



444 South 16<sup>th</sup> Street Mall  
Omaha, NE 68102-2247

10 CFR 2.201

LIC-14-0053  
April 18, 2014

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

Fort Calhoun Station, Unit No. 1  
Renewed Facility Operating License No. DPR-40  
NRC Docket No. 50-285

Reference: Letter from NRC (Michael Hay) to OPPD (Lou Cortopassi) dated March 19, 2014  
(NRC-14-0025)

**SUBJECT: Reply to Notices of Violations 05000285/2014002**

In the reference letter, the Nuclear Regulatory Commission (NRC) transmitted a Notice of Violation (NOV) to the Omaha Public Power District (OPPD) that contained a cited Green Violation and a cited Severity Level IV Violation.

We have evaluated these issues to ascertain the facts and determined the appropriate corrective actions. Enclosed please find the Fort Calhoun Station Response to these issues.

This letter contains regulatory commitments that are summarized on the last page of the Enclosure. If you should have any questions, please contact Terrence Simpkin, Manager Regulatory Assurance, at 402-533-6263.

Sincerely,

Louis P. Cortopassi *For*  
Site Vice President and CNO

Enclosure

LPC/epm

c: M. L. Dapas, NRC Regional Administrator, Region IV  
J. M. Sebrosky, NRC Senior 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-14-037

During an NRC inspection conducted on August 26, 2013 through February 15, 2014, a violation of NRC requirements was identified. In accordance with the NRC Enforcement Policy, the violation is listed below:

**10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," requires, in part, that measures shall be established to assure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances are promptly identified and corrected.**

**Contrary to the above, between August 12, 2008 and November 24, 2013, the licensee failed to correct a condition adverse to quality. Specifically, actions were not taken to correct NRC-identified runout concerns in the containment spray system until these concerns were again raised by the NRC on July 18, 2013.**

**This violation is associated with a Green Significance Determination Process finding.**

### OPPD Response

#### 1. Reason for the Violation

A previous violation in 2008 NCV IR2008-003-05 states: The inspectors identified a Green noncited violation of 10CFR50, Appendix B, Criterion XVI, "Corrective Actions," for the failure to promptly implement corrective actions for a condition adverse to quality. Specifically, in 1990 FCS identified that the Containment Spray (CS) pumps may runout, and possibly fail, under certain conditions.

FCS previously identified in 1990 that an event in which both CS header isolation valves, HCV-344 and HCV-345, were to open simultaneously with one CS pump running would cause a runout condition. After identifying this issue in 1990, FCS planned to implement a piping modification to the spray header to prevent the runout condition, but elected instead to install additional valve opening logic to address the issue.

Condition Report (CR) 2013-15047 was written to document the potential runout issue for the CS pumps as part of the extent of condition for the High Pressure Safety Injection (HPSI) pump runout issue (CR 2013-02100). The extent of condition review identified that the design basis documents to support CS pump operation at high flow conditions were inadequate. CS pump operation at runout conditions was based on a communication between Combustion Engineering and FCS which contained proposed operating points that were not validated by the pump original equipment manufacturer (vendor). A revised pump curve to allow operation beyond the original pump curve was not provided by the pump vendor.

In response to CR 2013-15037, FCS design engineering contacted the CS pump vendor and obtained a new pump curve which provided considerably higher motor loading than the information previously used at FCS. This violation is focused on not adequately resolving the Green non-cited violation identified by the NRC in 2008.

CS pump runout may occur when the flow from one pump can pass through the two discharge headers. This configuration results in very high system flow rates, particularly when containment pressure is low (below 25psi). The design of the CS system has been modified several times since 2006. The apparent cause analysis performed in 2008 focused on the cause for not resolving the potentially degraded condition caused by a shaft / coupling failure and FCS weakness in single failure criteria as identified in 2007 and 2008 by both FCS and the NRC.

The apparent cause analysis performed in 2014 identified that design engineering did not adequately utilize the corrective action program for non-conforming conditions. Corrective actions were not taken to promptly resolve a non-conforming condition that could result in equipment degradation or failure. The root cause for CR 2012-09494 on degraded nonconforming conditions addresses this issue.

A narrowly focused apparent cause analysis for CR2008-1683 contributed to the weak corrective actions that did not evaluate design basis and procedural requirements for operation of the CS pump in a degraded condition.

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

Currently, the CS system is operable using throttling of the CS pump discharge valves via a temporary modification (EC 62416).

## **3. Corrective Steps That Will be Taken**

FCS will implement a design change to the CS System to prevent CS pump runout prior to startup from the next refueling outage. (CR 2013-15047-008 AI)

Following completion of the modification the documentation for the design basis of the Containment Spray pumps and system operation will be updated in the appropriate documents.

## **4. Date When Full Compliance Will be Achieved**

The Fort Calhoun Station is currently in full compliance.

**REPLY TO A NOTICE OF VIOLATION**

**Omaha Public Power District  
Fort Calhoun Station**

**Docket No: 50-285  
License No: DPR-40  
EA-14-037**

**During an NRC inspection conducted on August 26, 2013 through February 15, 2014, a violation of NRC requirements was identified. In accordance with the NRC Enforcement Policy, the violation is listed below:**

**10 CFR 50.73(a)(1), requires, in part, that the licensee submit a Licensee Event Report (LER) for any event of the type described in this paragraph within 60 days after the discovery of the event.**

**Contrary to the above, between June 14 and July 2, 2013, the licensee failed to submit a LER for two events meeting the requirements for reporting specified in 10 CFR 50.73 within 60 days after the discovery of the event. Specifically, LERs 2013-101-0, "HPSI Pump Flow Imbalance," and 2013-017-0, "Containment Spray Pump Design Documents do not Support Operation in Runout," were submitted more than 60 days after the events were discovered.**

**The NRC determined that this violation was repetitive in nature as described in Paragraph 2.3.2(a)(3) of the NRC Enforcement Policy. A similar violation had been documented in NRC Inspection Report 2013008 dated July 16, 2013 (ML13197A261). That report included NCV 05000285/2013008-43, entitled "Untimely Submittal of Licensee Event Reports." The NCV documented nine examples of LERs that were submitted later than required by 10 CFR 73(a)(1).**

**This is a Severity Level IV violation.**

**OPPD Response**

**1. Reason for the Violation**

A process analysis was performed to understand where the LER reporting process failed or was weak. Process analysis was chosen because it best illustrates the point of failure in a process.

The process failed in two common areas. The first was in the initial identification of an event as reportable. The second is that the reportability determination was not timely and therefore, did not allow for the timely submission of an LER. FCS either did not identify events as reportable soon enough to have a proper reportability determination or the event was found on the date of discovery, but the reportability determination delayed the LER submission.

The process analysis identified weaknesses in reportability determinations. This led the station to determine, in some cases, that the initiating events were reportable after the 60 day written report deadline had passed.

The apparent cause was determined to be weaknesses in recognizing reportable conditions which caused FCS to fail to initially identify conditions as reportable until after the 60 day written report deadline.

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

LERs 2013-010 and 2013-017 have been addressed with the NRC and an analysis was performed to determine cause and to lessen the probability that this condition will recur; however, during the conduct of the extent of condition, three other LERs were found to have been submitted late and their adverse timeliness have not been documented in a CR. CR 2014-02792 was written to document the additional three late LERs.

Licensed operator requalification training has been conducted for the last several requalification training cycles, using appropriate operating experience, to reinforce standards for reportability determinations. In addition, to provide additional management oversight, station procedure OP-FC-108-115-1003, Operability Determination Oversight and Monitoring, conducts a weekly review of immediate operability determinations, which feed the reportability decisions.

## **3. Corrective Steps That Will be Taken**

FCS will implement the Exelon Reportability Reference Manual to ensure that our weaknesses in reporting significant events are corrected. This will be completed by December 22, 2014. (CR 2014-01358-004 AI)

## **4. Date When Full Compliance Will be Achieved**

The Fort Calhoun Station is currently in full compliance.

## Summary of Regulatory Commitments

The following table identifies commitments made in this document. (Any other actions discussed in the submittal represent intended or planned actions. They are described to the NRC for the NRC's information and are not regulatory commitments.)

Commitment	Committed Date or "Outage"	Commitment Type	
		One-Time Action (Yes/No)	Programmatic (Yes/No)
FCS will implement a design change to the CS System to prevent CS pump runout prior to startup from the next refueling outage. (CR 2013-15047-008 AI)	Startup following RFO27	Yes	No
FCS will implement the Exelon Reportability Reference Manual to ensure that our weaknesses in reporting significant events are corrected. (CR 2014-01358-004 AI)	December 22, 2014	Yes	No