification and resolution based on seven related findings. During this assessment period, there were eight findings related to the theme of failing to employ effective corrective actions which affected the Mitigating Systems and Barrier Integrity cornerstones. Examples include: ineffective corrective actions for a previously identified inadequate joint which leaked during a water hammer event, ineffective actions for manual valve stem friction which allowed unplanned transfer of water from the spent fuel pool, corrective actions which did not address the missed performance of an operability evaluation for a safety-related system, and failure to take corrective actions which addressed a failure to follow procedures and take compensatory action during a loss of annunciator event. In our 2008 mid-cycle assessment letter, we stated that this new substantive cross-cutting issue would remain open until we determined that your corrective actions had been effective. During a public meeting with the NRC on October 21, 2008, you informed us that you had completed a root cause analysis for noted deficiencies related to problem identification and resolution. You informed us that you had conducted training for site leadership on their role in the corrective action process and planned additional training for root cause evaluators as part of your corrective actions for this theme. We did not observe improvement during this annual assessment period, based on the continued high number of findings related to the theme. Therefore, the substantive cross-cutting theme associated with the appropriateness of corrective actions will remain open.

As a result, this substantive cross-cutting issue in problem identification and resolution will remain open until we determine, through our inspections, that corrective actions implemented in accordance with your improvement plan have resulted in sustained improved performance.

Since this is the second consecutive assessment letter identifying the same cross-cutting issues in problem identification and resolution and human performance, we request that you provide a response to these issues at the annual public meeting. We also ask that you provide a written response to these issues and also schedule a separate public meeting to discuss these issues. Your response should provide details on your corrective actions planned to address the cross-cutting theme including schedule, milestones, and performance monitoring metrics.

The enclosed inspection plan details the inspections, less those related to physical protection scheduled through June 30, 2010. The inspection plan is provided to allow for the resolution of any scheduling conflicts and personnel availability issues well in advance of inspector arrival onsite. Routine resident inspections are not listed due to their ongoing and continuous nature. The inspections in the last nine months of the inspection plan are tentative and may be revised at the mid-cycle review.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be made 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).

If circumstances arise which cause us to change this inspection plan, we will contact you to discuss the change as soon as possible. Please contact Vincent Gaddy of my staff at 817-860-8141 with any questions you may have regarding this letter or the inspection plan.

Sincerely,

/RA/

Dwight D. Chamberlain, Director Division of Reactor Projects

Docket: 50-482 License: NPF-42

Enclosure:

Wolf Creek Inspection/Activity Plan

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File located: R:_REACTORS\EOC and Midcycle\EOC Assessment Letters\2008-dated 3-4-09

| SUNSI Rev Compl. | | Yes □ No │ ADA | | | | Reviewer Initials | | VGG |
|------------------|-----------|----------------|---------------|-------|------|---------------------|--|-----|
| Publicly Avail | Yes □ No | Sensitive | | ☐ Yes | ⊠ No | Sens. Type Initials | | VGG |
| RIV:C:DRP/B | D:DRS | | D:DRP | | | | | |
| VGaddy | RJCaniano | | DDChamberlain | | | | | |
| /RA/ | /RA/ | | /RA/ | | | | | |
| 2/23/2009 | 2/23/2009 | | 2/24/2009 | 9 | | | | |

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Report 22

Wolf Creek

Inspection / Activity Plan

03/01/2009 - 06/30/2010

| Unit | Planned Dates | | | | | No. of Staff | | |
|--------|---|------------|--------------|-----------|---|--------------|--|--|
| Number | Start | End | Inspection A | ctivity | Title | on Site | | |
| | EP1 - EP EXERCISE INSPECTION 3 | | | | | | | |
| 1 | 06/01/2009 | 06/05/2009 | IP 7111401 | | Exercise Evaluation | | | |
| 1 | 06/01/2009 | 06/05/2009 | IP 7111404 | | Emergency Action Level and Emergency Plan Changes | | | |
| 1 | 06/01/2009 | 06/05/2009 | IP 71151 | | Performance Indicator Verification | | | |
| | | | EB1-17T | - 50.59 8 | & MODS | 2 | | |
| 1 | 07/20/2009 | 07/31/2009 | IP 7111117T | | Evaluations of Changes, Tests, or Experiments and Permanent Plant Modifications | | | |
| | | | EXAM | - INITIAL | LEXAM | 6 | | |
| 1 | 07/13/2009 | 07/17/2009 | X02419 | | INITIAL EXAM-WC (8/2009) | | | |
| 1 | 08/17/2009 | 08/21/2009 | X02419 | | INITIAL EXAM-WC (8/2009) | | | |
| | | | EB1-08 | - INSER | VICE INSPECTION | 2 | | |
| 1 | 10/10/2009 | 11/06/2009 | IP 2515/172 | | Reactor Coolant System Dissimiliar Metal Butt Welds | | | |
| 1 | 10/10/2009 | 11/06/2009 | IP 7111108P | | Inservice Inspection Activities - PWR | | | |
| | RP-ORS3 - OCCUPATIONAL RADIATION SAFETY - ALARA 1 | | | | | | | |
| 1 | 10/19/2009 | 10/23/2009 | IP 7112101 | | Access Control to Radiologically Significant Areas | | | |
| 1 | 10/19/2009 | 10/23/2009 | IP 7112102 | | ALARA Planning and Controls | | | |
| 1 | 10/19/2009 | 10/23/2009 | IP 71151 | | Performance Indicator Verification | | | |
| | | | RP-ORS4 | - OCCUI | PATIONAL RADIATION SAFETY - ACCESS | 1 | | |
| 1 | 10/26/2009 | 10/30/2009 | IP 7112101 | | Access Control to Radiologically Significant Areas | | | |
| 1 | 10/26/2009 | 10/30/2009 | IP 7112102 | | ALARA Planning and Controls | | | |
| 1 | 10/26/2009 | 10/30/2009 | IP 71151 | | Performance Indicator Verification | | | |
| | | | EP-1 | - BIENN | IAL EP PROGRAM INSPECTION | 1 | | |
| 1 | 06/21/2010 | 06/25/2010 | IP 7111402 | | Alert and Notification System Testing | | | |
| 1 | 06/21/2010 | 06/25/2010 | IP 7111403 | | Emergency Response Organization Augmentation Testing | | | |
| 1 | 06/21/2010 | 06/25/2010 | IP 7111404 | | Emergency Action Level and Emergency Plan Changes | | | |
| 1 | 06/21/2010 | 06/25/2010 | IP 7111405 | | Correction of Emergency Preparedness Weaknesses and Deficiencies | | | |
| 1 | 06/21/2010 | 06/25/2010 | IP 71151-EP0 | 01 | Drill/Exercise Performance | | | |
| 1 | 06/21/2010 | 06/25/2010 | IP 71151-EP0 | 02 | ERO Drill Participation | | | |
| 1 | 06/21/2010 | 06/25/2010 | IP 71151-EP0 | 03 | Alert & Notification System | | | |
| | | | | | | | | |