

# Calvert Cliffs 1

## 3Q/2011 Plant Inspection Findings

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### Initiating Events

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### Mitigating Systems

**Significance:**  Dec 31, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Failure to Perform Testing of PORVs in Accordance with ASME OM Code**

The inspectors identified a very low safety significance (Green) non-cited violation (NCV) of Technical Specification (TS) 5.5.8, Inservice Testing Program, involving Constellation's failure to perform inservice tests (ISTs) for the pressurizer power operated relief valves (PORVs) in accordance with American Society of Mechanical Engineers Operation and Maintenance (ASME OM) Code. Constellation entered this issue into its corrective action program and the PORVs are now tested during plant heat up coming out of an outage.

Inspection Report# : [2010005](#) (*pdf*)

Inspection Report# : [2011002](#) (*pdf*)

**Significance:**  Dec 31, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Inadequate Corrective Actions Associated with Submerged SR Cables**

The inspectors identified a non cited violation (NCV) of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Actions," because Constellation did not establish and take adequate measures for conditions adverse to quality associated with submerged safety related (SR) cables including the 1A diesel generator (DG) cables. As a result, SR cables were subjected to a submerged environment for unknown or extended periods. Immediate corrective action included entering this issue into their corrective action program (CAP), conducting an operability determination for the 1A DG, and increasing the frequency of manhole inspections. Long-term corrective actions (C/As) planned include evaluating the need for sump pumps and including all SR manholes in the preventive maintenance routine.

The finding is more than minor because it was associated with the Mitigating Systems cornerstone attribute of equipment performance and affected the associated cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, repeated submergence of medium voltage cables can cause excessive aging and degradation in the exposed sections of cable, which could significantly shorten its qualified life and cause unexpected failures. The inspectors determined that the finding is of very low safety significance because the finding is a design or qualification deficiency confirmed not to result in a loss of operability. This finding had a cross-cutting aspect in the area of problem identification and resolution, operating experience (OE), because Constellation did not implement and institutionalize OE through changes to station processes and procedures associated with submerged cables (P.2.b of IMC 0310).

Inspection Report# : [2010005](#) (*pdf*)

**Significance:**  Dec 31, 2010

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

#### **Failure to Follow Written Procedures During Calibration of the 1A DG SR Ventilation Temperature Controller**

A self-revealing finding of very low safety significance was identified because Constellation did not follow written procedures during the calibration of 1TIC10541 temperature controller. Specifically, the incorrect calibration of the 1TIC10541 temperature controller created a low air flow condition within portions of the SR ventilation system for the 1A DG and could challenge the safety function of the 1A DG. Immediate corrective action included declaring the 1A DG inoperable until 1TIC10541 was correctly calibrated and tested, and conducting a prompt investigation into the incorrect calibration of 1TIC1041.

This finding is more than minor because it was associated with the Mitigating System cornerstone attribute of human performance and affected the associated cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the improper calibration of 1TIC10541 prevented the 1A DG SR ventilation system from fulfilling its design function and caused reasonable doubt whether the 1A DG could fulfill its safety function. The inspectors determined that the finding was of very low safety significance because the issue was a design or qualification deficiency confirmed not to result in loss of operability or availability of the 1A DG. This finding has a cross-cutting aspect in the area of human performance, work practices, because Constellation did not ensure that personnel do not proceed in the face of uncertainty or unexpected circumstances (H.4.a of IMC 0310).

Inspection Report# : [2010005](#) (*pdf*)

**Significance:**  Dec 31, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Inadequate Functionality Review of 0C Diesel Degraded Condition.**

The inspectors identified a finding of very low safety significance because Constellation did not conduct an adequate functionality review following failure of the 0C DG (the station blackout (SBO) diesel) battery charger. Specifically, Constellation did not take into account the Appendix R mission time in the functionality review. As a result, Constellation did not recognize that the 0C diesel was not available for its Appendix R function with its associated battery charger out-of-service (OOS). Immediate corrective actions included entering this issue in the CAP and providing instructions to operators to declare the 0C diesel not available anytime its associated battery charger is taken OOS. Additional corrective actions planned include changing OI-26A, “125 Volt Direct Current (VDC) System,” to reflect that the battery charger is required to support the 0C diesel functionality.

The finding is more than minor because it was associated with the equipment performance attribute of the Mitigating Systems cornerstone and affected the cornerstone objective to ensure availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, Constellation did not recognize that the 0C diesel was not available for its Appendix R function with its associated battery charger OOS. The inspectors determined that the finding is of very low safety significance because it only affected the ability to reach and maintain cold shutdown conditions. The finding has a cross-cutting aspect in the area of human performance, resources, because Constellation did not ensure complete, accurate, and up-to-date procedures (OI-26A) were available and adequate to assure nuclear safety (H.2.c of IMC 0310).

Inspection Report# : [2010005](#) (*pdf*)

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## **Barrier Integrity**

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## **Emergency Preparedness**

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## **Occupational Radiation Safety**

**Significance:** G Dec 31, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

### **Failure to Implement Procedures to Calibrate and Maintain Ventilaton and Radiation Effluent Monitoring Equipment.**

The inspectors identified a finding of very low safety significance associated with a non-cited violation (NCV) of Technical Specification 5.4.1.a, "Procedures," involving Constellation's failure to implement procedures to calibrate and maintain ventilation and radiation effluent monitoring equipment. Specifically, on December 9, 2010, refurbishment of the steam generator (SG) nozzle dams and manway stud tensioners was in progress in the material processing facility; at that time, only one exhaust train of the ventilation system was in operation and a negative pressure of approximately one-half inch of water was not being maintained. Immediate corrective actions included stopping all work in the building and completing the necessary repairs before restarting activities.

The finding was more than minor because the failure to maintain the ventilation and radiation monitoring equipment affects the Radiation Protection cornerstone to ensure adequate protection of public health and safety from exposure to radioactive materials released into the public domain as a result of routine civilian nuclear reactor operation. The inspectors determined that the finding is of very low safety significance because it did not impair Constellation's ability to assess dose. Constellation did assess dose and the limits of 10 CFR 50 Appendix I and 10 CFR 20.1301(e) were not exceeded. The finding also has a cross-cutting aspect in the area of problem identification and resolution, Corrective Action, because appropriate corrective actions were not taken in a timely manner. The exhaust fan was out-of-service (OOS) for eight months, the supply fan was OOS for seven years, and the radiation monitor was OOS for most of four years (P.1.d or IMC 0310).

Inspection Report# : [2010005](#) (*pdf*)

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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**

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