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Monticello – Quarterly Plant Inspection Findings

3Q/2017 – Plant Inspection Findings

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Initiating Events

Significance: G Apr 15, 2017

Identified By: NRC

Item Type: NCV Non-Cited Violation

LOW REACTOR WATER LEVEL DURING SHUTDOWN OF 11 REACTOR FEEDWATER PUMP.

A self revealed finding of very low safety significance and an NCV of Technical Specification (TS) 5.4.1.a occurred on April 15, 2017, due the licensee's failure to establish, implement and maintain procedures regarding shutdown operations. Specifically, Operations Manual B.06.05 05 did not account for the state of the opposite train of feedwater when shutting down the 11 Reactor Feedwater Pump (RFP). Licensee use of the inadequate procedure placed equipment in a configuration where no condensate flow path to the reactor existed causing reactor water level to lower to a point where trip/isolation set points were reached. This caused an unplanned Reactor Protection System (RPS) trip and Partial Group II isolation. The licensee initiated Corrective Action Program (CAP) 1555785 to document the reactor water level transient, RPS trip and Partial Group II Isolation. Immediate corrective actions included opening the 11 RFP discharge valve to restore reactor water level allowing reset of the Group II isolation and RPS trip. Subsequent licensee actions included development of expectations via an Operations Memo and revision to Operations Manual B.06.05-05 as well as procedures 2204 and 2167 to ensure abnormal equipment lineups are addressed such that unexpected procedure interactions are avoided.

The inspectors determined the failure to establish, implement and maintain procedures regarding shutdown operations as required by TS 5.4.1.a was a performance deficiency that required an evaluation. The inspectors assessed the significance of this finding using IMC 0609, Attachment 4, and IMC 0609, Appendix A, Exhibit 1, Section B and determined a detailed risk evaluation was required because the finding caused a reactor trip and loss of mitigation equipment relied upon to transition the plant from the onset of the trip to a stable shutdown condition (e.g. loss of feedwater). A Senior Reactor Analyst (SRA) performed a detailed risk evaluation using bounding assumptions and the change in Core Damage Frequency (CDF) was calculated to be 9E-7/year (Green). The inspectors determined that the contributing cause that provided the most insight into the performance deficiency was associated with the cross cutting

area of Human Performance, Change Management aspect, because licensee leaders did not use a systematic process for evaluating and implementing change so that nuclear safety remains the overriding priority. [H.3]. (Section 40A3)

Inspection Report# : 2017002 (*pdf*)

Mitigating Systems

Significance:  Jul 14, 2017

Identified By: NRC

Item Type: NCV Non-Cited Violation

IMPLEMENTATION OF INADEQUATE ALTERNATE COMPENSATORY MEASURE FOR DEGRADED FIRE BARRIER (SECTION 1R05.11b).

The inspectors identified a finding of very-low significance (Green) and an associated Non-Cited Violation of License Condition 2.C.4 of the Monticello Nuclear Generating Plant, Unit No. 1, Renewed Facility Operating License for implementing an alternative compensatory measure that was adverse to safety shutdown. Specifically, the licensee approved the installation of a temporary fuel oil pump, in lieu of a continuous fire watch, which reduced the defense in depth of the Fire Protection Program.

The inspectors determined that the use of a temporary fuel oil pump in the event of a fire, in lieu of a continuous fire watch, constituted an adverse change to the Fire Protection Program, was contrary to License Condition 2.C.4 and a performance deficiency. The performance deficiency was more-than-minor because it affected the Protection Against External Factors attribute of the Initiating Events Cornerstone and adversely affected the cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Specifically, the use of the alternative compensatory measure reduced the defense in depth of the Fire Protection Program by failing to provide compensatory measures to reduce the likelihood of occurrence of a fire and failing to provide prompt detection of a fire. In accordance with IMC 0609, "Significance Determination Process," Attachment 0609.04, "Initial Characterization of Findings," Table 2 the inspectors determined the finding affected the Initiating Events cornerstone. The finding degraded fire protection defense-in-depth strategies, and the inspectors determined, using Table 3, that it could be evaluated using Appendix F, "Fire Protection Significance Determination Process." The inspectors determined that the finding represented a low degradation and was screened as having very-low safety significance (Green) in Task 1.3.1 of IMC 0609, Appendix F, because repair activities were in place that would have maintained safe shutdown (SSD) conditions and were reasonably achievable. This finding had a cross-cutting aspect in the Conservative Bias component of the Human Performance cross-cutting area. Specifically, the licensee implemented an alternate compensatory measure that only focused on the emergency diesel generator operability and hence, the post-SSD strategy of the plant without considering the defense in depth requirements of their Fire Protection Program to prevent, detect, and suppress a fire that could affect equipment needed for SSD of the plant. (Section 1R05.11b)

Inspection Report# : 2017007 (*pdf*)

Significance:  Jun 09, 2017

Identified By: NRC

Item Type: NCV Non-Cited Violation

FAILURE TO ENSURE ADEQUATE DESIGN CONTROLS DURING INSTALLATION OF FLEXIBLE HOSE ON HIGH PRESSURE CO

Inspection Report# : 2017010 (*pdf*)

Significance: G Oct 03, 2016

Identified By: NRC

Item Type: NCV Non-Cited Violation

INADEQUATE PROCEDURE FOR IDENTIFICATION OF SIGNIFICANT CONDITIONS ADVERSE TO QUALITY.

Green. The inspectors identified a finding of very low safety significance and non-cited violation of Title 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures and Drawings," for the licensee's failure to prescribe a procedure appropriate to the circumstances with respect to the identification of a significant condition adverse to quality (SCAQ). Specifically, FP-PA-ARP-01, "CAP Action Request Process," provided an overly restrictive definition of what constituted a SCAQ. Consequently, the failure to provide an adequate definition of a SCAQ could result in a failure to identify a SCAQ and therefore, failure to implement corrective actions that preclude repetitive failures of safety-related equipment. The licensee entered this issue into the CAP as action request (AR) 1536735.

The inspectors determined that the licensee's failure to prescribe a procedure appropriate to the circumstances under FP-PA-ARP-01 was a performance deficiency. The performance deficiency was determined to be more than minor in accordance with IMC 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," because, if left uncorrected the performance deficiency would have the potential to lead to a more significant safety concern. Although, this issue could potentially affect each of the Reactor Safety Cornerstones, the inspectors elected to evaluate this issue under the Mitigating Systems Cornerstone because inspectors concluded it impacted the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage) more than the attributes of the other Cornerstones. The inspectors utilized IMC 0609, "Significance Determination Process," Attachment 0609.04, "Initial Characterization of Findings," and IMC 0609, Appendix A, "The Significance Determination Process for Findings At-Power," and determined that the finding screened as very low safety significance (Green) since the inspectors answered "No" to each of the questions in Exhibit 2, Section A, "Mitigating Systems Screening Questions." The inspectors determined that the performance characteristic of the finding that was the most significant causal factor of the performance deficiency was associated with the cross-cutting aspect of Problem Identification and Resolution, Self-Assessment, and involving the organization routinely conducting self-critical and objective assessments of its programs and practices. Specifically, the failure to identify the overly restrictive definition of SCAQ during previous audits of the CAP was caused by an insufficiently self-critical audit focus. [P.6]

Inspection Report# : 2016007 (*pdf*)

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Security

The security cornerstone is an important component of the ROP, which includes various security inspection activities the NRC uses to verify licensee compliance with Commission regulations and thus ensure public health and safety. The Commission determined in the staff requirements memorandum (SRM) for SECY-04-0191, "Withholding Sensitive Unclassified Information Concerning Nuclear Power Reactors from Public Disclosure," dated November 9, 2004, that specific information related to findings and performance indicators associated with the security cornerstone will not be publicly available to ensure that security-related information is not provided to a possible adversary. Security inspection report cover letters will be available on the NRC Web site; however, security-related information on the details of inspection finding(s) will not be displayed.

Miscellaneous

Current data as of : November 29, 2017

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