

REGIONAL  
UNIT, GA



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February 29, 1980  
L-80-67

*Central File*  
*50-335*

Mr. James P. O'Reilly, Director, Region II  
Office of Inspection and Enforcement  
U. S. Nuclear Regulatory Commission  
101 Marietta Street, Suite 3100  
Atlanta, Georgia 30303

Dear Mr. O'Reilly:

Re: RII:JPO  
50-335  
IE Bulletin 79-27

We have reviewed the subject Bulletin (Loss of Non-Class 1E Instrumentation and Control Power System Bus During Operation), and our response for St. Lucie Unit 1 is attached.

Very truly yours,

*J. A. De Mastis*  
*for*

Robert E. Uhrig  
Vice President  
Advanced Systems & Technology

REU/MAS/cph

Attachment

cc: Harold Reis, Esquire

8003240077

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PEOPLE ... SERVING PEOPLE

ATTACHMENT

Re: RII:JPO  
50-335  
IE Bulletin 79-27

All class 1E and non class 1E buses supplying power to safety related and non safety related instrumentation and control systems which could affect the ability to achieve cold shutdown were reviewed as requested by NRC I & E Bulletin 79-27.

All AC & DC class 1E and vital buses have control room annunciation to alert the operator of loss of power to the bus.

There are 4 class 1E 120 V AC instrument buses which supply power to 4 independent channels of control and instrumentation. Each of these buses are supplied from one of two class 1E D.C. (battery) buses via an inverter. Each bus can also be supplied from one of two regulated AC maintenance bypass buses. Loss of any one bus will not affect the ability to achieve cold shutdown, nor will it prevent the Reactor Protection System and Engineered Safety Features System from fulfilling their functions.

There is also one non interruptable regulated vital AC bus which is supplied from a class 1E D.C. (battery) bus via an inverter and an automatic backup regulated AC supply. This vital AC bus is not class 1E and it does not supply power to any systems required to achieve cold shutdown.

A regulated AC bus also provides power for the security system. It also is supplied from a class 1E D.C. bus, via its own inverter and has a backup regulated AC supply.

The security system bus does not provide power to any systems required to achieve cold shutdown.

All instrument and control systems required to achieve cold shutdown were reviewed with respect to source of power and the affect that loss of power would have on the ability to achieve cold shutdown. In general, all instrument and control systems required to achieve cold shutdown are redundant and have power supplies independant from their redundant system. The following instrumentation & control systems are exceptions.

1. Shutdown cooling flow control valve FCV 3306 control power from "A" train only. (Fails open).
2. Shutdown cooling flow indicator control FIC 3306 control power from "A" train only.

3. Shutdown cooling flow control valve FCV 3657 control power from "B" train only. (Fails closed).
4. Condensate storage tank level indicator LIS 12-10 power from "A" train only.

In the event of a loss of the bus powering one of the above valves, that valve could be operated manually to control shutdown cooling flow.

In the event of a loss of the bus supplying power to FIC 3306, individual LPSI header flow indication is available in the control room and could be totalized.

Control of shutdown cooling flow upon loss of power to either flow control valve or to FIC 3306 will be addressed procedurally.

In the event of a loss of the bus powering LIS 12-10, level indication is available locally.

Based on the above discussions we find that no design modifications are required.

With respect to I & E circular 79-02 referenced by I & E Bulletin 79-27, the St. Lucie Plant has experienced over three years of operation without undue SUPS outages resulting from transient loading conditions as discussed by circular 79-02.