



**Nebraska Public Power District**

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NLS2015101  
August 27, 2015

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, DC 20555-0001

**Subject:** Nebraska Public Power District's Fifth Six-Month Status Report in Response to March 12, 2012, Commission Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation (Order Number EA-12-051)  
Cooper Nuclear Station, Docket No. 50-298, DPR-46

- References:**
1. NRC Order Number EA-12-051, "Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation," dated March 12, 2012
  2. NRC Interim Staff Guidance JLD-ISG-2012-03, "Compliance with Order EA-12-051, Reliable Spent Fuel Pool Instrumentation," Revision 0, dated August 29, 2012
  3. NEI 12-02, "Industry Guidance for Compliance with NRC Order EA-12-051, "To Modify Licenses with Regard to Reliable Spent Fuel Pool Instrumentation,"" Revision 1, dated August 2012
  4. NPPD Letter, "Initial Status Report in Response to March 12, 2012, Commission Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation (Order Number EA-12-051)," dated October 26, 2012 (NLS2012111)
  5. NPPD Letter, "Overall Integrated Plan in Response to March 12, 2012, Commission Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation (Order Number EA-12-051)," dated February 28, 2013 (NLS2013026)

Dear Sir or Madam:

On March 12, 2012, the Nuclear Regulatory Commission issued an Order (Reference 1) to Nebraska Public Power District (NPPD). Reference 1 was immediately effective and directs NPPD to install reliable spent fuel pool level instrumentation. Specific requirements are outlined in Attachment 2 of Reference 1.

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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 pursuant to Section IV, Condition C. Reference 2 endorses industry guidance document NEI 12-02, Revision 1, (Reference 3) with clarifications and exceptions identified in Reference 2. Reference 4 provided NPPD's initial status report for Cooper Nuclear Station (CNS) regarding reliable spent fuel pool instrumentation. Reference 5 provided CNS' overall integrated plan.

Reference 1 requires submission of a status report at six-month intervals following submittal of the overall integrated plan. Reference 3 provides direction regarding the content of the status reports. The purpose of this letter is to provide the fifth 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 the last status report, including any changes to the compliance method, schedule, or need for relief and the basis, if any.

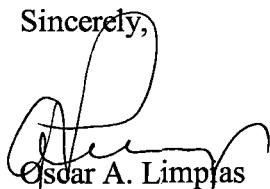
This letter contains no new regulatory commitments.

Should you have any questions regarding this report, please contact Jim Shaw, Licensing Manager, at (402) 825-2788.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on: 8/27/15

Sincerely,



Oscar A. Limpras  
Vice President - Nuclear and  
Chief Nuclear Officer

/bk

Attachment: Nebraska Public Power District's Fifth Six-Month Status Report for the Implementation of Order EA-12-051, Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation

cc: Regional Administrator, w/attachment  
USNRC - Region IV

Senior Resident Inspector, w/attachment  
USNRC - CNS

Director, w/attachment  
USNRC - Office of Nuclear Reactor Regulation

NPG Distribution, w/attachment

Cooper Project Manager, w/attachment  
USNRC - NRR Project Directorate IV-1

CNS Records, w/attachment

**Attachment**

**Nebraska Public Power District's Fifth Six-Month Status Report for the  
Implementation of Order EA-12-051, Order Modifying Licenses with  
Regard to Reliable Spent Fuel Pool Instrumentation**

**Introduction**

Nebraska Public Power District (NPPD) developed an overall integrated plan for Cooper Nuclear Station (CNS) (Reference 2), documenting the requirements to install reliable spent fuel pool level instrumentation, in response to Nuclear Regulatory Commission (NRC) Order Number EA-12-051 (Reference 1). This attachment provides an update of milestone accomplishments since the last status report (Reference 5), including any changes to the compliance method, schedule, or need for relief/relaxation and the basis, if any.

**Milestone Accomplishments**

The following milestone(s) have been completed and are current as of August 15, 2015:

- Final design was completed
- Installation has started

**Milestone Schedule Status**

The following provides an update to the milestone schedule to support the overall integrated plan. This section provides the activity status of each item, and the expected completion date noting any change. The dates are planning dates subject to change as design and implementation details are developed.

<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	Complete	
Update 3	Aug 2014	Complete	
Update 4	Feb 2015	Complete	
Update 5	Aug 2015	Complete	

<b>Milestone</b>	<b>Target Completion Date</b>	<b>Activity Status</b>	<b>Revised Target Completion Date</b>
Update 6	Feb 2016	Not Started	
Update 7	Aug 2016	Not Started	
<b>Modifications:</b>			
Complete Scoping Study	Feb 2013	Complete	
Generate Detailed Design	Oct 2014	Complete	
Complete Refueling 28 Outage Walkdowns	Nov 2014	Complete	
Complete Procurement of Parts	Dec 2014	Complete	
Complete Final Detailed Design	Oct 2015	Complete	
Complete Installation Outage	Oct 2016	Started	
Complete Installation/Testing Outage	Nov 2016	Not Started	
In-service/Mod Complete	Nov 2016	Not Started	
<b>Procedures:</b>			
Create Procedures	June 2016	Not Started	
<b>Training:</b>			
Develop Training Plan	Aug 2016	Not Started	
Training Complete	Oct 2016	Not Started	

**Changes to Compliance Method**

Section 3.3 of Reference 2 identified Level 3 at elevation 977'-5 3/8", which equates to 15'-2 3/8" above the bottom of the pool. Our final design conservatively sets Level 3 at 977 11 3/8" or 15'-8 3/8" above the bottom of the pool.

Section 6.5, paragraph 3 and Figures 2 and 3 of Reference 2, indicated we would have a power selector switch and an additional 120VAC connection to power the unit with a portable generator or other AC power source after the normal AC power and external battery power were no longer available. The system supplier has advised that a local AC generator could create problems with power quality, so it has been decided to provide a separate portable 12VDC battery that will be stored in the FLEX Equipment Building. This 12VDC battery can be easily connected if the external battery provided with the unit becomes exhausted before normal AC power is restored.

In our February 2014 status update (Reference 6), we indicated the top range of the instrument would measure approximately 8 1/2" above the normal pool level. Because of the geometry of our pool and the probe, this range has changed to approximately 3" above normal pool level.

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

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

### **Requests for Additional Information (RAI)**

In Reference 3, the NRC issued the interim staff evaluation (ISE) for CNS. In a public meeting on November 26, 2013 (Reference 4), the NRC clarified that questions contained in the ISE supersede any previous requests for information issued by the Staff concerning the spent fuel pool instrumentation. In CNS' ISE, the NRC requested that information be provided by May 31, 2016, to ensure any issues are resolved prior to the date by which NPPD must complete full implementation of the Order. The following table lists the open RAIs from the ISE and status of each item.

<b>Interim Staff Evaluation - Open RAIs</b>		
<b>ISE RAI #</b>	<b>ISE Section Description</b>	<b>Status</b>
RAI #1	Spent Fuel Pool Water Levels	Response provided on ePortal
RAI #2 a,b	Design Features - Arrangement	Response provided on ePortal
RAI #3 a,b,c	Design Features - Mounting	Response provided on ePortal
RAI #4	Design Features - Mounting	Response provided on ePortal
RAI #5	Design Features - Mounting	Response provided on ePortal
RAI #6	Qualification and Reliability	Response provided on ePortal
RAI #7	Qualification and Reliability	Response provided on ePortal
RAI #8 a,b	Design Features - Independence	Response provided on ePortal

RAI #9 a,b	Design Features - Power Supplies	Response provided on ePortal
RAI #10	Number not used	N/A
RAI #11 a,b	Design Features - Accuracy	Response provided on ePortal
RAI #12 a,b,c,d	Design Features - Testing	Response provided on ePortal
RAI #13 a,b	Design Features - Display	Response provided on ePortal
RAI #14	Programmatic Controls - Procedures	Response provided on ePortal
RAI #15 a,b,c	Programmatic Controls - Testing and Calibration	Response provided on ePortal

**Potential Draft Safety Evaluation Impacts**

There are no potential impacts to the Draft Safety Evaluation identified at this time.

**References**

1. NRC Order Number EA-12-051, "Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation," dated March 12, 2012
2. NPPD Letter, "Overall Integrated Plan in Response to March 12, 2012, Commission Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation (Order Number EA-12-051)," dated February 28, 2013
3. NRC Letter, "Cooper Nuclear Station - Interim Staff Evaluation and Request for Additional Information Regarding the Overall Integrated Plan for Implementation of Order EA-12-051, Reliable Spent Fuel Pool Instrumentation (TAC No. MF0971)," dated December 4, 2013
4. NRC Memorandum, "Summary of the November 26, 2013, Public Meeting to Discuss Industry Responses to Staff Interim Evaluations for Spent Fuel Pool Instrumentation," dated December 26, 2013
5. NPPD Letter, "Nebraska Public Power District's Fourth Six-Month Status Report in Response to March 12, 2012, Commission Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation (Order Number EA-12-051)," dated February 23, 2015

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Attachment

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6. NPPD Letter, "Nebraska Public Power District's Second Six-Month Status Report in Response to March 12, 2012, Commission Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation (Order Number EA-12-051)," dated February 26, 2014