EA-00-022
EA-01-310

Carolina Power & Light Company
ATTN: Mr. James Scarola
Vice President - Harris Plant
Shearon Harris Nuclear Power Plant
P. O. Box 165, Mail Code: Zone 1
New Hill, North Carolina 27562-0165

SUBJECT: SHEARON HARRIS NUCLEAR POWER PLANT - NRC FIRE PROTECTION INSPECTION REPORT NO. 05000400/2003007

Dear Mr. Scarola:

On _____, 2003, the U.S. Nuclear Regulatory Commission (NRC) completed an in-office review of the significance of the triennial fire protection inspection findings of inspection report 05000400/2002011 related to your Shearon Harris Nuclear Power Plant. The enclosed inspection report documents the results of our significance determination, which was discussed on _____, 2003, by telephone with Mr. _____ and other members of your staff.

This report documents two NRC-identified findings of very low significance (Green). Both of these findings were determined to involve violations of NRC requirements. However, because of the very low safety significance and because they are entered into your corrective action program, the NRC is treating these two findings as non-cited violations (NCVs) consistent with Section VI.A. of the NRC enforcement Policy. If you contest any NCV in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001; with copies to the Regional Administrator, Region II; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at the Shearon Harris Nuclear Power Plant.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any) 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 Website at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,

Charles R. Ogle, Chief
Engineering Branch 1
Division of Reactor Safety

Docket No.: 50-400

T-2

License No.: NPF-63

Enclosure: Inspection Report 05000400/200307

cc w/encl:
James W. Holt, Manager
Performance Evaluation and
Regulatory Affairs CPB 9
Carolina Power & Light Company
Electronic Mail Distribution

Robert J. Duncan II
Director of Site Operations
Carolina Power & Light Company
Shearon Harris Nuclear Power Plant
Electronic Mail Distribution

Benjamin C. Waldrep
Plant General Manager--Harris Plant
Carolina Power & Light Company
Shearon Harris Nuclear Power Plant
Electronic Mail Distribution

Terry C. Morton, Manager
Support Services
Carolina Power & Light Company
Shearon Harris Nuclear Power Plant
Electronic Mail Distribution

(cc w/encl cont'd - See page 3)

(cc w/encl cont'd)
John R. Caves, Supervisor
Licensing/Regulatory Programs
Carolina Power & Light Company
Shearon Harris Nuclear Power Plant
Electronic Mail Distribution

William D. Johnson
Vice President & Corporate Secretary
Carolina Power & Light Company
Electronic Mail Distribution

John H. O'Neill, Jr.
Shaw, Pittman, Potts & Trowbridge
2300 N. Street, NW
Washington, DC 20037-1128

Beverly Hall, Acting Director

Division of Radiation Protection
N. C. Department of Environmental
Commerce & Natural Resources
Electronic Mail Distribution

Peggy Force
Assistant Attorney General
State of North Carolina
Electronic Mail Distribution

Public Service Commission
State of South Carolina
P. O. Box 11649
Columbia, SC 29211

Chairman of the North Carolina
Utilities Commission
P. O. Box 29510
Raleigh, NC 27626-0510

Robert P. Gruber
Executive Director
Public Staff NCUC
4326 Mail Service Center
Raleigh, NC 27699-4326

(cc w/encl cont'd - See page 4)

(cc w/encl cont'd)
Linda Coleman, Chairman
Board of County Commissioners
of Wake County
P. O. Box 550
Raleigh, NC 27602

Gary Phillips, Chairman
Board of County Commissioners
of Chatham County
Electronic Mail Distribution

Distribution w/encl:
L. Slack, EICS
C. Patel, NRR
OEMAIL
RIDSNRRDIPMLIPB
PUBLIC

OFFICE	RII:DRS		RII:DRS		RII:DRS		RII:DRP		RII:EICS					
SIGNATURE														
NAME	RSchin		WRogers		DC Payne		PFredrickson		CEvans					
DATE														
E-MAIL COPY?	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO
PUBLIC DOCUMENT	YES	NO												

OFFICIAL RECORD COPY DOCUMENT NAME: P:\Harris IR 03-07.wpd

U.S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket No.:	50-400
License No.:	NPF-63
Report No.:	05000400/2003007
Licensee:	Carolina Power & Light (CP&L)
Facility:	Shearon Harris Nuclear Power Plant
Location:	5413 Shearon Harris Road New Hill, NC 27562
Dates:	_____ - _____
Inspectors:	W. Rogers, Senior Reactor Analyst, Region II R. Schin, Senior Reactor Inspector, Region II
Approved by:	Charles R. Ogle, Chief Engineering Branch 1 Division of Reactor Safety

Enclosure

SUMMARY OF FINDINGS

IR 05000400/2003-007; __/__/2003 - __/__/2003; Shearon Harris Nuclear Power Plant; Fire Protection.

The in-office review was conducted by a regional inspector, a regional senior reactor analyst, and NRC Headquarters Senior Reactor Analysts. Two Green findings, each a Non-Cited Violation (NCV), were identified. The significance of issues is indicated by their color (Green, White, Yellow, Red) using IMC 0609 "Significance Determination Process" (SDP). Findings for which the SDP does not apply may be "Green" or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 3, dated July 2000.

A. Inspector Identified Findings

Cornerstones: Mitigating Systems and Initiating Events

- Green. An NCV of Operating License Condition 2.F, the Fire Protection Program, and Technical Specification (TS) 6.8.1, Procedures and Programs, was identified for inadequate implementation of the fire protection program. Physical and procedural protection for equipment that was relied on for safe shutdown (SSD) during a fire in fire safe shutdown analysis (SSA) areas 1-A-BAL-B-B1, 1-A-BAL-B-B2, 1-A-BAL-B-B3, 1-A-BAL-B-B4, 1-A-EPA, and 1-A-BAL-C of the reactor auxiliary building was inadequate. Consequently, a fire in one of these SSA areas could result in a reactor coolant pump seal loss of coolant accident (LOCA), a main steam line break (MSLB) event, a loss of high pressure safety injection, and/or a loss of component cooling water to the reactor coolant pump seals. The licensee has initiated corrective actions including assigning an additional operator to be available to perform post-fire safe shutdown actions and performing a complete review of the safe shutdown analysis and related operating procedures.

  This finding was greater than minor because it could initiate a LOCA or MSLB event and could result in a loss of equipment that was relied upon for SSD from a fire. The finding was of very low significance (Green) because of the low fire ignition frequencies and lack of combustible materials in critical locations and because of the effectiveness of the fire protection features and the remaining SSD equipment to mitigate a fire in each of the affected fire zones/areas. (Section 1R05.03.b.1)

- Green. An NCV of Operating License Condition 2.F, the Fire Protection Program, and Technical Specification (TS) 6.8.1, Procedures and Programs, was identified for inadequate corrective action for previous Violation 50-400/02-08-01. Physical and procedural protection for equipment that was relied on for safe shutdown (SSD) during a fire in the new auxiliary control panel fire area 1-A-ACP was inadequate. Consequently, a fire in area 1-A-ACP could result in a loss of auxiliary feedwater and a main steam line break (MSLB) event. The licensee has initiated corrective actions including assigning an additional operator to be available to perform post-fire safe shutdown actions and performing a complete review of the safe shutdown analysis and related operating procedures.

This finding was greater than minor because it could initiate a MSLB event and could result in a loss of equipment that was relied upon for SSD from a fire. The finding was of very low significance (Green) because of the low fire ignition frequencies and lack of combustible materials and because of the effectiveness of the fire protection features and the remaining SSD equipment to mitigate a fire in area 1-A-ACP. (Section 1R05.03.b.1)

B. Licensee-Identified Violations

None

REPORT DETAILS

1. REACTOR SAFETY

Cornerstones: Initiating Events and Mitigating Systems

1R05 FIRE PROTECTION

.01 Significance Determination for Triennial Fire Protection Inspection Findings

a. Inspection Scope

In inspection report 50-400/02-11, nine findings had been identified as unresolved items (URIs) pending completion of the NRC significance determination process (SDP). This inspection report documents the results of the in-office completion of the NRC SDP with respect to those nine URIs. The significance determination was accomplished as described in NRC Inspection Manual Chapter (IMC) 0609, Signification Determination Process; IMC 0609A, Significance Determination of Reactor Inspection Findings for At-Power Situations; and IMC 0609F, Determining Potential Risk Significance of Fire Protection and Post-Fire Safe Shutdown Inspection Findings. This involved evaluating the significance of a potential fire in each of the seven affected fire safe shutdown analysis (SSA) areas, considering all examples of the findings that could be involved in each fire.

In addition, the performance deficiencies which could result in the loss of a safety function were evaluated by the Office of Nuclear Reactor Regulation (NRR) using the Phase III portion of the SDP. Inclusive in this evaluation were extensive walkdowns of the applicable fire SSA areas by two contractors to observe ignition sources and possible fire propagation from these ignition sources that could affect the unprotected cables of concern. Also, electrical circuit drawings and the latest information on cable hot short failure mechanisms and probabilities were used to develop cable failure probabilities that could cause a loss of function for the unprotected cables of concern.

b. Findings

(1) Inadequate Implementation of the Fire Protection Program

Introduction: An overall finding was identified in that the implementation of the fire protection program was inadequate. Eight of the nine URIs described in IR 50-400/02-11 were considered to include examples of this overall finding. Based on evaluating the eight examples of this overall finding for their effects during a fire that could occur in each of the six affected fire SSA areas, this overall finding was determined to have a very low significance (Green).

Description: The licensee's implementation of the fire protection program for ensuring the ability to safely shut down the plant during a fire was inadequate, in that:

- The fire safe shutdown analysis (SSA) failed to identify some cables that were relied upon for safe shutdown (SSD) during a fire. Consequently, those cables

were not provided with the required protection from fire damage. A fire could cause hot shorts in the cables which would result in maloperation of equipment that was relied upon for SSD during that fire.

- The SSA identified many cables that were relied upon for SSD during a fire, but the licensee generally failed to provide the required physical protection from fire damage. Instead, the SSA designated that operator actions would be taken to prevent or mitigate the effects of the fire damage. However, the licensee did not obtain NRC approval for these deviations from the approved fire protection program.

- Some of the operator actions that were designated by the SSA were not incorporated into operating procedures for SSD. Also, the operator actions in procedures differed in many respects from the operator actions that were analyzed in the SSA. For example, the operating procedures directed operators to use some different flowpaths than those analyzed in the SSA.

- Some operator actions in the SSD procedures would not work. They were too challenging, involved entering the area of the fire, were not adequately analyzed, or were too numerous for the available SSD non-licensed operator to perform.

The eight examples of this overall finding that are described in IR 50-400/02-11 include:

- Physical and procedural protection for equipment that was relied on for safe shutdown (SSD) during a fire in safe shutdown analysis (SSA) areas 1-A-BAL-B1, 1-A-BAL-B2, and 1-A-EPA of the reactor auxiliary building was inadequate. Motor-operated valve 1CS-165, volume control tank outlet to charging/safety injection pumps was not protected physically or procedurally from maloperation due to a fire. Also, per the SSA, component cooling (CC) to the RCPs was not protected from the fire; and the control cable for 1CC-207, CC to RCP seals, was in the same cable tray with the control cable for 1CS-165. Consequently, a fire in one of the three SSA areas could result in a reactor coolant pump seal loss of coolant accident (LOCA) with no high pressure safety injection available.

- Physical and procedural protection for equipment that was relied on for SSD during a fire in SSA area 1-A-BAL-B-B5 of the reactor auxiliary building was inadequate. Motor-operated valves 1CS-169, charging/safety injection pump (CSIP) suction cross-connect; 1CS-214, CSIP mini-flow isolation; 1CS-218, CSIP discharge cross-connect; and 1CS-219, CSIP discharge cross-connect; were not protected physically or procedurally from maloperation due to a fire. Consequently, a fire in SSA area 1-A-BAL-B-B5 could result in a loss of all charging and high pressure safety injection.

- Physical and procedural protection for equipment that was relied on for SSD during a fire in SSA area 1-A-BAL-B-B4 of the reactor auxiliary building was inadequate. Motor operated valves 1CS-166, volume control tank outlet to CSIPs; and 1CS-168, CSIP suction cross-connect; were not protected physically or procedurally from maloperation due to a fire. Consequently, a fire in SSA

area 1-A-BAL-B-B4 could result in a loss of all charging and high pressure safety injection.

- Physical and procedural protection for equipment that was relied on for SSD during a fire in SSA area 1-A-BAL-C of the reactor auxiliary building was inadequate. Motor operated valves 1CC-208, component cooling water (CC) supply to reactor coolant pump (RCP) seals; and 1CC-251, CC return from RCP seals; were not protected physically or procedurally from maloperation due to a fire. The SSA did not analyze or credit RCP seal injection but subsequent analysis after the inspection determined that RCP seal injection function would not be affected by a fire in this area. Consequently, a fire in SSA area 1-A-BAL-C could potentially result in only a loss of component cooling to the RCP seals.

- Many local manual operator actions were used in place of the required physical protection of cables for equipment relied on for SSD during a fire, without obtaining NRC approval for these deviations from the approved fire protection program. This condition applied to the six inspected SSA areas that are listed below. This reliance on large numbers of local manual actions, in place of the required physical protection of cables, could potentially result in an increased risk of loss of equipment that was relied upon for SSD from a fire.

- The procedure for SSD from a fire was inadequate. For a fire in certain safe shutdown analysis areas of the reactor auxiliary building, there were too many SSD procedure contingency actions to respond to potential spurious actuations for the one designated SSD non-licensed operator to perform. Consequently, equipment that was relied on for SSD may not be available.

- The procedure for SSD from a fire was inadequate. For a fire in safe shutdown analysis areas near the boric acid tank (BAT) in the reactor auxiliary building, the SSD procedure directed operators to take CSIP suction from the BAT even if BAT level indication were lost. However, the charging volume needed for reactor coolant system cooldown would have emptied the BAT and damaged the CSIP. Consequently, a loss of charging/high pressure safety injection could have resulted.

- Required battery-backed emergency lights were not provided in locations where operators were required to perform actions for SSD from a fire. This condition affected SSD during fires in all of the areas inspected in the reactor auxiliary building. The lack of required lighting could result in an increased risk of operators failing to perform the SSD actions in a timely and accurate manner.

The inspectors evaluated the effects of the eight examples of this overall finding during a fire that could occur in each of the following six affected fire SSA areas of the reactor auxiliary building (RAB):

- Fire SSA area 1-A-BAL-B-B1, on the 261 foot level of the RAB, including the 'A' chiller and motor-driven auxiliary feedwater (AFW) pump flow control valves (FCVs).

- Fire SSA area 1-A-BAL-B-B2, on the 261 foot level of the RAB, including the 'B' chiller and turbine-driven AFW pump FCVs.

- Fire area 1-A-EPA, on the 261 foot level of the RAB, including the electrical penetration room 'A'.

- Fire SSA area 1-A-BAL-B-B4, on the 261 foot level of the RAB, including 480V motor control center (MCC) 1B35-SB.

- Fire SSA area 1-A-BAL-B-B5, on the 261 foot level of the RAB, including 480V MCC 1A35-SA.

- Fire area 1-A-BAL-C, on the 286 foot level of the RAB, including 480V MCC 1B31-SB.

The inspectors and analysts assessed that the in situ and allowed transient combustibles were sufficient to support a credible fire scenario in each fire SSA area. During this analysis, the inspectors considered the following combustibles:

- The 'B' chiller, which was located below certain cable trays of concern, contained an ignition source of a compressor with 12 gallons of lubricating oil (containing approximately 1.7 million BTU). The 'B' chiller also included flammable thermal insulation on its piping. This 12 gallons of oil and flammable thermal insulation were apparently not included in the licensee's IPEEE fire analysis.

- The transient combustible control program allowed transient combustibles, up to one million BTU above the analyzed combustible loading, to be temporarily stored in any fire zones without a fire watch or other compensatory measures. The transient combustible control program also allowed rubber mats up to 150 square feet (containing approximately 1.8 million BTU) to be installed without continuous attendance.

- The transient combustible control program included staging areas for 55 gallon drums of oil (containing approximately 7.7 million BTU each) in or near three of the fire SSA areas of concern. The program also allowed up to five gallons of transient combustible liquids (containing approximately 0.7 million BTU) and two gallons of transient flammable liquids (containing approximately 0.27 million BTU) with no transient combustible permit required.

Inspector analysis indicated that, for the smaller enclosed fire SSA areas of concern (e.g., 1-A-EPA, 1-A-BAL-C), a fire could start in any part of the room and cause a hot gas layer that could ignite the IEEE 383 cables near the ceiling throughout the room. For the larger areas (e.g., 1-A-BAL-B-B1, 1-A-BAL-B-B2), a fire was unlikely to cause a hot gas layer that could ignite all of the IEEE 383 cables in the area; however, a fire starting below certain cables could generate a fire plume sufficiently large and hot to ignite the cables that were in the plume.

The inspectors and analysts assessed that many fire protection features and event mitigation functions would not be affected by a fire in the SSA areas of concern. Examples included:

- Based on no identified degradation of the automatic sprinklers and fire brigade for each of the affected fire areas/zones, full credit was given for the effectiveness of those fire protection features.

- Based on the types of RCP seals installed, an RCP seal LOCA was judged to result in a small break LOCA and not a larger LOCA.

- For the fire areas/zones where a fire could cause an RCP seal LOCA, at least one train of the following mitigation functions would be unaffected by the fire: high pressure injection (HPI), including a pump and flowpath from the RWST to the RCS; primary feed and bleed (FB), including a pressurizer power-operated relief valve; low pressure injection (LPI), including an RHR pump and a flowpath from the RWST to the RCS; low pressure recirculation (LPR), including a suction path from the containment sump; high pressure recirculation (HPR), including a flowpath from the RHR pump to the HPI pump; and auxiliary feedwater (AFW). In addition, both trains of emergency power would be unaffected.

- Also, for the fire areas/zones where a fire could cause an RCP seal LOCA, the abnormal operating procedures would provide adequate direction, after the loss of a CSIP, for operators to recover charging by aligning suction from the RWST and starting the standby CSIP.

- For a fire in SSA fire areas 1-A-BAL-B-B4 and 1-A-BAL-B-B5, auxiliary feedwater would not be affected. Also, for a fire in fire area 1-A-BAL-C, CSIPs and RCP seal injection would be unaffected.

Analysis: This finding had more than minor safety significance because it involved a lack of required fire barriers for equipment that was relied upon for safe hot shutdown following a fire. The finding also had more than minor safety significance because it affected the objectives of the Mitigating Systems and Initiating Events Cornerstones of Reactor Safety. The finding affected the availability and reliability of systems that mitigate initiating events to prevent undesirable consequences. It also affected the likelihood of occurrence of initiating events that challenge critical safety functions. The finding did not have more than very low safety significance (Green) because of the low fire ignition frequencies and lack of combustible materials in critical locations and because of the effectiveness of the fire protection features and the unaffected SSD equipment to mitigate a fire in each of the affected fire zones/areas.

Enforcement: As described in IR 50-400/02-11, Operating License Condition (OLC) 2.F required that the licensee implement and maintain in effect all provisions of the approved Fire Protection Program (FPP) as described in the Final Safety Analysis Report (FSAR). The Updated FSAR, Section 9.5.1, FPP, stated that outside containment, where cables or equipment (including associated non-essential circuits that could prevent operation or cause maloperation due to hot shorts, open circuits, or

shorts to ground) of redundant safe shutdown divisions of systems necessary to achieve and maintain cold shutdown conditions are located within the same fire area outside of primary containment, one of the redundant divisions must be ensured to be free of fire damage. Section 9.5.1 further stated that if both divisions are located in the same fire area, then one division is to be physically protected from fire damage by one of three methods: 1) a three-hour fire barrier, 2) a one-hour fire barrier plus automatic detection and suppression, or 3) a 20-foot separation with no intervening combustibles and with automatic detection and suppression. The licensee had received no NRC approvals for deviating from these requirements.

Also, OLC 2. F. and UFSAR Section 9.5.1 stated that BTP 9.5-1 was used in the design of the fire protection program for safety-related systems and equipment and for other plant areas containing fire hazards that could adversely affect safety-related systems. BTP 9.5-1, Section C.5.g, "Lighting and Communication," paragraph (1), required that fixed self-contained lighting consisting of fluorescent or sealed-beam units with individual eight-hour-minimum battery power supplies should be provided in areas that must be manned for safe shutdown and for access and egress routes to and from all fire areas.

In addition, TS 6.8.1, Procedures and Programs, required procedures as recommended by Regulatory Guide (RG) 1.33 and procedures for fire protection program implementation. RG 1.33 recommended procedures for combating emergencies, including fires. The licensee's interpretation of their fire protection program was that they could and would rely on proceduralized operator actions in place of physically protecting SSD equipment from fire damage (see Section 1R05.04.b.1).

Contrary to the above requirements, the licensee failed to adequately implement and maintain in effect all of the provisions of the approved FPP. The licensee failed to ensure that one of the redundant safe shutdown divisions of systems necessary to achieve and maintain cold shutdown conditions was protected from fire damage; failed to have adequate procedures for combating fire emergencies; and failed to provide the required emergency lighting in areas that must be manned for safe shutdown; as described above in the eight examples of this overall finding. Because the identified examples of this failure to adequately implement and maintain in effect all of the provisions of the approved FPP are of very low safety significance and have been entered into your corrective action program (ARs 76260, 80212, 80089, 69721, 80215, 75065, and 79047), this violation is being treated as an NCV, consistent with Section VI.A of the NRC Enforcement Policy: NCV 50-400/03-07-01; Failure to Adequately Implement the Approved Fire Protection Program for Safe Shutdown, Eight Examples.

(2) Inadequate Corrective Action for a Previous White Fire Protection Finding

Introduction: An overall finding was identified in that the corrective action for previous Violation (VIO) 50-400/02-08-01 was inadequate. Four of the nine URIs described in IR 50-400/02-11 were considered to be examples of this overall finding. Based on evaluating the three examples of this overall finding for their effects during a fire that could occur in the six affected fire SSA area, this overall finding was determined to have a very low significance (Green).

Description: The licensee's corrective action for a previous White fire protection finding (VIO 50-400/02-08-01), associated with a Thermo-Lag fire barrier assembly between the 'B' train switchgear room / auxiliary control panel and the 'A' train cable spreading room, was inadequate. Examples described in IR 50-400/02-11 include:

- Many local manual operator actions were used in place of the required physical protection of cables for equipment relied on for SSD during a fire, without obtaining NRC approval for these deviations from the approved fire protection program. This condition applied to all areas that were inspected, including the new auxiliary control panel fire area that had been recently created as corrective action for previous Violation 50-400/02-08-01. This reliance on large numbers of local manual actions, in place of the required physical protection of cables, could potentially result in an increased risk of loss of equipment that was relied upon for SSD from a fire. (Section 1R05.04.b.1)

- Procedure steps for safe shutdown (SSD) from a fire and related corrective action for previous Violation 50-400/02-08-01 were inadequate. For a fire in the new auxiliary control panel fire area, certain cables were not physically protected from the fire and certain SSD procedure steps, that were used in place of physical protection of cables, involved excessive challenges to operators. Consequently, a fire in the ACP fire area could result in a loss of all auxiliary feedwater. (Section 1R05.04.b.2)

- A procedure for SSD from a fire and related corrective action for previous Violation 50-400/02-08-01 were inadequate. For a fire in certain safe shutdown analysis areas of the reactor auxiliary building, including the new auxiliary control panel fire area, there were too many SSD procedure contingency actions to respond to potential spurious actuations for the one designated SSD non-licensed operator to perform. Consequently, equipment that was relied on for SSD may not be available. (Section 1R05.04.b.3)

- Required battery-backed emergency lights were not provided in locations where operators were required to perform actions for SSD from a fire. This condition affected SSD during fires in all of the areas inspected in the reactor auxiliary building, including the new auxiliary control panel fire area that was created as corrective action for previous Violation 50-400/02-08-01. The lack of required lighting could result in an increased risk of operators failing to perform the SSD actions in a timely and accurate manner. (Section 1R05.06.b)

Analysis: This finding had more than minor safety significance because it involved a lack of required fire barriers for equipment that was relied upon for safe hot shutdown following a fire. The finding also had more than minor safety significance because it affected the objectives of the Mitigating Systems Cornerstone of Reactor Safety. The finding affected the availability and reliability of systems that mitigate initiating events to prevent undesirable consequences. The finding did not have more than very low safety significance (Green) because of the low fire ignition frequencies and lack of combustible materials in the ACP fire area and because of the effectiveness of the fire

protection features and the unaffected SSD equipment to mitigate a fire in the ACP fire area.

Enforcement: OLC 2.F and the UFSAR, Section 9.5.1, FPP, included quality assurance requirements for fire protection. The FPP stated that a QA program was being used to identify and rectify any possible deficiencies in design, construction, and operation of the fire protection systems. Also, as described in Section 1R05.01.b.1 above, OLC 2.F required that one of the redundant divisions would be free of fire damage. Further, if both divisions were located in the same area, then one of the divisions was to be physically protected from fire damage by one of three specified methods. Further, OLC.2.F required that battery-backed emergency lights be provided in locations where operators were required to perform actions for SSD from a fire. In addition, TS 6.8.1, Procedures and Programs, required procedures for implementing the fire protection program and for combating fires.

Contrary to the above requirements, the licensee's corrective actions for previous VIO 50-400/02-08-01 were inadequate because they failed to rectify deficiencies in design, construction, and operation related to SSD from a fire in the area of the ACP room. The licensee failed to protect various equipment either physically or procedurally from the effects of a fire where that equipment was relied on for SSD. The licensee entered the finding into the corrective action program as AR 80215. Because the identified examples of this failure to adequately implement and maintain in effect all of the provisions of the approved FPP are of very low safety significance and have been entered into the corrective action program, this violation is being treated as an NCV, consistent with Section VI.A of the NRC Enforcement Policy: NCV 50-400/03-07-02; Inadequate Corrective Action for a Previous White Fire Protection Finding.

4OA6 Meetings

Exit Meeting Summary

The team presented the inspection results to Mr. _____ and members of his staff at the conclusion of the inspection on_____, 2003. The licensee acknowledged the findings presented. Proprietary information is not included in this inspection report.

SUPPLEMENTAL INFORMATION

Partial List of Persons Contacted

Licensee

D. Baksa, Supervisor, Equipment Perfromance
J. Caves, Licensing Supervisor
R. Duncan, Director of Site Operations
M. Fletcher, Manager, Fire Protection Program

P. Fulford, Superintendent, Design Engineering
C. Georgeson, Supervisor, EI&C Design
W. Gregory, Operations Fire Protection Specialist
W. Gurganious, Manager, NAS
T. Hobbs, Manager, Operations
A. Khanpour, Manager, Engineering
F. Lane, Jr., Senior Nuclear Work Management Specialist
J. Laque, Manager, Maintenance
T. Morton, Site Services Manager
J. Scarola, Site Vice President
B. Waldrep, Plant General Manager

NRC

J. Brady, Senior Resident Inspector, Shearon Harris
H. Christensen, Deputy Director, Division of Reactor Safety (DRS), Region II (RII)
C. Ogle, Chief, Engineering Branch 1, DRS, RII

Items Opened, Closed, and Discussed

Opened

50-400/03-07-01	NCV	Failure to Adequately Implement the Approved Fire Protection Program for Safe Shutdown, Eight Examples (Section 1R05.01.b.1)
50-400/03-07-02	NCV	

Closed

50-400/02-11-01	URI	Failure to Protect Charging System MOV 1CS-165, VCT Outlet to CSIPs, From Maloperation Due To a Fire (Section 1R05.01.b.1)
50-400/02-11-02	URI	Failure to Protect Charging System MOVs 1CS-169, 1CS-214, 1CS-218, and 1CS-219 From Maloperation Due To a Fire (Section 1R05.01.b.1)
50-400/02-11-03	URI	Failure to Protect Charging System MOVs 1CS-166, 1CS-168, and 1CS-217 From Maloperation Due To a Fire (Section 1R05.01.b.1)

50-400/02-11-04	URI	Failure to Protect Component Cooling MOVs 1CC-251 and 1CC-208, CC for RCP Seals, From Maloperation Due To a Fire (Section 1R05.01.b.1)
50-400/02-11-05	URI	Reliance on Manual Actions in Place of Required Physical Separation or Protection From a Fire (Section 1R05.01.b.2)
50-400/02-11-06	URI	Fire SSD Operator Actions With Excessive Challenges (Section 1R05.01.b.2)
50-400/02-11-07	URI	Too Many Fire SSD Actions for Operators to Perform (Section 1R05.01.b.2)
50-400/02-11-08	URI	Using the Boric Acid Tank Without Level Indication (Section 1R05.01.b.1)
50-400/02-11-09	URI	Failure to Provide Required Emergency Lighting for SSD Operator Actions (Section 1R05.01.b.2)

Discussed

50-400/02-08-01	VIO	Failure to Implement and Maintain NRC Approved Fire Protection Program Safe Shutdown System Separation Requirements (Section 1R05.01.b.2)