May 14, 2021

L-2021-106
10 CFR 50.36

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

RE: St. Lucie Unit 1
Docket Nos. 50-335
Event Date: May 5, 2021
Technical Specification Special Report
Containment High Range Radiation Monitors Inoperable

The attached special report is being submitted pursuant to the requirements of St. Lucie Technical Specification 3.3.3.1, Action b, Table 3.3-6, Action 15, and Technical Specification 6.9.2. This report provides notification that the containment high range radiation monitors (CHRRMs) were inoperable as the plant transitioned into the Mode of applicability.

Alternate means of radiation monitoring were implemented in accordance with the Technical Specification ACTION statement.

Should you have any questions regarding this submittal, please contact me at (772) 467-7435.

Sincerely,

Wyatt Godes
Licensing Manager
St. Lucie Plant

WG/rcs

Attachment

cc: NRC Region II Administrator
St. Lucie Plant NRC Senior Resident Inspector

EVENT DESCRIPTION
On May 5, 2021, St. Lucie Unit 1 transitioned from Mode 5 to Mode 4 with the CHRRMs inoperable and having met the appropriate action statement. The limiting condition for operation (LCO) for TS 3.3.3.1, Action b, Table 3.3-6, Action 15 states that:

> With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, either restore the inoperable Channel(s) to OPERABLE status within 72 hours, or:
>
> 1) Initiate the preplanned alternate method of monitoring the appropriate parameter(s), and
>
> 2) Prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within 14 days following the event outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the system to OPERABLE status.

The preplanned alternate methods for monitoring containment radiation levels were implemented prior to the transition from Mode 5 to Mode 4 and in accordance with plant procedure EPG-08, “Monitoring Plant Equipment Important to the Radiological Emergency Plan,” Attachment 2, “Alternate Monitoring Method with the CHRRM Channels Inoperable.”

The CHRRMs are used as one of several diverse methods for evaluating emergency action levels (EALs) for the Loss of Fuel Clad Barrier and for the Potential Loss of Primary Containment Barrier in the Emergency Plan. The preplanned alternate methods use the containment isolation radiation monitors and Post-LOCA (loss of coolant accident) radiation monitors. The Potential Loss of Primary Containment Barrier EAL determined by CHRRMs indication will be provided in part by the use of the post-LOCA radiation monitors with equivalent outside containment radiation levels.

In addition to directing Emergency Plan EAL entry conditions as described above, the CHRRMs also support Emergency Preparedness dose and core damage assessment capabilities. However, dose and core damage assessment continue to be functional without reliance on CHRRMs as the pre-existing procedures and training for members of the Emergency Response Organization and Operations provide diverse means for obtaining the required information.

There are no automatic functions provided by CHRRMs other than annunciation.

CAUSE OF THE EVENT
The cause for the CHRRMs inoperability was due to the unavailability of functional calibration equipment to restore the CHRRMs to service following their planned replacement during the refueling outage.

ACTIONS TAKEN

Preplanned alternate monitoring was implemented in accordance with TS 3.3.3.1, Action b, Table 3.3-6, Action 15. Well before the CHRRMS were declared out of service, diverse monitoring methods and other procedures were established and trained upon for dose and core damage assessment.

The newly installed CHRRMs were tested prior to delivery to St. Lucie and are expected to be fully operational following calibration.

Replacement calibration equipment is being acquired to facilitate calibration of the new CHRRMs.

SCHEDULE FOR RESTORING SYSTEM

The licensee planned action listed below has been entered into the site corrective action program. Any changes to the action will be managed under the corrective action program:

1. Based on the acceptability of replacement calibration equipment, an implementation schedule is being developed. The calibration and restoration of the CHRRMs will be complete by the end of the next Unit 1 refueling outage.