DUKE ENERGY®

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United States Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2
DOCKET NO. 50-261/RENEWED LICENSE NO. DPR-23

TECHNICAL SPECIFICATIONS SECTION 5.6.6 POST ACCIDENT MONITORING INSTRUMENTATION REPORT FOR THE PRESSURIZER SAFETY VALVE INDICATION

Ladies and Gentlemen:

Duke Energy Progress, Inc., formerly known as Carolina Power and Light Company, Inc., hereby submits a report in accordance with H. B. Robinson Steam Electric Plant, Unit No. 2, Technical Specifications (TS) Section 3.3.3, Post Accident Monitoring Instrumentation, and TS 5.6.6, Post Accident Monitoring Instrumentation Report.

The report, which is provided as an attachment to this letter, is based on the failure of a position monitor for one of the three pressurizer safety valves.

This letter contains exactly one (1) new commitment. It is committed that RC-551A pressurizer safety valve position monitor will be repaired and the repair is expected to be completed prior to restart from the next refueling outage, which is currently scheduled to begin on September 14, 2013, or during the first outage of sufficient duration.

If you have any questions concerning this matter, please contact Richard Hightower at (843) 857-1329.

Sincerely,

W. R. Hightower for

Sharon Wheeler-Peavyhouse
Manager – Support Services – Nuclear

Attachment

SWP/jmw

c: Mr. M. T. Widmann, NRC, Region II
Ms. Araceli Billoch Colón, NRC Project Manager, NRR
NRC Resident Inspector

ADD1
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H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2

TECHNICAL SPECIFICATIONS SECTION 5.6.6
POST ACCIDENT MONITORING INSTRUMENTATION
REPORT FOR THE PRESSURIZER SAFETY VALVE INDICATION

Event Description

At approximately 1710 hours on June 13, 2013, it was identified that the low alarm light on the pressurizer safety valve RC-551A acoustic monitor was illuminated. Based on review of other available indications, it was determined that no safety valves had opened. The low alarm for RC-551A would not reset. A work request was initiated and the position monitor for pressurizer safety valve RC-551A was declared inoperable.

The actions for Technical Specifications (TS) Section 3.3.3, Post Accident Monitoring (PAM) Instrumentation, Table 3.3.3-1, Function 24, require an inoperable pressurizer safety valve position monitor to be restored to operable status within 7 days. If this indication is not restored within 7 days, a report in accordance with TS 5.6.6 is required within the following 14 days. TS 5.6.6 states that the report shall outline the preplanned alternate method of monitoring, the cause of the inoperability, and the plans and schedule for restoring the channel to operable status. The Plant Nuclear Safety Committee (PNSC) will review the Corrective Action Program investigation for this event in accordance with the Updated Final Safety Analysis Report requirements for PNSC review of reportable events.

Preplanned Alternate Method of Monitoring

Standing Instruction 13-010, effective 6/17/2013 for the VE-551A/RC-551A Accelerometer Monitor A, outlines the alternate method of monitoring safety valve indication. Alternate RC-551A position indication consists of 1) a temperature element on the downstream piping of RC-551A, and 2) a temperature element and pressure/level indicators at the Pressurizer Relief Tank (PRT). These parameters are logged and printed hourly in the control room by the Emergency Response Facility Information System (ERFIS) computer and are reviewed by control room personnel. Additionally, alarms are provided in the control room for PRT pressure, temperature, and level, and for the safety valve downstream piping temperature.

The TS Bases for TS 3.3.3, as it pertains to the pressurizer safety valve position monitoring channels, states:

> "The consequence of a failure of relief and safety valves to close is a loss of coolant and depressurization of the RCS [Reactor Coolant System]. A positive indication of the position of these valves can aid the operator in diagnosing a failure and in taking appropriate corrective action. Thus, the consequences of a failure of these valves can be reduced if the operator can reliably determine that a valve has failed to close."

The TS Bases further states:

> "Each pressurizer safety valve is equipped with a single acoustical position indication system, which is seismically qualified and powered from an emergency power source, to provide the direct (primary) means of valve position indication. This system alarms in the control room to indicate an open safety valve."

As stated in the TS 3.3.3 Bases, the pressurizer safety valve position indication is a diagnostic indication. This monitoring capability does not directly impact safety systems or the ability to mitigate the consequences of an accident. Unlike the pressurizer power operated relief valves, the pressurizer safety valves cannot be isolated. Therefore, the ability to determine the specific safety valve that is leaking or that has failed does not directly result in the ability to stop a reactor coolant system leak via this path.

Cause of the Inoperability

This event has been entered into the H. B. Robinson Steam Electric Plant, Unit No. 2, Corrective Action Program. The cause of the RC-551A position monitor inoperability is most likely the cable or the preamplifier for the monitoring circuit.

Plans and Schedule for Restoring the Channel

The RC-551A pressurizer safety valve position monitor accelerometer and preamplifier are inside the containment. Based on personnel safety and radiation exposure considerations, and the understanding that post-maintenance testing of this monitor cannot be performed while the unit is operating, it has been determined that repair of the failed channel during unit operations is not practical. Therefore, it is committed that RC-551A pressurizer safety valve position monitor will be repaired and the repair is expected to be completed prior to restart from the next refueling outage, which is currently scheduled to begin on September 14, 2013, or during the first outage of sufficient duration.