



**UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
SAM NUNN ATLANTA FEDERAL CENTER
61 FORSYTH STREET SW SUITE 23T85
ATLANTA, GEORGIA 30303-8931**

April 1, 2002

South Carolina Electric & Gas Company
ATTN: Mr. Stephen A. Byrne
Senior Vice President, Nuclear Operations
Virgil C. Summer Nuclear Station
P. O. Box 88
Jenkinsville, SC 29065

SUBJECT: VIRGIL C. SUMMER NUCLEAR STATION - NRC INSPECTION REPORT NO.
50-395/02-06

Dear Mr. Byrne:

On March 1, 2002, the NRC completed an inspection at your Virgil C. Summer Nuclear Station. The enclosed report documents the inspection findings which were discussed on March 1, 2002, with you and other members of your staff.

The inspection was an examination of activities conducted under your license as they relate to the identification and resolution of problems, and compliance with the Commission's rules and regulations, and with the conditions of your operating license. Within these areas, the inspection involved selected examination of procedures and representative records, observations of activities, and interviews with personnel.

On the basis of the sample selected for review, there were no findings of significance identified during the inspection. The inspectors concluded that, in general, problems were properly identified, evaluated, and corrected. Improvements were noted in the corrective action process since the previous problem identification and resolution inspection. For example, the process for classifying issues and the criteria for requiring root cause assessments were now more clearly based upon safety significance. However, during the inspection, several minor problems were identified. These included site personnel not always generating condition evaluation reports (CERs) at the threshold expected by plant management, and the corrective action process allowed human performance issues in a CER to go unaddressed when a CER was changed to another type of corrective action document which evaluates only technical issues. In addition, there were opportunities for increased management involvement in certain activities such as increased presence and involvement with personnel at the corrective action screening committee meetings.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system

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(ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

/RA Malcolm T. Widmann for/

Kerry D. Landis, Chief
Reactor Projects Branch 5
Division of Reactor Projects

Docket No: 50-395
License No: NPF-12

Enclosure: NRC Inspection Report No. 50-395/02-06

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U. S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket No.: 50-395

License No.: NPF-12

Report No.: 50-395/02-06

Licensee: South Carolina Electric & Gas (SCE&G) Company

Facility: Virgil C. Summer Nuclear Station

Location: P. O. Box 88
Jenkinsville, SC 29065

Dates: February 11 - 15, 2002
February 25 - March 1, 2002

Inspectors: D. Roberts, Senior Resident Inspector - Catawba, (Lead Inspector)
S. Vias, Senior Reactor Inspector, Region II
J. Starefos, Resident Inspector - Browns Ferry
M. King, Resident Inspector

Approved by: K. Landis, Chief, Reactor Projects Branch 5
Division of Reactor Projects

Attachments: 1. Supplemental Information
2. List of Documents Reviewed

Enclosure

Summary of Findings

IR 05000395-02-06, on 02/11-3/1/2002, South Carolina Electric & Gas Co., Virgil C. Summer Nuclear Station, annual baseline inspection of the identification and resolution of problems.

The inspection was conducted by three resident inspectors and a regional inspector. No findings of significance were identified. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using the significance determination process (SDP) found in Inspection Manual Chapter 0609. Findings to which the SDP does not apply are indicated by "No Color" or by the severity level of the applicable violation. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described at its Reactor Oversight Process website.

Identification and Resolution of Problems

The inspectors concluded that, in general, problems were properly identified, evaluated, and corrected. Improvements were noted in the corrective action process since the previous problem identification and resolution inspection. The process for classifying issues and the criteria for requiring root cause assessments were now more clearly based upon safety significance. The licensee was effectively prioritizing and evaluating issues commensurate with their safety significance. Root cause analyses were generally performed when appropriate and problem evaluations considered extent of condition and generic implications appropriately. Corrective actions were generally effective in correcting problems. Management fostered a safety-conscious work environment by emphasizing safe operations and encouraging problem reporting. However, during the inspection, several minor problems were identified. These included: site personnel not always generating condition evaluation reports (CERs) at the threshold expected by plant management; the corrective action process allowed human performance issues in a CER to go unaddressed when a CER was changed to another type of corrective action document which evaluates only technical issues; relationships between the CER process and identified peripheral processes were not always clearly established; and several timeliness issues associated with due dates. In addition, there were opportunities for increased management involvement in certain activities such as increased presence and involvement with personnel at the corrective action screening committee meetings.

Report Details

4. OTHER ACTIVITIES

4OA2 Identification and Resolution of Problems

a. Effectiveness of Problem Identification

(1) Inspection Scope

The inspectors reviewed items selected across the three strategic performance areas (reactor safety, radiation safety, and physical protection) to verify that problems were being properly identified, appropriately characterized, and entered into the corrective action program (CAP) for evaluation and resolution. The inspectors reviewed program documents including Management Directive 86, "Management Expectations for [V. C. Summer Nuclear Station] Corrective Action Program," Revision (Rev.) 1; the current version (Rev. 3) of Station Administrative Procedure SAP-1131, "Corrective Action Program," which described the administrative process for documenting and resolving problems, as well as, the previous revision of SAP-1131, entitled "Electronic Processing of Condition Evaluation Reports." Condition Evaluation Reports (CERs), which utilized the Primary Identification Program (PIP) software as a computerized processing and tracking tool, were the primary means for documenting problems at V. C. Summer. The inspectors reviewed CERs associated with systems that ranked the highest on the licensee's risk significance list. The systems were ranked by risk achievement worth, an indicator of how much impact the system's failure or unavailability would have on the plant. Systems selected included the component cooling water, electrical, DC distribution, service water, emergency feedwater, and instrument air systems. The inspectors reviewed a sampling of CERs that had been generated since the last problem identification and resolution inspection (March 2001). The specific documents reviewed are listed in Attachment 2.

The inspectors conducted several computer database searches to identify the threshold at which issues were identified and documented in the CAP. The review was performed to verify that the licensee's threshold for identification and documentation of issues was consistent with procedural guidance and licensee management expectations.

The inspectors reviewed a comprehensive list of maintenance work requests (MWRs) for risk significant systems, which were issued since the CAP procedure SAP-1131 was revised, to verify equipment problems were being entered into the CER database in accordance with procedure requirements.

The inspectors reviewed industry operating experience (OE) items to determine if they were appropriately evaluated for applicability to V. C. Summer and whether problems identified through these reviews were entered into the CAP.

The inspectors reviewed plant equipment issues associated with maintenance rule (a)(1) items, functional failures, maintenance preventable functional failures (MPFFs), and repetitive MPFFs, to verify that maintenance rule equipment deficiencies were being appropriately entered into the CAP.

The inspectors toured the plant, including portions of the intermediate building, the auxiliary building, the service water pumphouse, the control room, and the diesel generator building to determine whether equipment and material condition problems were being identified. While in the control room, the inspectors reviewed the equipment removal and restoration logbook (all open items), the shift engineers' logbook (dating back to December 2001), and the logbook of open control room discrepancies to determine if problems potentially affecting safe plant operations were properly entered into the CAP process.

The inspectors attended several of the licensee's Plant Information Meetings and CER screening committee meetings to determine the level of management attention that problems received and to gauge the effectiveness of the screening process in ensuring that problems were properly captured in the licensee's CER database. The inspectors had discussions with plant personnel and the NRC resident inspectors to determine if problems were properly identified.

Finally, the inspectors reviewed the August 2001 Quality Assurance (QA) CAP assessment and associated CER 0-C-01-1299. The inspectors evaluated the assessment's effectiveness in identifying problems in the CAP process and reviewed whether improvement areas were properly captured in the CAP. Two additional audits (QA-AUD-200107-0, "Nonconformance Control" and QA-AUD-200018-0, "Nonconformance Control") were also reviewed.

(2) Findings

During the inspection, licensee management communicated a consistently low threshold for identification and documentation of conditions to the inspectors; however, it was not yet apparent that site personnel were consistent in generating CERs at the low threshold expected by licensee management. A comparison between the CER database and MWRs written against plant systems since January 28, 2002, the day the CAP procedure SAP-1131 was revised, revealed that CERs were not generated for six equipment problems. The specific equipment deficiencies were corrected by work performed under the MWRs. While the MWR process was an effective means for identifying and correcting broke/fix-type problems, the CER process better facilitated the trending of more complex corrective maintenance issues and allowed for apparent or root cause analyses to be performed and documented when necessary. The licensee subsequently initiated CERs for the six MWRs, which included two quality-related items in the component cooling water and service water systems. The failure to generate a CER as required by SAP-1131 is a violation of Technical Specification 6.8.1. This issue constitutes a violation of minor significance that is not subject to enforcement action in accordance with Section IV of the NRC's Enforcement Policy. The licensee documented this minor violation in CER 0-C-02-0467.

Problems documented in CERs were discussed at each Plant Information Meeting by a manager who "owned" the problem. Screening committee meetings were conducted with active participation by most members. However, the inspectors observed less than full representation at some screening meetings by the unit evaluators, the personnel who facilitated, tracked, trended and evaluated the CAP process at the department level. With the revised process being only a few weeks old at the time of the inspection,

some screening committee members were not familiar with several key attributes of the CER process, such as when to use the “repetitive condition” field, when other corrective action documents (i.e, maintenance work requests) should be cross-referenced, or which event codes to use for future trending purposes. At one meeting, many unit evaluators did not have copies of the new program procedure with them. Subsequent to the inspectors’ observations, copies of the new program procedure were provided to the screening committee members, which facilitated improved discussions regarding individual CERs. During subsequent meetings, the inspectors observed that attendance by unit evaluators had improved. Attendance by the unit evaluators was the subject of two previous QA findings.

Although management oversight of the corrective action program was a priority, in that, a special group had been developed and procedural changes were recently implemented, the licensee had not fully taken advantage of opportunities to coach personnel. For example, a senior management presence was not apparent at the screening committee meetings to provide a leadership perspective to the unit evaluators. This was discussed with the licensee during the first week of the inspection and the inspectors noted that management was actively attending the meetings during the second week of the inspection. The inspectors noted that a similar observation had been documented in the August 2001 QA assessment.

From the review of CERs associated with maintenance rule items, external OE items, and previously issued non-cited violations (NCVs), the inspectors determined that site personnel were appropriately documenting problems in the licensee’s CAP process. Maintenance rule evaluations performed using attachments in procedure ES-514, “Maintenance Rule Implementation,” Rev. 2, were attached to the associated CER in the PIP database. This was an effective way to track the evaluations. The inspectors observed that ES-514 and the procedure for processing OE items, NL-102, “Distribution, Review, and Processing of Various Regulatory and Industry Documents,” Rev. 21, lacked criteria and guidance which were consistent with the revised SAP-1131 procedure for determining when an item should be entered into the PIP system. The inspectors did not identify any OE items that had been addressed inappropriately in the licensee’s CAP process. In addition, NL-102 lacked instructions on how the OE items were to be disseminated to appropriate personnel. Procedure SAP-1131 identified numerous other plant programs (i.e., peripheral procedures) that were not included as a part of the formal corrective action program. Because these programs were exempted, the inspectors were concerned that a vulnerability existed such that problems reaching the appropriate threshold may not be captured as part of the CAP when necessary. The licensee acknowledged the concern.

b. Prioritization and Evaluation of Issues

(1) Inspection Scope

The inspectors reviewed a sample of corrective action documents to determine if the licensee appropriately characterized problems and entered them into the CAP for evaluation and resolution. The corrective action documents were selected across the seven cornerstones of safety (initiating events, mitigating systems, barrier integrity,

emergency preparedness, public radiation safety, occupational radiation safety, and physical protection) with the focus on plant systems having the highest risk significance.

For Category 1 (the most significant) and Category 2 CERs in the PIP database with discovery dates between January 1, 2000, to February 12, 2002, the inspectors reviewed the brief condition descriptions and selected 13 CERs for evaluation. Fourteen CERs from the list of the 30 oldest CERs were also selected for evaluation. For these in-depth evaluations, the inspectors assessed the adequacy of the CER by considering the following factors: clarity of problem statement, immediate action, classification, operability and reportability, was whether an apparent or root cause analysis (RCA) performed, extent of condition, corrective action quality, and timeliness. For Category 3 CERs in the PIP database identified between January 1, 2000, to February 13, 2002, the inspectors reviewed the CERs for potential trends and to assess the licensee's threshold for categorization. In addition, the inspectors reviewed CER 0-C-02-0361 associated with two main steam isolation valves being declared inoperable during the inspection period. The inspectors reviewed RCAs, Nonconformance Notices (NCNs), and CERs associated with previous NCVs and an NRC-issued violation to verify problem evaluations were thoroughly conducted and to assess the timeliness of corrective actions. Specific documents reviewed are referenced in Attachment 2.

The inspectors also performed database searches for the component cooling water and service water systems for all CERs discovered from January 1, 2001, to February 14, 2002. Similar searches were conducted for the feedwater, auxiliary feedwater, electrical distribution, emergency diesel generators, and instrument air systems. Detailed condition descriptions were reviewed for each of the CERs that were identified by the search.

The inspectors reviewed selected CERs, including those associated with industry operating experience issues, and NCNs, to determine whether site personnel conducted reviews for generic implications, repetitive conditions, and common cause failure mode determinations when the condition warranted.

The inspectors reviewed the CAP procedure SAP-1131 to determine whether deficiencies identified during the last PI&R inspection were addressed, specifically, whether the licensee had outlined criteria for categorizing CERs by safety significance or impact to the plant, and whether criteria for requiring root cause assessments was established.

The inspectors attended Plant Information Meetings, CER screening committee meetings, a Plant Safety Review Committee meeting, and a Corrective Action Review Board (CARB) meeting to assess the licensee's prioritization and evaluation of issues.

(2) Findings

The inspectors determined that the licensee was generally effective in prioritizing and evaluating issues commensurate with their safety significance. Improvements in procedural guidance contained in SAP-1131, "Corrective Action Program," which was issued January 28, 2002, adequately addressed procedure deficiencies identified in the last NRC problem identification and resolution inspection report 50-395/01-06.

Specifically, categorization of issues is now based upon examples with appropriate significance, i.e., safe and reliable operation of the plant. Furthermore, the decision to perform a root cause analysis or apparent cause determination was coupled to the safety significance or categorization of an item.

The inspectors concluded that the licensee's problem evaluations considered extent of condition and generic implications where appropriate. Operability and reportability of issues were appropriately evaluated and resolved. At the various management or CAP meetings the inspectors attended, specific issues identified in CERs generally received a level of discussion commensurate with their safety significance. RCAs were generally performed when appropriate; however, instances were identified in which the formal RCA process was not used to identify significant equipment problem causes. For example, the licensee did not perform a formal RCA for CER 0-C-01-0744, which involved failure of the C service water pump during testing. During the CER 0-C-02-0361 review, the inspectors also noted that the licensee had taken corrective actions but had not performed a formal RCA for prior occurrences of similar MSIV inoperabilities in 1998 and 1999.

The inspectors identified that the CAP allowed a Category 2 CER to be changed to an NCN, which is a process that evaluated only technical or hardware issues. This left potential human performance issues in the CER unaddressed. CER 0-C-01-0744, which involved failure of the C service water pump during testing, had several documents attached that described man-machine interface problems that occurred during testing. This CER was closed to a Category 4 CER 0-C-01-0756, which initiated NCN 01-0756. The NCN process developed an extensive equipment failure analysis and recommended actions, but had not addressed the human performance issues. Subsequent review by the NRC of the human performance issues revealed that they did not contribute to the pump shaft coupling failure. The licensee generated CER 0-C-02-0467 to address this CER - NCN change issue. In addition, during review of this item, the licensee identified that due to printing issues with the PIP application, employees may be unaware of the presence of attached documents. The licensee initiated CER 0-C-02-0469 to address this item.

The inspectors presented numerous minor observations to the licensee that were identified through the in-depth evaluations of the specific CERs. Several examples of timeliness issues were identified. For example, CER 0-C-00-0495 documented air entrainment in the service water supply to the emergency feedwater pump suction. A corrective action to quarterly check for air in the suction piping was open with a due date of February 28, 2002. This was approximately 10 months after the corrective action to preclude repetition was approved for implementation. Although the licensee determined that the emergency feedwater system remained operable with the as-found condition, the inspectors considered that a due date of approximately 10 months for compensatory quarterly testing was not timely. The licensee documented this issue in CER 0-C-02-0507. Another timeliness concern was associated with the extension of a Final Safety Analysis Report revision which was necessary to correct inaccuracies in the Post Accident Sample System (PASS) description. The inaccuracies were identified in CER 0-C-98-1157, which was initiated on December 28, 1998. Following discussions with the licensee, the inspectors learned that updates to the FSAR had been performed since this issue was identified, but without correcting the PASS description. The

inspectors concluded that corrective action due dates were extended without appropriate consideration of other external factors such as regulatory deadlines. The failure to submit FSAR changes is a violation of 10 CFR Part 50.71(e). This issue constitutes a violation of minor significance that is not subject to enforcement action in accordance with Section IV of the NRC's Enforcement Policy. The licensee documented this minor violation in CER 0-C-02-0482.

From the review of NCVs and violation and their associated CERs, the inspectors noted improvements in the corrective action process since the previous problem identification and resolution inspection. Although corrective actions to preclude repetition were appropriately identified for the NCVs, some due dates were not timely. For example, procedure changes for NCV 50-395/00006-01 (CER 0-C-00-1564, potential for pressurizer heatup/cooldown limits to be exceeded) had a due date of June 30, 2002. However, cooldown for a refueling outage was planned for April 19, 2002. The licensee agreed the date was inappropriate but stated that the procedure changes were already in progress and would be implemented prior to refueling outage.

c. Effectiveness of Corrective Actions

(1) Inspection Scope

The inspectors reviewed the CERs listed in Attachment 2 to verify that the licensee had identified and implemented corrective actions commensurate with the safety significance of the documented issues, and where possible, evaluated the effectiveness of the actions taken. Part of this effectiveness review was conducted by attending a CARB meeting on February 26, 2002. The inspectors also verified that common causes and generic concerns were addressed where appropriate. The inspectors reviewed CERs associated with previous NCVs to assess the adequacy of corrective actions.

(2) Findings

From the review of CERs the inspectors determined that the licensee's corrective actions were generally effective in correcting problems. Management involvement in the CARB process was effective. During the meeting conducted on February 26, 2002, the inspectors observed that the general managers reviewed root cause analyses results presented by the site employees who led the analyses. They thoroughly questioned each analysis, and assessed the adequacy and effectiveness of related corrective actions. Corrective actions for NCVs were determined to be adequate.

d. Assessment of Safety-Conscious Work Environment

(1) Inspection Scope

The inspectors informally interviewed licensee personnel to develop a general view of the safety-conscious work environment at V. C. Summer and to determine if any conditions exist that would cause workers to be reluctant to raise safety concerns. The inspectors also reviewed the licensee's employee concerns program (ECP), which provides an alternate method to the CER process for employees to raise safety

concerns with the option of remaining anonymous. The inspectors reviewed the program to determine if concerns were being properly reviewed and resolved.

(2) Findings

The inspectors concluded that licensee management fostered a safety-conscious work environment by emphasizing safe operations and encouraging problem reporting. Methods available to encourage problem reporting included CERs, MWRs, and ECP. Although some cases were identified where CERs were not generated for equipment problems documented in MWRs (see Section 4OA2.a.2), the inspectors concluded that this was not due to a reluctance to report safety concerns.

4OA6 Meetings

Exit Meeting Summary

The inspectors presented the inspection results to Mr. S. Byrne and other members of licensee management at the conclusion of the inspection on March 1, 2002. A re-exit was held on March 28, 2002, via a telephone conference between Mr. M. Widmann and Mr. G. Halnon.

The inspectors asked the licensee whether any of the material examined during the inspection should be considered proprietary. No proprietary information was identified.

SUPPLEMENTAL INFORMATION

PARTIAL LIST OF PERSONS CONTACTED

Licensee

J. Archie, General Manager, Engineering
F. Bacon, Manager, Chemistry Services
S. Bailey, Supervisor, Plant Support Engineering
L. Blue, Manager, Health Physics and Radwaste
M. Browne, Manager, Nuclear Licensing and Operating Experience
S. Byrne, Senior Vice President, Nuclear Operations
C. Fields, Supervisor, Corrective Action Program
T. Franchuk, Manager, QA-Employee Concerns
G. Gatlin, Manager, Operations
G. Halnon, General Manager, Nuclear Plant Operations
L. Hipp, Manager, Nuclear Protection Services
D. Lavigne, General Manager, Organization Effectiveness
T. McAlister, Supervisor, Quality Control
G. Moffatt, Manager, Design Engineering
K. Nettles, General Manager, Nuclear Support Services
F. O'Neal, Maintenance Rule Coordinator
A. Rice, Manager, Plant Support Engineering
R. White, Nuclear Coordinator, South Carolina Public Service Authority
G. Williams, Manager, Maintenance Services
S. Zarandi, Supervisor, Operations Support

Other licensee employees included engineers, operations personnel, and administrative personnel.

NRC

C. Casto, Director, Division of Reactor Safety
K. Landis, Chief, Reactor Projects Branch 5
M. Widmann, Senior Resident Inspector

ITEMS OPENED, CLOSED AND DISCUSSED

None

LIST OF DOCUMENTS REVIEWED

Condition Evaluation Reports

CER Number (all numbers begin with 0-C-)

98-0667	99-0045	00-1229	01-0693	01-1714
98-0754	99-0047	00-1235	01-0744	01-1746
98-0798	99-0065	00-1471	01-0756	01-2055
98-0838	99-0084	01-0199	01-0827	01-2181
98-1047	99-0118	01-0218	01-0856	01-2256
98-1015	99-0709	01-0350	01-0865	02-0101
98-1061	99-0776	01-0395	01-0955	02-0109
98-1153	00-0297	01-0412	01-1099	02-0306
98-1154	00-0407	01-0426	01-1317	02-0313
98-1157	00-0629	01-0456	01-1466	
98-1158	00-0813	01-0495	01-1513	
99-0026	00-1101	01-0546	01-1576	

Nonconformance Notices

98-0823	98-1015	99-0131	99-0667	99-1289
99-1520	01-0052	01-0290	01-0370	01-0426
01-0511	01-0756	01-2181		

CERs Generated as a Result of this Inspection

02-0467	02-0479	02-0496	02-0711	02-0714
02-0469	02-0480	02-0507	02-0712	02-0715
02-0477	02-0482	02-0710	02-0713	

PIP Searches

- Computer Database Search for CERs with Action Category 3, and Discovered Dates from 01/01/2000 to 01/01/2002
- Computer Database Search for CERs with Action Categories 1 and 2, and Identified Dates from 01/01/2000 to 02/12/2002
- Computer Database Search for CERs with System SW, and Discovered Dates from 01/01/2001 to 02/14/2002
- Computer Database Search for CERs with System CC, and Discovered Dates from 01/01/2001 to 02/14/2002

Maintenance Work RequestsWO Number

9815056	201582	201642	201655
202560	202799	201584	201601
202561	202776	202506	202599
202554			

Audits and Assessments, and Trend Reports

- CAP Assessment (Quality Assurance Self-Assessment dated August 16, 2001)
- QA-AUD-200107-0, Nonconformance Control
- QA-AUD-200018-0, Nonconformance Control
- VCSNS Trend Report 2001-02
- VCSNS Trend Report 2001-03

Operating Experience Issue Documents/ NRC Information Notices/ NRC Bulletins

- Westinghouse Nuclear Safety Advisory Letter (NSAL) 02-3; Subject: Steam Generator Mid-deck Plate Pressure Loss Issue (dated February 15, 2002)
- INPO Significant Event Report (SEN) 230, Pressurizer spray valve failure resulting in an automatic Reactor scram and safety injection.
- OE 13156 Mobil crane tipping during lift at circulating water pump house
- OE 13203 Motor driven AFW pump air binding due to blockage
- OE 13230 Worker hearing loss causes problems with electronic dosimetry
- IN 2002-09 Potential for Top Nozzle Separation and Dropping of a Certain Type of Westinghouse Fuel Assembly
- IN 2002-08 Pump Shaft Damage Due to Excessive Hardness of Shaft Sleeve
- IN 2002-03 Highly Radioactive Particle Control Problems During Spent Fuel Pool Clean-out
- IN 2002-02 Recent Experience with Plugged Steam Generator Tubes
- IEB 2001-001 Circumferential Cracking of Reactor Pressure Vessel Head Penetration Nozzles

Procedures

- ES-508 Evaluation of Abnormal Conditions or Events, Rev. 4
- ES-509 Disposition of Site Nonconformances, Rev. 6
- ES-514 Maintenance Rule Implementation, Rev. 2
- MD-83 Self-Assessment Guiding Principles, Rev. 1
- MD-86 Management Expectations for VCSNS Corrective Action Program, Rev. 1
- NL-102 Distribution, Review, and Processing of Various Regulatory and Industry Documents, Rev. 21
- RCG-01 Root Cause Analysis Guidelines (dated September 27, 1999)
- SAP-107 10CFR50.59 Review Process, Rev. 4
- SAP-900 Root Cause Analysis, Rev. 4

- SAP-1103 Assessment Program, Rev. 0
- SAP-1131 Electronic Processing of Condition Evaluation Reports, Rev. 2
- SAP-1131 Corrective Action Program, Rev. 3
- SAP-1141 Nonconformance Control Program, Rev. 8
- SAP-1142 Trending Station Deficiencies, Rev. 3
- SAP-1252 Maintenance Rule Program, Rev. 0
- SAP-1286 Material System User Procedure, Rev. 2

Previously Identified NCVs and Violation

50-395/01009-02	NCV	Emergency lighting installation deficiencies for performing alternative shutdown actions (CER 0-C-01-1839)
50-395/01004-03	NCV	Failure to follow procedure during surveillance test results in inadvertent start of B motor driven emergency feedwater pump (CER 0-C-01-2127)
50-395/01004-02	NCV	Failure to follow process procedure revisions in accordance with administrative procedure review and approval process (CERs 0-C-01-1700, 0-C-01-1722 and 0-C-01-1925)
50-395/01004-01	NCV	Failure to follow procedure for chemistry sampling of the reactor coolant system (CER 0-C-01-2324)
50-395/01003-01	NCV	Failure to perform evaluation required by 10 CFR 50.59, improper screening (CER 0-C-01-1471)
50-395/01002-02	NCV	Failure to establish an adequate annunciator response procedure resulted in exceeding licensed thermal power (CER 0-C-01-0616)
50-395/01002-01	NCV	Failed to follow procedure to enter the B component cooling water heat exchanger in Action Level II and place limitations on service water temperature when testing indicated degradation (CER 0-C-01-0719)
50-395/00007-04	VIO	Failure to follow procedure results in the turbine driven emergency feedwater pump being inoperable for approximately 48 days during power operation due to its manual discharge isolation valve being closed (CER 0-C-00-1235)
50-395/00007-01	NCV	Failure to include the turbine runback circuitry within the scope of the maintenance rule monitoring program (CERs 0-C-01-0003 and 0-C-01-0123)
50-395/00007-02	NCV	Failure to install steam generator vent line support (CERs 0-C-00-1019 and 0-C-00-1359)

50-395/00007-03	NCV	Failure to include five check valves in the in-service test (IST) program (CER 0-C-00-1479)
50-395/00006-04	NCV	Inadequate emergency operating procedure for transfer to cold-leg recirculation (CERs 0-C-99-1026 and 0-C-00-1101)
50-395/00006-01	NCV	Inadequate surveillance test and system operating procedures to control pressurizer temperature limits (CER 0-C-00-1564)

Other Documents

- Removal and Restoration Index (SAP-205, Revision 9, Attachment II) Logs
- Control Room Discrepancy Log Book
- Shift Engineer Log Book (December 2001 to February 2002)

Meetings Attended

- Plant Information Meetings (2/13, 2/15, 2/27)
- CER Screening Committee (2/13, 2/14, 2/26, 2/27, 2/28)
- Plant Safety Review Board (2/12)
- Corrective Action Review Board (2/26)