Calvert Cliffs 2

Initiating Events

Mitigating Systems

Significance: G Feb 10, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate design control associated with 4 KV breaker replacement.
Green. The inspectors identified two examples of a Non-cited Violation for inadequate design control. The first example involved the failure to ensure operability of the containment spray pump supply breaker following a test failure that occurred two days after a modification to the breaker. The second example involved the failure to ensure proper operability of five similar, but normally closed, replacement load center feeder breakers. The first example was found to be of very low significance because the loss of containment spray function does not affect core damage frequency; Manual Chapter 0609, Appendix H, did not list containment spray as a system having major impact on large early release frequency; and at the time of the inspection the licensee had already initiated corrective actions to address the failure and to prevent recurrence. The second example was also of very low significance because the licensee's physical inspection of the switchgear indicated acceptable alignment between the breakers and their housing and between the racking block plate and the breaker front covers. If tripped as a result of a seismic event, the breakers could be closed manually by the operators. (Section 1R12).
Inspection Report# : 2000012*(pdf)*

Significance: G Feb 10, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Verify of Safety Injection Tank Boron Concentration
Green. The inspectors identified a Non-cited Violation for failure to satisfy the technical specification surveillance requirement to verify boron concentration in each safety injection tank (SIT) every 31 days. This violation occurred due to an inadequate technical justification of an alternate method of verifying boron concentration. The safety significance of this finding was very low because subsequent SIT sampling determined that SIT boron concentrations remained within the technical specification required band. (Section 1R22)
Inspection Report# : 2000012*(pdf)*

Significance: G Dec 30, 2000
Identified By: Licensee
Item Type: NCV NonCited Violation
The failure to perform a complete channel calibration of the PORV actuation circuitry per TS SR 3.4.12.6.
The failure to perform a complete PORV actuation circuit channel calibration was determined to have more than minor significance because of the credible impact on safety in that the purpose of the periodic calibration is to verify PORV operability. This issue was determined to be of very low significance (Green) by the SDP because the Unit 1 RTDs were found to be within calibration and therefore operable. For Unit 2, previous calibration results demonstrate that the RTDs are generally not susceptible to drift. Further, schedule testing will verify Unit 2 RTDs are operable before the circuit is required to be in service and operable for LTOP protection. Reference LER 2000-003.00.
Inspection Report# : 2000011*(pdf)*

Significance: N/A May 13, 2000
Identified By: NRC
Item Type: FIN Finding
Protectowire degradation - cross-cutting issue, PI&R
NO COLOR. The degraded condition of the Protectowire fire protection feature (Section 1R05) was identified by the inspectors and was apparently caused when the fire detection system was not restored after being removed for work in the cable trays. BGE personnel could not specifically identify how long the condition had existed. Although testing is periodically conducted to verify the alarm function of the Protectowire fire detection system, no procedure or instruction exists to periodically verify that the detection wire remains installed in its design configuration.
Inspection Report# : 2000004*(pdf)*

Significance: G May 13, 2000
Identified By: Self Disclosing
Item Type: FIN Finding
1A emergency diesel generator failed PMT, due to improper lube oil sump level.
GREEN. During post-maintenance testing, the 1A emergency diesel generator (EDG) tripped on low oil sump level signal from the 1A2 engine (Section 1R19). An actual high level existed in the sump. Whipping of the oil by the crankshaft resulted in oil frothing in the sump and the sump level transmitter sensing lines. The oil frothing problem caused the sump level trip sensor to read lower than the actual level resulting in an EDG trip. The high oil sump level was caused by two problems: (1) incorrect guidance from the vendor (SACM) regarding the shutdown oil sump level band; and, (2) the 1A2 engine dipstick guidetube was aligned differently than the other engine's dipstick guidetube, resulting in actual sump level being higher than indicated. Since the low oil sump level is bypassed during a fast engine start, the 1A EDG would have started and ran given a safety injection actuation signal or an emergency bus undervoltage signal. However, if the engine was manually started to respond to a plant event, the low oil sump level trip would not have been bypassed and the EDG would have been expected to trip in the same manner experienced during the post-maintenance testing.
Inspection Report# : 2000004*(pdf)*

Significance: G Dec 29, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to identify and correct a condition adverse to quality on the 12 switchgear HVAC in accordance with 10CFR50, Appendix B, Criterion XVI
A non-cited violation of 10CFR50, Appendix B, Criterion XVI, was identified because the licensee failed to identify and correct a condition adverse to quality on the 12 switchgear ventilation train. On October 8, 2001, the licensee failed to write an issue report to document that when the failure of both the 11 and 12 switchgear refrigeration compressors necessitated aligning the system in the fresh air mode, the 12 switchgear ventilation train was unable to maintain switchgear room temperature. When the inspector identified during a review of control room logs that no issue report had been written, the licensee wrote the issue report on October 24, 2001. No corrective action was taken by the licensee to investigate or correct the degraded condition until it repeated itself on October 27, 2001, when they found that misadjusted damper actuators resulted in 50% fresh air rather than 100%. This issue has a credible impact on safety because the failure of the switchgear ventilation system to maintain switchgear room temperatures would result in the failure of several safety significant mitigating systems. The finding was considered to be of very low safety significance, because following the failure of the 12 switchgear ventilation unit in the fresh air mode, the 11 switchgear ventilation train was placed in service and returned switchgear room temperature to normal.
Inspection Report# : 2001012*(pdf)*

Significance: G Dec 29, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to take timely and effective corrective action to mitigate excessive train unavailability for the switchgear HVAC in accordance with 10CFR50, Appendix B, Criterion XVI.
A non-cited violation of 10CFR50, Appendix B, Criterion XVI was identified because the licensee failed to take timely and effective corrective action to mitigate excessive train unavailability for the switchgear ventilation system. The Unit 1 and Unit 2 switchgear ventilation systems have been classified maintenance rule (a)(1) since the fourth quarter of 1996, and the systems have exceeded maintenance rule performance criteria every quarter since 1996. Although the corrective action plan that has been in place since 1996 specified replacing the pneumatic controls, the fans, and the compressors, three fans and all four compressors have not yet been replaced. This issue has a credible impact on safety because the failure of the switchgear ventilation system to maintain switchgear room temperatures could result in the failure of safety related electrical busses in the switchgear room, as well as, the safety related equipment supplied by these busses. The finding was considered to be of very low safety significance, because the poor performance of this system has not resulted in switchgear room temperatures in excess of design limits.
Inspection Report# : 2001012*(pdf)*

Significance: G Sep 14, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
22 Saltwater air compressor Appendix R handswitch fuses shunted. LER 50-318/2001-001 (Section 4OA3.1)
While performing preventive maintenance the licensee found that an extra (spare) wire was installed in the circuit breaker control curcuit for the 22 salt water air copressor (SWAC). This wire should have been removed during a modification that was performed in 1999. In the event of a control room fire, this wire could shunt the control pwler fuses and thereby remove the overcurrent protection for the control transformer. The transformer is necessary to operate the circuit breaker locally as was assumed in the Appendix R analysis. The spare wire was removed to correct this deficiency.
Inspection Report# : 2001007*(pdf)*

Significance: G May 25, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to identify an issue adverse to quality, and failure to take prompt corrective action for a significant condition adverse to quality.
A Non-Cited Violation of 10CFR50, Appendix B, Criterion XVI, was identified due to (1) a failure to identify as a condition adverse to quality that the potential for air remaining after venting containment sump piping could result in degraded emergency core cooling system (ECCS) pump operation, and (2) a failure to correct in a timely manner a condition adverse to quality, identified via industry operating experience, regarding the potential for freezing in ECCS minimum recirculation flow piping. The risk associated with the potential for air remaining in the containment sump piping was determined to be of very low safety significance because an evaluation performed by the licensee during the inspection showed that ECCS pump operation would not be degraded. The risk associated with the potential for freezing in ECCS minimum recirculation flow piping line was determined to be of very low safety significance since there is no indication freezing has occurred in the recirculation line.
Inspection Report# : 2001003*(pdf)*

Significance: G May 25, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to properly implement procedures related to recognizing that degraded components presented an operability concern, and to document the basis for continued operability.
A Non-Cited Violation of 10CFR50, Appendix B, Criterion V, was identified due to a failure to assess and document the basis for continued system operability in accordance with plant procedures associated with (1) degraded safety related dampers in the Unit 2 switchgear ventilation system that did not function as designed, and (2) indicated temperatures greater than the design limit in the Unit 2 reactor cavity annulus since 1995. The risk associated with failing to assess and document the basis for continued operation with this degraded equipment was determined to be of very low safety significance since, the switchgear ventilation system continued to perform its function to cool the vital switchgear rooms and the dampers were subsequently repaired, and a subsequent operability evaluation completed by the licensee during the inspection determined that the concrete could withstand increased localized temperatures.
Inspection Report# : 2001003*(pdf)*

Barrier Integrity

Emergency Preparedness

Significance: G Aug 12, 2000
Identified By: NRC
Item Type: NCV NonCited Violation
Non-cited violation of offsite siren notification system surveillance testing requirements.
Green. The NRC identified that a violation of NRC requirements occurred in the area of offsite siren testing in that the quarterly offsite siren growl tests for identifying mechanical problems were inadequately conducted. This violation is being treated as a non-cited violation and was entered into the licensee's corrective action system (Section 1EP2).
Inspection Report# : 2000007*(pdf)*

Occupational Radiation Safety

Significance: G Mar 31, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Radiation protection personnel did not follow alternate NRC approved High Radiation Area access control requirements in accordance with 10 CFR 20.1601(c)
The inspector identified a Non-cited Violation of the alternate access control requirements established in accordance with 10 CFR 20.1601(c).

Specifically, the High Radiation Area access door on the 10-foot elevation of the Unit 2 Containment (providing access to the area under the reactor vessel) was chained, but not locked. This finding was considered to be of very low safety significance because, although the door was not locked, this condition did not result in an over-exposure, did not create a substantial potential for such an exposure, and did not compromise the ability of the licensee to assess dose to its workers. The licensee determined the root cause of this issue was human performance - inattention to detail. (Section 2OS1)
Inspection Report# : 2001002*(pdf)*

Significance: G Dec 29, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to implement 10 CFR71.87 regarding adherence to cask loading procedures.
10 CFR71.87 requires the licensee to load shipments of radioactive material in accordance with written procedures. On September 5, 2001, the licensee did not adhere to procedure RPS 2-231, for the loading of a Type B shipment of radioactive material. Specifically, the licensee did not ensure hardware compatibility ratings for hoisting operations and used a crane hook, rated to 6,000 pounds, to raise and transfer in air an approximately 7,000 pound container of waste containing approximately 91 curies of mixed radionuclides. The licensee identified the issue on November 6, 2001, and subsequently determined the hook had been load tested to 9,000 pounds. The licensee took various corrective and preventative actions and placed the issue into its corrective action process.
Inspection Report# : 2001012*(pdf)*

Significance: G Dec 29, 2001
Identified By: NRC
Item Type: FIN Finding
Failure to implement effective corrective actions for issues involving inadequate radiological evaluations to support work activities.
The licensee has not established effective problem resolution for recurring issues involviing failure to conduct adequate radiological surveys to support planning and conduct of radiological work activities. On July 13, 2001, the licensee failed to conduct adequate pre-job and ongoing radiological surveys to detect elevated levels of radioactive contamination within the No. 22 chemical and volume control system ion exchanger pit for work therein. This contributed to elevated airborne radioactivity and limited intakes of airborne radioactive material by workers during the work activities. The licensee's root cause analysis and NRC review identified that similar inadequate radiological surveys had been identified on previous events and that some of these problems were repeated during the event despite the implementation of corrective actions. The failure to implement effective corrective actions is a cross-cutting issue determined to be more than minor.The issue was evaluated under the Occupational Radiation Safety significance determination process and determined to be a finding of very low safety significance. The issue was not an as-low-as-reasonably-achievable finding, did not involve an overexposure or substantial potential, and did not affect the ability to assess dose. The issue was included in the licensee's corrective action process.
Inspection Report# : 2001012*(pdf)*

Significance: G Aug 11, 2001
Identified By: NRC
Item Type: NCV NonCited Violation
Licensee did not follow maintenance work order.
A Non-Cited Violation of Technical Specification 5.4 was identified for failure to implement a maintenance work order for repair of the 22 Chemical Volume and Control System (CVCS) ion exchanger (IX) gasket on July 23, 2001. The licensee did not install and use the high efficiency particulate air (HEPA) filtering system, that was specified in the work order, and which was necessary to control the spread of radioactive contamination and reduce the potential airborne radioactivity concentrations during the work. This finding was greater than minor because the failure to use the HEPA filtering system that was specified for this work contributed to the unnecessary personnel exposure to airborne radioactivity. However, this issue did not constitute an As Low As Reasonably Achievable (ALARA) finding, did not result in a substantial potential for an overexposure, and did not affect the licensee's ability to assess dose to workers. Accordingly, this finding is considered as having very low safety significance. The Non-Cited Violation was entered into the licensee's corrective action program under Issue Report No. IR3-045-473. (Section 2OS1)
Inspection Report# : 2001006*(pdf)*

Significance: G Aug 11, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Licensee did not implement Technical Specification 5.4 and RG 1.33 during planning and repair of gasket for 22 CVCS IX.
On July 13, 2001, the licensee did not implement the requirements of Technical Specification 5.4 and RG 1.22, Rev. 2, February 1978 (Appendix A, Section 7e) during planning and repair of gasket on the No. 22 CVCS IS. As a result, the leaking gasket caused elevated contamination levels that were not identified and evaluated prior to the conduct of the work activity. The issues involving this event were addressed by various corrective action IRs (Nos. 072-016 and 045-460, 461, 462, 463, 464, 465, 466, 467, 468, 469 and 470). This issue is being treated as a Non-Cited Violation

Inspection Report# : 2001006*(pdf)*

Significance: G Jun 30, 2001
Identified By: Licensee
Item Type: NCV NonCited Violation
Failure to conduct an adequate radiological surveys of the Unit 2 reactor shroud. (Section 4OA7)
On May 3, 2001, the licensee did not conduct adequate radiological surveys, as required by 10 CFR 20.1501, to detect the presence of loose radioactive contamination, contained within the Unit 2 reactor shroud, prior to starting control element drive motor (CEDM) fans. Following the start of the fans, quantities of loose radioactive contamination were blown into the containment atmosphere from within the shroud area resulting in generation of elevated airborne radioactivity within containment, evacuation of workers from containment, and limited intakes of radioactive material by workers. No personnel overexposure occurred, no substantial potential for such an overexposure was apparent, and the licensee's ability to assess dose was not compromised. This matter was incorporated into the licensee's corrective action system on May 3, 2001, (Issue Report No. IR3-076-089).
Inspection Report# : 2001005*(pdf)*

Public Radiation Safety

Physical Protection

Miscellaneous

Significance: N/A May 26, 2000
Identified By: NRC
Item Type: FIN Finding
BG&E personnel effectively identified, entered, prioritized, and evaluated problems at Calvert Cliffs
In general, BG&E personnel effectively identified, entered, prioritized, and evaluated problems at the Calvert Cliffs station in accordance with their established corrective action program guidance. The team identified several minor deficiencies associated with problem identification and evaluation, although the total number of these issues were low. The inspection team also determined that BG&E's implementation of individiual corrective actions was appropriate. Nuclear performance assessment department audits were thorough and providied good independent oversight of plant activities.
Inspection Report# : 2000005*(pdf)*

Significance: N/A May 25, 2001
Identified By: NRC
Item Type: FIN Finding
Performance in the area of Problem Identification and Resolution is generally adequate.
The inspectors determined that the licensee's performance in the area of problem identification and resolution at the Calvert Cliffs site was generally adequate. The Calvert Cliff's staff identified risk significant problems at an appropriate threshold, and the problems were classified at the appropriate significance level. Root cause evaluations were consistent with the significance of the problem, and corrective actions were associated with the cause of the problem. The engineering and maintenance backlogs, as well as the corrective action backlog, appeared to be adequately managed. The results of the licensee's audits and self-assessments were appropriately considered for entry into the corrective action program. Notwithstanding, the inspectors identified examples of a failure to identify and correct problems associated with emergency core cooling piping. Additionally, the inspectors identified examples of a failure to assess and document the basis for continued operability in accordance with plant procedures; these were associated with degraded switchgear ventilation dampers and increased temperatures in the reactor cavity annulus.
Inspection Report# : 2001003*(pdf)*

Last modified : March 28, 2002