

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

Report Nos.: 50-348/89-34 and 50-364/89-34

Licensee: Alabama Power Company

600 North 18th Street

Birmingham, AL 35291-0400

Docket Nos.: 50-348 and 50-364 License : NPF-2 and NPF-8

Facility name: Farley 1 and 2

Inspection Conducted: December 11, 1989 to January 10, 1990

Inspection at Farley site near Dothan, Alabama

Inspectors: Resident Inspector

G. F. Maxwell, Senior Resident Inspector

W. H. Miller, Jr., Resident Inspector

Date Signed

C. Christensen, Grand Golf Senior Resident Insp.

Date Signed

Approved by:

F. S. Cantrell, Section Chief Division of Reactor Projects

SUMMARY

Scope:

This routine onsite inspection involved a review of operational safety verification, monthly surveillance observation, monthly maintenance observation, engineered safety system inspection, cold weather preparations, emergency exercises, information meeting with local officials, licensee self-assessment, licensee event reports, and action on previous inspection findings. Certain tours were conducted on deep backshift or weekends, these tours were conducted on December 21 and January 7 (deep backshift inspections occur between 10 p.m. and 5 a.m.).

Results:

Both units operated at approximately 100 percent reactor power throughout the reporting period. The inspectors observed that control room operators continued to demonstrate outstanding professional demeanor. On December 23 an operator took manual control of a main feedwater regulating valve and prevented a reactor trip after the valve automatically closed due to failure of the steam generator level control panel (paragraph 2.b).

9002130288 900130 FDR ADOCK 05000348 A well implemented freeze protection program was initiated which prevented any damage to safety related equipment during the severe cold weather of late December (paragraph 6). In the area of licensee self assessment (paragraph 9), the management demonstrated a high degree of awareness concerning corrective actions required to resolve potential problems identified during an evaluation by the APCO safety audit and engineering review group.

Within the areas inspected, the following non-cited violation was identified: Out-of-date natural circulation log for use with procedure ESP-0.2 (paragraph 7).

REPORT DETAILS

1. Licensee Employees Contacted

R. G. Berryhill, Systems Performance and Planning Manager

C. L. Buck, Plant Modification Manager L. W. Enfinger, Administrative Manager

R. D. Hill, Assistant General Manag - - Plant Operations

D. N. Morey, General Manager - Farley Nuclear Plant

C. D. Nesbitt, Technical Manager

J. K. Osterholtz, Operations Manager

L. M. Stinson, Assistant General Manager - Plant Support

J. J. Thomas, Maintenance Manager L. S. Williams, Training Manager

Other licensee employees contacted included, technicians, operations personnel, maintenance and I&C personnel, security force members, and office personnel.

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

Other Inspections

December 12-15, 1989, Report 348,364/89-32. Limited scale emergency exercise and followup on previous identified emergency program items.

- F. S. Cantrell, Section Chief was on site for the emergency exercise and to review the resident inspector program December 12-15, 1989.
- 2. Operational Safety Verification (71707, 92700)
 - a. Plant Tours

The inspectors conducted routine plant tours during this inspection period to verify that the licensee's requirements and commitment were being implemented. Inspections were conducted at various times including week-days, nights, weekends and holidays. These tours were performed to verify that: systems, valves, and breakers required for safe plant operations were in their correct position; fire protection equipment, spare equipment and materials were being main ained and stored properly; plant operators were aware of the current plant status; plant operations personnel were documenting the status of out-of-service equipment; there were no undocumented cases of unusual fluid leaks, piping vibration, abnormal hanger or seismic restraint movements; all reviewed equipment requiring calibration was current; and in general, housekeeping was satisfactory.

Tours of the plant included review of site documentation and interviews with plant personnel. The inspectors reviewed the control

room operators' logs, tag out logs, chemistry and health physics logs, and control boards and panels. During these tours the inspectors noted that the operators appeared to be alert, aware of changing plant conditions and manipulated plant controls properly. The inspectors evaluated operations shift turnovers and attended shift briefings. They observed that the briefings and turnover provided sufficient detail for the next shift crew and verified that the staffing met the TS requirements.

Site security was evaluated by observing personnel in the protected and vital areas to ensure that these persons had the proper authorization to be in the respective areas. The inspectors also verified that vital area portals were kept locked and alarmed. The security personnel appeared to be alert and attentive to their duties, and those officers performing personnel and vehicular searches were thorough and systematic. Responses to security alarm conditions appeared to be prompt and adequate.

Selected activities of the licensee's radiological protection program were reviewed by the inspectors to verify conformance with plant procedures and NRC regulatory requirements. The areas reviewed included: operation and management of the plant's health physics staff, "ALARA" implementation, radiation work permits for compliance to plant personnel exposure records, observation of work and personnel in radiation areas to verify compliance to radiation protection procedures, and control of radioactive materials.

b. Plant Events and Observations

(1) Medical Certification of Licensee Operators

The medical records for three SRO and six RO personnel were reviewed by the inspectors on January 5 to verify compliance with 10 CFR 55 21. The records indicated that these personnel had received the required medical examination and that examinations were up-to-date. NRC Form 396 in each record was reviewed and verified to contain the same medical restrictions as indicated on the medical examination forms. The records were well maintained and all found to be satisfactory.

(2) Loss of Unit 2 Steam Generator 2C Level

On December 25 at 5:05 a.m. with Unit 2 operating at 100% power, steam generator level control panel electrical card CB-323 failed. This card receives a signal from turbine impulse pressure transmitter PT-446. When this card failed, the steam generator water level controls assumed that the level in steam generator 2C was high and automatically closed the main feedwater regulating valve for steam generator 2C. This caused the level in steam generator 2C to rapidly decrease. The feed flow deviation alarm followed by a low steam generator level

alarm were received in the control room. The operator at the controls identified the problem and immediately took manual control of the main feedwater regulating valve. The level in the generator was restored to normal level

The inspectors reviewed the circumstances associated with the event and considers this as an example of excellent operator performance and attention to detail. The operator's rapid response to this alarm and prompt corrective action prevented the reactor from tripping on feed flow/steam flow mismatch coincident with low steam generator water level.

3. Monthly Surveillance Observation (61726)

The inspectors witnessed maintenance surveillance test activities on safety-related systems and components to verify that the these activities were performed in accordance with TS and licensee requirements. These observations included witnessing selected portions of each surveillance, review of the surveillance procedures to ensure that administrative controls and tagging procedures were in force, determining that approval was obtained prior to conducting the surveillance test, and the individuals conducting the test were qualified in accordance with plant-approved procedures. Other observations included ascertaining that test instrumentation used was calibrated, data collected was within the specified requirements of TS, any identified discrepancies were properly noted, and the systems were correctly returned to service. The following specific activities were observed:

0-FSP-10 Yard Loop - Semi Annual Inspection 0-STP-52.1 Fire Pump No. 1 Operability Test 0-STP-80.1 Diesel Generator 1-2A Operability Test 1-STP-9.0 RCS Leakage Containment Cooling System Train A Operability Test 1-STP-17.0 1-STP-37.0 Power Distribution Surveillance 1-STP-70.0 Containment Sump Surveillance 1-STP-80.2 Diesel Generator 1C Operability Test 2-STP-11.6 RHR Valves IST 2-STP-44.0 Liquid Rad Waste Valves IST. 2-STP-63.3 EQ Temperature Monitoring

No violations or deviations were identified. The results of the inspections in this area indicate that the program was effective with respect to meeting the safety objectives.

4. Monthly Maintenance Observation (62703)

The inspectors reviewed maintenance activities to verify the following: maintenance personnel were obtaining the appropriate tag out and clearance approvals prior to commencing work activities; correct documentation was available for all requested parts and material prior to use; procedures

were available for all requested parts and material prior to use; procedures were available and adequate for the work being conducted; maintenance personnel performing work activities were qualified to accomplish these tasks; activities reviewed were not violating any limiting conditions for operation during the specific evolution; the required QA/QC reviews and QC hold points were implemented; post-maintenance testing activities were completed; and that equipment was properly returned to service after the completion of work activities. Activities reviewed included:

MWR-211371 & 211372	Cover the main steam valves room grating with plastic (Herculite) sheeting to prevent piping from freezing.
MWR-214687	Replace two fuel injection pumps on diesel generator 2B and repair leaks on six other injection pumps.
MWR-215454	Change oil filters on diesel generator 2B.
MWR-203563	Repair priming pump for diesel generator 1-2A.
MWR-205224	Repair leaking air from air receiver B to diesel generator 1-2A.
MWR-211552	Service water pump 1C motor power supply breaker changing system adjustment.
MWR-202020	Repair card CB-323 (LY498D) for Unit 2 steam generator C.
WA-96813	Unit 1 freeze protection circuit inspection using procedure 1-EMP-1383.01.
WA-W00315923	Unit 2 freeze protection circuit inspection using procedure 2-EMP-1383.01.
WA-00319410	Perform quarterly maintenance on diesel generator 2B using procedure MP-12.3 and MP-14.6.
WA-W00321665	Observe for leaks while diesel generator 1-2A is operating.
WA-W00320620	Conduct quarterly maintenance on diesel generator 1-2A in

No violations or deviations were identified. The results of the inspections in this area indicate that the program was effective with respect to meeting the safety objectives.

accordance with procedures MP-12.3 and 14.6.

5. Engineered Safety System Inspection Unit 1 (71710)

The Farley plant engineered safety features are desci ed in FSAR Section 6.

FSAR 6.4 identifies the control room habitability systems as an ESF system and identifies the system components required to meet the requirement of 10 CFR 50, Appendix A, Criterion 19. These habitability systems include: shielding from radiation exposure; control room air conditioning and ventilation; fire protection features; and, food, water and sanitary facilities.

The inspectors checked the control room enclosure walls, floor and ceiling and did not identify any unprotected shielding penetrations. The fire protection detection and extinguishing systems were inspected and found to be in service. The food storage was inspected and found to be in service for 30 days. The food provided is a dry powder type with a 15 year shelf life and is replaced with new food every five years.

The emergency water supply to the control room is from a tank located in the mechanical equipment room on the elevation above the control room. The inspectors found this tank valved out of the system. This tank was full of water, but was not being sampled, recirculated or replenished to ensure that the water would remain potable. Procedure FNP-0-SOP-67.0A requires the supply and outlet valves for this tank be maintained in the open position. The inspectors were unable to locate a completed SOP-67.0A procedure which would have indicated that the tank had been placed in service. The failure to maintain this emergency water supply tank in service appears to be weakness in the emergency program and is identified as Inspector Followup Item 348,364/89-34-01, Failure to maintain emergency water tank in service. The licensee's corrective action on this item has been initiated and will be evaluated during a subsequent NRC inspection. No riolation is being submitted due to the relatively low safety significance.

The inspectors performed a complete walkdown inspection of the control room heating, ventilation, air conditioning and air purification systems to verify operability. The systems were also inspected for conformance to the system descriptions in the FSAR. Particular attention was directed towards verifying that hangers and supports were in place and properly madeup, and that primary valves, dampers, and electrical breakers were correctly aligned. Procedure 0-SOP-56.0, Control Room HVAC System, and drawings numbered D175003, D175012 and D205012 were used during the walkdown inspection. The calibration of gauges and instrumentation was found to be up-to-date, The housekeeping and cleanliness in the vicinity of the equipment was good. Approximately 135 equipment components were reviewed. Approximately 30 components had equipment identification tags that contained minor identification errors. Approximately 10 components did not have equipment identification tags. This was reported to the

licensee, and an inspection was promptly made of this system by operations personnel to identify and correct all tagging identification errors. The corrective action on this item will be verified during the resident inspectors' routine inspection program.

Within the areas examined, no violations or deviations were identified.

6. Cold Weather Preparations (71714)

The inspectors conducted a review of the licensee's cold weather preparations to ascertain if effective measures were implemented for protection of safety related systems from extreme cold weather.

Procedures 1/2-EMP-1383.01, Freeze Protection Inspections, were completed by WA-96813 for Unit 1 and by WA-W00315923 for Unit 2 on October 31, 1989. These procedures require inspections and tests to demonstrate the operability of the freeze protection heat tracing, heaters and insulation installed to protect system from freezing during severe cold weather. The licensee identified a number of discrepancies during these inspections and work orders were issued to correct the discrepancies. The inspectors verified that the maintenance work orders for these items were completed, and that the equipment was functionally accepted. The inspectors conducted a walkdown inspection of the freeze protection system and verified that the system for the following areas were operational:

Unit 1 Condensate storage tank. Unit 2 Condensate storage tank.

Unit 1 Circulating water pump structure.
Units 1&2 Emergency diesel generator building.

Temporary enclosures were also installed around the main steam valve rooms to help prevent freezing of the piping and components in these rooms. MWR Nos. 211371 and 211372, FSAR Section 3K.4.1.1.6 and Bechtel letter of January 15, 1986 described the installation of these enclosures. The inspectors verified that the enclosures were installed.

On December 22 through 24, severe cold weather existed in Southeast Alabama. Temperatures reached a low of approximately 10 degrees F with wind chill factor of approximately -15 degrees F and remained below freezing even during the daytime hours. During this period the licensee provided additional heating for piping and equipment which had frozen during previous severe cold weather. As a result of these measures only minimal freeze damage occurred. Three sections of fire protection piping in non-safety related areas and a water drain line at the water treatment plant were the only items which were affected by the freezing temperature. This indicates that the licensee has a very effective program to prevent plant systems and components from being damaged during severe cold weather.

7. Emergency Exercises (82301)

a. Annual Emergency Exercise

The innual emergency exercise was conducted on December 13. The refeet inspectors participated in the exercise as players and observers.

The exercise consisted of simulated fuel damage in Unit 1 caused by a dropped rod recovery effort, followed by an "A" train loss of off-site power. The loss of electrical power caused a reactor trip and subsequent loss of all auxiliary feedwater. An ALERT classification was declared at 8:13 a.m. due to the loss of all auxiliary feedwater. A control rod drive mechanism rupture was assumed at 9:00 a.m., that caused additional fuel damage and an RCS leak. Based on the indications of a CRDM rupture, a SITE AREA EMERGENCY was declared at 9:15 a.m. At 10:15 a.m., a large break LOCA was assumed. The "failure of an electrical penetration" resulted in an assumed radiological release to the environment. Based on assumed plant conditions, a GENERAL EMERGENCY was declared at 10:31 a.m. The drill was terminated at 3:04 p.m. The NRC evaluators identified several weaknesses during the exercise. For details refer to NRC Report 348,364/89-32.

The Natural Circulation Log required to be used by procedure 1-ESP-0.2, Natural Circulation Cooldown to Prevent Reactor Vessel Head Voiding, during this exercise, was noted by the resident inspectors to be out-of-date. This procedure required that thermocouple temperature data be taken from "Honeywell" equipment which was removed during the 1988 refueling outage for Unit 1 and the 1987 refueling outage for Unit 2. This discrepancy was also noted by one of the control room drill monitors. Plant management promptly revised this log following identification of the problem. This violation meets the NRC Enforcement Policy for isolated Severity Level V violations and is not cited. Furthermore, although the Natural Circulation Log data was incorrect, the normal plant operators knowledge and training were considered sufficient to obtain the required data from the recently installed computer equipment in the event of an actual emergency. This item is identified as Non-cited Violation 348,364/89-34-02, Out of Date Natural Circulation Log for Use With Procedure ESP-0.2.

b. Annual Medical Emergency and Health Physics Drill

The annual medical emergency and second annual health physics drill was conducted on December 5. The drill scenario simulated an injured contaminated worker and primary coolant spill in the Unit 1 auxiliary building that created elevated dose rates, contaminated levels and

airborne activity. The emergency organization satisfactorily responded to care for the injured personnel and to mitigate the consequences of the spill.

The licensee's drill monitors identified a number of strengths and also some weaknesses and areas for improvement. These were discussed during the post drill critique and appropriate corrective action has been initiated. The inspectors reviewed the drill critique findings and comments and had no further questions.

c. Annual Fire Emergency Drill

The annual fire emergency drill was conducted on December 6. The drill consisted of a simulated fire involving a gasoline tanker located at the utility building. While the fire brigade was being dispatched, the tank at the scene ruptured and exploded. Due to the size of the simulated fire, the brigade leader requested assistance from the auxiliary fire brigade and the City of Dothan fire Department. The fire brigades and fire department satisfactorily performed the required emergency response activities for the drill, and the drill objectives were accomplished. However, the licensee's drill monitors did identify several comments and a finding. These will be discussed with appropriate plant personnel during future fire brigade training sessions.

The inspectors reviewed the drill critique findings and comments and had no further questions.

8. Information Meeting With Local Officials (94600)

On December 13, the senior resident inspector, the Region II Reactor Projects Section Chief for the Farley Plant and the NRR Project Manager for Farley conducted meetings with selected local public officials. The meetings were conducted as a part of the annual site emergency exercise. Those officials included the Mayor of Columbia, Alabama and members of the Early County. Georgia Emergency Operations Center (EOC) Liaison Office. During the meetings the officials were given a brief description of the resident inspector's responsibilities. A tour was conducted in the Earley County, Georgia EOC.

9 Licensee Self Assessment (40500)

The inspectors attended an APCO post-audit conference which was held by the safety audit and engineering review group (SAER) on December 19, 1989. The inspectors also reviewed the documented results of the audit and noted that the audit was conducted to evaluate plant outage activities. The audit findings included: 1) seven discrepancies requiring corrective

action by the APCO management organization, 2) one discrepancy which will require corrective action by Westinghouse, 3) 10 comments which will require attention by APCO management, and 4) one comment requiring Westinghouse attention. The audit results indicated that the audit was comprehensive with emphasis placed on: control of maintenance activities, observation of work, use of electrical jumper cables, housekeeping, plant personnel safety, radiological access control, and work sequence. During the post-audit conference, the inspectors noted a high level of exchange of information. Also, each of the managers affected by the audit findings demonstrated detailed knowledge about the items discussed during the conference. The above observations demonstrate aggressive involvement by management to properly identify and track potential problems which are identified by the SAER group.

10. Licensee Event Reports (92700, 90714)

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The following LERs were reviewed for potential generic problems to determine trends, to determine whether information included in the reports meet the NRC reporting requirements, and to consider whether the corrective action discussed in the reports appear appropriate. The licensee action was reviewed to verify that the event has been reviewed and evaluated by the licensee as required by the technical specifications; that corrective action was taken by the licensee; and that safety limits, limiting safety setting and LCOs were not exceeded. The inspectors examined the incident report, logs and records, and interviewed selected personnel. The following reports are considered closed:

unit 1 (348)	
LER 89-06	Safety injection actuation and reactor trip cause be personnel error
LER 89-07	Both motor driven auxiliary feedwater pumps inoperable due to design error
LER 89-08	Containment integrity not maintained due to personnel error
Unit 2	
LER 89-14	TS 3.0.3 entered to repair containment purge dampers
LER 89-15	Reactor trip caused by a voltage transient on the DEHC Inverter

11. Action on Previous Inspection Findings (92702)

a. (Open) Part 21, (348,364/89-12), Limitorque SMD-000 and SMP-00 torque switches. The licensee has found that this Part 21 is applicable at Farley. A design review is in process to determine the appropriate corrective action and schedule date of completion. This item will be evaluated during a subsequent NRC inspection.

- b. (Closed) Part 21 (348,364/89-14), Potential deficiency affecting Foxboro N-E 11 and N-E 13 transmitters containing 10-50 MA type amplifiers. The licensee evaluated this item and found that it is not applicable to Farley. The Foxboro transmitters at Farley use 4-20 MA type amplifiers.
- c. (Closed) Unresolved Item 348,364/87-33-01, Correct fuse size designation on "as built" drawings. The licensee response to this item dated April 24, 1989, identified the corrective action to be taken. A total of 395 fuses in Unit 1 and 371 fuses in Unit 2 were inspected for conformance to the "As designed/built" configuration. Of the fuses inspected 63 minor deviations from the original required fuses and 9 unacceptable fuse installations were found. The licensee evaluation found that none of these discrepancies would have prevented the plant to be taken to safe shutdown, and left in a safe condition, as required. The incorrect fuses were replaced with the correct type fuse. To prevent future problems Fuse Replacement Manuals A181987 for Unit 1 and A204989 for Unit 2 have been written. These manuals are to be maintained as up-to-date documents. Based on the licensee corrective action, this item is closed.
- d. (Closed) Violation 364/87-35-01, Failure to maintain and implement procedures for use of "NA", the control of procedure deviations, and the restoration of an RHR train to service. The licensee's response to this violation dated March 26, 1988, indicates the corrective action taken. Procedure FNP-0-AP-5, Surveillance Program Administrative Control, Section 5.9.2 has been revised to provide procedural guidance for performance of only a portion of a surveillance test procedure. Procedures FNP-1/2-STP-627, Local Leak Rate Testing of Containment Penetrations, Attachment "A" has been revised to require systems that were drained to be filled and vented upon completion of the local leak rate testing. This item is closed.
- e. (Closed) Violation 364/89-11-01, Failure to maintain containment integrity. The licensee response to this violation dated July 7, 1989, indicates the corrective action taken. Additional documented guidance for identifying components affecting refueling containment integrity was provided. However, this corrective action was inadequate in that during the Unit 1 1989 refueling outage, another containment integrity violation occurred. Refer to violation 348/89-22-01 in report 348,364/89-22 for details. The licensee's corrective action to violation 348/89-22-01 should prevent future occurrences. Therefore, this item is closed.
- f. (Closed) Inspectors Followup Item (IFI) 348/364/89-20-02, Modifications to reduce slow start of emergency diesel generators.

 1) The Standard Operating Procedures for the emergency diesel generators have been revised. The changes require the operations

personnel, on a four hour interval, to make sure that each emergency diesel fuel system is properly primed. 2) Plant maintenance personnel are now cleaning the fuel supply foot valves located in the day tank on a quarterly basis. 3) PCN 87-0-4393, 87-1-4392 and 87-2-4394 have been written to allow modifications to be made to the diesel generators fuel accumulators to improve the venting system. These modifications have been authorized for accomplishment during 1990. Based on the above new information about the three recommendations which were made by the diesel generator vendor (Colt) this Inspector Follow-up Item is closed.

- g. (Closed) IFI 348,364/89-20-03, Instruction to fire watch for notifying control room were inadequate. Incident Report 2-89-283 was used to document the circumstances and conditions which were observed during the fire that was reported at 10:30 a.m. on August 22, 1989. The Incident Report assigned action items for immediate and temporary corrective actions. The inspectors evaluated the status of each of the action items and determined that each item has been implemented. These items included; contractor personnel being trained on proper use of plant telephones and "Gai-tronics" and posting emergency notification numbers near plant telephones. This item is closed.
- (Closed) IFI 348,364/89-20-04, Additional diesel generator load due h. to CCW flow increase during an SI and loss of instrument air. The licensee has required design engineering to conduct an extensive evaluation of the conditions which may result from a CCW system pressure transient during a LOCA. The evaluation indicated that during a LOCA, the loss of the secondary (non-emergency) CCW heat loads would not decrease the CCW flow-rate to the point where CCW pressure could increase to or exceed the pressure setpoint of the CCW relief valves for the RHR heat exchangers (100 psig). The inspectors were informed by the licensee that as a result of the evaluation. this item is no longer being treated as a potential design discrepancy. Bechtel Engineering documented the results of their evaluation of the additional diesel generator load due to CCW flow increase during SI and loss of instrument air. Bechtel letter dated November 21, 1989, states that as a result of their evaluation the increased CCW flow would not cause any significant increase in the electrical loading of the diesel generators. This item is closed.
- i. (Closed) Violation 348,364/89-22-01, Violation of containment integrity during refueling. The licensee response to this item dated December 27, 1989, indicates the corrective action taken. Procedure 1/2 STP 14.0, Containment Integrity, has been revised adding explicit sign-offs for containment penetrations with independent verification requirements. This should ensure that future containment refueling integrity is established. This item is closed.

12. Exit Interview

The inspection scope and findings were summarized during management interviews throughout the report period, and on January 10, with the plant manager and selected members of his staff. The inspection findings were discussed in detail. The licensee acknowledged the inspection findings and did not identify as proprietary any material reviewed by the inspection during this inspection.

Licensee was informed that the items discussed in paragraph 11 were closed. The following items were also identified.

ITEM NUMBER

DESCRIPTION AND REFERENCE

IFI 348-364/89-34-01

(Open) Failure to maintain emergency water tank in service (Paragraph 5).

348,364/89-34-02

(Open/Close) Out of date natural circulation log for use with procedure ESP-0-2 (paragraph 7).

13. Acronyms and Abbreviations

AFW - Auxiliary Feedwater

AOP - Abnormal Operating Procedure

AP - Administrative Procedure
APCO - Alabama Power Company

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CFR - Code of Federal Regulations
CCW - Component Cooling Water

DC - Design Change

DEHC - Digital Electro-Hydraulic Control System

DR - Deviation Report

ECP - Emergency Contingency Procedure

EIP - Emergency Plant Implementing Procedure

EQ - Environmental Qualifications ESF - Engineered Safety Features EOC - Emergency Operations Center

EWR - Engineering Work Request

F - Fahrenheit

GPM - Gallons Per Minute ISI - Inservice Inspection

IST - Inservice Test

LCO - Limiting Condition for Operation

LER - Licensee Event Report
MOV - Motor-Operated Valve

MOVATS - Motor-Operated Valve Actuation Testing

MWR - Maintenance Work Request NCR - Nonconformance Report

NRC - Nuclear Regulatory Commission

NRR - NRC Office of Nuclear Reactor Regulation

PMD - Plant Modifications Department

QA - Quality Assurance QC - Quality Control

RCP - Radiation Control and Protection Procedure

RCS - Reactor Coolant System
RO - Reactor Operators
RHR - Residual Heat Removal

SI - Safety Injection

SAER - Safety Audit and Engineering Review

S/G - Steam Generator

SSPS - Solid State Protection System

SOV - Solenoid Operated Valve SRO - Senior Reactor Operator STP - Surveillance Test Procedure

SW - Service Water

TS - Technical Specification TSC - Technical Support Center

WA - Work Authorization