Nebraska Public Power District
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NLS2014014
February 3, 2014

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555-0001

Subject: Response to Request for Additional Information Regarding Bulletin 2012-01
Cooper Nuclear Station, Docket No. 50-298, DPR-46

Reference:
1. Letter from Michele G. Evans, U.S. Nuclear Regulatory Commission, to List of Addressees, including Oscar A. Limpias, Nebraska Public Power District, dated December 20, 2013, "Request for Additional Information Regarding Response to Bulletin 2012-01, "Design Vulnerability in Electric Power System""

2. Letter from Brian J. O'Grady, Nebraska Public Power District, to U.S. Nuclear Regulatory Commission, dated October 24, 2012, "90-Day Response to NRC Bulletin 2012-01, Design Vulnerability in Electric Power System" (NLS2012081)

3. NRC Bulletin 2012-01, "Design Vulnerability in Electric Power System," dated July 27, 2012 (Accession No. ML12074A115)

Dear Sir or Madam:

The purpose of this letter is for Nebraska Public Power District (NPPD) to submit its response (Attachment 1) to the Nuclear Regulatory Commission (NRC) Request for Additional Information (Reference 1) for the Cooper Nuclear Station (CNS). This submittal is in addition to the NPPD submittal provided (Reference 2) in response to NRC Bulletin 2012-01 (Reference 3).

This letter contains a regulatory commitment. The commitment is described in Attachment 2 to this letter.

If you have any questions concerning this matter, please contact David W. Van Der Kamp, Licensing Manager, at (402) 825-2904.

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NRR

COOPER NUCLEAR STATION
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I declare under penalty of perjury that the forgoing is true and correct.

Executed on: 02/03/14
(Date)

Sincerely,

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

/dm

Attachments: 1. NPPD Response to Request for Additional Information Regarding Response to Bulletin 2012-01, "Design Vulnerability in Electric Power System"
2. List of Regulatory Commitments

cc: Regional Administrator w/attachments
USNRC - Region IV

Cooper Project Manager w/attachments
USNRC - NRR Project Directorate IV-1

Senior Resident Inspector w/attachments
USNRC - CNS

NPG Distribution w/attachments

CNS Records w/attachments

Attachment 1

Nebraska Public Power District Response to
Request for Additional Information to
Bulletin 2012-01,
"Design Vulnerability in Electric Power Systems"

The Nuclear Regulatory Commission (NRC) Request for Additional Information for Bulletin 2012-01 is shown in italics. The Nebraska Public Power District (NPPD) responses to the individual questions for Cooper Nuclear Station are shown in block font.

NRC letter (ADAMS ML13351A314) dated December 20, 2013 requests the following:

"In order for the NRC staff to complete its review of responses to the bulletin, the following additional information is requested:

1. *Provide a summary of all interim corrective actions that have been taken since the January 30, 2012, event at Byron Station, Unit 2, to ensure that plant operators can promptly diagnose and respond to open phase conditions on the offsite power circuits for Class-1E vital buses until permanent corrective actions are completed.*

   NPPD Response

   Lessons learned from the events at Byron station were reviewed and various interim corrective actions evaluated for safety and efficiency at Cooper Nuclear Station. Based the plant's offsite power configuration, electrical design details, and on lessons learned, the following actions were taken to ensure plant operators can promptly diagnose and respond to open phase conditions (OPC):

   - **Interim Corrective Actions**

     - Daily walk-downs are on-going of the switchyards to identify any potential conditions that could cause an OPC.

     - Transformer yard rounds are performed daily and include general and detailed inspections of the transformers and inspection of external wiring and connections to identify any potential conditions that could cause an OPC.

     - Operations procedures were revised to include recording all three phase voltages for each offsite power source at least once per shift.

2. *Provide a status and schedule for completion of plant design changes and modifications to resolve issues with an open phase of electric power."*

NPPD Response

- **Status**
  - Cooper Nuclear Station is investigating options being researched by several vendors (PSC2000, EPRI, Schweitzer, etc.) to detect OPC faults. There is currently no generic, off-the-shelf technology that has been proven to detect all the required open phase fault conditions for all plant and transformer designs.
  - Cooper Nuclear Station is fully engaged in the development of the Nuclear Energy Institute (NEI) OPC Guidance Document, as well as development of enhancements to software tools being used to analyze OPC faults.
  - With the goal of ensuring accurate detection without compromising nuclear safety or increasing plant risk, this new OPC technology is being thoroughly evaluated, will be tested, and will be fully analyzed before installation.
  - Vulnerability studies of the OPC faults have been started for Cooper Nuclear Station.
- **Schedule**
  - Cooper Nuclear Station has committed to the generic schedule provided in the Industry OPC Initiative.
  - It is our intention to meet the milestones of this schedule; however, deviations may be required to accommodate outage schedules, software and hardware availability, manufacturer's delivery capabilities, licensing delays, etc.
  - Any deviation from the Industry OPC Initiative schedule will be documented through the deviation/exemption process addressed in the NEI OPC Guidance Document.

LIST OF REGULATORY COMMITMENTS

The following table identifies those actions committed to by Nebraska Public Power District in this document. Any other actions discussed in this submittal are provided for information purposes and are not considered to be regulatory commitments.

COMMITMENT/COMMITMENT NO.	TYPE (Check one)		SCHEDULED COMPLETION DATE
	ONE-TIME ACTION	CONTINUING COMPLIANCE	
Cooper Nuclear Station will follow the generic schedule provided in the Industry Open Phase Conditions (OPC) Initiative. Any deviation from the Industry OPC Initiative schedule will be documented through the deviation/exemption process addressed in the NEI OPC Guidance Document. / NLS2014014-01	√		In accordance with the schedule provided in the Industry OPC Initiative.