



**NUCLEAR PRODUCTS OPERATIONS**  
Vernon Nuclear Pump Operations, Vernon, CA 90058

2 April 2014

**INTERIM REPORT – FORMAL EVALUATION OF DEVIATIONS REPORTED**

To: Document Control Desk, Nuclear Regulatory Commission  
From: David P. Gobbi, Nuclear Quality Program Manager, Flowserve Nuclear Products Operations  
Reference: Form NPO-NNF-07

Subject: Interim Report of the Evaluation of a Deviation Pursuant to 10 CFR 21.21(a) (2)

Purpose: To provide the Commission with an Interim Report as required by 10 CCFR 21.21 (a) (2) of a Deviation identified by Flowserve Pump Division, Vernon, CA

Timeline and Events that caused this interim report to exceed the 60 day evaluation period;

Date of Discovery by Owner / Customer: 14 January 2014; recognized / re-evaluated as a trend 17 March 2014

Date of Notification to Flowserve: 14 January 2014

Initial Evaluation by Flowserve Material Review Board: on-going from 30 January 2014

Results of Initial Evaluation: Concluded potential to safety exists / Inconclusive with further investigation and information required to determine extent of condition

Internal Reference: Flowserve Internal Corrective Action: 199892, dated 14 Jan. thru– 205953 (most recent) dated 15 March

- Complete pumps were delivered from Flowserve Vernon to Watts Bar II during the years of 2010 and 2011
- Pumps were allocated and being prepared for installation during January – March 2014
- During installation / start-up process – deficiencies prohibiting free rotation was noted on a single pump – (isolated case?)
- Initial Evaluation by Flowserve Part 21 Evaluation Board confirmed that a potential safety hazard existed (isolated Case?)
- Owner/ Customer began investigating other pumps received during the delivery timeline
- Results: Other pumps exhibited several types of deficiencies; customer reported each on a case basis
- Flowserve received complaints, issued individual corrective actions for initial evaluation and root cause
- Collectively – an evaluation disposition as 'isolated case' was no longer in consideration...apparent trend recognized
- Going forward to assist with immediate action - Flowserve Engineering had been in constant communication with WB II
- Due to the (7) additional Customer reported deviations and the ongoing root cause analysis for each, the original and subsequent CARs are now being treated as a deficient trend.
- Programmatically, due to the initial CAR being the beginning of the trend, the discovery date reverts to the initial date of notification of a deviation, thus rendering this report as late.

Based upon the stated facts as applied to the equipment and the date of the initial discovery / corrective action .... A complete root cause analysis exposing a common link between all reported deviations to identify a reasonable, justifiable extent of condition, including respective engineering evaluations for impact to safety cannot be achieved in the prescribed 10CFR21 allotted timeline.

Recognizing that this report is being submitted beyond the required timeline, an additional 60 days is required to perform adequate root cause analysis and to complete the proper evaluations.

I may be reached at 980-722-6770 or by email, at dgobbi@flowserve.com.

Cc: Ed Villalva, Facility Quality Manager, Vernon NPO  
Erik Meisner, General Manager, Nuclear Operations, Vernon NPO Operations

Sincerely,

Digitally signed by David Gobbi  
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Received on 6/3/14 @ DCO