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W3F1-96-0159  
A4.05  
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September 10, 1996

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, D.C. 20555

Subject: Waterford 3 SES  
Docket No. 50-382  
License No. NPF-38  
Follow-up Report: Part 21 Reporting of Defects and  
Noncompliance Interim Report

Gentlemen:

The purpose of this letter is to provide a follow-up report to the Waterford 3 letter W3F1-96-0114 dated July 29, 1996, "Part 21, Interim Report," regarding seven commercial grade Barksdale pressure switches purchased by Waterford 3. As communicated in the interim report, six of the pressure switches were returned to the vendor because of a high failure rate (three of seven) during dedication testing. None of the six switches were dedicated nor were they installed in the plant. The Waterford 3 dedication process did what it was designed to do.

One of the pressure switches that successfully passed the dedication test had been installed in the plant. There was no safety or operability concern with that pressure switch. However, Waterford 3 did further evaluation of the installed switch prior to performing a conclusive reportability determination. Also, in an effort to exercise timely and effective communications, Waterford 3 voluntarily chose to submit the interim report under the 10 CFR Part 21 reporting guidelines.

This letter provides a final reportability determination and the basis for having reached that determination. There is no defect or noncompliance reportable under 10 CFR Part 21 associated with the Barksdale D1T-A150SS pressure switch dedicated and installed in the plant.

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September 10, 1996

The vendor acknowledged that the same fault was common in three of the six returned switches. The identified fault was visual cracks in the weld joining the diaphragm capsule together. This data correlates with Waterford 3's initial assessment of the defective instruments. Two of the three defective units had date codes of January 16, 1996; and, the date code of the third defective unit was illegible. The cause of the defects have been identified by Barksdale as creepage in dimensions of the two halves of the welded metal diaphragm pressure capsule. Also, contributing to the defect was a change in the weld schedule for the welded metal diaphragm pressure capsule to facilitate manufacture. Further, Barksdale has classified the defect as an "infant mortality" type of failure. This type failure should occur within the first two to three cycles of a rated 1,000,000 cycle service life. Although defective date codes or lots have not been specifically identified, the period of defective manufacture occurred sometime in late 1995 and in early 1996. Barksdale believes that the defective capsule problem has been addressed through testing and is not present in the units they are currently manufacturing. The pressure switch installed by Waterford 3 indicates a manufacturing date of April, 1995 (e.g., outside of the suspect manufacturing period).

Further, field conditions subject the installed switch to continuous pressure from the instrument air system; and, this pressure is equal to the operating pressure of the instrument air system. The installed switch has been operating for five months with no failure. This performance, along with the dedication testing and calibration, demonstrates that the identified defect is not present in the installed switch. Waterford 3 has adequately and conclusively evaluated this issue based on the information provided above.

Waterford 3 would like to take this opportunity to update the status of corrective actions, thereby resolving any needed follow-up with regard to this issue. Corrective action associated with the seismic considerations as set forth in the FSAR related to the installed application have been identified. Those actions include training of engineers performing commercial grade dedications, procedural enhancements and the review of similar dedication packages. Waterford 3 Design Engineering is still expecting shipment of the replacement pressure switch for the Barksdale installed instrument. And, as previously communicated in the

Follow-up Report: Part 21 Reporting of Defects and Noncompliance Interim Report  
W3F1-96-0159

Page 3

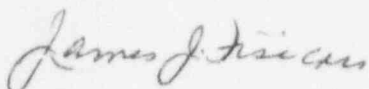
September 10, 1996

interim report, this replacement package was initiated and approved unrelated to the discovery of this issue. Also, this information was communicated to the industry through INPO's Nuclear Network Operating Experience Program.

Waterford 3 appreciates and welcomes the opportunity to share concerns with the NRC as well as with the industry. We sincerely hope that by promoting and exercising an open and forthcoming line of communications amongst ourselves, with the NRC and with the industry that high standards of communication and engineering will be evident.

Should you have any questions please contact me at (504) 739-6242 or Tim Gaudet at (504) 739-6666.

Very truly yours,



J.J. Fisicaro  
Director  
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JJF/SSD/ssf

cc: L.J. Callan, NRC Region 1  
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