UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA STREET, N.W.
ATLANTA, GEORGIA 30323

Report Nos.: 50-259/91-40, 50-260/91-40, and 50-296/91-40

Licensee: Tennessee Valley Authority
6N 38A Lookout Place
1101 Market Street
Chattanooga, TN 37402-2801

Docket Nos.: 50-259, 50-260, and 50-296

License Nos.: DPR-33, DPR-52, and DPR-68

Facility Name: Browns Ferry Units 1, 2, and 3

Inspection at Browns Ferry Site near Decatur, Alabama

Inspection Conducted: October 17 - November 15, 1991

Inspector: _____ 11/26/91
C. A. Patterson, Senior Resident Inspector Date Signed

Accompanied by: E. Christnot, Resident Inspector
W. Bearden, Resident Inspector

Approved by: _____ 11/26/91
Paul J. Kellogg, Section Chief, Date Signed
Inspection Programs,
TVA Projects Division

SUMMARY

Scope: This routine resident inspection included surveillance observation, maintenance observation, operational safety verification, modifications, Unit 3 restart activities, cold weather preparation, and action on previous inspection findings.

Results: One violation with three examples for failure to follow procedure for control of electrical systems was identified, paragraph four. The first two examples resulted in unexpected electrical transients. Inadequate identification of electrical components attributed to one of the transients and was the reason for the third example.

The first example occurred when an operator failed to follow procedure to open the generator field excitation breaker after opening the generator output breaker. This resulted in actuation

of the reverse power relay causing an electrical transient. Plant operators tripped the reactor due to the number of unexpected equipment responses.

The second example occurred when auxiliary plant operators pulled the wrong fuses during a routine tagout of a diesel generator. The hold order clearance was not followed to specific unique identification or physical location of the fuses. Plant operators were unaware of the fuse tabulation drawings and fuse unique identifiers on configuration control drawings. The fuse control program was established in part under the Nuclear Performance Plan. A contributing factor to this was the use of less experienced auxiliary plant operators instead of licensed operators to pull fuses.

The third example was for failure to maintain labeling of a drywell blower power supply following a modification. The inspector identified the breaker power supply labeled on two different power sources.

An unresolved item was identified concerning the control of a telecommunications sub-contractor, paragraph five. A stop work order was issued by the licensee's Quality Assurance department because the sub-contractor work activities were being performed without work packages. The licensee is conducting an incident investigation of this problem.

The licensee conducted a thorough, timely, self-critical evaluation of the manual trip that occurred on October 18, 1991, paragraph four. However, the number of items needing correction on the simulator and operator awareness indicated a weakness in conducting a plant shutdown evolution.

A contractor work release program and associated pilot programs has been established for Unit 3 construction contractors, paragraph 6. Initial discussion with Unit 3 managers indicated a general lack of understanding of these programs.

REPORT DETAILS

1. Persons Contacted

Licensee Employees:

*O. Zeringue, Vice President, Browns Ferry Operations
*H. McCluskey, Vice President, Browns Ferry Restart
*J. Scalice, Plant Manager
J. Swindell, Restart Manager
M. Herrell, Operations Manager
J. Rupert, Project Engineer
*M. Bajestani, Technical Support Manager
*R. Jones, Operations Superintendent
A. Sorrell, Maintenance Manager
G. Turner, Site Quality Assurance Manager
*R. Baron, Site Licensing Manager
*J. McCarthy, Unit 3 Licensing
P. Salas, Compliance Supervisor
*J. Corey, Site Radiological Control Manager

Other licensee employees or contractors contacted included licensed reactor operators, auxiliary operators, craftsmen, technicians, public safety officers, quality assurance, design, and engineering personnel.

NRC Personnel:

P. Kellogg, Section Chief
*C. Patterson, Senior Resident Inspector
*E. Christnot, Resident Inspector
W. Bearden, Resident Inspector

*Attended exit interview

Acronyms and initialisms used throughout this report are listed in the last paragraph.

2. Surveillance Observation (61726, 61700)

The inspectors observed and reviewed the performance of required SIs. The inspections included reviews of the SIs for technical adequacy and conformance to TS, verification of test instrument calibration, observations of the conduct of testing, confirmation of proper removal from service and return to service of systems, and reviews of test data. The inspectors also verified that LCOs were met, testing was accomplished

by qualified personnel, and the SIs were completed within the required frequency. The following SIs were reviewed during this reporting period:

a. O-SI-4.7.B.1.b-2, Standby Gas Treatment Filter Train B Humidity Control Heater Test.

This testing is performed to determine the operability of the SBGT Filter Train B Humidity Control circuitry per ANSI N510-1975 and to verify that the heaters have an actual output of at least 40 KW in compliance with the requirements of TS 4.7.B.1.b. The inspector reviewed the documentation associated with the most recently completed performance for this surveillance requirement. The activity has an annual periodicity and was performed last on January 17, 1991. The inspector did not identify any deficiencies with the completed surveillance test.

b. 2-SI-4.4.A.2, Standby Liquid Control Functional Test.

This testing is performed to determine the operability of the SLC System in compliance with the requirements of TS 4.4.A.2 and 4.6.G.1 The inspector reviewed the documentation associated with the most recently completed performance for this surveillance requirement. The activity is performed once per operating cycle and was performed last on December 3, 1990. The inspector did not identify any deficiencies with the completed surveillance test.

c. 2-SI-4.7.A.5.c, Control Air/Drywell Air Isolation Verification.

This test verifies that the control air supply valve to the Drywell Control Air System is closed to satisfy the requirements specified in TS 4.7.A.5.c. The inspector reviewed the documentation associated with the two most recently completed performances for this surveillance requirement. The activity is performed once per month and was performed last on October 6, 1991 and November 3, 1991. The inspector did not identify any deficiencies with the completed surveillance tests.

d. 2-SI-4.2.B-21FT, Core Spray Pump Discharge Pressure Functional Test.

This test is performed to determine operability of Core Spray Pump Discharge Pressure Channels, 2-PS-75-7, 2-PS-75-16, 2-PS-75-35, and 2-PS-75-44, in order to satisfy requirements of TS 4.2.B. The inspector observed portions of the ongoing testing performed on November 7, 1991. The inspector did not identify any deficiencies with conduct of the surveillance test.

No violations or deviations were identified in the Surveillance Observation area.

3. Maintenance Observation (62703)

Plant maintenance activities were observed and reviewed for selected safety-related systems and components to ascertain that they were

conducted in accordance with requirements. The following items were considered during these reviews: LCOs maintained, use of approved procedures, functional testing and/or calibrations were performed prior to returning components or systems to service, QC records maintained, activities accomplished by qualified personnel, use of properly certified parts and materials, proper use of clearance procedures, and implementation of radiological controls as required.

Work documentation (MR, WR, and WO) were reviewed to determine the status of outstanding jobs and to assure that priority was assigned to safety-related equipment maintenance which might affect plant safety. The inspectors observed the following maintenance activities during this reporting period:

a. Unit 2 Preferred Motor Generator

WO 91-42556-00 was used to troubleshoot the Unit 2 Unit Preferred Motor Generator battery to armature voltage fluctuations. The WO had originated on October 25, 1991, when the fluctuations were first observed but the majority of the work activities occurred after the unit experienced a loss of 120 VAC Unit Preferred Power on November 3, 1991. The inspectors followed the ongoing work activities and observed work in progress in the field. Work performed under this WO included replacement of the tachometer which was found grounded, replacement of the SK circuit card which had a blown capacitor, removal and calibration of the OVR and 2UFR, overvoltage and underfrequency relays. The inspector also reviewed documentation associated with this WO and determined that the work instructions were adequate to support the ongoing work activities. Troubleshooting was performed in accordance with EMI-106, Troubleshooting and Configuration Control of Electrical Equipment. Controls and independent verification for wire determination and retermination associated with the card and relay replacements was provided by the appropriate attachment in accordance with EMI-106. Although no deficiencies were identified with the observed work activities, the inspectors are concerned that the actual cause of the problem may not have been found. The inspectors plan to closely monitor licensee activities in this area during the next reporting period.

b. Recirculation Loop Flow Gain Adjustments

The inspector reviewed portions of the completed work package for WO 91-42570-00 which controlled performance of gain adjustments on the flow summer for recirculation loop, 2-FQ-68-5. Under this WO the applicable portions of 2-SI-4.2.C-7(A-1), Power Range Neutron Monitoring System Loop A Flow Bias Instrumentation Calibration and Functional Test, were performed. 2-SI-4.2.C-7FT, Power Range Neutron Monitoring System Flow Bias Instrumentation Functional Test, was performed on the entire loop following the completion of the gain

readjustments. No deficiencies were identified with the performance of this WO.

c. Spent Fuel Pools

The inspector monitored the licensee's activities involved with the three spent fuel pools. This activity included removal of non-fuel material, vacuum cleaning the spent fuel pools, and video taping the pools after vacuum cleaning. All activities observed were controlled and adequate results were being achieved.

No violations or deviations were identified in the Maintenance Observation area.

4. Operational Safety Verification (71707)

The NRC inspectors followed the overall plant status and any significant safety matters related to plant operations. Daily discussions were held with plant management and various members of the plant operating staff. The inspectors made routine visits to the control rooms. Inspection observations included instrument readings, setpoints and recordings, status of operating systems, status and alignments of emergency standby systems, verification of onsite and offsite power supplies, emergency power sources available for automatic operation, the purpose of temporary tags on equipment controls and switches, annunciator alarm status, adherence to procedures, adherence to LCOs, nuclear instruments operability, temporary alterations in effect, daily journals and logs, stack monitor recorder traces, and control room manning. This inspection activity also included numerous informal discussions with operators and supervisors.

General plant tours were conducted. Portions of the turbine buildings, each reactor building, and general plant areas were visited. Observations included valve position and system alignment, snubber and hanger conditions, containment isolation alignments, instrument readings, housekeeping, power supply and breaker alignments, radiation and contaminated area controls, tag controls on equipment, work activities in progress, and radiological protection controls. Informal discussions were held with selected plant personnel in their functional areas during these tours.

a. Unit Status

During a controlled shutdown to repair a leak in the drywell, a manual scram occurred on October 18, 1991. The details of the trip are in the next paragraph. The unit returned to service on October 21, 1991 and remained at power during the rest of the report period.

b. Manual Reactor Trip During Controlled Shutdown

1) Control Room Operations

On October 18, 1991, at 4:58 a.m., the Unit 2 reactor was manually scrammed by plant operators. The unit was undergoing a planned controlled shutdown for repairs associated with a leak in the drywell when the unplanned manual trip occurred. The main turbine was manually tripped at 4:47 a.m., due to increasing vibration on number four bearing. The operators performed the necessary steps in the procedure as the generator's output breaker was opened and the turbine's steam control valves closed. Approximately nine minutes after opening the output breaker a reverse power trip was received which opened two switchyard breakers. This resulted in isolation of Unit Station Transformers 2A and 2B. The 4KV Recirculation Pump Boards failed to transfer to the 161 KV supply resulting in a loss of recirculation flow at approximately 8% reactor power. The manual scram was initiated within two minutes as a conservative step due to a large number of unexpected equipment responses which occurred. This decision was reached prior to operations personnel recognizing that the recirculation pumps had also tripped a condition which would require, by TS, an immediate manual scram.

The licensee's subsequent evaluation determined that the next step in the procedure OI-47, directed the operators to open the generator field excitation breaker after opening the generator output breaker. This was not performed and as a result the reverse power relays actuated. This is the first example of three examples for failure to follow procedure for control of electrical system as required by TS 6.8.1, Procedures. This violation is identified as VIO 259, 260, 296/91-40-01, Failure to Follow Procedures for Control of Electrical Systems.

2) Technical Support Group

The inspector reviewed and observed the licensee's Technical Support group activities following the reverse power trip on the main generator. These activities also involved the failure of the recirculating pump switchgear to transfer from the normal power source to the alternate source.

The licensee began a troubleshooting action plan which involved the checking of the various relays associated with the reverse power logic network. The results of the troubleshooting indicated that all relays and logic network functioned within acceptable parameters and responded to a reverse power indication. Additional review by the licensee indicated that with the generator output breaker open, the field breaker closed and the turbine in a coast down, the network would attempt to maintain voltage and current from the exciter. Under these conditions a reverse power trip could be actuated.

When this occurred, two switchyard breakers opened and disconnected the Unit 2 main transformer from the grid. This cut off the normal power to the 2A and 2B USSTs and in turn to the 2A, 2B, 2C Unit Electrical Switchboards and the Unit 2 Recirculation Switchboard. The three unit electrical boards transferred to their respective alternate power supplies and the recirculation electrical board did not. This resulted in a loss of unit recirculation pumps and the reactor was manually scrammed. The Unit 2 1E electrical system was not affected because a loss of power or a degraded voltage condition did not exist as a result of the switchyard breaker actuations.

The licensee determined that the failure to transfer of the recirculation switchboard was most likely caused by the transfer switch being in the manual position. This was the only way that the post trip testing could duplicate the failure.

The inspector determined from this review and observations that the licensee performed an indepth troubleshooting and testing process and achieved acceptable results.

3) Unit 2 Trip Report

The inspector reviewed Final Event Report II-B-91-158, which documented the licensee's evaluation of this event. The inspector noted that the report was signed by the Plant Manager and Site Vice President within two days after the event. This represents a considerable improvement compared to the timeliness of review for the most recent reactor scram which occurred on September 14, 1991. Additionally, the inspector noted that the Final Event Report was self critical in nature and identified several short term and long term corrective action items. As the result of the review of this report several areas for corrective action were identified.

- The exciter field breaker does not open automatically after opening the generator output breaker.

- The simulator does not accurately mimic the operation of the exciter field breaker following a turbine trip.

- The recirculation pump boards did not automatically transfer.

- Operations personnel had difficulty performing the RWM SI.

- The SOS was concerned with establishing plant conditions for maintenance too early and before the plant was in a stable steady state condition.

- 2-FCV-2-29A flow controller was left in manual control by procedure but this caused offgas and SJAE problems.

- The RBM received a spurious inoperable trip at 25% power.

- 2-FCV-2-190 would not control in automatic. Operations did not start adjustments for reduced load at the recommended points.

- Scheduling of plant shutdown was done without reference to the Operations shift coverage schedule.

- Operations crew was not briefed on expected vibration changes on main turbine during power reduction and feedwater heater removal.

- The simulator scenarios place 2-FCV-2-29A in the auto position but operators normally have this valve in the manual position.

- A question was raised on timeliness of the crew recognition that recirculation pump trips require an immediate scram.

- The operations crew was unable to close various feedwater valves from the control room.

- Pressure indicator 2-PI-2-46 was broken. Operators had no indication of condensate pressure downstream of the demineralizers.

- Plant management determined the crew involved in the incident needed additional training before assuming shift.

- The operations crew was not able to obtain a controlled SI copy in a timely manner to return the recirculation pumps to service.

Each of the items were given either short or long term corrective actions to be completed. Although the trip report was very thorough and self-critical, the number of items needing correcting indicated a weakness in controlling a plant shutdown.

b. Incorrect Fuses Pulled

1) Equipment Clearance Violation

UNR 259, 260, 296/91-38-03, concerning fuse labeling and identification was identified after plant operators pulled the incorrect fuses while tagging the 1B DG for routine maintenance. This caused the 4160 volt shutdown board to transfer from the

normal power supply to the alternate supply. The inspector concluded that hold order 0-91-657, was not prepared in accordance with plant procedure SDSP 14.9, Equipment Clearance Procedure, Section 6.3. Establishing a Clearance requires that, for components that are not uniquely identified, tags will identify as specifically as possible the location of the tagged component. For example, "one inch valve three feet from 1-HCV-2-36".

In the preparation of tag number 16, fuse unique identification was not used nor was the physical location adequately described. Tag number 16 read "BKR 1822 Line Side PT Fuse 4 Kv S/D Bd B Compt 3". PT fuses are located in a front and rear panel of breaker compartment 3. The line side fuses are in the front panel. The only labeling on the front panel is "auxiliary panel". On the back panel the fuses are labeled by a fuse unique identification label and a caution sign stating, "CAUTION PT COMPARTMENT AUTOMATIC ACTIONS MAY RESULT UPON OPENING, OBTAIN SHIFT ENGINEERS APPROVAL PRIOR TO OPENING". The logical choice for a person pulling the fuses would be the rear panel since the caution signs discusses PT compartment. The hold order tag did not state the location or use the fuse unique identification indicated on the fuse label and drawing.

Accordingly, this is a violation of SDSP 14.9, Equipment Clearance Procedure. TS 6.8.1.1 requires that written procedures shall be established, implemented, and maintained covering those recommended in Appendix A of RG 1.33, Revision 2, February 1978. Listed in administrative procedures are procedures for equipment control. This is the second example of VIO 259, 260, 296/91-40-01, Failure to Follow Plant Procedures for Control of Electrical Systems.

2) Incident Investigation

In discussion with plant personnel and review of the licensee's incident investigation II-B-91-151, it was identified that plant operators were not using UNIDS. Inaccuracies in the plant drawings was the stated reason. Also, in this particular case the UNIDS were reversed for the line and load fuses. The licensee corrected this using a PDD form. The inspector discussed with licensee management that the drawings listing the fuses were CCDs and a confidence question should not exist. Any drawing problem should be identified and promptly corrected. Licensee management stated the UNIDS would be used for the many drawings having UNIDS for fuses.

3) NPP Commitment for Fuse Identification

The inspector reviewed the licensee commitments for the fuse program. The licensee committed in the NPP that prior to Unit 2 restart all class 1E fuses would be identified by the fuse tabulation. The fuse tabulation lists each fuse by a unique identifier. Also, temporary fuse labels have been placed on electrical cabinets throughout the plant. Remaining to be completed is placing the fuse unique identifier on plant electrical drawings. Although many drawings have been completed, some drawings are not complete.

In a letter titled, Status and Schedule for Completion of Unit 2 Post-Restart Issues, dated September 20, 1991, the licensee identified the commitments made in this area. In IR 89-59 and in NPP two post-restart commitments were identified. One was to remove the reference to amperage from the drawings and replace them with the unique identifier from the fuse tabulation controlled document prior to startup from the next refueling outage (cycle 6). The second commitment was to install permanent fuse labeling prior to startup from the next refueling outage (cycle 6).

In addition a long term post restart commitment was to include non-restart fuses into the fuse tabulation and drawing revision. A submittal would be forwarded to the NRC providing a plan for these actions by January 15, 1992.

c. Labeling and Indication

In IR 91-38, the inspector identified a URI involving the labeling and identification of the Unit 2 Drywell Blowers. Additional reviews of DCN W6839B, Modification for Cable Reroute/Replace/Retag, and CCD Drawings 1-45E751-4, 2-45E751-4, 3-45E751-4, 2-453E751-1 and 2-45E75-2, Wiring Diagram 480V Reactor MOV Boards, indicated that the labelling for the installation of modifications was adequate. The inspector noted that for items that were deleted by modifications, the removal of outdated labels was not adequate. The end result of this activity was that the plant labeling did not reflect the CCDs and various equipments indicated as having more than one power source. SSP 12.53, Component Labeling Signs and Operator Aids, requires that operations be responsible for preparing and hanging labels as modifications are completed. This is considered the third example of VIO 259, 260, 296/91-40-01, Failure to Follow Procedure for Control of Electrical Systems.

One violation was identified in the Operational Safety Verification area.

5. Modifications (37700, 37828)

The inspectors maintained cognizance of modification activities to support the operation of Unit 2. This included reviews of scheduling and work control, routine meetings, and observations of field activities.

a. Work Activities by Sub-Contractor

The inspector was informed by TVA QA management that a sub-contractor was performing work in spaces important to safety without task management from site modifications or on site design support from NE. The inspector informed TVA representatives that information had also been received that the sub-contractor, Key Services, was disconnecting some PREAS card readers. Plant Maintenance was receiving WRs to repair the card readers and were concerned that this could have an impact on the upcoming EP drill.

After further review by the inspector plus information received that the work being performed by Key Communications was in the cable spreading rooms and various locations on the 1C level of the control bay the inspector determined that adequate design controls were not followed. This item is identified as UNR 259, 260, 296/91-40-02, Adequacy of Design Controls During Sub-Contractor Activities. The licensee's QA group issued a stop work order on the sub-contractor. The licensee is also conducting an incident investigation of the problem. The inspector will review this further after completion of the investigation. A walkdown was conducted by the inspector along with the licensee's QA and modifications organization. All cable penetrations were sealed into the cable spreading room. No immediate safety concerns were identified.

b. Unit 1 and 2 Cable Spreading Room

The inspector identified some temporary telecommunication equipment on the wall in the cable spreading room. There were disconnected wires, wires in cable trays, and equipment covers on the floor. The licensee did not think this was part of the sub-contractor work but is reviewing this area. The inspector stated the structure may not be securely mounted on the wall or in the cable trays. The licensee is performing a calculation for the seismic adequacy. This will be considered part of UNR 90-40-02 until resolved.

6. Unit 3 Restart Activities (30702)

The inspector reviewed and observed the licensee's activities involved with the Unit 3 restart. This included reviews of procedures, post-job activities, and completed field work; observation of pre-job field work, in-progress field work, and QA/QC activities; attendance at restart craft level, progress meetings, restart program meetings, and management meetings; and periodic discussions with both TVA and contractor personnel, skilled craftsmen, supervisors, managers and executives.

a. Contractor Activities

1.) Inplant Craft Work

During this reporting period SWEC commenced inplant craft work. This involved installation of scaffolding in the Unit 3 Drywell and was performed by carpenters. SWEC provided the supervision of the craft and BFN TVA exercised overview and management. The inspector also noted craft work being performed under SWEC management outside the plant. This activity involved moving of trailers and hookup of electrical services. As of this reporting period SWEC had not completed the training and certification of the work plan writers. This training is expected to be completed by December 9, 1991.

2.) Walkdowns

Walkdown activities associated with Unit 3 can be put into three groupings. These are integrated walkdown activities, design scoping, and RFIs.

a. Integrated walkdown activities are 90% complete in civil and mechanical areas, except for the Unit 3 torus. These are scheduled to be completed on November 22, 1991. Electrical walkdowns are 90% completed, excluding vertical drop cable calculations, EQ cable walkdowns, and CCRS validation walkdowns, which are scheduled to be completed in January 1992.

b. Design scoping walkdowns are increasing due to the establishment of requirements to schedule these activities through the daily work schedule.

c. RFI's are used as BNA internal tracking and control document for information requests between the various BNA site organizations. RFI's are screened to determine if the information is already available from another source prior to performing a walkdown. A total of 391 RFI's have been issued with 173 completed.

b. Contractor Work Release Program

The licensee has established a CWR program to improve control of contractors. This is to ensure the necessary prerequisites are completed before the contractor is released to perform work. Key attributes of the program are organizational interface, quality assurance oversight, and authorization from plant operations prior to performing physical plant work.

This program has been initiated for contractor work associated with Unit 3 restart. Included with the CWR are several pilot program. The table below lists the programs.

Contractor Work Release

1.	SWEC	Complete	Scaffolding, fire watches and nonsafety related work outside the Power Block
2.	SWEC	11/12/91	Nonsafety-related work inside the Power Block
3.	SWEC	11/18/91	Receipt, storage, handling, and issuance of material
4.	SWEC	11/20/91	Work document preparation, (work plans, work orders, and work requests)
5.	SWEC	12/09/91	Safety-related work and acceptance inspection
6.	BNA	TBD	Integrated design changes
7.	Pacific Nuclear	TBD	Plant decontamination

Pilot Programs

1.	BNA	Complete	Walkdown
2.	SWEC	11/17/91	Work Document Preparation
3.	SWEC	12/02/91	Quality Control Inspection Certification
4.	SWEC/BNA	TBD	Design Change processing - A/E to constructor
5.	BNA	TBD	Integrated design change

The inspector discussed with various Unit 3 managers the NRC interface expected with the pilot programs in a meeting on November 12, 1991. There was a general lack of understanding of the pilot programs by Unit 3 managers. This was discussed with the Vice President for Unit 3.

c. Jet Pump Beam Exchange Activity

The inspector reviewed and monitored the Unit 3 jet pump beam exchange activities. This was performed by GE under BFN TVA oversight. Part of the activity involved the use of a cutting wheel to cut the retaining ring from the attachment. During this time frame a cutting wheel broke and approximately 75 percent of the wheel was recovered

from the Unit 3 reactor vessel. The licensee commented that the remaining 25 percent would not pose a problem because of the size and the material that the cutting wheel was made of. Also during this time frame a jet pump beam was dropped and successfully recovered. The inspector will continue to monitor this activity.

d. Pilot Programs

The inspector reviewed and discussed the BFN pilot programs approach to starting up contractor work activities inside the power block. This program applies to both units. The approach involves a close step by step monitoring of the initial work activities to verify the adequacy of the process. This program was established to help ensure that problems would be identified prior to a significant amount of actual work being completed in the field. The pilot program reviewed involved the work plan writing for DCN P0623 which exchanged Temperature Recorder 1-TR-74-80 with a new type recorder.

7. Action on Previous Inspection Findings (92701, 92702)

a. (CLOSED) URI 260/91-38-02, Dual Labeling of Drywell Blower Supply.

This item was opened when the inspector, during a plant tour, noted that Drywell Blower 2B-3 was labeled as being supplied from two different electrical sources. After additional reviews of CCDs, the inspector determined that this was a violation and was identified as the third example of VIO 259, 260, 296/91-40-01, Failure to Follow Procedures for Control of Electrical Systems.

b. (CLOSED) URI 259, 260, 296/91-38-03, Fuse Labelling and Identification.

This item was opened when the inspector reviewed the licensee activities involved with the pulling of the wrong fuses while performing an equipment tag out for the B DG. The inspector determined after further review of the licensee's method for controlling fuse pulling that this was a violation and was identified as the second example of VIO 259, 260, 296/91-40-01, Failure to Follow Procedures for Control of Electrical Systems.

8. Cold Weather Preparations (71714)

The inspector reviewed the licensee's program to protect plant systems and equipment important to safety from cold weather conditions. The BFNP areas subject to cold weather include the intake structure which houses the RHRSW pumps, the ultimate heat sink, the CCW pumps and the fire pumps, the reactor building roof which supports the condensate transfer system head tank, the condensate storage tanks located near the Unit 3 turbine

building, the two DG buildings located on the east and west sides of the reactor building, the fire protection system valve pits, the five cooling water towers, and the diesel driven fire pump buildings.

The inspector reviewed procedures 0-GOI-200-1, Freeze Protection Inspection, and EMI-46, Freeze Protection Program. The inspector also observed the licensee's field activities. The inspector noted that portable heaters were pre-staged in the intake building, the Unit 3 DG carbon dioxide room and various other plant areas. The inspector observed that a tarpaulin was being used to cover the grating over the RHRSW intake structure. This and additional observations were discussed with the licensee.

9. Exit Interview (30703)

The inspection scope and findings were summarized on November 15, 1991 with those persons indicated in paragraph 1 above. The inspectors described the areas inspected and discussed in detail the inspection findings listed below. The licensee did not identify as proprietary any of the material provided to or reviewed by the inspectors during this inspection. Dissenting comments were not received from the licensee.

Item Number	Description and Reference
259, 260, 296/91-40-01	VIO, Failure to Follow Plant Procedures For Control of Electrical Systems, paragraph 4.
259, 260, 296/91-40-02	URI, Adequacy of Design Control During Subcontractor Activities, paragraph 5.

Licensee management was informed that 2 URIs were closed.

9. Acronyms and Initialisms

ANSI	American National Standards Institute
BFNP	Browns Ferry Nuclear Power Plant
BNA	Bechtel North American
CCD	Configuration Control Drawing
CCRS	Consolidated Cable Rating System
CCW	Component Cooling Water
CFR	Code of Federal Regulations
CWR	Contractor Work Release
DCN	Design Change Notice
DG	Diesel Generator
EMI	Electrical Maintenance Instruction
EP	Emergency Preparedness
EQ	Environmental Qualification
FCV	Flow Control Valve

GE	General Electric
GOI	General Operating Instructions
IR	Inspection Report
KV	Kilovolt
KW	Kilowatt
LCO	Limiting Condition for Operation
MOV	Motor Operated Valve
MR	Maintenance Request
NE	Nuclear Engineering
NOV	Notice of Violation
NPP	Nuclear Performance Plan
NRC	Nuclear Regulatory Commission
NRR	Nuclear Reactor Regulation
OI	Operating Instruction
PDD	Potential Drawing Discrepancy
PREAS	Personnel Radiological Accountability System
PT	Potential Transformer
QA	Quality Assurance
QC	Quality Control
RBM	Rod Block Monitor
RFI	Request for Information
RG	Regulatory Guide
RHRSW	Residual Heat Removal Service Water
RWM	Rod Worth Minimizer
SBGT	Standby Gas Treatment System
SDSP	Site Director Standard Practice
SI	Surveillance Instruction
SJAE	Steam Jet Air Ejector
SLC	Standby Liquid Control
SOS	Shift Operations Supervisor
SSP	Site Standard Practice
SWEC	Stone Webster Engineering Corporation
TBD	To Be Determined
TS	Technical Specifications
TVA	Tennessee Valley Authority
UNIDS	Unique Identifiers
URI	Unresolved Item
USST	Unit Service Station Transformer
VIO	Violation
WO	Work Order
WP	Work Plan
WR	Work Request