

# WOLF CREEK

NUCLEAR OPERATING CORPORATION

Matthew W. Sunseri  
President and CEO

September 30, 2010  
WM 10-0024

U. S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, DC 20555

Reference: Letter dated September 1, 2010, from E. E. Collins, USNRC, to M. W. Sunseri, WCNOG

Subject: Docket No. 50-482: 30 Day Response to Mid-Cycle Performance Review and Inspection Plan – Wolf Creek Generating Station

Gentlemen:

The reference outlined the Nuclear Regulatory Commission's (NRC) mid-cycle performance review and inspection for Wolf Creek Generating Station (WCGS) and requested Wolf Creek Nuclear Operating Corporation (WCNOG) provide a written response with details of corrective actions planned to address crosscutting themes, unplanned scrams and safety system functional failures (SSFF).

Attachment I to this letter provides the requested information. Included in the attachment are the higher-level corrective actions and performance monitoring measures and metrics criteria for each of these areas.

Citing four specific examples, the reference also identified a new theme, appropriate corrective actions, associated with our substantive crosscutting issue in the area of Problem Identification and Resolution. Attachment II details actions WCNOG is taking to address the four examples cited in the reference.

Enclosures I and II contain the corrective action timelines for the crosscutting themes and 95002 inspection preparation (unplanned scrams and SSFFs). Enclosure III represents WCNOG's performance metrics.

A001  
NRR

There are no commitments contained in this letter. If you have any questions concerning this matter, please contact me at (620) 364-4008, or Mr. Richard Flannigan, Manager Regulatory Affairs at (620) 364-4117.

Sincerely,



Matthew W. Sunseri

MWS/rt

- Attachment I – Corrective Actions for Substantive Crosscutting Themes in Evaluation and Corrective Action
- Attachment II – Corrective Actions Being Taken to Address the Four Examples Specified in PI&R, Corrective Action Crosscutting Theme
- Enclosure I – Crosscutting Theme Corrective Action Timeline
- Enclosure II – 95002 Preparation Corrective Action Timeline
- Enclosure III – Performance Metrics

cc: E. E. Collins (NRC), w/a, w/e  
G. B. Miller (NRC), w/a, w/e  
B. K. Singal (NRC), w/a, w/e  
Senior Resident Inspector (NRC), w/a, w/e

**Corrective Actions for Substantive Crosscutting Themes  
in Evaluation and Corrective Action**

Below is a list of higher-level corrective actions being taken. These actions have been documented and are being tracked in the Corrective Action Program (CAP). This list is not all inclusive.

1. Nuclear Safety culture training has been developed and is being presented to Wolf Creek Nuclear Operating Corporation (WCNOC) employees and long-term contract employees to present the elements of a strong safety culture that are identified within the Nuclear Regulatory Commission (NRC) Inspection Manual, Chapter 310, "Components Within the Cross-Cutting Areas." This training identifies the impact a strong nuclear safety culture has on daily operation. Training began on September 13, 2010, and is scheduled for completion on December 15, 2010. Reference CR 23032.
2. An Operational Focus Plan has been developed by the Plant Manager that identifies and prioritizes equipment issues challenging operational focus, and lists corrective actions to prevent recurrence (CAPR) for equipment issues. The list is included with the Plan of the Day to ensure continuous focus on improvements and long-term plant health and to create organizational alignment in addressing the needs of the station. The Operational Focus Plan has been incorporated into procedure AP 34-002, "Performance Improvement Program Description." This action is complete. Reference CR 23032.
3. The CAP and work controls processes are being combined into a single point of entry process. This action aligns the work controls process with Regulatory Issue Summary (RIS) 2005-020, Revision 1, "Revision to Guidance Formerly Contained in NRC Generic Letter 91-18, Information to Licensees Regarding Two NRC Inspection Manual Sections on Resolution of Degraded and Nonconforming Conditions and on Operability." The single point of entry software and supporting procedure changes are scheduled to be implemented October 1, 2010. Reference CR 23032.
4. A strategic benchmarking plan that tactically addresses identified performance gaps and targets other important areas in a planned manner, is being developed to ensure that WCNOC standards keep pace with industry top performers. This action is scheduled for completion on October 15, 2010. Reference CR 23032.
5. Challenge boards have been established for select evaluations, for example, licensee event reports (LER), root cause evaluations (RCE), selected apparent cause evaluations (ACE), and operability determinations. These challenge boards ensure that line management standards are consistent with high industry standards. A qualitative grading process and associated metrics have been established for quality, quantity and timeliness. This action is complete. Reference CR 23032.

## **Performance Monitoring Measures and Metrics for Substantive Crosscutting Themes**

### **Measures:**

1. As an interim effectiveness measure, a Nuclear Safety Culture Assessment will be performed to sample the station population and check the status of improving characteristics and attitudes in daily behaviors, actions and decisions. The goal will be to validate if nuclear safety remains an overriding priority. This action is scheduled for completion on December 31, 2010. Reference CR 23032.
2. Personnel independent of evaluations will assess the quality of products reviewed by Corrective Action Review Board (CARB) and challenge boards. This independent look will review CARB and challenge boards accept/reject rate, use of evaluation checklists, initiation of condition reports for unacceptable performance areas and trending on product quality. This action is scheduled for completion on December 31, 2010. Reference CR 23032.
3. Quality Assurance will evaluate the effectiveness of the Operational Focus Plan in reducing plant equipment challenges. This action is scheduled for completion on December 15, 2010. Reference CR 23032.

### **Metrics:**

1. A challenge board has been established for operability determinations. Benchmarking was performed to ensure the correct standards are being applied. Qualitative grading with associated metrics has been developed to assess quality, quantity and timeliness. This action is complete. In addition, from October 4 through October 15, 2010, external operability evaluation specialists will arrive at the station to mentor WCNOE engineering and operations personnel to ensure high standards are being applied. Reference CR 23032.
2. A review board has been established for 10 CFR 50.59 screenings and evaluations. A qualitative grading process with associated metrics has been established to assess quality. This action is complete. Reference CR 23032.
3. Engineering will develop and implement a review process to ensure qualitative assessments of the overall product are performed for key engineering products not covered by other challenge or review boards. Benchmarking was performed to ensure high standards are being applied. Qualitative grading with associated metrics will be developed to assess quality, quantity and timeliness. This action is scheduled for completion on October 1, 2010. Reference CR 23032.
4. As part of the Operational Focus Plan, indicators are being developed or identified for long-term temporary modifications, control room deficiencies, emergency AC power unplanned unavailability, out-of-service equipment, unplanned Technical Specification Condition/Required Action entries, illuminated annunciators, long-term clearance orders, operator burdens, and operator work arounds. This item is scheduled for completion on October 15, 2010. Reference CR 23032.

### **Corrective Actions for Unplanned Scrams and Safety System Functional Failures (SSFF)**

Below is a list of higher-level corrective actions being taken. These actions have been documented and are being tracked in the Corrective Action Program. This list is not all inclusive.

1. Develop and implement a Preventive Maintenance Optimization (PMO) Project. The PMO Project will ensure that systems or components critical to plant operation are reviewed for the appropriateness of existing PMs, as well as establish new PMs that were not previously identified. The analysis also includes component or structure, system or component (SSC) vulnerabilities to aging, design and single point vulnerabilities. The PMO Project will ensure monitoring and replacement activity is sufficient to prevent equipment failures. The PMO Project is scheduled to be developed by January 4, 2011 and fully implemented August 31, 2012. Reference CR 24445.
2. Implement enhanced risk assessment processes and procedures for daily and outage activities. This action is complete. Reference CR 24445.
3. Develop a preventive maintenance activity to start and run the start-up feed pump quarterly to ensure it will operate from the Control Room. This item is scheduled for completion on November 1, 2010. Reference CR 25817.
4. Revise procedure AP 26A-007, "NRC Performance Indicators," to enter into the Corrective Action Program (CAP) any events that impact the initiating events, safety system functional failures, occupational radiation safety, or public radiation safety cornerstones. The CR will be screened as an ACE with the evaluation to focus on the cause of the impacted cornerstone. This item is scheduled for completion on October 14, 2010. Reference CR 25817.
5. A benchmarking assessment will be conducted, using a multi-disciplined team, to evaluate processing of "information only" classification of industry operating experience (IOE). Identify effective and efficient processes utilized by other stations for the distribution and evaluation of "information only" classification of IOE. The benchmarking assessment will document how organizations at other stations effectively handle the volume of OE, the software used, and IOE program metrics. This item is scheduled for completion on January 28, 2011. Reference CR 23119.
6. Revise plant engineering individual training plans (ITP) to include system specific training for the assigned systems. Other applicable engineering division ITP's will be revised to ensure position specific training is included. This item is scheduled for completion on January 14, 2011. Reference CR 23119.

### **Performance Monitoring Measures and Metrics for Unplanned Scrams and Safety System Functional Failures (SSFF)**

#### **Measures:**

1. As an interim effectiveness measure, a PMO Project assessment using external peers will be conducted, prior to project implementation, to review and evaluate the scope of the project. The assessment will include determining if the scope of the project included

the correct systems and components. The assessment is scheduled for completion on March 11, 2011. Reference CR 23119.

2. An IOE benchmarking assessment will be conducted to determine how effectively the station identified and implemented the recommendations for improvement. The assessment will determine if IOE is handled efficiently, evaluated thoroughly, and measured effectively. The assessment is scheduled for completion on August 31, 2011. Reference CR 23119.
3. Assess progress made on improving plant engineering ITP's by reviewing a sample of ITP's and conducting interviews with engineering support personnel. The criteria for success will be Engineering Managers and Supervisors reviewing position specific ITP's with individuals in their groups and updating the ITP's as necessary to ensure individual training needs are identified. This item is scheduled for completion on February 25, 2011. Reference CR 23119.

**Metrics:**

1. Improved Reliability Metrics, such as forced loss rate and unplanned power changes, will be used to show an improvement in equipment reliability. These metrics have been established.

**Corrective Actions Being Taken to Address the Four Examples Specified  
in PI&R, Corrective Action Crosscutting Theme**

In addition to the actions being taken to address the new crosscutting theme in Corrective Actions, WCNOG is taking corrective actions to address the following four examples identified in the reference. These actions have been documented and are being tracked in the Corrective Action Program. This list is not all inclusive.

1. A failure to establish goals and monitor the offgas radiation monitoring systems per 10 CFR 50.65 (effectiveness of maintenance).

Response: Engineering updated the scoping functions to identify specifically when the failure was a functional failure or unavailability time only. Unavailability events were reviewed and updated appropriately. Maintenance Rule lesson plans were revised to reflect expectations and responsibilities. Maintenance Rule training will be presented to appropriate engineering support incumbents. Maintenance Rule training is scheduled for completion on December 16, 2010. Reference Condition Report (CR) 24423.

2. The failure to correct an inadequate reactor vessel vent path during an outage.

Response: A corrective action plan has been created to correct the reactor head vent path. The reactor head vent plan implementation is scheduled for completion May 31, 2011. Reference CR 22501.

3. The failure to have adequate acceptance criteria for the effects of essential service water (ESW) system corrosion.

Response: The lake water systems procedures will be revised to include acceptance criteria to mitigate and manage deficiencies on an overall system basis. The due date is October 21, 2010. Reference CR 22243.

4. The use of a non-safety related power supply in a safety related system.

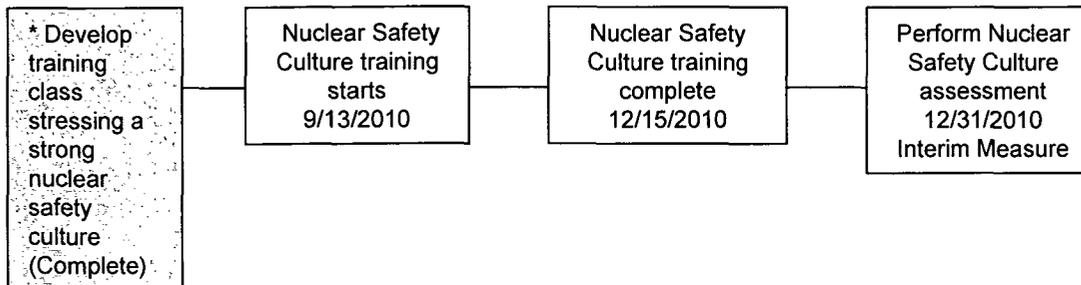
Response: Preventive maintenance, on a 3-month basis, was established to measure the alternating current ripple voltage at the direct current input to the annunciator power supply to the emergency diesel generators (EDG). Work requests will be written if the established limit is exceeded. The annunciator power supply will be replaced in the plant annunciator system, and in the EDGs, through configuration change package 13312. The scheduled completion date is March 24, 2011. Safety related filtering capacitors will be added to the EDGs, adjacent to the power supplies, to protect the speed switch from a failed power supply. The EDG "B" capacitor was replaced August 26, 2010 and EDG "A" capacitor replacement is scheduled for October 4, 2010. Reference CR's 21039 and 25663.

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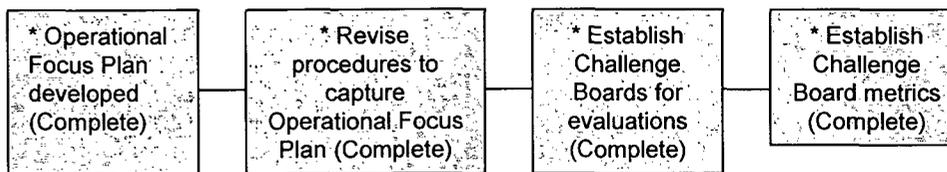
Enclosure I  
Crosscutting Themes Corrective Action Timeline (1 page)

# Crosscutting Themes Corrective Action Timeline

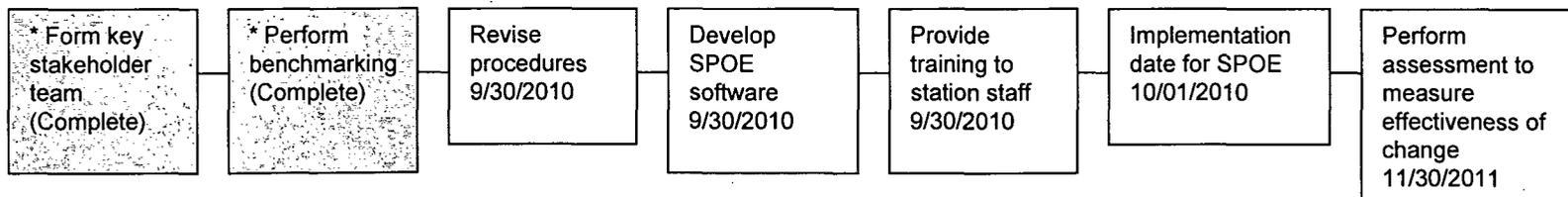
## Nuclear Culture Safety Training



## Equipment and Evaluation Focus



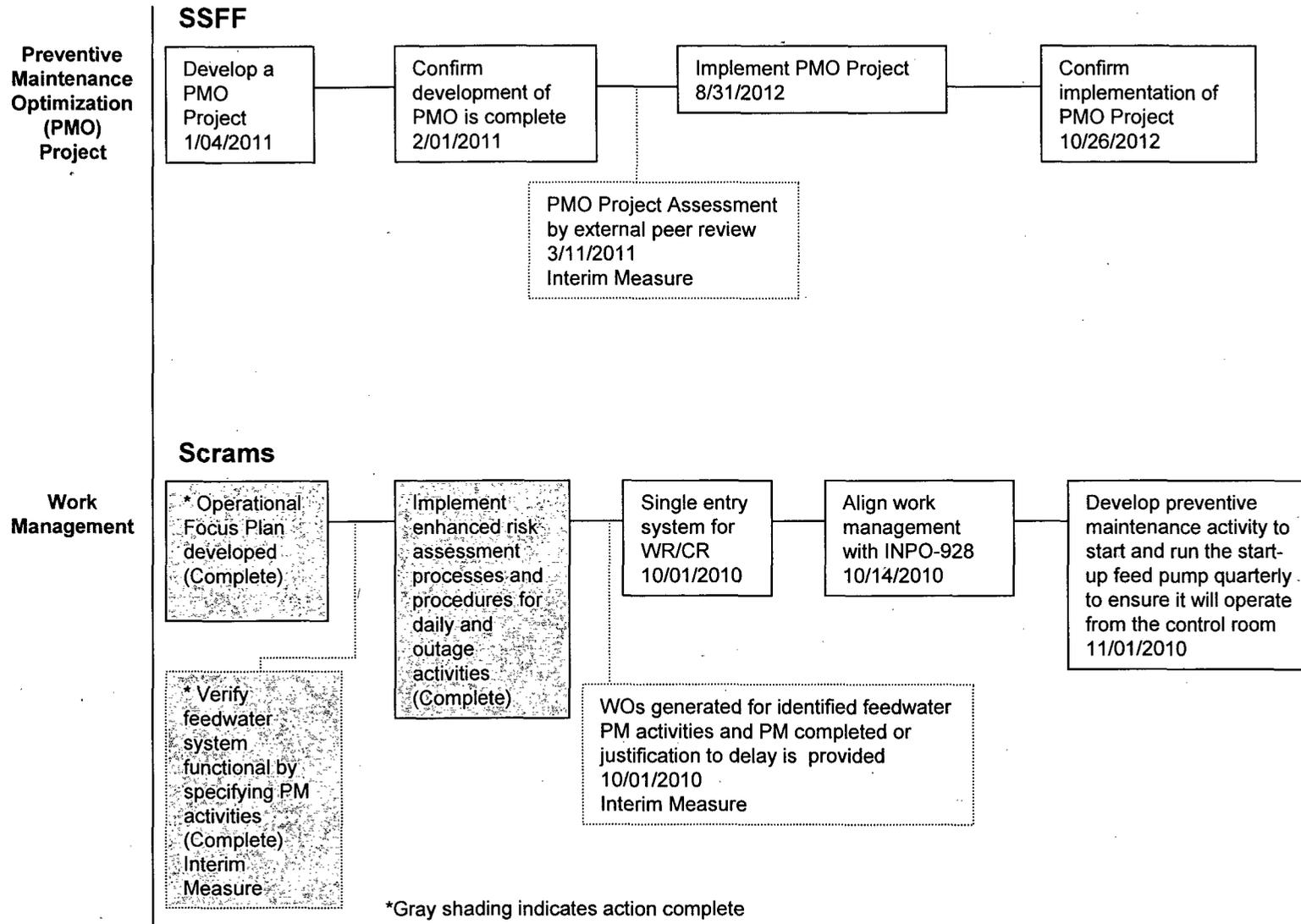
## Single Point of Entry (SPOE)



\*Gray shading indicates action complete

Enclosure II  
95002 Preparation Corrective Action Timeline (1 page)

# 95002 Preparation Corrective Action Timeline



Enclosure III  
Performance Metrics (1 page)



# Focus Areas



<b>Operations</b>	Control Room Deficiencies	Equipment Out of Service Log	Lit Annunciators	Long-Term Clearance Orders	Operator Burdens	Operator Work Arounds	Plant Status Control	LCO Entries	Temporary Modifications	Emergency AC Power Unplan Unavail	Reactivity Management
	Dees	Dees	Dees	Dees	Dees	Dees	Dees	Dees	Pendergrass	Henry	Dees

<b>Engineering and Maintenance</b>	CR Backlog	Engineering Evaluation SWO Backlog	Obsolete Item Backlog	Total Maintenance Backlog	PM Deferrals	PM Compliance
	Kennamore	Kennamore	Kennamore	Dale	Pendergrass	Pendergrass

<b>Programs and Processes</b>	Benchmark Plan	Operating Experience	Safety Culture Monitoring	Safety Culture Training Completion	Total Industrial Safety Accident Ratio	Unplanned Exposure Occurrences
	Koenig	Koenig	Ray	Westman	Flannigan	Bedgood

<b>Projects and Initiatives (Weekly)</b>	AFW	GDC-17	ESW	Gas Voiding	PM Optimization	Work Management Initiative	Continuous Improvement Initiative
	Suter	Suter	Pendergrass	Pendergrass	Pendergrass	Norton	Koenig

<b>Challenge Areas</b>	50.59 Screenings & Evaluations Challenges	LER Challenges	AI 26A-003 Regulatory Evaluation Challenges	RCE/ACE Quality Challenges	Corrective Action Effectiveness	Level 4 CR Evaluation Quality	Change Package Quality	Calculation Quality	Engineering Level 4 CR Evaluation Quality	Operability Determination Challenges	Recovery Action Challenges
	Flannigan	Flannigan	Flannigan	Koenig	Koenig	Koenig	Kennamore	Kennamore	Kennamore	Dees	Ratzlaff

*Keeping the Focus*

