

## Clinton

### 4Q/2005 Plant Inspection Findings

---

#### Initiating Events

**Significance:**  Sep 30, 2005

Identified By: NRC

Item Type: FIN Finding

**PERFORMANCE OF WORK IN THE OFF-GAS SYSTEM THAT RESULTED IN A SUBSEQUENT LOSS IN OFF-GAS SYSTEM FLOW AND THE OPERATORS PERFORMING A RAPID POWER REDUCTION.**

On August 29, 2005, a finding of very low safety significance was self revealed following the performance of work in the off-gas system that resulted in a subsequent loss in off-gas system flow and the operators performing a rapid power reduction. The finding involved the failure to stroke a gas dryer inlet valve to ensure the valve would operate following a packing adjustment. This issue was caused by poor work practices and communication by licensee personnel.

The issue was more than minor because it affected the Reactor Safety/Initiating Event cornerstone objective of limiting the likelihood of those events that upset plant stability. The finding was of very low safety significance because it would not affect the availability of mitigating systems or functions even if it had resulted in a plant trip. No violation of NRC requirements occurred. The finding also affected the cross cutting area of Human Performance.

Inspection Report# : [2005008\(pdf\)](#)

**Significance:**  Sep 30, 2005

Identified By: NRC

Item Type: FIN Finding

**THE LICENSEE FAILED TO TAKE PROMPT ACTION TO CORRECT A PROBLEM WITHIN THE ELECTRO-HYDRAULIC CONTROL SYSTEM.**

On July 17, 2005, a finding of very low safety significance was identified by the inspectors when the licensee failed to take prompt action to correct a problem within the electro-hydraulic control system. In April 2005, one main turbine combined intermediate valve went shut at power due to a clogged servo valve strainer, causing a plant transient. The licensee identified that other main turbine valves were susceptible to the same failure, but did not take action to correct the problem until after a second combined intermediate valve went shut three months later, causing a second plant transient.

The issue was more than minor because the licensee knew of the degraded condition and associated risks and failed to correct the problem before it resulted in a second plant transient requiring operators to respond. The finding was of very low safety significance because it would not affect the availability of mitigating systems or functions even if it had resulted in a plant trip. No violation of NRC requirements occurred.

Inspection Report# : [2005008\(pdf\)](#)

**Significance:**  Mar 31, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

**FAILURE TO ESTABLISH ADEQUATE COMPENSATORY ACTIONS (HOURLY FIRE WATCH) ACCORDING TO FIRE PROTECTION PROGRAM PROCEDURES.**

A finding of very low safety significance was identified by the inspectors on March 17, 2005, for a violation of license-required fire protection program requirements. The licensee failed to establish adequate hourly fire watches for a failed ionization detector as required by the approved fire protection program procedure. Following the inspectors' identification of this issue, the licensee established an hourly fire watch that met the requirements and recommendations of the licensee's approved fire protection program procedures.

This finding was more than minor because if left uncorrected, it could become a more significant safety concern. The licensee's ability to quickly detect a fire in the area was impaired due to an insufficient number of smoke detectors. The issue was of very low safety significance because the fire protection element impacted by the finding was still expected to provide some defense-in-depth benefit due to a second fire detector located in the room. Additionally, there were two nearby hose stations which could be used for fire suppression activities. The issue was a Non-Cited Violation of the facility operating license section 2.F which required the implementation of the fire protection program.

Inspection Report# : [2005003\(pdf\)](#)

---

#### Mitigating Systems

**Significance:**  Dec 31, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

**FAILURE TO PROVIDE ADEQUATE MAINTENANCE AND WORK INSTRUCTION IS A PERFORMANCE DEFICIENCY**

A self-revealing finding involving a non-cited violation (NCV) of Technical Specification 5.4.1 "Procedures," was identified. On September 30, 2005, the Division III emergency diesel generator failed to properly run following maintenance activities, due to the inadequate maintenance instructions. The inadequate maintenance instructions resulted in air being trapped in the governor oil system during the replacement of the governor's servo booster motor. The licensee determined that this issue was the result of a maintenance planner's failure to follow administrative guidelines for technical review during the development of the maintenance instructions. This issue resulted in extended outage and unavailability time for the emergency diesel generator.

The inspectors determined that despite the fact that the issue involved work in progress, this issue was more than minor because the finding affected the Mitigating Systems Cornerstone objective of ensuring the availability of mitigating systems to prevent undesirable consequences. The issue resulted in the emergency diesel generator being unavailable for longer than expected by the plant staff. Following the initial maintenance run of the diesel generator, operators declared that the diesel generator was available for use if needed to respond to an event. Corrective actions by the licensee included developing lesson-learned information to share with other maintenance planners. Additionally, the licensee planned to add technical guidance related to venting air from the diesel governor to the diesel maintenance training material. The finding also affected the cross cutting area of human performance since the licensee's maintenance personnel failed to request technical guidance from the site engineering staff as directed by the licensee's administrative procedures.

Inspection Report# : [2005009\(pdf\)](#)

**Significance:**  Dec 31, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

**FAILURE TO CORRECTLY IDENTIFY AND CORRECT THE CAUSE OF THE 2005 125 VDC CIRCUIT FAILURE WAS A PERFORMANCE DEFICIENCY.**

The inspectors identified a finding involving a non-cited violation for inadequate corrective action. The licensee's failure to properly identify and correct a degraded electrical circuit in 2004, involving a high resistance connection on a fuse holder, resulted in the Division II emergency diesel generator subsystem being vulnerable to electrical circuit failure if called upon to complete its support function. The high resistance connection was caused by degraded grease-like material and dirt. This issue also resulted in the Division II diesel generator failure during a subsequent surveillance test.

The inspectors determined that the finding was greater than minor because the finding affected the Mitigating Systems Cornerstone objective of ensuring the availability, reliability, and capability of mitigating systems to prevent undesirable consequences. The Division II emergency diesel generator 125 VDC system is a backup to the AC oil system in case of a loss of offsite power. Offsite power was not lost, therefore, there was not an actual loss of safety function for the diesel. Corrective actions by the licensee included replacing the fuse and fuse holder and expediting actions to address the extent of condition relative to the as-found condition of the fuse and fuse holder. The finding also affected the cross cutting area of problem identification and resolution since the licensee failed to adequately address the degraded circuit condition in a timely manner.

Inspection Report# : [2005009\(pdf\)](#)

**Significance:**  Jun 30, 2005

Identified By: NRC

Item Type: FIN Finding

**IMPROPERLY SECURED 4160V EQUIPMENT DOORS**

In December 2003 the inspectors identified a discrepant condition on the 4160 volt Bus 1C1 Reserve Feed potential transformer cubicle. The inspectors considered this to be an inspection finding with no violations of NRC requirements identified.

The inspectors determined that the issue was more than minor because the finding could be reasonably viewed as a precursor to a significant event, which if left uncorrected, could render safety related equipment inoperable. The issue was a design/seismic qualification deficiency that was determined not to cause a loss of a safety related function by the licensee's evaluation. Based on this conclusion, this finding was determined to be of very low safety significance using the Phase 1 worksheets.

Inspection Report# : [2005007\(pdf\)](#)

**Significance:**  Sep 30, 2004

Identified By: NRC

Item Type: FIN Finding

**DIVISION-3 ESSENTIAL SWITCHGEAR HEAT REMOVAL (VX) SYSTEM TRIPPED DUE TO INADEQUATE IMPACT STATEMENT FOR MAINTENANCE.**

A finding of very low safety significance was self-revealed during a maintenance activity when Division essential switchgear heat removal was lost as a result of an inadequate impact statement in the work order. The primary cause of this finding was related to the cross-cutting area of Human Performance. In addition to the maintenance planner missing the relationship between the safety and non-safety supply fan motors,

several other opportunities to identify this inadequate impact statement were missed.

This finding was more than minor because with the division three essential switchgear heat removal system unavailable, the high pressure core spray system may be rendered inoperable. The issue was of very low safety significance because the initial temperature in the division three switchgear room was low and the loss of essential switchgear heat removal was of short duration, the high pressure core spray system was never actually inoperable. No violation of NRC requirements occurred.

Inspection Report# : [2004006\(pdf\)](#)

---

## Barrier Integrity

**Significance:**  Mar 31, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

### **FAILURE TO FOLLOW PROCEDURE AND APPROPRIATELY ANNOTATE PORTIONS AS NOT APPLICABLE DURING THE PERFORMANCE OF REQUIRED CALIBRATION PROCEDURE IN ACCORDANCE WITH TS 5.4.1.**

Through a self-revealing event (unexpected de-energized relay found during maintenance) the inspectors identified a Non-Cited Violation (NCV) of very low safety significance. This finding resulted from licensee personnel incorrectly designating procedural steps as not applicable during the performance of a calibration procedure, Clinton Power Station (CPS) 9432.60, "Channel Functional Test for Containment Building Exhaust Radiation Monitor," required by Technical Specifications. In Issue Report (IR) 289643, the licensee documented that with the relay de-energized the affected primary containment isolation valve cannot be opened without taking the corresponding Division 2 LOCA BYPASS switch to the BYPASS position (an action administratively controlled by Operations).

The inspectors determined that the finding was greater than minor because this issue could be reasonably viewed as a precursor to a more significant event. Additionally, this finding was associated with the Barrier Integrity Cornerstone objective of providing reasonable assurance that physical design barriers protect the public from radioactive releases caused by accidents or events. The finding was of very low safety significance because this issue did not cause an actual open pathway in the physical integrity of reactor containment. The licensee documented the issue in IR 289643 and generated corrective actions as the result of a human performance investigation report being performed. These corrective actions included revising CPS 9432.60 to clearly identify the reason for placing the switch to BYPASS.

Inspection Report# : [2005003\(pdf\)](#)

---

## Emergency Preparedness

---

## Occupational Radiation Safety

---

## Public Radiation Safety

**Significance:**  Mar 31, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

### **FAILURE TO MAINTAIN CONTROL OF LICENSED RADIOACTIVE MATERIAL IN ACCORDANCE WITH 10 CFR 20, SUBPART 1.**

A finding of very low safety significance and an associated Non-Cited Violation were identified through a self-revealing event on October 7, 2004, when licensee personnel discovered that three nuclear instrument detectors (containing a very small amount of radioactive material) were not adequately controlled. Licensee personnel believed that the material was contained in a small container which was sealed in 1991 as part of a disposition plan for the defective instruments. The licensee' search of other material containers and documentation failed to identify the final disposition of the radioactive material.

The issue was more than minor because it was associated with the Human Performance and Programs/Process attributes of the Public Radiation Safety Cornerstone and affected the cornerstone objective of ensuring adequate protection of public health and safety from exposure to radioactive materials potentially released into the public domain. Based on various dose calculation scenarios, the very small amount of missing radioactive material would contribute a negligible radiological dose if a member of the public were to be exposed to the material.

Additionally, the inspectors determined that the licensee did not have any prior radioactive material control occurrences in the previous 8 quarters. Therefore, the finding was of very low safety significance. The licensee's corrective actions for this issue included the development of procedural guidance which prohibits removing nuclear instrument detectors from the cabling as part of a disposition plan for defective units. One Non-Cited Vilation for the failure to control licensed radioactive material in accordance with 10 CFR 20, Subpart 1, was identified. Inspection Report# : [2005003\(pdf\)](#)

---

## Physical Protection

[Physical Protection](#) information not publicly available.

---

## Miscellaneous

Last modified : March 03, 2006