



Entergy Operations, Inc
1340 Echelon Parkway
Jackson, MS 39213
Tel 601-368-5138

Ron Gaston
Director, Nuclear Licensing

10 CFR 50

CNRO2020-00031

December 30, 2020

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

Subject: Schedule Change to Open Phase Condition Detection Implementation

Grand Gulf Nuclear Station, Unit 1
NRC Docket No. 50-416
Renewed Facility Operating License No. NPF-29

Entergy Operations, Inc. (Entergy) is revising the implementation schedule for Open Phase Detection (OPD) for Grand Gulf Nuclear Station, Unit 1 (GGNS). In 2014, Entergy committed to the generic schedule as provided in the Nuclear Energy Institute (NEI) Industry Initiative on OPD (Reference 1). Subsequently, in Reference 2, NEI revised the voluntary industry initiative generic schedule for OPD implementation. In February 2018, Entergy withdrew its membership from NEI, as discussed in Reference 3, but the withdrawal did not impact prior commitments to NEI documents or commitments made by NEI on behalf of Entergy. NEI revised the implementation schedule in Reference 4. In Reference 6, Entergy revised its OPD commitment to adhere to the revised NEI guidance given in Reference 4.

Reference 5 provides a summary of the interim corrective actions that have been implemented at GGNS to ensure plant operators promptly diagnose and respond to an open phase condition. However, consistent with Reference 4, Entergy has implemented design changes at GGNS in a monitoring mode with an alarm response process for operators to act if the system detects the presence of an open phase condition. These actions supersede the interim corrective actions.

Entergy has determined that extended OPD system monitoring is needed to validate correct system operation. Entergy has only recently been able to determine set points for the GGNS system that should avoid spurious alarms. The spurious alarms could cause a complicated reactor scram. Entergy will extend its monitoring period at GGNS to April 30, 2022. This will allow Entergy to continue monitoring the GGNS OPD system to validate that the settings will eliminate the false spurious alarms and trips.

Currently, if the GGNS OPD system detects symptoms commensurate with an open phase, it will send a general trouble alarm to the Control Room. Upon receipt of the alarm, operators will use the Alarm Response Instruction (ARI) procedure and investigate the local OPD alarm

panels to identify if the trouble is an open phase condition and address the issue. The ARI contributes to Entergy recognizing and mitigating the effects of an open phase condition at GGNS.

In summary, this commitment extension improves Entergy's ability to monitor and mitigate the effects of an open phase condition at GGNS.

This commitment change is processed in accordance with the NEI guidance for deviations to the Open Phase Condition initiative, NEI 99-04, "Guidelines for Managing NRC Commitment Changes," and Entergy procedure EN-LI-110, "Commitment Management Program." This letter Enclosure describes the changed commitment. If you have any questions, please contact Mr. Jim Shaw, Manager, Regulatory Assurance, at (601) 437-2103.

Respectfully,



Ronald W. Gaston

RWG/rws

Enclosure: List of Regulatory Commitments

- References:
1. Nuclear Energy Institute letter to the Nuclear Regulatory Commission (NRC), "Industry Initiative on Open Phase Condition," (ADAMS Accession No. ML13333A147), dated October 9, 2013
 2. Nuclear Energy Institute letter to the NRC, "Industry Initiative on Open Phase Condition, Revision 1," (ML15075A455), dated March 16, 2015
 3. Entergy Letter to NRC, "Nuclear Energy Institute Commitments," (Letter Number CNRO-2018-0006) (ML18068A087), dated March 9, 2018
 4. Nuclear Energy Institute letter to the NRC, "Industry Initiative on Open Phase Condition, Revision 2," (ML18268A114), dated September 20, 2018
 5. Entergy Letter to NRC, "Request for Additional Information Regarding Response to Bulletin 2012-01, 'Design Vulnerability in Electric Power System', dated December 20, 2013," (Letter Number GNRO-2014/00009) (ML14034A359), dated February 3, 2014
 6. Entergy Letter to NRC, "Schedule Change to Open Phase Condition Detection Implementation," (Letter Number CNRO-2018-0053) (ML18354A823), dated December 20, 2018

cc: NRC Region IV Regional Administrator
NRC Project Manager
NRC Senior Resident Inspector

Enclosure

CNRO2020-00031

List of Regulatory Commitments

LIST OF REGULATORY COMMITMENTS

The following table identifies those actions committed to by Entergy in this document. Any other statements in this submittal are provided for information purposes and are not considered to be regulatory commitments.

COMMITMENT	TYPE (Check one)		SCHEDULED COMPLETION DATE
	ONE-TIME ACTION	CONTINUING COMPLIANCE	
Grand Gulf Nuclear Station will complete the Monitoring Period with all "active" actuation features needed to demonstrate compliance with the open phase condition criteria enabled by April 30, 2022.	X		April 30, 2022