

# Turkey Point 4

## 3Q/2008 Plant Inspection Findings

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### Initiating Events

**G**

**Significance:** Sep 30, 2008

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Failure To Implement Technical Specification Requirements Regarding Structural Integrity of Reactor Coolant System Components**

The inspectors identified a Non-cited violation of Technical Specification (TS) 3.4.10, when the licensee failed to either isolate a flawed ASME Code Class 1 crack or place Unit 4 in a condition where the TS did not apply. As a result, plant operation was continued with a crack leaking boric acid on components, challenging the integrity of the reactor coolant system. When identified to the licensee, Unit 4 was shut down and cooled to a condition where the requirement did not apply and the crack was repaired. The licensee documented the failure to enter the TS as condition report (CR) 2008-27020.

The finding was more than minor because the un-isolated crack challenged the integrity of the reactor coolant system and affected the objective of the Reactor Safety/Initiating Events Cornerstone to limit the likelihood of those events that upset plant stability and challenge critical safety functions during at power operations. The finding was evaluated using inspection Manual Chapter 0609, "Significance Determination Process," Phase 1 Worksheet for LOCA Initiators. Because of check valve protection downstream, and with the unimpeded ability to isolate charging upstream, the finding screened as having very low safety significance (Green). No cross-cutting aspect was associated with this finding.

Inspection Report# : [2008004](#) (*pdf*)

**G**

**Significance:** Jun 30, 2008

Identified By: Self-Revealing

Item Type: FIN Finding

#### **Maintenance causes smoke and fumes to enter the control room causing fire alarms.**

A Self-Revealing finding of very low safety significance was identified after smoke and welding fumes from maintenance entered the control room through the ventilation system causing smoke alarms. When identified, the licensee stopped the maintenance and entered the issue into the corrective action program as CR 2008-17166.

The Initiating Events cornerstone was affected when smoke alarms occurred requiring the operators to initiate actions to protect themselves and the plant. The event screened as Green when mitigating systems remained unaffected and would have functioned, if needed. The cause of the finding is related to the cross-cutting area of Human Performance, Work Practices, (H.4.b) when personnel did not follow procedures in developing the work package for metalizing operations outside of the control room. (1R05)

Inspection Report# : [2008003](#) (*pdf*)

**G**

**Significance:** Dec 31, 2007

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Failure to implement the fire protection program: unapproved transient combustibles in the cable spreading room**

The inspectors identified a Non-Cited violation for failure to implement the fire protection program when unapproved transient combustibles (including an ignition source) were found in the cable spreading room without the required evaluation. When identified to the licensee either the materials were removed or an appropriate evaluation was done and a permit issued.

The finding was more than minor because it involved the degradation of a fire protection program component to control combustibles and initiation sources introduced into the cable spreading room. The issue was of very low safety significance because the overall fire loading increase in the affected area was small and would not affect the cable spreading room barrier three-hour fire rating. The cause was related to the cross-cutting area of Human Performance, Work Practices (IMC 0305, H.4.b) because the work groups, operators doing rounds, and fire protection personnel did not communicate expectations regarding procedural compliance and personnel did not follow procedures. (1R05)

Inspection Report# : [2007005](#) (*pdf*)

**Significance:** Dec 31, 2007

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to periodically update the FSAR with changes made to the cable spreading room fire loading**

The inspectors identified a Non-Cited violation for failure to update the final safety analysis report (FSAR) regarding fire loading of permanently installed equipment in the cable spreading room to assure that the information included in the FSAR is the latest information developed. When identified to the licensee, actions were initiated to identify and document changes to the cable spreading room fire loading.

The failure to update the FSAR with information that could affect fire loading of the cable spreading room was a failure to provide accurate information that could impact the NRC ability to perform its regulatory function and was subject to traditional enforcement. (1R17)

Inspection Report# : [2007005](#) (*pdf*)

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## Mitigating Systems

**Significance:** Jun 30, 2008

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to implement procedures that assure component lineups prior to power escalation.**

The inspectors identified a non-cited violation of Technical Specification (TS) 6.8.1, Procedures for failure to implement Unit 4 plant startup requirements regarding alignment of components that support operability of the recirculation sump. When identified, the licensee corrected the alignments and entered the issues into the corrective actions program as CR 2008-15444 and 2008-15505.

The Mitigating Systems cornerstone was affected when standby equipment was not in the specified ready lineup. The finding screened to be of very low safety significance when no loss of safety function occurred. The cross-cutting area of Human performance – Work Practices (H.4.c) was affected when the licensee did not assure supervisory oversight of work activities (valve lineup and debris gate position) to assure that nuclear safety was supported. (1R20)

Inspection Report# : [2008003](#) (*pdf*)

**Significance:** Jun 30, 2008

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

**Failure to take timely corrective actions leads to emergency diesel generator failure.**

A Self-revealing Non-cited violation of 10 CFR 50, Appendix B, Criterion XVI was identified when external corrosion of a Unit 3 emergency diesel radiator was not promptly repaired resulting in a diesel failure. The licensee repaired the radiator and entered the event into their corrective action program as CR 2008-11134.

The finding affected the equipment performance attribute of the Mitigating System cornerstone due to the impact on availability and reliability of the EDG system. The finding screened to be of very low safety significance, Green, when the loss of safety function for the single train did not exceed the allowed outage time. The finding involved the cross-cutting area of Problem Identification, and Resolution, (P.1.c), when the licensee did not thoroughly evaluate the radiator corrosion such that the issue could be resolved prior to failure. (40A2)

Inspection Report# : [2008003](#) (*pdf*)

**Significance:** Mar 31, 2008

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to implement procedures regarding overtime hours for plant operations personnel**

The inspectors identified a Non-cited violation of Technical Specification (TS) 6.8.5 for the failure of the licensee to properly implement procedure requirements regarding the control of overtime for operations personnel that may perform safety-related duties. To address this issue the licensee has revised the operations shift scheduling to reduce or eliminate the need for overtime beyond the limits specified in licensee procedures.

The finding is greater than minor in accordance with Inspection Manual Chapter (IMC) 0612, Power Reactor Inspection Reports, “Appendix B, Issue Screening.” If left uncorrected, the excessive work hours could adversely affect the station’s defense-in-depth and increase the likelihood of human errors during response to plant events and would become a more significant safety concern. The failure to implement

requirements for controlling the use of overtime is contrary to TS and is a performance deficiency which could adversely impact operability to monitor safe operation of the plant and other onsite activities. This issue has a cross-cutting aspect in the area of Human Performance, Resources (Item H.2.(c) of IMC 0305, because sufficient qualified personnel were not available to maintain working hours within working hour guidelines.

Inspection Report# : [2008002](#) (*pdf*)

**G**

**Significance:** Dec 31, 2007

Identified By: NRC

Item Type: FIN Finding

**Failure to correct moisture buildup in alternate shutdown panel results in degraded cooldown capability**

The inspectors identified a finding when the licensee failed to evaluate excessive moisture and condensation in the Unit 3 alternate shutdown panel. During subsequent testing, all channels of steam generator pressure indication at the panel were inoperable causing a degraded ability to achieve cold shutdown in some fire scenarios. When identified to the licensee, the issue was entered into the corrective action program and moisture intrusion in the panel was stopped by sealing the water source.

The licensee's failure to identify and correct moisture intrusion problems with the remote shutdown equipment was a noncompliance with the licensee's corrective actions procedure. The finding was more than minor because it affected the availability and reliability of the alternate shutdown system designated for use in licensee procedure 0-ONOP-105, Control Room Evacuation. The finding was of very low safety significance because only the ability to achieve cold shutdown was affected by the moisture. The cause of the finding is related to the cross-cutting area of problem identification and resolution because the moisture intrusion in the alternate shutdown system had not been thoroughly evaluated such that the resolutions addressed the causes (IMC 305, P.1.c). (1R15)

Inspection Report# : [2007005](#) (*pdf*)

**G**

**Significance:** Sep 30, 2007

Identified By: NRC

Item Type: FIN Finding

**Recurring Problems with Alternate Shutdown Communication Equipment**

The inspectors identified a finding when the licensee did not identify and correct an adverse trend of recurring problems with the alternate shutdown communications system. When identified, the licensee entered the issue into the corrective actions program and initiated a review of reliability issues with the communications equipment.

The finding is more than minor because it affects the availability and reliability of the communications system used by plant operators to mitigate certain fire scenarios. The issue was of very low safety significance because an alternate communications system (radios) was available, if needed. The cause was related to the cross-cutting area of problem identification and resolution because the adverse trend of problems with alternate shutdown communications had not been identified nor corrected by the licensee commensurate with its safety significance. (IMC 305, P.1 (d)) (4OA2)

Inspection Report# : [2007004](#) (*pdf*)

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## Barrier Integrity

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## Emergency Preparedness

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## Occupational Radiation Safety

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## Public Radiation Safety

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## 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.

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## Miscellaneous

**Significance:** N/A Jun 27, 2008

Identified By: NRC

Item Type: FIN Finding

### Problem Identification and Resolution

The team concluded that in general, problems were properly identified, evaluated, prioritized, and corrected within the licensee's corrective action program (CAP). Evaluation of issues was generally comprehensive and technically adequate. Formal root cause evaluations for issues classified as significant adverse conditions were comprehensive and detailed. The team reviewed the licensee's corrective action program improvement plan and actions to address evaluation quality, timeliness, and overall CAP effectiveness. The team determined that progress has been made in improving all areas addressed by the improvement plan. Overall, corrective actions developed and implemented for issues were effective in correcting the problems. However, the team identified examples where corrective actions have not been entirely effective, or potential adverse trends had not been identified and entered into the CAP.

The team determined that thresholds for identifying issues were appropriately low. Nuclear Assessment Section audits and departmental self-assessments were effective in identifying issues and directing attention to areas that needed improvement. Licensee identified weaknesses and issues in self-assessments were appropriately entered into the CAP and addressed.

Based on discussions and interviews conducted with plant employees from various departments, the inspectors did not identify any reluctance to report safety concerns.

Inspection Report# : [2008008](#) (*pdf*)

**Significance:** N/A Mar 21, 2008

Identified By: NRC

Item Type: FIN Finding

### PI&R Inspection

The licensee was generally effective at identifying problems and initiating condition reports (CR) as required by program procedures. The inspectors determined that the licensee utilized their corrective action program to evaluate, assign corrective actions, and identify adverse trends, including low level issues. The inspectors reviewed the licensee's corrective action program improvement plan and actions to address evaluation quality, timeliness, and overall corrective action program (CAP) effectiveness. In general, the inspectors found the evaluations to be adequate with notable reductions in the CR backlog and evaluation timeliness since the last problem identification and resolution (PI&R) inspection completed in December 2007. The inspectors identified some minor deficiencies associated with corrective actions to prevent recurrence (CAPR) put in place to address the substantive PI&R cross-cutting issue, first identified in 2006 but overall, corrective actions were effective.

On the basis of interviews conducted during the inspection, a review of the Employee Concerns Program, and the results of the licensee's safety conscious work environment (SCWE) surveys, the inspectors determined that employees felt free to raise concerns without fear of retaliation.

Inspection Report# : [2008007](#) (*pdf*)

**Significance:** N/A Dec 21, 2007

Identified By: NRC

Item Type: FIN Finding

### PI&R Inspection

The licensee was generally effective at identifying problems and initiating condition reports (CR) as required by program procedures. The inspectors determined that the licensee utilized their corrective action program to evaluate, assign corrective actions, and identify adverse trends, including low level issues. In most instances, the licensee properly assigned, prioritized, and evaluated issues identified at the site. The inspectors reviewed the licensee's corrective action program improvement plan and actions to address evaluation quality, timeliness, and overall CAP effectiveness. In general, the inspectors found the evaluations to be adequate with the CR backlog and evaluation timeliness having been reduced since the last problem identification and resolution (PI&R) inspection completed in June 2007. Overall, corrective actions were effective, but the inspectors identified a number of weaknesses associated with corrective actions to prevent recurrence (CAPR) put in place to address the substantive PI&R cross-cutting issue, first identified in 2006. The inspectors identified several examples where corrective actions to prevent recurrence had not been fully implemented and contract engineers had not completed training requirements to perform certain condition report evaluations.

Licensee self-assessments and audits were self-critical and generally effective in identifying problems which were properly documented in their CAP. On the basis of interviews conducted during the inspection, and the results of the licensee's safety conscious work environment (SCWE) surveys the inspectors determined that those employees felt free to raise concerns without fear of retaliation.

Inspection Report# : [2007009](#) (*pdf*)

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