



10CFR21.21

April 15, 2013

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

Limerick Generating Station, Units 1 and 2
Facility Operating License Nos. NPF-39 and NPF-85
NRC Docket Nos. 50-352 and 50-353

Subject: Part 21 Notification Due To Pump Defect

This 10 CFR Part 21 30-day written report notification is due to receipt of a pump assembly with incorrectly sized impellers. The impellers of the replacement pump assembly were not machined to the purchase order specifications.

On Thursday, February 21, 2013, the post maintenance test was performed following replacement of the OC RHR Service Water pump. Hydraulic performance of the new pump was approximately 16% (40 feet) greater than the design specification and resulted in motor current exceeding the motor full load rating by approximately 6.5% at the system design flow rate.

The initial notification to the NRC Operations Center (Event Number 48824) was completed on March 15, 2013. This report is being submitted pursuant to the requirements of 10CFR21.21(d)(3)(ii).

There are no regulatory commitments contained in this letter.

If you have any questions, please contact Robert B. Dickinson at (610) 718-3400.

Respectfully,

Original signed by

Thomas J. Dougherty
Vice President – Limerick Generating Station
Exelon Generation Company, LLC

cc: Administrator Region I, USNRC
USNRC Senior Resident Inspector, LGS

Attachment 1: Thirty-Day Part 21 Report In Accordance With 10 CFR 21.21(d)(3)(ii)

(i) Name and address of the individual or individuals informing the Commission.

Thomas J. Dougherty
Vice President – Limerick Generating Station
3146 Sanatoga Road
Pottstown, PA. 19464

(ii) Identification of the facility, the activity, or the basic component supplied for such facility or such activity within the United States which fails to comply or contains a defect.

Limerick Generating Station, Units 1 and 2
Facility Operating License Nos. NPF-39 and NPF-85
NRC Docket Nos. 50-352 and 50-353

Basic component Containing Defect:
Flowserve Corporation Pump Model Number 28KXL – 2 STG
Replacement RHRSW pump assembly (minus discharge head).

(iii) Identification of the firm constructing the facility or supplying the basic component which fails to comply or contains a defect.

Purchase Order Location
Flowserve Corporation
Pump Parts Regional Services
Scranton, PA

Manufacturing Facility Location
Flowserve Corporation
Vernon, CA

(iv) Nature of the defect or failure to comply and the safety hazard which is created or could be created by such defect or failure to comply.

Nature of the defect:

Replacement RHRSW pump assembly was furnished with incorrectly sized impellers. Following the failed post installation test for the replacement pump, the pump manufacturer, Flowserve, confirmed that the replacement pump had been furnished with impellers at full diameter (20-11/16 inches) versus the required trim diameter (19-1/16 inches). This deviation to the RHRSW pump purchase specification is defined as the basic component defect.

Safety Hazard:

Ability of RHRSW loop to mitigate a design basis accident could be compromised by the replacement RHRSW pump, if installed.

(v) The date on which the information of such defect or failure to comply was obtained.

The defective pump assembly was received from Flowserve in December 2012. The post maintenance test that revealed the defect occurred on February 21, 2013.

(vi) In the case of a basic component which contains a defect or fails to comply, the number and location of these components in use at, supplied for, being supplied for, or may be supplied for, manufactured, or being manufactured for one or more facilities or activities subject to the regulations in this part.

At the time of discovery, in addition to the tested replacement pump, there were two additional replacement RHRSW pump assemblies that were confirmed to be defective (incorrect size impellers). One of the additional pumps was removed from storage in a Virginia warehouse, reworked by Flowserve to eliminate the defect and supplied to Limerick on February 28, 2013. The other additional pump had not yet been shipped from Flowserve's Vernon, CA facility.

(vii) The corrective action which has been, is being, or will be taken; the name of the individual or organization responsible for the action; and the length of time that has been or will be taken to complete the action.

Following discovery of the defective pump assembly during post maintenance testing on February 21, 2013, the defective pump assembly was removed and returned to the manufacturer. One of the two additional pump assemblies bearing the same defect was reworked by the manufacturer to install correctly sized impellers and was furnished to Limerick to support the site's Technical Specification Limiting Condition for Operation completion time. The 0C RHRSW pump was returned to operable status on March 2, 2013.

The supplier entered this event into their internal corrective action system and determined root causes and resolutions with detailed actions that are focused on precluding recurrence of this condition. Additional Quality Control checks will be added by the supplier and additional purchase order technical requirements will be added by Limerick for future pump orders in order to prevent reoccurrence.

(viii) Any advice related to the defect or failure to comply about the facility, activity, or basic component that has been, is being, or will be given to purchasers or licensees.

None

(ix) In the case of an early site permit, the entities to whom an early site permit was transferred.

This event does not involve an early site permit.