

# WOLF CREEK

NUCLEAR OPERATING CORPORATION

John P. Broschak  
Vice President Engineering

August 28, 2013  
ET 13-0027

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

- References:
- 1) Letter dated March 12, 2012, from E. J. Leeds and M. R. Johnson, USNRC, to M. W. Sunseri, WCNOC, "Issuance of Order to Modify Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events"
  - 2) NRC Interim Staff Guidance JLD-ISG-2012-01, "Compliance with Order EA-12-049, Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events," Revision 0, August 29, 2012
  - 3) NEI 12-06, "Diverse and Flexible Coping Strategies (FLEX) Implementation Guide," Revision 0, August 2012
  - 4) Letter ET 12-0029, dated October 29, 2012, from J. P. Broschak, WCNOC, to USNRC
  - 5) Letter WO 13-0014, dated February 28, 2013, from R. A. Smith, WCNOC, to USNRC

Subject: Docket No. 50-482: Wolf Creek Nuclear Operating Corporation's First Six-Month Status Report for the Implementation of Order EA-12-049, Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events

Gentlemen:

On March 12, 2012, the Nuclear Regulatory Commission (NRC, Commission) issued an order (Reference 1) to Wolf Creek Nuclear Operating Corporation (WCNOC). Reference 1 was immediately effective and directs WCNOC to develop, implement, and maintain guidance and strategies to maintain or restore core cooling, containment, and spent fuel pool cooling capabilities in the event of a beyond-design-basis external event. Specific requirements are outlined in Attachment 2 of Reference 1.

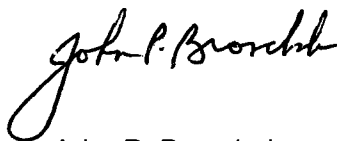
AISI  
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Reference 1 required submission of an initial status report 60 days following issuance of the final interim staff guidance (Reference 2) and an Overall Integrated Plan (OIP) pursuant to Section IV, Condition C. Reference 2 endorses industry guidance document NEI 12-06, Revision 0 (Reference 3) with clarifications and exceptions identified in Reference 2. Reference 4 provided the WCNO initial status report regarding mitigation strategies. Reference 5 provided the WCNO OIP.

Reference 1 requires submission of a status report at six-month intervals following submittal of the OIP. Reference 3 provides direction regarding the content of the status reports. The purpose of this letter is to provide the first six-month status report pursuant to Section IV, Condition C.2, of Reference 1, that delineates progress made in implementing the requirements of Reference 1. The attached report provides an update of milestone accomplishments since submittal of the OIP, including any changes to the compliance method, schedule, or need for relief and the basis, if any.

This letter contains no commitments. If you have any questions concerning this matter, please contact me at (620) 364-4085, or Mr. Michael J. Westman at (620) 364-4009.

Sincerely,



John P. Broschak

JPB/rlt

Attachment

cc: C. F. Lyon (NRC), w/a  
N. F. O'Keefe (NRC), w/a  
S. A. Reynolds (NRC), w/a  
Senior Resident Inspector (NRC), w/a

STATE OF KANSAS    )  
                                  ) SS  
COUNTY OF COFFEY )

John P. Broschak, of lawful age, being first duly sworn upon oath says that he is Vice President Engineering of Wolf Creek Nuclear Operating Corporation; that he has read the foregoing document and knows the contents thereof; that he has executed the same for and on behalf of said Corporation with full power and authority to do so; and that the facts therein stated are true and correct to the best of his knowledge, information and belief.

By John P. Broschak  
John P. Broschak  
Vice President Engineering

SUBSCRIBED and sworn to before me this 28<sup>th</sup> day of August, 2013.

Gayle Shephard  
Notary Public



Expiration Date 7/24/2015

**Wolf Creek Nuclear Operating Corporation’s (WCNOC) First Six-Month Status Report for the Implementation of Order EA-12-049, “Issuance of Order to Modify Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events”**

WCNOC developed an Overall Integrated Plan (OIP) (Reference 1), documenting the diverse and flexible strategies (FLEX), in response to Reference 2. This attachment provides an update of milestone accomplishments since submittal of the OIP, including any changes to the compliance method, schedule, or need for relief/relaxation and the basis, if any.

**Milestone Accomplishments**

The following milestones have been completed since the development of the OIP (Reference 1), and are current as of July 31, 2013.

- FLEX Strategy Evaluation – Complete
- Modifications Evaluation – Complete
- Procedures – Pressurized Water Reactor Owners Group (PWROG) issues Nuclear Steam Supply System (NSSS)-specific guidelines – Complete

**Milestone Schedule Status**

The following provides an update to Attachment 2 of the OIP. It provides the activity status of each item, and whether the expected completion date has changed. The dates are planning dates and are subject to change as design and implementation details are developed.

The revised milestone target completion dates do not impact the order implementation date. Italicized text denotes that either a Milestone was updated or was not in the original OIP.

<b>Milestone</b>	<b>Target Completion Date</b>	<b>Activity Status</b>	<b>Revised Target Completion Date</b>
Submit 60-Day Status Report	Oct 2012	Complete	-
Submit Overall Integrated Plan	Feb 2013	Complete	-
<b>Submit 6-Month Updates:</b>			
Update 1	Aug 2013	Complete	-
Update 2	Feb 2014	Not Started	-
Update 3	Aug 2014	Not Started	-
<i>Update 4</i>	<i>Feb 2015</i>	<i>Not Started</i>	-
FLEX Strategy Evaluation	Apr 2013	Complete	-
<i>Walk-Throughs or Demonstrations</i>	<i>Sep 2014</i>	<i>Not Started</i>	-
<i>Perform Staffing Analysis</i>	<i>Dec 2013</i>	<i>On-Going</i>	<i>Oct 2014</i>

Milestone	Target Completion Date	Activity Status	Revised Target Completion Date
<b>Modifications:</b>			
Modifications Evaluation	Apr 2013	Complete	-
N-1 Walkdown	Apr 2014	Not Started	-
Design Engineering	Jan 2014	On-Going	-
Implementation Outage	Feb 2015	As Scheduled	-
<b>FLEX Equipment:</b>			
Procure On-Site Equipment	Dec 2014	On-Going	-
<i>Develop Strategies with Regional Response Center (RRC)</i>	<i>Nov 2013</i>	<i>Started</i>	<i>Aug 2014</i>
Install Off-Site Delivery Station (if necessary)	Sep 2014	Not Started	-
<b>Procedures:</b>			
PWROG issues NSSS-specific guidelines	Jun 2013	Complete	-
<i>Create Wolf Creek Flex Support Guidelines (FSG)</i>	<i>Jun 2014</i>	<i>On-Going</i>	<i>Aug 2014</i>
Create Maintenance Procedures	Jul 2014	Not Started	-
<b>Training:</b>			
Develop Training Plan	Jul 2014	Not Started	-
Training Complete	Feb 2015	Not Started	-
<i>Submit Completion Report</i>	<i>Mar 2015</i>	<i>Not Started</i>	<i>Apr 2015</i>

**Changes to Compliance Method**

While WCNOG has begun to prepare modification packages, at this time there are no finalized changes to the compliance method as documented in the OIP (Reference 1).

**Need for Relief/Relaxation and Basis for the Relief/Relaxation**

WCNOG expects to comply with the order implementation date and no relief/relaxation is required at this time.

**Open Items from Overall Integrated Plan**

The following table provides a summary of the open items documented in the OIP and the status of each item.

Open Item #	Overall Integrated Plan Open Item	Status
OI 1	Finalize the location of the FLEX storage building. The deployment routes, distances, and times provided in this report are bounded for the currently proposed locations but will be updated as necessary.	Started. The location of the two FLEX storage buildings has been selected. WCNOC is now working to confirm the deployment routes, distances, and times presented in the OIP bound these locations.
OI 2	Perform containment evaluation, using Generation of Thermal Hydraulic Information for Containment [GOTHIC], based on the boundary conditions described in Section 2 of NEI 12-06. Based on the results of this evaluation, required actions to ensure maintenance of containment integrity and required instrument function will be developed.	Started. The GOTHIC analysis work is in progress. Once the results of the evaluation are known required actions will be developed.
OI 3	The current Condensate Storage Tank [CST] and CST pipe chase are non-seismic. Therefore, WCNOC is currently pursuing two options; the qualification and hardening of the existing CST, or the construction of a new 670,000 gallon seismically qualified and missile protected CST. One of these options must be completed before the volume of the CST can be credited.	Started. When WCNOC receives the updated Ground Motion Response Spectrum (GMRS) results a final decision to harden the existing tank or construct a new tank will be made.
OI 4	Modify the Refueling Water Storage Tank [RWST] to protect it from tornado missiles or identify a borated source that is protected for tornados and can be utilized to provide core cooling when steam generators are not available.	Started. When WCNOC receives the updated GMRS results the modifications required for the RWST will be finalized.
OI 5	For non-Class 1E instrumentation that will be repowered using a temporary battery, an analysis will need to be performed to determine battery life and frequency of replacing battery.	Not started.

Open Item #	Overall Integrated Plan Open Item	Status
OI 6	The method for isolating accumulators during Reactor Coolant System [RCS] inventory control has not been finalized.	Started. This is still an open item however, it was confirmed that the accumulator isolation valves are on a bus that is being re-powered for the primary FLEX strategy.
OI 7	The method for re-powering the SFP cooling pumps has not been finalized.	Closed. Powering a Spent Fuel Pool (SFP) cooling pump is a Phase 3 action. The pump will be re-powered by a 4160V generator provided by the RRC.

**References**

1. WCNOC Letter WO 13-0014, "Overall Integrated Plan in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events," February 28, 2013. ADAMS Accession No. ML13070A026.
2. Letter from E. J. Leeds and M. R. Johnson, USNRC, to M. W. Sunseri, WCNOC, "Issuance of Order to Modify Licenses with Regard to Requirements For Mitigation Strategies for Beyond-Design-Basis External Events," March 12, 2012. ADAMS Accession No. ML 12054A735.