

Crystal River 3

2Q/2012 Plant Inspection Findings

Initiating Events

Mitigating Systems

Significance:  Jul 14, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Maintain Fire Loading Within Allowable Limits

• Green. The inspectors identified two examples of a non-cited violation of Crystal River Unit 3 Operating License Condition 2.C (9), for the failure to adequately evaluate changes to the approved Fire Protection Program. Specifically, in 1999, and 2003, the licensee revised their fire protection program to increase the combustible loading beyond the maximum permissible limits for FA CC-124-116, 480V ES Switchgear Bus Room 3B and FA CC-124-117, 480V ES Switchgear Bus Room 3A, respectively without performing an evaluation to ensure compliance with the approved Fire Protection Program. The licensee initiated nuclear condition reports 461209, and 476342 to address this issue.

The finding was more than minor because it affected the reactor safety mitigating system cornerstone attribute of protection against external events (i.e. fire). For both examples the selection of a “low” degradation rating was supported by screening criteria provided in Inspection Manual Chapter (IMC) 0609, Appendix F, “Fire Protection Significance Determination Process” as well as IMC 0609, Appendix F, Attachment 2 “Degradation Rating Guide Specific to Various Fire Protection Elements.” Based on the above criteria, this finding is screened as having very low safety significance (Green) in Phase 1 of the Significance Determination Process.

The performance deficiency was not assigned a cross cutting aspect as this deficiency occurred over three years ago and is therefore not reflective of current plant performance.

Inspection Report# : [2011008](#) (*pdf*)

Significance:  Jul 14, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate Procedure OP-880B for Turbine Building Post-Fire Safe Shutdown

• Green. The inspectors identified a non-cited violation of Crystal River Unit 3 (CR3) Technical Specification 5.6.1.1.a., for inadequate guidance in procedure OP-880B, Appendix “R” Turbine Building Post-Fire Safe Shutdown Information. Specifically, the procedure could not have been performed as written because it did not identify the appropriate equipment that was to be manipulated to ensure that the reactor coolant pumps remained de-energized after being secured in the event of a fire in turbine building Fire Zones TB-95-400A, TB-119-400E, or TB-145-400F. Additionally, procedure OP-880B did not provide adequate guidance regarding how CR3 operators would communicate with Crystal River Unit1/Unit 2 (CR1/CR2) operators, and did not specify if a reliable means of communications was available. The licensee initiated nuclear condition reports 460602, and 461736 to address this issue.

The inspectors determined that inadequate safe shutdown procedure guidance was a performance deficiency. This finding was more than minor because it was associated with the procedure quality attribute of the mitigating systems cornerstone and it affected the cornerstone objective of protection against external events (i.e., fire). The inspectors assessed this finding using NRC Inspection Manual Chapter 0609, Appendix F, Fire Protection Significance

Determination Process. The inspectors determined that this finding was of very low safety significance (Green) because during the time that procedure OP-880B was issued and in effect (April 16, 2010, to April 22, 2011), CR3 was in cold shutdown and procedure OP-880B was not applicable. The inspectors determined that the cause of this finding had a cross-cutting aspect in the Human Performance Area, Work Control Component, in that, the licensee did not address the need for CR3 work groups to maintain interfaces with offsite organizations (i.e., CR1/CR2), to communicate and coordinate with each other during activities in which interdepartmental coordination was necessary to ensure plant and human performance.

Inspection Report# : [2011008](#) (pdf)

Barrier Integrity

Emergency Preparedness

Significance: **W** Jul 15, 2011

Identified By: NRC

Item Type: VIO Violation

Failure to Maintain a Standard EAL Scheme

TBD. An AV was identified for failure to follow and maintain in effect emergency plans which use a standard emergency classification and action level scheme. Specifically, the licensee's emergency plan emergency action level (EAL) 1.4, General Emergency - Gaseous Effluent, specified instrument values that were beyond the limits of the effluent radiation monitors capabilities to accurately measure.

This finding was considered more than minor because the licensee is required to be capable of implementing adequate measures to protect public health and safety in the event of a radiological emergency. Regulations require a standard emergency classification and action level scheme, the bases which include facility system and effluent parameters, in use by the licensee and State and local response plans call for reliance on information provided by the licensee for determination of minimum initial offsite response measures. As a result of having General Emergency EAL threshold values that were beyond the range of the associated effluent radiation monitors, Crystal River Unit 3 personnel may not have been able to perform timely and accurate classification of an emergency based upon an effluent radioactive material release. Emergency response actions directed by the State and local emergency response plans, which rely on information provided by the licensee, could have potentially been delayed.

The cause of the finding is related to the human performance cross-cutting element of Decision-making (H.1(a)) for ensuring that risk-significant decisions are made using a systematic process and obtaining interdisciplinary input and reviews.

The NRC staff conducted this supplemental inspection in accordance with Inspection Procedure 95001, "Inspection for one or two White inputs in a Strategic Performance Area," to assess the licensee's evaluation associated with the failure to follow and maintain a standardized Emergency Action Level (EAL) scheme. The NRC staff previously characterized this issue as having low to moderate risk significance (White) in NRC Inspection Report (IR) 05000302/2011504. During this supplemental inspection, the inspectors determined that the licensee had performed a comprehensive evaluation of the licensee-identified failure to follow and maintain a standardized EAL scheme for several years prior to June 2011. The licensee identified the root cause of the issue to be insufficient procedural guidance to direct the EAL change process. All immediate and long term corrective actions have been completed except for: (1) Evaluate/change EAL threshold values based on updated assumptions coincident with replacing the RM-A1 and RM-A2 instruments (expected completion date (ECD) of October 15, 2012); (2) Complete corrective action effectiveness reviews (ECD September 1, 2012); and (3) Assess Emergency Preparedness (EP) staff including workload leveling and degree of interaction with other site groups (ECD December 29, 2012). Given the licensee's acceptable performance in addressing the failure to follow and maintain a standardized EAL scheme, the White finding associated with this issue will only be considered in assessing plant performance until the end of the second quarter 2012, in accordance with the guidance in Inspection Manual Chapter (IMC) 0305, "Operating Reactor Assessment Program." Implementation of the licensee's corrective actions will be reviewed during a future inspection.

Inspection Report# : [2011504](#) (*pdf*)

Inspection Report# : [2011501](#) (*pdf*)

Inspection Report# : [2012503](#) (*pdf*)

Occupational Radiation Safety

Public Radiation Safety

Security

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page. Therefore, the [cover letters](#) to security inspection reports may be viewed.

Miscellaneous

Last modified : September 12, 2012