



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

REGION II

SAM NUNN ATLANTA FEDERAL CENTER  
61 FORSYTH STREET SW SUITE 23T85  
ATLANTA, GEORGIA 30303-8931  
April 19, 2001

South Carolina Electric & Gas Company  
ATTN: Mr. Stephen A. Byrne  
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.  
50-395/01-06

Dear Mr. Byrne:

On March 23, 2001, the NRC completed an inspection at your Virgil C. Summer Nuclear Station. The enclosed report documents the inspection findings which were discussed on March 23, 2001, with you and other members of your staff. Subsequent to the onsite inspection, additional review of the inspection results was completed and on April 19, 2001, a re-exit was held with the Manager of Nuclear Licensing and Operating Experience.

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 samples selected for review, the team concluded that in general, problems were properly identified, evaluated, and resolved within the problem identification and resolution programs. The corrective action program was acceptable. However, during the inspection, several examples of minor problems were identified. For example the program was not effectively using the Repetitive Condition portion of the Primary Identification Program database, risk was not being used when classifying issues, some condition report evaluations were narrowly focused, and corrective actions were not well documented or had not occurred in a timely manner.

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

Sincerely,

**/RA/**

Charles R. Ogle, Chief  
Engineering Branch  
Division of Reactor Safety

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

Enclosure: (See page 2)

Enclosure: NRC Inspection Report No. 50-395/01-06

Attachment: List of Documents Reviewed

cc w/encl:

R. J. White  
Nuclear Coordinator Mail Code 802  
S.C. Public Service Authority  
Virgil C. Summer Nuclear Station  
Electronic Mail Distribution

J. B. Knotts, Jr., Esq.  
Winston and Strawn  
Electronic Mail Distribution

Henry J. Porter, Assistant Director  
Div. of Waste Mgmt.  
Dept. of Health and Environmental  
Control  
Electronic Mail Distribution

R. Mike Gandy  
Division of Radioactive Waste Mgmt.  
S. C. Department of Health and  
Environmental Control  
Electronic Mail Distribution

Bruce C. Williams, General Manager  
Nuclear Plant Operations (Mail Code 303)  
South Carolina Electric & Gas Company  
Virgil C. Summer Nuclear Station  
Electronic Mail Distribution

Melvin N. Browne, Manager  
Nuclear Licensing & Operating  
Experience (Mail Code 830)  
Virgil C. Summer Nuclear Station  
Electronic Mail Distribution

Distribution w/encl:

K. Cotton, NRR  
A. Boland (Part 72 Only)  
RIDSNRRDIPMLIPB  
PUBLIC

(\* ) = SEE PREVIOUS PAGE FOR CONCURRENCES

OFFICE	RII	RII	RII	RII	RII	RII	RII
SIGNATURE	landis	jape	landis for	bearden	kuzo		
NAME	K Landis	FJape	MKing	WBearden	GKuzo		
DATE	4/17/2001	4/17/2001	4/17/2001	4/17/2001	4/17/2001		
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO
PUBLIC DOCUMENT	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

U. S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket No.: 50-395

License No.: NPF-12

Report No.: 50-395/01-06

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

Facility: Virgil C. Summer Nuclear Station

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

Dates: March 5 - 9, 2001 and  
March 19 - 23, 2001

Inspectors: F. Jape, Senior Project Manager, RII (Lead Inspector)  
M. King, Resident Inspector  
W. Bearden, Reactor Inspector, RII  
G. Kuzo, Senior Health Physicist, RII

Approved by: C. Ogle, Chief, Engineering Branch  
Division of Reactor Safety

Enclosure

## SUMMARY OF FINDINGS

IR 05000395-01-06, on 03/5-23/2001, 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 regional inspectors and a resident inspector. There were no findings identified.

### **Identification and Resolution of Problems:**

No findings of significance were identified. The implementation of the corrective action program (CAP) was acceptable with concerns noted. Management oversight was evident in all aspects of the program, and trending was extensive with an appropriate focus on human performance. The licensee was generally effective at identifying problems and placing them into the CAP. Self-assessment by the CAP department was very limited and not well documented. The licensee generally evaluated individual problems and established acceptable schedules for implementing corrective actions appropriately. Corrective actions were generally implemented in a timely manner. The apparent cause determinations appeared to accurately identify why the equipment problems occurred. The inspectors determined that the licensee properly classified discrepant conditions. The inspectors found that the scope and depth of corrective actions assigned by the licensee were generally appropriate for the severity and risk significance of the problems identified. Two issues identified during this inspection concerned the effectiveness and timeliness of corrective actions associated with previous NRC-identified Non-Cited Violations (NCVs). In addition, the inspection team observed that the Primary Identification Program (PIP) process was not effectively using the Repetitive Condition portion of the PIP database. The identification of repeat problems was dependent on the memories of individuals involved in the PIP process, rather than being retrievable from the PIP database. Interviews of plant personnel indicated that they felt free to input safety issues and conditions adverse to quality into the CAP. A safety conscious work environment was evident at Summer.

## Report Details

### **4. OTHER ACTIVITIES (OA)**

#### 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. Specifically, the inspectors reviewed maintenance work requests, procedure change requests, the removal and restoration log entry list, and control room and safety system deficiencies to determine if necessary deficiencies were being entered into the CAP. Additionally, the inspectors reviewed a sample of Maintenance Rule equipment failure evaluations to ensure that the associated equipment failures had been properly captured within the CAP.

The inspectors conducted plant walkdowns and interviewed personnel to identify other processes that may exist where problems and issues could be identified. The inspectors attended the licensee's plan-of-the-day, and Primary Identification Program (PIP) screening committee meeting, and a Corrective Action Review Board (CARB) meeting to help understand plant management's involvement in the CAP.

The inspectors reviewed NRC inspection reports and Licensee Event Reports (LERs) for the past year and discussed the licensee's performance of problem identification with the resident inspectors who independently observe problem identification and resolution on a routine basis.

The inspectors reviewed licensee audits and self-assessments associated with problem identification and resolution to determine the effectiveness of the CAP and if the audits fulfilled the requirements of Technical Specifications 6.5.2.8.c. and d. The inspectors compared the findings and problems identified by the audits and self-assessments with the findings and observations of the inspectors. Corrective actions resulting from the audits and self-assessments were evaluated for appropriateness to the circumstances. In addition, trend reports for the past 2 years were reviewed to ascertain implementation of the CAP.

##### .2 Findings

No findings of significance were identified.

The licensee was generally effective at identifying problems and placing them into the CAP as evidenced by the inspectors' review of problem identification programs and processes, audits and self-assessments, utilization of external operating experience,

and through the inspectors' plant tours. The threshold for documenting conditions adverse to quality was at an appropriate level.

The licensee's Quality Assurance audits were generally thorough and effective in identifying deficiencies in the CAP. Corrective actions were appropriate to the circumstances. The inspectors noted Summer's Quality Assurance audits for the last three years were being consistently conducted (18 in 1998; 18 in 1999; 19 in 2000; and 17 planned for 2001). However, self-assessment documentation by individual departments was very limited. The audits and assessments performed by Quality Assurance provided insights regarding the implementation of the CAP. The trend reports for the past 2 years revealed little change in the CAP performance.

The inspectors determined that external operating experience had been appropriately evaluated for plant applicability, and both internal and external operating experience issues had been incorporated into the CAP. The inspectors observed that implementation of the licensee's CAP provided for identifying and dispositioning issues characterized in NRC generic communications and industry operating experience.

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, as determined by the plant-specific probabilistic risk assessment. These systems included component cooling water, alternating current electrical distribution, rod control and position, direct current distribution, service water, chemical and volume control, residual heat removal, containment isolation, service water and emergency diesel generators.

Additionally, the inspectors reviewed PIPs associated with the radiation protection, security, and emergency preparedness areas to assess if any potential CAP issues existed. The inspectors reviewed problems to determine if they were being properly classified in accordance with the licensee's Station Administrative Procedure SAP-1131, "Electronic Processing of Condition Evaluation Reports," Revision 1, and if the licensee considered risk significance for assigning prioritization of correction actions.

## . 2 Findings

No findings of significance were identified.

The licensee appropriately evaluated individual problems and established acceptable schedules for implementing corrective actions. Corrective actions were generally implemented in a timely manner. The inspectors determined that the licensee properly classified discrepant conditions, but did not have a formal process for using risk significance when classifying or assigning prioritization of these items. This issue was discussed with the Manager of Nuclear Licensing and Operating Experience and prior to the team exiting the licensee had performed a review of open PIPs sorted by risk significant systems to ensure no unrecognized risk condition existed. This review identified no risk significant issues. Also in response to this issue the licensee added a probabilistic risk assessment (PRA) expert to the PIP screening committee and is tracking additional actions for this issue under licensing PIP L-99-0177 (Action Item 1).

Corrective actions were generally implemented in a timely manner. However, the inspectors noted three examples of failure to implement timely or prompt corrective actions.

The first example of untimely corrective action was related to an NRC identified NCV 50-395/0006-01, "Inadequate Surveillance Test and System Operating Procedures to Control Pressurizer Temperature Limits," documented in PIP 0-C-00-1564. The inspectors noted that a previous PIP 99-1033, was opened on a similar issue and that this PIP was a conversion from the previous non-electronic corrective action program CER 97-1401, which was in turn a conversion from a 1994 Off-Normal Occurrence Report ONO-94-87. Thus, this issue has been identified and entered into the corrective action program as far back as September 9, 1994. An additional occurrence of pressurizer heatup and cooldown limits being exceeded was documented in 1991 (reference Violation 50-395/94-28-03). Furthermore, Westinghouse had issued WCAP-13588 "Operating Strategies for Mitigating Pressurizer Insurge and Outsurge Transients" to Westinghouse Owners Group (WOG) Primary Representatives (including V.C. Summer) in April of 1993. Westinghouse later provided further guidance in WCAP-14950 "Mitigation and Evaluation of Pressurizer Insurge / Outsurge Transients" issued in February 1998. However, as of the time NCV 50-395/0006-01 was identified on October 25, 2000, the licensee had not incorporated adequate guidance into the pressurizer heatup or cooldown procedures or adopted necessary mitigation strategies to prevent recurrence.

The inspectors noted that the licensee's corrective actions for NCV 50-395/0006-01 issued in January 2001, were partially completed with additional actions in progress that are now being effectively developed and tracked. It appears that this issue has been in the CAP for several years without completion of appropriate action.

The second and third examples of failure to implement timely corrective actions involved quality related/non-safety related items. These items represented important issues that should have been addressed in a timely manner by the CAP. The second example was identified by the licensee's Nuclear Safety Review Committee (NSRC) as Action Item

2000-04-04 and involved timeliness of corrective action taken to resolve a potentially explosive hydrogen atmosphere in the Recycle Holdup Tank (PIP 0-C-99-0282). The issue was first identified on March 25, 1999, and has remained open through March 2001. The licensee's Corrective Action Review Board (CARB) was requested by the NSRC to evaluate the circumstances and timeliness associated with actions taken by Operations and Plant Support Engineering. Quality Assurance investigation concluded and the CARB meeting on March 14, which was attended by the inspectors, concurred that the issue represented a untimely corrective action. The inspectors noted that nearly a year has lapsed between identification of the concern and licensee actions to correct the potentially explosive condition. The inspectors noted that although corrective actions were delayed, this issue does not constitute a violation of NRC requirements since this issue is not subject to 10 CFR 50 Appendix B regulation. This issue highlights a proper critical self-assessment of the corrective action program by the licensee's NSRC and CARB.

The third example involved delays in initiating actions to address NCV 50-395/00006-02 (PIP 0-C-00-1595). During a radiation protection inspection conducted the week of October 23, 2000, a NRC-identified concern associated with the establishment of electronic dosimeter (ED) alarm dose rate setpoints was identified for scaffold construction activities conducted in a high radiation area, the "B" residual heat removal (RHR) heat exchanger room. During a November 9, 2000, teleconference, Mr. Ken Barr, NRC Region II, Chief, Plant Support Branch informed licensee representatives that the failure to establish ED dose rate alarm setpoints above the general area dose rates in accordance with health physics procedures was a violation of TS 6.11. Establishing the ED alarm dose rate setpoints below the general work area values did not allow workers to move out of the immediate area, clear the alarm, and confirm the encountered dose rates were similar to documented survey values. Failure to clear the ED rate alarm after moving to a general work area could indicate unexpected elevated dose rates requiring additional radiological evaluation and control. Although the involved workers stated that similar scaffold construction tasks with numerous intermittent ED rate alarms had occurred previously in other high radiation work areas, the licensee's initial actions to restore compliance did not occur until general guidance addressing the concern was sent by electronic-mail to responsible staff on February 10, 2001. Final corrective actions, including appropriate procedural changes, were scheduled for June 1, 2001. The inspectors noted that the several months lapsed between identification of the concern and initial licensee actions to restore compliance, however, no additional examples of numerous intermittent ED alarms occurring in high radiation areas were identified. The inspectors noted that although corrective actions were delayed, this issue does not constitute a violation of NRC requirements since this issue is not subject to 10 CFR 50 Appendix B regulation.

c. Effectiveness of Corrective Actions

.1 Inspection Scope

The inspectors reviewed the PIPs listed in the Attachment to verify that the licensee had identified and implemented corrective actions commensurate with the safety-significance of the issue, and where possible, evaluated the effectiveness of the actions taken. The inspectors also verified that common causes and generic concerns were

addressed where appropriate. Corrective actions developed and implemented for plant equipment problems were reviewed to ensure that design engineering requirements and the plant's current licensing bases were satisfied.

## .2 Findings

No findings of significance were identified.

Corrective actions developed and implemented for plant equipment problems were effective in correcting the equipment deficiencies. The apparent cause determinations appeared to accurately identify why the equipment problems occurred. The inspectors found that the scope and depth of corrective actions assigned by the licensee were generally appropriate for the severity and risk significance of the problem identified. Several condition report evaluations appeared to be narrowly focused. Examples of this narrowly focused were identified by the inspectors for previously issued NCVs. Two specific examples are described below.

Previous NCV 50-395/99003-01 (ref. PIP 0-C-00-0748) concerning failure to remove debris from the reactor building (RB) following Refueling Outage 11, (RF-11) was reviewed to evaluate the effectiveness of the corrective actions. Following refueling outage RF-12, which was recently completed, the inspectors noted two PIPs associated with discovery of debris/loose items in the RB while in Mode 4 and Mode 3 (PIPs 0-C-01-0259 and 0-C-01-0270). These two PIPs documented discovery of minor debris after the RB close out. The corrective action for the PIP/NCN 0-C-99-0748 stated "that any corrective actions should be addressed by Maintenance and Quality Services Group as they deem necessary." Plant support engineering did not provide any recommended corrective actions to prevent recurrence and closeout of the issue stated no further corrective actions were required without any amplifying basis being provided. No further actions were documented in the corrective action program related to this violation (in particular for the Maintenance, Operations or Quality Services Group). These groups are responsible for the RB cleanup and RB inspection prior to Mode 4 entry to ensure no loose debris is present which could be transported to the RHR and spray recirculating sumps. The inspectors determined that the lack of corrective action by the licensee from RF-11 to RF-12 to address RB closeout process deficiencies, represents an example of ineffective correction action. However, this deficiency has a minor consequence, in that, the amount of debris identified (less than approximately 2% blockage of one train's sump suction screen) may degrade pump performance marginally, but would not result in the emergency core cooling system (ECCS) being unable to perform its intended function. Although this issue should be corrected, it constitutes a violation of minor significance that is not subject to enforcement action in accordance with Section IV of the Enforcement Policy. Corrective action for this condition was documented in the licensee's corrective action program under PIP 0-C-01-0259.

The inspectors also noted that the PIP evaluations for loose items and debris found in the RB following RF-12 were not properly evaluated for their effect on potential blockage of the containment sump suction screen which effects ECCS system operability. The operability evaluations were then completed by the licensee and no challenges to

operability of the ECCS sumps were identified due to the amount and type of debris. The licensee entered this issue into their corrective action program under PIP 0-C-01-0341.

For NRC-identified NCV 50-395/99-06-03 entered into CAP under PIP 0-C-99-1170, the licensee's extent of condition review contributed to delays in identifying similar issues for the gaseous effluent monitoring system, conducting evaluations on quantitative release concentrations, and completing corrective actions. The NRC identified during an August 1999 inspection, the subject NCV documented the improper calibration of liquid effluent radiation monitors resulting from replacement of the original vendor supplied secondary standard calibration sources without establishing an adequate chain of custody between the current and original secondary source efficiency data. Licensee representatives responsible for the extent of condition review completed September 20, 1999, documented that replacement calibration sources also were used for current atmospheric effluent monitor calibrations but failed to note differences between the replacement and previous particulate and gaseous monitor secondary calibration source geometries. Geometry differences between the current and original secondary atmospheric gaseous and particulate effluent calibration sources were identified approximately seven months later and resulted in a second example of the NCV identified during an inspection conducted during the week of April 10, 2000, and documented in Inspection Report 50-395/00-04. The effect of the improper calibrations on the adequacy of atmospheric effluent monitoring results and monitor setpoints was not determined until an evaluation of these geometry differences was conducted during the week of April 10, 2000. The inspectors noted that although identification and evaluation of the calibration geometry issues for the atmospheric monitoring channels were delayed by several months, the licensee's evaluation indicated the gaseous effluent results were conservative by approximately 25 percent. This item was documented in PIP 0-C-00-0470 with final actions scheduled for late March 2001. Licensee representatives indicated that all direct and process radiation monitoring systems, including safety related systems, were reviewed and no additional changes in calibration geometries requiring evaluation have been identified. The inspectors noted that although the failure to identify the concern during the original extent of condition review resulted in several months of biased measurements for the particulate and gaseous effluent channels and extended the time to complete corrective actions, the identified conservative bias precluded any gaseous effluent release or design limits from being exceeded and the delays did not constitute a violation of NRC requirements since the monitors were not subject to 10 CFR 50 Appendix B regulation.

d. Assessment of Safety-Conscious Work Environment

.1 Inspection Scope

The inspectors interviewed licensee personnel to develop a general view of the safety culture at Summer and to determine whether any conditions existed 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 PIP 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

No findings of significance were identified.

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 Maintenance Work Requests (MWRs), PIPs, and the ECP. Licensee personnel are also encouraged to submit procedure feedback forms and MWR feedback forms to address enhancements to those processes. These methods were readily accessible to all employees. A review of the ECP indicated that concerns were being properly investigated and resolved, and identified deficiencies were being addressed.

Based on discussions with plant employees from various departments, the inspectors determined that employees expressed freedom to identify safety concerns to their supervision directly, through the generation of PIPs or through the use of the employee concerns program. A safety conscious work environment was evident at Summer.

4OA3 Event Follow-up

- .1 (Closed) LER 50-395/2000001-00: Failed diodes in diesel field flash circuit render diesel inoperable. The reported condition involved a failure of diodes in the exciter/voltage control circuit for the "B" EDG which occurred on January 10, 2001. The licensee subsequently determined that the diodes had failed as the result of a high voltage transient. However, the source of the voltage transient could not be determined. The same problem had occurred on the "A" EDG on December 24, 2000, but had been considered as a random failure and the diodes were replaced. The plant was shutdown with all fuel removed during the times when both failures occurred. The licensee captured this issue in their corrective action program as NCN 01-0033 and PIP 00-C-01-0033. The diodes were part of rectifier bridge circuit which was originally intended to allow either AC or DC to be used for the control power supply source. However, since only DC has served as the power supply source the licensee decided to remove the diodes from the voltage control circuits of both EDGs to improve reliability. This modification was completed prior to restart from the outage. This issue was reviewed by the inspectors in Section 4OA2c. No findings or issues of significance were identified. This event did not constitute a violation of NRC requirements.

4OA6 Meetings

.1 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 23, 2001. The licensee acknowledged the findings presented.

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

Subsequent to the onsite inspection, additional review of the inspection results was completed on April 19, 2001. The lead inspector held a follow up conference call with the Manager of Nuclear Licensing and Operating Experience. The licensee acknowledged the findings presented.

### **PARTIAL LIST OF PERSONS CONTACTED**

#### Licensee

J. Archie, Manager, Planning & Scheduling  
 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  
 R. Clary, Manager, Plant Life Extension  
 C. Fields, Manager, Quality Systems  
 T. Franchuk, Manager, QA-Employee Concerns  
 G. Gatlin, Manager, Operations  
 G. Halnon, General Manager, Engineering Services  
 L. Hipp, Manager, Nuclear Protection Services  
 T. McAlister, Supervisor, Quality Control  
 G. Moffatt, Manager, Design Engineering  
 K. Nettles, General Manager, Nuclear Support Services  
 F. O'Neal, Maintenance Rule Coordinator  
 R. Osborne, Supervisor, Plant Support Engineering  
 A. Rice, Manager, Plant Support Engineering  
 R. White, Nuclear Coordinator, South Carolina Public Service Authority  
 B. Williams, General Manager, Nuclear Plant Operations  
 G. Williams, Manager, Maintenance Services

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

#### NRC

C. Casto, Director, Division of Reactor Safety  
 M. Widmann, Senior Resident Inspector

### **ITEMS OPENED, CLOSED AND DISCUSSED**

#### Closed

50-395/2001001-00	LER	Failed diodes in diesel generator field flash circuit render diesel inoperable with other diesel not fully (Section 4AO3)
-------------------	-----	---

## LIST OF DOCUMENTS REVIEWED

<u>PIP Number</u>	<u>Brief Description</u>
0-C-98-1050	Difficulty in setup of governor on "A" EDG
0-C-99-0282	Explosive atmosphere discovered in the recycle holdup tank
0-C-99-0520	Conditions for Locked High Radiation Area identified in Cask Loading Pit without controls specified in TS 6.12
0-C-99-0868	Thermal overloads tripped for LCV115D, B CHG Suction Hdr RWST Isol Vlv
0-C-99-0980	Unsecured door issues (numerous other PIPs), associated root cause 99-08
0-C-99-1021	Water found in "A" EDG rocker arm lube oil
0-C-99-1119	Siphon breakers for CW to SW found not installed, 50.72 report missed
0-C-99-1177	Auxiliary Building Charcoal sample tested to the wrong specification
0-C-99-1295	"B" RHR pump inadvertently started during maintenance activity
0-C-00-0013	EDG air start compressor / dryer problems
0-C-00-0036	Missed TS Surveillance (STP-345.056) on Control Room Evacuation Panel
0-C-00-0560	Control Room HVAC- high control room noise / difficulty for communications
0-C-00-0206	Central Alarm Station officer found playing computer games by the NRC
0-C-00-0282	Degraded coupling on "A" raw water pump
0-C-00-0548	EFW turbine pump manual speed control knob inconsistent operation
0-C-00-0730	"A" EDG fuel oil transfer pumps in alert range during surveillance testing
0-C-00-0470	Sources for gaseous effluent monitors are different from those used by manufacturer
0-C-00-0746	Plant Shutdown per TS 3.7.1.6 due to air leak on CFW Isolation Valve
0-C-00-0747	B Main Feedwater Pump Recirc Valve did not open on shutdown
0-C-00-0868	Water getting onto "A" EDG exciter cabinet
0-C-00-0906	Discovery of contraband (handgun) during vendor vehicle search
0-C-00-0970	Loose part inside C Circulating Water Pump
0-C-00-0922	Water entry into "A" EDG exciter cabinet
0-C-00-0970	Loose part inside "C" circulating water pump motor
0-C-00-1003	LCV115D, B CHG Suction Hdr RWST Isol Vlv, failed to stroke open
0-C-00-1131	Radiation monitor system review being conducted due to multiple system concerns

<u>PIP Number</u>	<u>Brief Description</u>
0-C-00-1143	Individual entered RCA on 3 separate occasions without a TLD
0-C-00-1332	Containment isolation valve failed LLRT penetration test
0-C-00-1359	Missing tie back support for vent line on main steam header for B SG
0-C-00-1494	Fuel assembly top nozzle hold-down springs not properly attached
0-C-00-1493	EDG fuel oil storage tank requirements
0-C-00-1549	Worker misunderstood HP shift leader verbal instruction for use of telemetric electronic dosimeter
0-C-00-1595	Evaluate use of electronic dosimeter dose rate alarms and HP coverage during work in "B" RHR heat exchanger room
0-C-00-1712	EDG day tank storage requirements
0-C-00-1847	Several problems occurred while testing "B" EDG
0-C-00-1876	"A" EDG load/speed oscillations
0-C-00-1881	"A" EDG trip during voltage transient on grid
0-C-00-1883	Large frequency swings after "A" EDG unloaded
0-C-00-1887	"A" EDG tripped on overspeed while performing maintenance run
0-C-00-1888	Wiring configuration error on "A" EDG exciter
0-C-00-1895	EDG governor warehouse quantity issue
0-C-00-1904	High oil temperature during four hour run of "A" EDG
0-C-00-1905	"A" EDG unstable governor operation
0-C-01-0033	"B" EDG failed to flash due to blown control power fuse
0-C-01-0046	Blown fuses due to shorted diodes of "B" EDG motor operated controller
0-C-01-0106	Electronic dosimeter malfunction in a high radiation area
0-C-01-0249	Vendor received equipment with increased count rate from VCS
0-C-01-0341	NRC inspectors identified three PIPs that were not processed correctly
0-C-01-0342	NRC identified a failure to maintain removal of games from CAS computer
0-C-00-0080	Overcurrent protection devices for containment penetration not adequately tested
0-C-99-0030	Service water system corrosion monitoring & control program requirements
0-C-00-0560	Noise level in Control Room very high when B fan running
0-C-00-0323	Four safety related instruments in harsh environment not in PM program
0-C-99-0056	B loop RHR suction pressure discovered at 65 psig.

Maintenance Work Requests

<u>Number</u>	<u>Brief description</u>
0000099	Control breaker problems for "A" EDG air start compressor/air dryer
0001234	Lube oil exhaust fan noise and high starting amps
0002613	Degraded coupling on "A" raw water pump
0002669	Difference in exhaust temperatures between # 9 and # 12 cylinders on "A" EDG
0004192	Failed pressure transmitter, 1PT07377
0007090	Replace "A" EDG air start after cooler
0007091	Replace "B" EDG air start after cooler

Audits and Assessments, and Trend Reports

QA-AUD-2000 9-0, Nonconformance Control  
 QA-AUD-99019-0, Nonconformance Control  
 Trend Report, 99-01  
 Trend Report, 2000-03

Operating Experience Issue Documents/ NRC Information Notices/ NRC Generic Letters

NRC Information Notice 99-01, "Deterioration of High-Efficiency Particulate Air Filters in Pressurized Water Reactor Containment Fan Cooler Unit"

NRC Information Notice 99-14, "Unanticipated Reactor Water Draindown at Quad Cities Unit 2, Arkansas Nuclear Unit 2 and Fitzpatrick"

NRC Information Notice 2000-14, "Non-vital Bus Fault leads to Fire and Loss of Offsite Power"

NRC Generic Letter 99-02, "Laboratory Testing of Nuclear-Grade Activated Charcoal"

O&MR 426, Plant events that occurred during troubleshooting activities

SER 2000-06, Cultural contributors to a premature criticality

OE 7063, hot leg indicating lower than actual temperature

SER 3-00, criticality accident at a uranium processing plant

OE-10867, insufficient containment spray additive tank level

OE 36659, potentially outside design basis due to a deficiency in TS

Procedures

ES-514, "Maintenance Rule Program Implementation," Revision 2

HPP-152, "Radiation Control Area Access Control," Revision 8

SAP-900, "Root Cause Analysis," Revision 4C

SAP-1131, "Electronic Processing of Condition Evaluation Reports," Revision 1

SAP-1141, "Nonconformance Control Program," Revision 8

SAP-1142, "Trending of Station Deficiencies," Revision 3

Previously Identified NRC Findings

50-395/1999-03-01	NCV	"Failure to remove loose debris from the reactor building," (PIP 99-0748)
50-395/1999-06-03	NCV	"Inadequate Calibration of Liquid Radiation Monitor," (PIP 99-1170)
50-395/1999-07-01	NCV	Siphon Breaker unavailability not reported in accordance with 10 CFR 50.72 requirements," (PIP 99-1119)
50-395/2000-03-02	NCV	Inadequate design control for diesel generator intercooler water heat exchanger outlet temperature (PIPs 0-C-00-0603 and 0-C-00-0629)
50-395/2000-03-03	NCV	"Inadequate design control for determining diesel generator ventilation fan capacity," (PIP 0-C-00-0570)
50-395/2000-06-01	NCV	"Inadequate surveillance test and system operating procedures to control pressurizer temperature limits," (PIP 0-C-00-1564)

Other Documents

Removal and Restoration Index (SAP-205, Revision 9, Attachment II) Logs

Control Room Log Book

Shift Engineer Log Book

Station Orders