

## Indian Point 3

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### Initiating Events

G**Significance:** May 19, 2001

Identified By: NRC

Item Type: FIN Finding

**Concurrent multiple degraded conditions increased the frequency of an initiating event.**

The existence of multiple degraded conditions (internal service water valve leaks in the main turbine lube oil system) had an impact on plant safety, increased the probability of a turbine trip, and caused a small uncontrolled reactivity change that resulted in unexpected control rod motion. A service water drain valve was inadvertently broken off and resulted in an RCS temperature transient. The two leaking service water valves prevented a stable temperature and pressure in the main turbine lube oil system, which created an unstable turbine inlet pressure. The event resulted in a challenge to plant operators who responded to the RCS temperature change and rod motion by reducing reactor power below 100%.

Inspection Report# : [2001004\(pdf\)](#)G**Significance:** Jul 01, 2000

Identified By: NRC

Item Type: FIN Finding

**Personnel Performance during Non-routine Evolutions**

Following secondary plant repairs on June 4, 2000, poor operator performance caused a reactor trip from approximately 22% during power ascension. Inadequate communications between members of the assigned watch crew, inadequate command and control of reactor operators by the control room supervisors, inadequate operator trainee interaction during the startup, and inadequate oversight of control room activities by the shift manager all contributed directly to this event. This finding was evaluated using the SDP and determined to be Green (of very low significance), because all mitigating equipment functioned properly following the reactor trip.

Inspection Report# : [2000004\(pdf\)](#)

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### Mitigating Systems

G**Significance:** Feb 21, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

**INADEQUATE PROCEDURE FOR TRANSITION TO COLD SHUTDOWN DURING SHUTDOWN FROM OUTSIDE THE CONTROL ROOM**

The team identified a non-cited violation of 10 CFR 50, Appendix R for failure to have adequate procedures to achieve cold shutdown conditions within 72 hours following a fire. The team found that the procedures for shutdown from outside of the control room did not provide sufficient direction to assure that pressurizer pressure could be reduced to allow initiation of the residual heat removal system for decay heat removal in sufficient time to ensure that cold shutdown could be achieved within 72 hours of plant shutdown. A delay in achieving cold shutdown following a fire that required shutdown from outside of the control room was considered a credible impact on safety. This finding was of very low safety significance because the likelihood of a fire that could necessitate a shutdown from outside of the control room and cause a loss of reactor coolant system letdown capability was small.

Inspection Report# : [2001012\(pdf\)](#)G**Significance:** Dec 29, 2001

Identified By: Licensee

Item Type: NCV NonCited Violation

**Failure to implement proper design control for a safety-related system.**

10 CFR 50 Appendix B, Criterion III, in part, requires that measures be established for the selection and review for suitability of application of materials and parts that are essential to the safety-related functions of the structures, systems, and components. Contrary to the above, the licensee failed to ensure that new maintenance isolation valves installed in the 31 central control room air conditioning unit were appropriate for a freon-based refrigerant system. Consequently, system leaks occurred when the refrigerant (freon) chemically degraded teflon parts inside the valves. The leaks resulted in the loss of refrigerant and contributed to subsequent compressor failures. This issue was entered into the corrective

action process as DER 01-03608, and is being treated as a Non-cited Violation.

Inspection Report# : [2001010\(pdf\)](#)



**Significance:** Dec 13, 2001

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to identify the correct valve lineup for testing the auxiliary feedwater system**

The licensee failed to adequately verify the correct valve lineup of the auxiliary feedwater (AFW) system for surveillance testing, as required by Technical Specification Surveillance Requirement 3.7.5.1. The valve lineup in the existing test procedure failed to incorporate the verification of a valve jacking device on one group of valves, and failed to include an alignment verification on another group of valves. This finding was determined to be of very low safety significance by the Significance Determination Process, Phase 1, because a subsequent lineup found the valves to be properly aligned, and the deficiency did not affect the AFW operability as a mitigating system. Since the finding was of very low safety significance, and the issue was entered into the licensee's Corrective Action program, the finding is being treated as a Non-cited Violation, consistent with Section VI.A.1 of the NRC Enforcement Policy.

Inspection Report# : [2001011\(pdf\)](#)



**Significance:** Dec 13, 2001

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to pressure leak test the auxiliary feedwater system suction piping in accordance with ASME Section XI**

The licensee failed to perform a pressure leak test on the isolable portion of the auxiliary feedwater (AFW) buried suction piping as required by Section XI of the ASME (American Society of Mechanical Engineers) Boiler and Pressure Vessel Code for Class III buried pipe. In addition, the procedure used for conducting inservice pressure testing did not include the requirement for this test. This finding was considered to be of very low safety significance (Green) since there was no indication of leakage, the system performed as required during previous operational inservice testing, and there was no actual loss of AFW system safety function. This finding was entered into the licensee's Corrective Action program and is being treated as a Non-cited Violation consistent with Section VI.A.1 of the NRC Enforcement Policy.

Inspection Report# : [2001011\(pdf\)](#)



**Significance:** Nov 17, 2001

Identified By: NRC

Item Type: FIN Finding

**Failure to monitor for water intrusion or degradation of underground splices in electrical cables**

The licensee did not monitor for water intrusion or degradation of underground splices in electrical cables associated with mitigating systems. This finding is greater than minor because, if left uncorrected, degraded splices could increase the risk of loss of electric or control power to a mitigating system, and could result in a plant transient. This issue was determined to be of very low safety significance using the NRC's safety determination process (SDP) because no degradation was observed, and no equipment failures or transients had resulted from cable splice degradation

Inspection Report# : [2001009\(pdf\)](#)



**Significance:** Aug 17, 2001

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to perform an adequate safety evaluation for a modification to the service water system per 10 CFR 50.59**

A non-cited violation (NCV) of 10 CFR 50.59, failure to adequately evaluate a modification to the service water system and address the effect of a failure of a non-seismic pipe on the safety-related service water system. This finding was determined to be of very low safety significance (Green) by the Safety Determination Process (SDP), Phase 1, because even though the system was degraded, the service water system was determined to have been capable of performing its safety function.

Inspection Report# : [2001003\(pdf\)](#)



**Significance:** Aug 17, 2001

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to promptly identify a condition adverse to quality in regard to Trico oilers per 10 CFR 50, Appendix B**

A non-cited violation (NCV) of 10 CFR 50 Appendix B, Criterion XVI, to promptly identify and correct a condition adverse to quality in regard to the improper installation of the Trico oiler on component cooling water system pump #33. This finding was determined to be of very low significance (Green) by the Safety Determination Process (SDP), Phase 1, because even though the oiler was degraded, the component cooling water pump

was determined to have been capable of performing its safety function.

Inspection Report# : [2001003\(pdf\)](#)



**Significance:** Jul 03, 2001

Identified By: NRC

Item Type: FIN Finding

#### **Loss of Spent Fuel Pool Cooling System**

Licensee management did not take appropriate actions to minimize the risk associated with loss of the backup spent fuel pool cooling system (BUSFPCS) for the given plant conditions, which included unavailability of the normal spent fuel pool (SFP) cooling system, reduced reliability of the BUSFPCS makeup water system, and the high decay heat load and SFP temperature associated with the full core offload. These included ensuring an adequate electrical power supply for the makeup water system trailer, and establishing an appropriate frequency for operator checks of the BUSFPCS. Additionally, the inspectors found that the licensee did not recognize that there was less time to recover SFP cooling to prevent boiling when using the BUSFPCS as compared to using the normal SFP cooling system. The finding was of very low safety significance because spent fuel pool cooling was restored in less than an hour, backup makeup water sources were available, and barrier integrity was not challenged.

Inspection Report# : [2001006\(pdf\)](#)



**Significance:** Jul 03, 2001

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Procedure Control and Implementation**

The licensee failed to adequately maintain procedures associated with operation of the SFP and its associated systems. These failures had a credible impact on safety in that they reduced the likelihood that operators would identify and effectively recover from a loss of SFP cooling. This violation of Technical Specification 5.4.1 is being treated as a non-cited violation. The finding was of very low safety significance because the time available for recovery from a loss of cooling was long and several sources of makeup water for the SFP were available.

Inspection Report# : [2001006\(pdf\)](#)



**Significance:** Jul 03, 2001

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Safety Evaluation for the Backup Spent Fuel Pool Cooling System**

The licensee made a change to the SFP cooling system as described in the FSAR Update, which resulted in an increase in the probability of a malfunction of equipment important to safety, without requesting commission approval prior to implementation as specified in 10 CFR 50.59. This violation of 10 CFR 50.59 was categorized as Severity Level IV and is being treated as a non-cited violation. The finding was of very low safety significance because the time available for recovery from a loss of cooling was long and several sources of makeup water for the SFP were available.

Inspection Report# : [2001006\(pdf\)](#)



**Significance:** Feb 10, 2001

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Failure to promptly identify and correct a mis-positioned valve on the turbine-driven auxiliary feedwater pump**

The NRC identified a non-cited violation for failure to identify and correct the mis-positioning of valve MS-112-2, the turbine-driven auxiliary feedwater system main steam trap inlet isolation valve in accordance with 10 CFR Appendix B Criterion XVI. The finding was of very low safety significance because, although the licensee did not identify and correct the mis-positioning of valve MS-112-2, the turbine-driven auxiliary feedwater pump remained operable. This finding resulted from human error and is related to the cross-cutting area of human performance.

Inspection Report# : [2000009\(pdf\)](#)

**Significance:** N/A Nov 18, 2000

Identified By: Licensee

Item Type: NCV NonCited Violation

#### **Containment spray system spray additive tank isolation for 8 hours and forty minutes with the plant at full power**

On October 12, 2000, the licensee identified a violation of Technical Specification section 3.3.B, which provides no allowed outage time for the containment spray (CS) system spray additive tank when the plant is above 200F. the tank was isolated for approximately eight hours and forty minutes during the CS system maintenance on July 21, 2000. This event was entered into the corrective action system (DER 00-02603), formally investigated by the licensee, and reported to the NRC in LER 2000-010-00.

Inspection Report# : [2000007\(pdf\)](#)

**Significance:** N/A Jul 01, 2000

Identified By: Licensee

Item Type: NCV NonCited Violation

**Missed Control Room Oxygen Detector Surveillance Tests**

On June 14, 2000, the licensee submitted LER 2000-004-00 to the NRC after discovering that channel checks on one of the control room oxygen detectors were not being performed as required by the technical specifications, and had not been documented between February 5, 1995 and May 18, 2000. The licensee determined that the channel check requirement had been deleted from the operator's logs, but the cause of that deletion was erroneous and could not be determined. This incident represented a violation of technical specification 4.5.A.5.e; however, since it was identified by the licensee and was immediately entered into the corrective action system (DER 00-01183), this will be treated as a Non-Cited Violation (NCV) in accordance with Appendix C of the NRC enforcement policy. The licensee's extent of condition review found no other channel checks required by technical specifications missing from operator log sheets.

Inspection Report# : [2000004\(pdf\)](#)

**Significance:** N/A Jul 01, 2000

Identified By: Licensee

Item Type: NCV NonCited Violation

**Pressurizer Safety Valves Discovered Outside Their As-found Lift Setpoint Test Acceptance Criteria**

On June 19, 2000, the licensee submitted LER 2000-005-00 after being informed by an offsite testing laboratory that the lift setpoints for all three pressurizer code safety valves were below their as-found lift setpoint acceptance criteria (2461 - 2509 psig). This condition represents a violation of technical specification 3.1.A.2.b, which requires that all pressurizer safety valves be operable when the plant is above cold shutdown. Since this condition was found in multiple valves during surveillance testing, it indicated that it may have existed during plant operation. The licensee entered this incident into the corrective action system (DER 00-01201) and initiated actions to overhaul and retest all three valves. Therefore this will be treated as a Non-Cited Violation in accordance with Appendix C of the NRC enforcement policy.

Inspection Report# : [2000004\(pdf\)](#)

## Barrier Integrity

**Significance:** N/A Nov 18, 2000

Identified By: Licensee

Item Type: NCV NonCited Violation

**Nuclear instrumentation high flux trip setpoint not readjusted within 2 hours after the quadrant power tilt ratio exceeded the technical specification limit of 1.02**

On October 27, 2000, the licensee identified a violation of Technical Specification section 3.10.3.1, which states that whenever the quadrant power tilt ratio exceeds 1.02, plant power will be restricted, and the nuclear instrumentation high flux trip setpoint will be readjusted within 2 hours. The licensee did not take these actions within the required time. This event was entered into the corrective action system (DER 00-02781), formally evaluated by the licensee, and will be reported to the NRC in accordance with 10 CFR 50.73

Inspection Report# : [2000007\(pdf\)](#)

## Emergency Preparedness



**Significance:** Nov 17, 2001

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to hydrostatically test self-contained-breathing apparatus air cylinders**

A Non-cited Violation of 10 CFR 20.1703(c)(4)(vii) for failure to conduct triennial hydrostatic tests on approximately 80 self-contained-breathing-apparatus (SCBA) air cylinders. This finding is greater than minor because, if left uncorrected, inadequately tested respiratory protection equipment could have been used by personnel in the event of an emergency. This finding is of very low safety significance because unqualified equipment was not actually used, all of the affected air cylinders displayed the proper air pressure indicating that the cylinders maintained the requisite integrity, and a sufficient supply in excess of requirements was available for use.

Inspection Report# : [2001009\(pdf\)](#)



**Significance:** Sep 30, 2000

Identified By: NRC

Item Type: NCV NonCited Violation

**Emergency Preparedness Plan did not contain emergency response organization training in accordance with 10 CFR 50, Appendix**

**IV.F.1.**

The NRC identified that the licensee's emergency plan did not contain any details regarding the training of emergency response organization (ERO) members contrary to the requirements of 10 CFR 50 Appendix IV.F.1. This issue was more than minor because if left uncorrected could result in dilution of ERO training commitments and would affect the emergency planning cornerstone. This issue was considered green in the significance determination process since it did not result in a failure to meet an emergency planning standard.

Inspection Report# : [2000006\(pdf\)](#)

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## Occupational Radiation Safety



**Significance:** Sep 29, 2001

Identified By: Licensee

Item Type: NCV NonCited Violation

**Failure to control licensed radioactive material in accordance with 10 CFR 20.1802**

The following finding is of very low safety significance (Green), and was identified by the licensee. It was a violation of NRC requirements which meets Section VI of the NRC Enforcement Policy, NUREG-1600, for being dispositioned as a Non-Cited Violation (NCV). 10 CFR 20.1501 requires, in part, that surveys be conducted, as necessary, to comply with the requirements of 10 CFR 20, including 10 CFR 20.1301 and 10 CFR 20.1802.

On May 10, 2001, the licensee did not conduct adequate surveys to detect a discrete particle of radioactive contamination lodged on a worker's garment as he exited the radiologically-controlled area. The particle was later detected and recovered onsite on May 17, 2001. The issue involving this matter was addressed by various corrective actions and entered into the corrective action process as DER 01-02215. This issue is being treated as a Non-Cited Violation.

Inspection Report# : [2001008\(pdf\)](#)

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## Public Radiation Safety

### Physical Protection



**Significance:** Aug 18, 2001

Identified By: NRC

Item Type: FIN Finding

**Licensee's response equipment did not fully conform to the requirements of 10 CFR 73, Appendix B, V.A.4(a)(3) and V.A.5.8.**

During the conduct of the inspection, issues associated with contingency response equipment were identified. Specifically, the number of rounds of ammunition immediately available to some responders, and the lack of a non-lethal weapon, did not fully conform to the requirements of 10 CFR 73, Appendix B, paragraphs V.A.4(a)(3), and V.A.5.8. The vulnerability was detected through a table-top drill, and consequently is not considered a violation of NRC requirements. Notwithstanding, corrective measures were initiated upon identification. This issue was of very low safety significance because, although it indicated vulnerabilities in the safeguards program, no actual intrusion occurred, and there have not been greater than two similar findings in the past four quarters.

Inspection Report# : [2001007\(pdf\)](#)



**Significance:** Aug 18, 2001

Identified By: NRC

Item Type: NCV NonCited Violation

**Security Plan Revision not in accordance with 10 CFR 50.54 (p)(2)**

During an NRC inspection, it was discovered that the submittal of Revision 20, April 4, 2001, of the Physical Security Plan did not meet the requirements of 10 CFR 50.54(p)(2), which permits only changes that do not decrease the effectiveness of the plan. This finding is considered a non-cited violation of 10 CFR 50.54 (p)(2). Corrective measures were initiated upon identification. The finding was of very low safety significance because, although it indicated a vulnerability of safeguards systems or plans, no actual intrusion occurred; and there have not been greater than two similar findings in the past four quarters.

Inspection Report# : [2001007\(pdf\)](#)

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## Miscellaneous

**Significance:** N/A Jun 09, 2000

Identified By: NRC

Item Type: FIN Finding

### PIR Summary

The implementation of the corrective action program in the past year was acceptable with some improvements noted. The licensee was generally effective at identifying and correcting problems. However, a few minor issues were identified in the area of problem identification. During the inspection, non-conforming conditions were identified by the team which previously had not been entered into the corrective action program. The team noted that the area of problem identification had not been highlighted as an area of concern in past licensee audits of the corrective action program. Deviations & Event Reports (DERs) were being appropriately resolved. The DER evaluations were of good quality and reflected proper consideration for common cause and extent of condition. One exception was noted where service water intake bay silt level measurement techniques were not well established and not commensurate with the risk significance of the silt issue. The Corrective Action Review Board was effective in achieving consistent DER evaluations and corrective actions. In the Safety Conscious Work Environment area, there appeared to be a visible acceptance of the DER process by plant personnel who did not feel reluctant to use this or other process that existed for raising safety issues.

Inspection Report# : [2000003\(pdf\)](#)

Last modified : April 01, 2002