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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION II  
245 PEACHTREE CENTER AVENUE NE, SUITE 1200  
ATLANTA, GEORGIA 30303-1257

July 1, 2013

EA-13-129

Mr. William R. Gideon  
Vice President  
Progress Energy  
H. B. Robinson Steam Electric Plant, Unit 2  
3581 West Entrance Rd  
Hartsville, SC 29550

SUBJECT: H.B. ROBINSON STEAM ELECTRIC PLANT - NRC INSPECTION REPORT  
05000261/ 2013008; PRELIMINARY WHITE FINDING AND APPARENT  
VIOLATION

Dear Mr. Gideon:

On March 30, 2013, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your H. B. Robinson Steam Electric Plant Unit 2. The enclosed inspection report documents the inspection results which were discussed on May 22, 2013 and June 25, 2013, with you and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

The enclosed inspection report discusses one finding that has preliminarily been determined to be a White finding with low to moderate safety significance that may require additional NRC inspections. As described in the enclosed report, the finding involved the failure to perform adequate preventive maintenance on the dedicated shutdown diesel generator (DSDG) cooling system, in accordance with vendor recommendations and as required by procedure PLP-018, "Quality Assurance Program for Non-Safety Systems and Equipment used to meet the Station Blackout rule" and Fire Safe Shutdown (SSD) equipment maintenance requirements. During surveillance testing of the DSDG on October 2, 2012, the DSDG automatically shut down on high engine temperature due to a failure of the radiator drive belts. The condition of the drive belts was significantly degraded due, in part, to a lack of adequate inspection, maintenance, and/or periodic replacement, which would have rendered the plant unable to cope for eight hours after a postulated station blackout, or provide emergency power for certain selected Fire

~~Enclosures transmitted herewith contain SUNSI. When separated from Enclosure 2 this document is decontrolled.~~

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Safe Shutdown (SSD) scenarios. The DSDG was subsequently repaired and returned to service. Since the DSDG was last successfully run on August 28, 2012, the exposure time for the failure to run was from this date until October 03, 2012, when immediate corrective actions were taken to replace the drive belts. No actual event requiring the use of the DSDG occurred during this period.

This finding was assessed based on the best available information, using the applicable Significance Determination Process (SDP) in accordance with Inspection Manual Chapter (IMC) 0609. The basis for the NRC staff's preliminary significance determination is provided as an enclosure to this letter.

The finding is also an apparent violation (AV) of NRC requirements set forth in 10 CFR 50.63 (c)(2) because you failed to have the DSDG (identified as the alternate ac power source) capable of withstanding a station blackout for the specified coping period. This violation is being considered for escalated enforcement action in accordance with the Enforcement Policy, which can be found on the NRC's Web site at <http://www.nrc.gov/about-nrc/regulatory/enforcement/enforce-pol.html>.

In accordance with NRC Inspection Manual Chapter (IMC) 0609, Significance Determination Process, we intend to complete our risk evaluations using the best available information and issue our final significance determination within 90 days of the date of this letter. The Significance Determination Process encourages an open dialogue between the NRC staff and the licensee; however, the dialogue should not impact the timeliness of the staff's final determination.

Before the NRC makes its final decision on this matter, we are providing you an opportunity to either: (1) present to the NRC your perspectives on the facts and assumptions used by the NRC to arrive at this finding and the significance at a Regulatory Conference, or (2) submit your position on this finding to the NRC in writing. If you request a Regulatory Conference, it should be held within 30 days of the receipt of this letter and we encourage you to submit supporting documentation at least one week prior to the conference to make the conference more efficient and effective. If a Regulatory Conference is held, it will be open for public observation. The NRC will also issue a press release to announce the conference. If you decide to submit only a written response, such a submittal should be sent to the NRC within 30 days of the receipt of this letter. If you decline to request either a Regulatory Conference or submit a written response, you relinquish your right to appeal the final significance determination; in that, by not doing either you fail to meet the appeal requirements stated in the Prerequisites and Limitations sections of Attachment 2 of IMC 0609.

If you choose to provide a written response, it should be clearly marked as "Response to Apparent Violation in Inspection Report No. 05000261/2013008"; EA-13-129, and should include for the apparent violation: the reason for the apparent violation, or, if contested, the basis for disputing the apparent violation; the corrective steps that have been taken and the results achieved; the corrective steps that will be taken to avoid further violations; and the date when full compliance will be achieved. Your response may reference or include previously docketed correspondence, if the correspondence adequately addresses the required response.

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If an adequate response is not received within the time specified or an extension of time has not been granted by the NRC, the NRC will proceed with its enforcement decision.

Please contact George Hopper at (404) 997-4645 within 10 days from the issue date of this letter to notify the NRC of your intentions. If we have not heard from you within 10 days, we will continue with our significance determination and enforcement decision. The final resolution of this matter will be conveyed in separate correspondence.

Since the NRC has not made a final determination in this matter, no Notice of Violation is being issued for this inspection finding at this time. Please be advised that the characterization of the apparent violation described in the enclosure may change as a result of further NRC review. You will be advised by separate correspondence of the results of our deliberations on this matter.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response, if you choose to provide one, will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's Agencywide Documents Access and Management System (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>. To the extent possible, your response should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the Public without redaction. However, because of the security-related information contained in Enclosure 2 and in accordance with 10 CFR 2.390, a copy of Enclosure 2 will not be available for public inspection.

Sincerely,

*/RA/*

Richard P. Croteau, Director  
Division of Reactor Projects

Docket Nos.: 50-261  
License Nos.: DPR-23

Enclosures:

1. NRC Inspection Report 05000261/2013008  
w/Attachment: Supplemental Information
2. Phase 3 w/Attachments: **(OFFICIAL USE ONLY – SECURITY RELATED INFORMATION)**

cc w/encls: (See page 4)

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Sincerely,

**/RA/**

Richard P. Croteau, Director  
Division of Reactor Projects

Docket Nos.: 50-261  
License Nos.: DPR-23

- Enclosures:
1. NRC Inspection Report 05000261/2013008  
w/Attachment: Supplemental Information
  2. Phase 3 w/Attachments: **(OFFICAL USE ONLY – SECURITY RELATED INFORMATION)**

cc w/encls: (See page 4)

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W. Gideon

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cc w/Inspection Summary:  
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Letter to William R. Gideon from Richard P. Croteau dated July 1, 2013

SUBJECT: H.B. ROBINSON STEAM ELECTRIC PLANT - NRC INSPECTION REPORT  
05000261/ 2013008; PRELIMINARY WHITE FINDING AND APPARENT  
VIOLATION

Distribution w/encls:

RidsNrrPMRobinson Resource

C. Evans, RII

L. Douglas, RII

B. Westreich, NSIR

E. McNiel, NSIR

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**U. S. NUCLEAR REGULATORY COMMISSION**

**REGION II**

Docket Nos.: 50-261  
License Nos.: DPR-23  
Report Nos.: 05000261/2013008  
Licensee: Carolina Power and Light (CP&L)  
Facility: H.B. Robinson Steam Electric Plant, Unit 2  
Location: 3581 West Entrance Road  
Hartsville, SC 2955  
Dates: January 1, 2013 – March 30, 2013  
Inspectors: J. Hickey, Senior Resident Inspector  
C. Scott, Resident Inspector  
G. McDonald, Senior Risk Analyst  
Approved by: Richard P. Croteau, Director  
Division of Reactor Projects

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Enclosure 1

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**SUMMARY OF FINDINGS**

IR 05000261/2013008; January 1 – March 30, 2013; Carolina Power and Light Company, H.B. Robinson Steam Electric Plant, Unit 2; Maintenance Effectiveness

This inspection was conducted by the resident inspectors. One Apparent Violation was identified. The significance of most findings is indicated by their color (Green, White, Yellow, or Red) using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process" (SDP) dated June 2, 2011. Findings for which the SDP does not apply may be Green or be assigned a severity level after NRC management review. Cross-cutting aspects are determined using IMC 0310 "Components Within the Cross-Cutting Areas" dated October 28, 2011. All violations of NRC requirements are dispositioned in accordance with the NRCs Enforcement Policy dated June 7, 2012. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4, dated December 2006.

A. NRC-Identified and Self-Revealing Findings

Cornerstone: Mitigating Systems

(TBD) An Apparent Violation (AV) of 10 CFR 50.63, "Loss of All Alternating Current Power", was identified for the licensee's failure to perform adequate preventive maintenance on the dedicated shutdown diesel generator (DSDG) cooling system, in accordance with vendor recommendations and as required by procedure PLP-018, "Quality Assurance Program for Non-Safety Systems and Equipment used to meet the Station Blackout rule" and Fire Safe Shutdown (SSD) equipment maintenance requirements. This resulted in failure of the radiator fan belts and the automatic shutdown of the DSDG on high engine temperature, during a surveillance test performed on October 2, 2012. The licensee corrected this condition by installing new radiator fan belts and entered the issue into their corrective action program as NCR 564838.

The inspectors determined that the failure to perform adequate preventive maintenance on the DSDG cooling system, in accordance with vendor recommendations and as required by PLP-018, "Quality Assurance Program for Non-Safety Systems and Equipment used to meet the Station Blackout rule" and Fire Safe Shutdown (SSD) equipment maintenance requirements was a performance deficiency (PD). This finding was more than minor because it affected the Mitigating Systems cornerstone attribute of Equipment Performance and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems and components that respond to initiating events to preclude undesirable consequences (i.e. core damage). Specifically, the failure to perform adequate preventive maintenance on the dedicated shutdown diesel generator (DSDG) cooling system, in accordance with vendor recommendations resulted in the DSDG automatically shutting down on high engine temperature due to a

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failure of the radiator drive belts on October 2, 2012, during surveillance testing. The condition of the drive belts were significantly degraded due, in part, to a lack of adequate inspection, maintenance, and/or periodic replacement, which would have rendered the plant unable to cope for eight hours after a postulated station blackout, or provide emergency power for certain selected Fire SSD scenarios.

Significance Determination Process (SDP) screening performed per NRC Inspection Manual Chapter (IMC) 0609.04 determined that the Performance Deficiency (PD) affected the Mitigating Systems Cornerstone due to the Station Blackout (SBO) mitigation function being affected and External Event Mitigation Systems were affected due to the fire SSD function being impacted. The SDP screening determined that a detailed risk evaluation was required. A detailed SDP risk analysis was performed by a regional SRA in accordance with the guidance of NRC IMC 0609 Appendix A for the internal events risk assessment using both the NRC H.B. Robinson SPAR model and the licensee's Robinson full scope probabilistic risk assessment (PRA) model. The external fire risk was evaluated using the guidance of NRC IMC 0609 Appendix F and NUREG/CR 6850 revision 0 and 1 utilizing data from the licensee's National Fire Protection Association 805 project and the licensee's Robinson full scope PRA model.

The finding has external event risk which is greater than the internal risk. The internal risk was dominated by SBO LOOP scenarios which would lead to core damage via a loss of reactor coolant pump (RCP) seal cooling, RCP seal failure, and loss of reactor coolant system (RCS) inventory. The external risk was dominated by fire scenarios which would result in loss of the E1 and E2 buses and result in LOSP to the DS Bus requiring use of the DSDG for alternate shutdown per procedure DSP-002. The dominant fire scenarios were high energy ARC fault (HEAF) scenarios in the emergency switch gear room (ESWGR), hot gas layer scenarios in the cable spreading room (CSR) and ESWGR and a main control board fire in the main control room. The fire scenarios would lead to loss of RCP seal cooling sequences which would lead to core damage via RCP seal failure and loss of RCS inventory. Risk increase over the base case was  $>1E-6$ /year and  $<1E-5$ /year including internal event risk and the risk of selected fire scenarios. The NRC concluded that the significance of the finding is preliminarily low to moderate safety significance (White).

The inspectors determined that no cross cutting aspect was applicable to this performance deficiency because the licensee has failed to perform adequate preventative maintenance since the belts were installed in 2003 and this finding was not indicative of current licensee performance. (Section 1R12)

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**REPORT DETAILS**

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R12 Maintenance Effectiveness

.1 (Closed) Unresolved item (URI): Adequacy of Preventative Maintenance on the Dedicated Shutdown Diesel Generator Cooling System

a. Inspection Scope

The inspectors reviewed the licensee's Root Cause Evaluation (RCE) regarding the trip of the Dedicated Shutdown Diesel Generator, on October 2, 2012, during monthly surveillance testing.

b. Findings

Introduction: An Apparent Violation (AV) of 10 CFR 50.63, "Loss of All Alternating Current Power", was identified for the licensee's failure to perform adequate preventive maintenance on the dedicated shutdown diesel generator (DSDG) cooling system, in accordance with vendor recommendations and as required by procedure PLP-018, "Quality Assurance Program for Non-Safety Systems and Equipment used to meet the Station Blackout rule" and Fire Safe Shutdown (SSD) equipment maintenance requirements. This resulted in failure of the radiator fan belts and the automatic shutdown of the DSDG on high engine temperature, during a surveillance test performed on October 2, 2012.

Description: On October 2, 2012, during monthly testing of the DSDG, in accordance with OST-910, "Dedicated Shutdown Diesel Generator (Monthly)," the control room received a "DSDG Trouble" alarm. Shortly after the alarm was received, the DSDG tripped. The licensee determined that the DSDG automatically shutdown on high engine temperature. After the trip, the diesel was inspected and the licensee discovered that the radiator drive belts were not attached to their respective pulleys. The fan belts were replaced and the DSDG was returned to service on October 3, 2012. The licensee initiated a root cause investigation to determine the cause of the fan belt failure.

The licensee's root cause evaluation (RCE) documented that all three drive belts had varying degrees of wear and degradation. The mode of failure was that the belts were thrown from their pulleys during operation. The analysis noted a complete loss of the belts outer rubber fabric and pitting on the belt pulleys. Based on a historical look at fan/motor vibration data and the material condition of the belts and motor pulleys, the analysis concluded that the belts had been slowly degrading for the last few years. Further, the wear observed on the belts could be attributed to improper tensioning of the fan belts which was further exacerbated by pitting on the fan pulleys. The licensee's

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preventative maintenance for the radiator fan includes a 2 year inspection of the DSDG radiator fan in accordance with PM-MDSD-FAN-001, "Cooling Tower Fan Inspection," Rev. 0 and a 4 year alignment and inspection of the radiator fan in accordance with CM-608, "Alignment and Adjustment of Belt Driven Equipment," Rev 15. The inspectors noted that the licensee's preventative maintenance (PM) program for the DSDG radiator fans relied primarily on visual inspections and did not require the use of quantitative criteria for determining belt wear. The failed belts were originally installed in 2003. All inspections, conducted since installation, were found to be satisfactory and did not identify any signs of degradation. The last visual inspection of the fan belts was September 12, 2011, and the last satisfactory surveillance run was performed on August 28, 2012.

The DSDG was not available to supply back-up power, if required, from August 28, 2012 until the belts were replaced on October 3, 2012. The DSDG serves as an alternative AC power source for plant shutdown loads under Station Blackout and Appendix R scenarios. Based on, 8S19-P-101, RNP Station Blackout Coping Analysis Report, Robinson is required to cope for 8 hours after a station blackout. The licensee's UFSAR, Rev.18, Section 1.8, conformance to NRC Regulatory Guides (RG), states that the licensee will comply with the intent of RG 1.155, Station Blackout. RG 1.155, states, in part, that inspections, tests, administrative controls, and training necessary for compliance with 50.63 should be prescribed by documented instructions, procedures, and drawings and should be accomplished in accordance with these documents. PLP-018, "Quality Assurance Program for Non-Safety Systems and Equipment Used to Meet the Station Blackout Rule," states that the "DSDG shall be inspected in accordance with vendor recommended maintenance guidelines." The fan belt manufacturer recommends the use of a belt gauge during inspections of the belts and pulleys. However, CM-608 "Alignment and Adjustment of Belt Driven Equipment," gives mechanics the option to use a belt gauge with a quantitative criteria value of 1/32 inch wear. Based on a document review of past inspections and interviews with maintenance staff, the RCE determined that the gauge was not typically used. In addition the RCE identified that the criteria for visual inspections was inconsistent among the radiator PM procedures and lacked specific criteria. The evaluation also noted that another contributor to belt failure could be age degradation. The licensee's evaluation documented that the root cause of the issue was the lack of a time-based replacement for the fan belts. The belts had been in-service since 2003 and the recommended shelf life is 6-8 years. The licensee has initiated corrective actions to revise their PM procedures to include quantitative inspection criteria and require the use of a belt gauge during belt and pulley inspections. Additionally, the licensee has established a PM to replace the fan belts every 4 years.

The inspectors found that the vendor recommended service life is 3 to 5 years if maintained in accordance with the vendor recommended preventative maintenance guidelines. The fan belt vendor maintenance guidelines included a recommendation to inspect belts, pulleys, check for vibration, bearings, belt cover, alignment, wear, and tension of the radiator fan belts at a 3 to 6 month interval. These belts were in service since 2003.

Analysis: The inspectors determined that the failure to perform adequate preventive maintenance on the DSDG cooling system, in accordance with vendor recommendations and as required by PLP-018, "Quality Assurance Program for Non-Safety Systems and Equipment used to meet the Station Blackout rule" and Fire Safe Shutdown (SSD) equipment maintenance requirements was a performance deficiency (PD). This finding was more than minor because it affected the Mitigating Systems cornerstone attribute of Equipment Performance and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems and components that respond to initiating events to preclude undesirable consequences (i.e. core damage). Specifically, the failure to perform adequate preventive maintenance on the dedicated shutdown diesel generator (DSDG) cooling system, in accordance with vendor recommendations resulted in the DSDG automatically shutting down on high engine temperature due to a failure of the radiator drive belts on October 2, 2012, during surveillance testing. The condition of the drive belts were significantly degraded, due in part to a lack of adequate inspection, maintenance, and/or periodic replacement, which would have rendered the plant unable to cope for eight hours after a postulated station blackout, or provide emergency power for certain selected Fire SSD scenarios.

Significance Determination Process (SDP) screening performed per NRC Inspection Manual Chapter (IMC) 0609.04 determined that the PD affected the Mitigating Systems Cornerstone due to the Station Blackout (SBO) mitigation function being affected and External Event Mitigation Systems were affected due to the fire SSD function being impacted. The SDP screening determined that a detailed risk evaluation was required. A detailed SDP risk analysis was performed by a regional SRA in accordance with the guidance of NRC IMC 0609 Appendix A for the internal events risk assessment using both the NRC H.B. Robinson SPAR model and the licensee's Robinson full scope probabilistic risk assessment (PRA) model. The external fire risk was evaluated using the guidance of NRC IMC 0609 Appendix F and NUREG/CR 6850 revision 0 and 1 utilizing data from the licensee's National Fire Protection Association 805 project and the licensee's Robinson full scope PRA model.

The major analysis assumptions included:

- A 36 day exposure period;
- The DSDG was assumed to trip on high temperature in approximately 10 minutes after an automatic or manual start and its radiator fan drive would not cycle off for the duration of its SBO or SSD mission time;
- E1 to E2 cross-tie Bus Duct was not in service during the exposure period;
- Recovery was performed as a sensitivity analysis as licensee estimated 2.5 – 3 hours for radiator fan belt replacement under SBO conditions, final best risk estimate did not credit recovery;
- Fire induced damage to cable tray R85 in ESWGR would result in spurious opening of breaker 52-16B and loss of control power to 480V E2 breakers;

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- 480V Switchgear E1 HEAF zone of influence (ZOI) contains tray R85 and E1 HEAF would cause non-recoverable damage to E1; and
- 480V Switchgear E1 Offsite feeder bus duct HEAF ZOI contains tray R85 and R65 and this bus duct HEAF would cause LOSP to DS Bus and loss of control power to E1 and E2.

The finding has external event risk which is greater than the internal risk. The internal risk was dominated by SBO LOOP scenarios which would lead to core damage via a loss of RCP seal cooling, RCP seal failure, and loss of RCS inventory. The external risk was dominated by fire scenarios which would result in loss of the E1 and E2 buses and result in LOSP to the DS Bus requiring use of the DSDG for alternate shutdown per procedure DSP-002. The dominant fire scenarios were HEAF scenarios in the ESWGR, hot gas layer scenarios in the CSR and ESWGR and a main control board fire in the main control room. The fire scenarios would lead to loss of RCP seal cooling sequences which would lead to core damage via RCP seal failure and loss of RCS inventory. Risk increase over the base case was  $>1E-6/\text{year}$  and  $<1E-5/\text{year}$  including internal event risk and the risk of selected fire scenarios. The NRC concluded that the significance of the finding is preliminarily low to moderate safety significance (White).

The inspectors determined that no cross cutting aspect was applicable to this performance deficiency because the licensee has failed to perform adequate preventative maintenance since the belts were installed in 2003 and this finding was not indicative of current licensee performance.

Enforcement: 10 CFR 50.63 (c)(2), states, in part, that the alternate ac power source, as defined in section 50.2, will constitute acceptable capability to withstand station blackout provided an analysis is performed which demonstrates that the plant has this capability from onset of the station blackout until the alternate ac source(s) and required shutdown equipment are started and lined up to operate. Robinson Nuclear Plant Station Blackout Coping Analysis Report 8S19-P-101, identifies the DSDG as its alternate ac power source and specifies that Robinson is required to cope for eight hours after a station blackout or provide emergency power for certain selected Fire Safe Shutdown (SSD) scenarios.

Contrary to the above, from August 28, 2012, to October 3, 2012, the licensee's accepted alternate ac power source lacked the capability to withstand station blackout for the required durations specified in its coping analysis. Specifically, during surveillance testing of the DSDG on October 2, 2012, the DSDG automatically shut down on high engine temperature due to a failure of the radiator drive belts. The condition of the drive belts was significantly degraded due, in part, to a lack of adequate inspection, maintenance, and/or periodic replacement, which would have rendered the plant unable to cope for eight hours after a postulated station blackout or provide emergency power for certain selected Fire Safe Shutdown (SSD) scenarios. As a result, belt degradation went undetected and during surveillance testing of the DSDG on October 2, 2012, the DSDG automatically shut down on high engine temperature due to

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Enclosure 1

a failure of the radiator fan drive belts. Following the shutdown, the licensee corrected this condition by installing new radiator fan belts and entered the issue into their corrective action program as NCR 564838. This apparent violation is identified as AV 05000261/2013008-01, Failure to Perform Adequate Preventative Maintenance on the DSDG In accordance with Vendor Guidelines.

40A6 Management Meetings

1. Exit Meeting Summary

On May 22, 2013, and June 25, 2013, the resident inspectors presented the inspection results to Mr. Gideon and other members of the licensee staff. The inspectors confirmed that proprietary information was not provided or examined during the inspection period.

ATTACHMENT: SUPPLEMENTAL INFORMATION

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SUPPLEMENTAL INFORMATION

**KEY POINTS OF CONTACT**

Licensee Personnel

T. Cosgrove, Plant General Manager  
H. Curry, Training Manager  
D. Douglas, Maintenance Manager  
C. Freligh, Nuclear Oversight Manager  
R. Gideon, Vice President  
M. Glover, Director – Site Operations  
R. Hightower, Licensing/Reg. Programs Supervisor  
K. Holbrook, Operations Manager  
B. Houston, Radiation Protection Superintendent  
L. Martin, Engineering Director  
K. Moser, Outage & Scheduling Manager  
J. Rotchford Jr., Environmental & Chemistry Superintendent  
S. Wheeler, Support Services Manager

NRC Personnel

G. Hopper, Region II, Chief Reactor Projects Branch 4

**LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED**

Opened

05000261/2013008-01	AV	Failure to Perform Adequate Preventative Maintenance on the DSDG In accordance with Vendor Guidelines (Section 1R12)
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Closed

05000261/2012005-01	URI	Adequacy of Preventative Maintenance on the Dedicated Shutdown Diesel Generator Cooling System)
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**LIST OF DOCUMENTS REVIEWED**

**Section 1R12: Maintenance Effectiveness**

Procedures

PLP-018, Quality Assurance Program for Non-Safety Related Systems and Equipment Used to Meet the Station Blackout Rule, Rev.17  
CM-608, Alignment and Adjustment of Belt Driven Equipment, Rev.16  
CM-608, Alignment and Adjustment of Belt Driven Equipment, Rev. 015  
OST-910, Dedicated Shutdown Diesel Generator (Monthly), Rev. 52  
PM-108, Dedicated Shutdown Diesel Tent Four Month Inspection, Rev. 32  
APP-025, Dedicated Shutdown Diesel Generator Annunciator Panel, Rev. 10  
ADM-NGGC-0203, Preventive Maintenance and Surveillance Testing Program, Rev. 18  
DSP-001, Alternative Shutdown Diagnostic, Rev.13  
DSP-002, Hot Shutdown Using the Dedicated /Alternative Shutdown System, Rev. 27  
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Attachment