Crystal River 3
4Q/2011 Plant Inspection Findings

Initiating Events

Mitigating Systems

Significance: G 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: G 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)*

Significance: G Mar 31, 2011
Identified By: Self-Revealing
Item Type: FIN Finding
Operating Crew Failures on the 2011 Annual Requalification Operating Test
A self-revealing Green finding, associated with operating crew performance on the simulator during facility-administered requalification examination was identified. Two of the eight crews evaluated failed to pass their simulator examinations. As immediate corrective action, the failed operating crews were remediated (i.e., the operating crews were re-trained and successfully retested) prior to returning to shift. The licensee has entered this issue into the corrective action program as Nuclear Condition Report (NRC) 450196.

The inspectors determined that the crew failures constituted a performance deficiency based on the fact that licensed operators are expected to operate the plant with acceptable standards of knowledge and abilities demonstrated through periodic testing as required by 10 CFR 55.59(a)(2). Two out of eight crews of licensed operators failed to demonstrate a satisfactory understanding of the required actions and mitigating strategies required to safely operate the facility under normal, abnormal, and emergency conditions. The finding is greater than minor because the performance deficiency potentially affects the Human Performance attribute of the Mitigating Systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the finding reflected the crew's potential inability to take timely actions in response to actual abnormal and emergency conditions. The cause of this finding was directly related to the cross-cutting aspect of personnel training and qualifications in the Resources component of the Human Performance area, in that the licensee failed to ensure the adequacy of the training provided to operators to assure nuclear safety. (H.2(b)) (Section 1R11)

Inspection Report# : 2011002 *(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.
Inspection Report# : 2011504 *(pdf)*
Inspection Report# : 2011501 *(pdf)*

Occupational Radiation Safety

Public Radiation Safety

Physical Protection

Although the NRC is actively overseeing the Security cornerstone, the Commission has decided that certain findings pertaining to security cornerstone will not be publicly available to ensure that potentially useful information is not provided to a possible adversary. Therefore, the cover letters to security inspection reports may be viewed.

Miscellaneous

Last modified : March 02, 2012