

W3F1-2023-0010

10 CFR 50.4

January 25, 2023

ATTN: Document Control Desk  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

Subject: Special Report SR 2023-002-00  
Radiation Monitor Inoperable Greater Than 7 Days

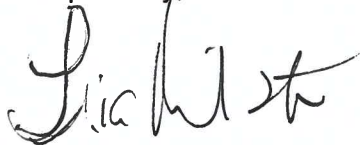
Waterford Steam Electric Station, Unit 3  
NRC Docket No. 50-382  
Renewed Facility Operating License No. NPF-38

Entergy Operations, Inc. (Entergy) is submitting Special Report SR-2023-002-00 for Waterford Steam Electric Station, Unit 3 (Waterford 3). This Special Report is submitted as required by Waterford 3 Technical Specification (TS) 3.3.3.1, "Radiation Monitoring Instrumentation," which requires the minimum number of Effluent Accident Monitor channels shown in TS Table 3.3-6 to be operable. If the monitor is not restored to operable status within 7 days after the failure, a Special Report is required to be submitted in accordance with TS 6.9.2 within 14 days after the failure outlining the actions taken, the cause of the inoperability and the plans and schedule for restoring the system to OPERABLE status.

This letter contains no new commitments.

Should you have any questions concerning this issue, please contact Leia Milster, Manager, Regulatory Assurance, at 504-739-6250.

Respectfully,



Leia Milster

LM/jkb

Enclosure: Waterford 3 Special Report SR-2023-002-00

cc: NRC Region IV Regional Administrator  
NRC Senior Resident Inspector – Waterford Steam Electric Station, Unit 3  
NRC Project Manager – Waterford Steam Electric Station, Unit 3  
Louisiana Department of Environmental Quality

**Enclosure**

**W3F1-2023-0010**

**Special Report SR-2023-002-00**

## **SPECIAL REPORT**

**SR-2023-002-00**

### **Radiation Monitor Inoperable Greater Than 7 Days**

#### **DESCRIPTION**

The Waterford Steam Electric Station, Unit 3 (Waterford 3) Fuel Handling Building (FHB) Wide Range Gas Monitor (WRGM) (PRMIRE3032) radiation monitor was declared inoperable on January 8, 2023. Operability was not restored within the required 7-day period as specified in Waterford 3 Technical Specification (TS) 3.3.3.1, "Radiation Monitoring Instrumentation," Table 3.3-6. This Special Report is submitted to the Nuclear Regulatory Commission (NRC) in accordance with TS 6.9.2, "Special Reports," and 10 CFR 50.4, "Written communications," within the next 14 days outlining the actions taken, the cause of the inoperability and the plans and schedule for restoring the system to operable status.

The FHB WRGM samples the air being released through the FHB emergency exhaust ducts during accident conditions.

There are two process flow elements, one for each emergency filtration train. However, this WRGM only uses one input from one flow sensor to determine the release rate. The process flow input is logically selected to the Train A probe if both trains are running and the respective train if only one train is running.

#### **ACTIONS TAKEN**

On January 8, 2023, during the performance of a functional test of PRMIRE3032, the Train A FHB WRGM reading was not as expected and also was not changing over a 30 minute period. However, the Train B FHB WRGM was dynamic and read as expected. The Train A monitor was determined to be out of tolerance and due to the reading not moving at all, technicians suspected that a fault existed. The required actions were taken in accordance with TS 3.3.3.1, Table 3.3-6, and an entry in the Equipment Out of Service log was initiated to track the condition. The Chemistry Department established the pre-planned alternate method of monitoring as required.

Maintenance and Engineering completed troubleshooting and discovered a faulty flow measurement probe.

#### **CAUSE OF INOPERABILITY**

The cause of the inoperability was the ceramic tip of the Train A FHB WRGM exhaust flow measurement probe, which contains the sensing line inside, had failed and cracked in half. The tip is not repairable by site personnel. The original flow probes that were installed are obsolete.

Waterford 3 has one spare probe in stock, which is different from the original installation. It is also obsolete. Both the Train A and Train B FHB WRGM exhaust flow probes are required to be identical to obtain accurate flow measurements, therefore both flow probes require replacement.

#### PLANS AND SCHEDULE FOR RESTORING OPERABLE STATUS

New style flow probes are being procured and are expected to be delivered from the vendor in approximately six months. Alternatively, Waterford 3 is also pursuing other options to repair or replace the faulty flow probe.

The estimated date for restoration to operable status is three days following receipt of the flow probe replacement parts.