



Fort Calhoun Station  
P.O. Box 550,  
Fort Calhoun, NE 68023

September 2, 2009  
LIC-09-0066

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

References: 1. Docket No. 50-285  
2. Letter from NRC (J. A. Clark) to OPPD (D. J. Bannister) dated August 3, 2009 (NRC-09-0057)

**SUBJECT: NRC Inspection Report 05000285/2009003, Reply to a Notice of Violation (NOV) EA-09-174**

In Reference 2, the NRC transmitted a Notice of Violation (NOV) to the Omaha Public Power District (OPPD). This NOV resulted from the failure to classify raw water strainer components as safety-related within a reasonable time after OPPD received non-cited violation (2007007-003) in NRC Inspection Report 2007-007.

This letter contains regulatory commitments that are summarized on the last page of the attachment. If you should have any questions, please contact me at (402) 533-6611.

Sincerely,

J. A. Reinhart  
Site Vice President  
Fort Calhoun Station

JAR/TCM/dkg

Attachment

c: E. E. Collins, Jr., NRC Regional Administrator, Region IV  
A. B. Wang, NRC Project Manager  
J. C. Kirkland, NRC Senior Resident Inspector

## REPLY TO A NOTICE OF VIOLATION

Omaha Public Power District  
Fort Calhoun Station

Docket No. 50-285  
License No. DPR-40  
EA-09-174

During an NRC inspection conducted from April 1, 2009, through June 30, 2009, a violation of NRC requirements was identified. In accordance with the NRC Enforcement Policy, the violation is listed below:

Part 50 of 10 CFR, Appendix B, Criterion III, "Design Control," requires, in part, that "measures be established to assure that applicable regulatory requirements and the design basis are correctly translated into specifications, drawings, procedures, and instructions.

Part 50.2 of CFR defines safety-related structures, systems and components as those structures, systems and components that are relied upon to remain functional during and following design basis events to assure: ..., in part,

- The capability to shut down the reactor and maintain it in a safe shutdown condition; or
- The capability to prevent or mitigate the consequences of accidents which could result in potential offsite exposures comparable to the applicable guideline exposures set forth in ... § 100.11 of this chapter, as applicable ..."

Contrary to the above, between 1992 and 2009, the licensee failed to assure that the design basis is correctly translated into specifications, drawings, procedures, and instructions. Specifically, the licensee failed to correctly translate the design basis of the raw water system strainers into Design Basis Document SDBD-AC-RW-101, Attachment 20, "Requirements and Design of Raw Water Pump Discharge Strainers and Motors (AC-12A and 12B)," in that the document stipulated that the strainers were not safety related but the raw water strainers had a safety function. Specifically, the raw water strainers are relied upon to remain functional during and following design basis events to maintain the reactor in a safe shutdown condition and to prevent or mitigate the consequences of accidents which could result in potential offsite exposures comparable to the applicable guideline exposures set forth in § 100.11 of Title 10 of the Code of Federal Regulations.

This violation is associated with a Green significance determination process (SDP) finding.

## **OPPD Response to Violation**

### **1. Reason for the Violation**

The filtering function of the raw water strainers at Fort Calhoun Station was not originally licensed to be safety related. The Final Safety Analysis Report and the Updated Safety Analysis Report never classified the filtering function as safety related; however, the pressure boundary function of the strainers was classified as safety related. This classification continued when the Design Basis Document SDBD-AC-RW-101, "Raw Water," was originally created in the early 1990s.

When the NRC questioned the safety classification of the strainers' filtering function as an Unresolved Item in 2005, the issue was entered into the station corrective action system. However, a formal analysis and independent reviews were not performed. As a result, adequate justification for the non-safety classification of the raw water strainers' filtering function was not provided.

In the 2007 Component Design Basis Inspection, the NRC concluded that the raw water strainer filtering function was necessary and relied upon for ensuring the nuclear safety functions of the raw water system, i.e., this function should be classified as safety related. When the NRC issued a green noncited violation on this issue, the issue was entered into the corrective action system. However, the station condition report was not assigned a high enough significance level to ensure a timely resolution.

Therefore, the reason for the violation was inadequate research, analysis, and timely resolution of the issue by Omaha Public Power District (OPPD).

### **2. Corrective Steps Taken and Results Achieved**

Station management has determined the filtering function of the raw water strainers should be upgraded to safety related classification. The condition report (CR 2009-1597) which tracks the raw water strainer classification is assigned the highest level in the station corrective action system. Modification EC 41587 has been initiated to accomplish the reclassification.

Corrective Action Program procedures, Standing Order R-2, "Condition Reporting and Corrective Action," and Fort Calhoun Station Guideline FCSG-24, "Corrective Action Program Guideline," have been revised to provide better guidance on prioritization, documentation, and tracking of NRC findings.

OPPD maintains operability and functionality of the raw water strainers via preventive maintenance activities. In addition, the following steps also have been taken to ensure reliability of the raw water strainers:

- In April 2006, suction spargers were installed on the two raw water pumps which did not previously have installed spargers.

- All four raw water pump suction are sparged twice per shift for a minimum of 10 minutes. In addition, raw water pump suction are sparged prior to a routine pump start. Sparging periodicity and duration may be increased at the discretion of the Shift Manager or System Engineer's recommendation.
- Raw water pumps are rotated, at a minimum, twice per week. Periodicity and duration may be increased at the discretion of the Shift Manager or System Engineer's recommendation.
- Abnormal Operating Procedure (AOP) 1, "Acts of Nature," has been updated to include additional guidance to Operations during times of degraded river conditions, such as high debris loading. Information added includes additional raw water pump sparging and consideration for isolation of a component cooling water heat exchanger. AOP-1 also has been revised to change cell action levels to reviewing cell levels, not just river levels. Guidance was added for returning raw water pumps to service following off normal cell alignments and for dealing with frazil ice.
- Procedure OI-RW-1, "Raw Water System Normal Operation," has been revised to add operator guidance when the intake cells are in an off-normal alignment or are being restored from an off-normal alignment. Additional guidance was added for the safe manual rotation of the raw water strainers. The guidance also minimizes raw water pump rotations and starts when one raw water strainer is out of service. Guidance is provided to operators for the process to unplug a raw water strainer, if needed.
- Many of the raw water strainer issues have occurred during a Raw Water Pump AC-10D start (after being idle). Therefore, Raw Water Pump AC-10D is considered the "lead pump." Other than during maintenance activities, this pump is continuously run to help reduce any potential issues.

### **3. Corrective Steps That Will Be Taken To Avoid Further Violations**

OPPD plans to upgrade the filtering function of the raw water strainers to safety related status through implementation of plant modification EC 41487. This may include modification of the strainers and/or other associated components. Plant design documents, including the Updated Safety Analysis Report and Design Basis Documents, will be revised as part of the modification process.

### **4. The Date When Full Compliance Will Be Achieved**

Time is needed to complete analysis, design, and component procurement. Physical modifications will require a raw water system outage. Fort Calhoun Station will be in full compliance at the completion of the 2011 refueling outage.

**Regulatory Commitments**

<b>Commitment</b>	<b>Due Date</b>	<b>CR Number</b>
The filtering function of the Raw Water Strainers will be upgraded to safety-related status through implementation of Modification (EC #41587) which may include modification of the strainers and/or other associated components. Plant design documents, including the Updated Safety Analysis Report and Design Basis Documents, will be revised as part of the modification process.	End of 2011 Refueling Outage	CR2009-1597 (AR 43640)