UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PA 19406-1415

May 4, 2009

EA-09-045

Mr. John T. Carlin
Vice President, R.E. Ginna Nuclear Power Plant
R.E. Ginna Nuclear Power Plant, LLC
1503 Lake Road
Ontario, New York 14519

SUBJECT: R.E. GINNA NUCLEAR POWER PLANT - NRC INTEGRATED INSPECTION REPORT 05000244/2009002; PRELIMINARY WHITE FINDING

Dear Mr. Carlin:

On March 31, 2009, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your R.E. Ginna Nuclear Power Plant. The enclosed integrated inspection report documents the inspection results, which were discussed on April 16, 2009, 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.

This letter transmits one self-revealing finding that, using the reactor safety Significance Determination Process (SDP), has preliminarily been determined to be White, a finding with low to moderate safety significance. The finding is associated with inadequate implementation of the preventive maintenance (PM) program for the turbine-driven auxiliary feedwater (TDAFW) pump governor that led to a failure of the pump to operate properly during a December 2, 2008, surveillance test. Following the test failure, Ginna replaced several components in the TDAFW governor system, revised the TDAFW PM program, and successfully completed the surveillance test. There is no immediate safety concern present due to this finding because the system is now operable and the long term corrective actions are being implemented in Ginna's corrective action program. The final resolution of this finding will be conveyed in separate correspondence.

The finding is also an apparent violation of NRC requirements and 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/reading-rm/doc-collections/enforcement/.

In accordance with the NRC Inspection Manual Chapter (IMC) 0609, we intend to complete our evaluation using the best available information and issue our final determination of safety

significance 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 we make a final decision on this matter, we are providing you with an opportunity (1) to attend a Regulatory Conference where you can present to the NRC your perspective on the facts and assumptions the NRC used to arrive at the finding and assess its significance, or (2) submit your position on the 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 in an effort to make the conference more efficient and effective. If a Regulatory Conference is held, it will be open for public observation. If you decide to submit only a written response, such submittal should be sent to the NRC within 30 days of your receipt of this letter. If you decline to request a Regulatory Conference or submit a written response, you relinquish your right to appeal the final SDP determination, in that by not doing either you fail to meet the appeal requirements stated in the Prerequisite and Limitation Sections of Attachment 2 of IMC 0609.

Please contact Glenn Dentel at 610-337-5233, and in writing, 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, and you will be advised of the results of our deliberations on this matter.

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. In addition, please be advised that the number and characterization of the apparent violation may change as a result of further NRC review.

In addition, the report documents one self-revealing finding of very low safety significance (Green). The finding did not involve a violation of NRC requirements. If you disagree with the characterization of any finding in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the Regional Administrator, Region I, and the NRC Resident Inspector at R.E. Ginna Nuclear Power Plant. The information you provide will be considered in accordance with Inspection Manual Chapter 0305.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and 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 the NRC's document system (ADAMS). ADAMS is accessible from the NRC Web Site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,

/RA/ Original Signed By;

David C. Lew, Director
Division of Reactor Projects

Docket No.: 50-244
License No.: DPR-18

Enclosure: Inspection Report No. 05000244/2009002
w/ Attachment: Supplemental Information

cc w/encl:
M. J. Wallace, Vice - President, Constellation Energy
B. Barron, President, CEO & Chief Nuclear Officer, Constellation Energy Nuclear Group, LLC
P. Eddy, Electric Division, NYS Department of Public Service
C. Donaldson, Esquire, Assistant Attorney General, New York Department of Law
C. Fleming, Esquire, Senior Counsel, Nuclear Generation, Constellation Nuclear Energy Nuclear Group, LLC
T. Harding, Acting Director, Licensing, Constellation Energy Nuclear Group, LLC
A. Peterson,SLO Designee, New York State Energy Research and Development Authority
F, Murray, President & CEO, New York State Energy Research and Development Authority
G. Bastedo, Director, Wayne County Emergency Management Office
M. Meisenzahl, Administrator, Monroe County, Office of Emergency Management
T. Judson, Central New York Citizens Awareness Network

significance 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 we make a final decision on this matter, we are providing you with an opportunity (1) to attend a Regulatory Conference where you can present to the NRC your perspective on the facts and assumptions the NRC used to arrive at the finding and assess its significance, or (2) submit your position on the 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 in an effort to make the conference more efficient and effective. If a Regulatory Conference is held, it will be open for public observation. If you decide to submit only a written response, such submittal should be sent to the NRC within 30 days of your receipt of this letter. If you decline to request a Regulatory Conference or submit a written response, you relinquish your right to appeal the final SDP determination, in that by not doing either you fail to meet the appeal requirements stated in the Prerequisite and Limitation Sections of Attachment 2 of IMC 0609.

Please contact Glenn Dentel at 610-337-5233, and in writing, 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, and you will be advised of the results of our deliberations on this matter.

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. In addition, please be advised that the number and characterization of the apparent violation may change as a result of further NRC review.

In addition, the report documents one self-revealing finding of very low safety significance (Green). The finding did not involve a violation of NRC requirements. If you disagree with the characterization of any finding in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the Regional Administrator, Region I, and the NRC Resident Inspector at R.E. Ginna Nuclear Power Plant. The information you provide will be considered in accordance with Inspection Manual Chapter 0305.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and 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 the NRC's document system (ADAMS). ADAMS is accessible from the NRC Web Site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,
/RA/ Original Signed By:
David C. Lew, Director
Division of Reactor Projects

SUNSI Review Complete: _gtd_____ (Reviewer's Initials) NAME: G:\DRP\BRANCH1\Ginna\Reports\2009-002\2009-002 Draft IR and Feedersrev 2.docAfter declaring this document "An Official Agency Record" it **will** be released to the Public. **ML091250233**

To receive a copy of this document, indicate in the box: "C" = Copy without attachment/enclosure **"E"** = Copy with attachment/enclosure **"N"** = No copy

OFFICE	RI/DRP		RI/DRP		RI/DRP		RI/DRS		RI/ORA	
NAME	KKolaczyk/ksk		JHawkins/jrh		GDentel/gtd		WCook/wac		DHolody/djh	
DATE	04/30/09		04/29/09		04/30/09		04/29/09		04/30/09	

OFFICE	RI/DRP									
NAME	DLew/dcl									
DATE	05/04/09									

OFFICIAL RECORD COPY

Distribution w/encl:
S. Collins, RA
M. Dapas, DRA
D. Lew, DRP
J. Clifford, DRP
Stephen Campbell, RI OEDO
R. Nelson, NRR
D. V. Pickett, PM, NRR
B. Vaidya, PM, NRR
G. Dentel, DRP
N. Perry, DRP
J. Hawkins, DRP
K. Kolaczyk, DRP, SRI
M. Marshfield, DRP, RI
M. Rose, DRP, Resident OA
D. Bearde, DRP
Region I Docket Room (with concurrences)
ROPreports.Resource@nrc.gov

Email distribution to licensee

U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket No.:	50-244
License No.:	DPR-18
Report No.:	05000244/2009002
Licensee:	R.E. Ginna Nuclear Power Plant, LLC
Facility:	R.E. Ginna Nuclear Power Plant
Location:	Ontario, New York
Dates:	January 1, 2009 through March 31, 2009
Inspectors:	K, Kolaczyk, Senior Resident Inspector L. Casey, Resident Inspector M. Marshfield, Resident Inspector W. Cook, Senior Reactor Analyst D. Silk, Senior Operations Engineer J. Hawkins, Project Engineer S. Ibarrola, Reactor Engineer
Approved by:	Glenn T. Dentel, Chief Projects Branch 1 Division of Reactor Projects

TABLE OF CONTENTS

SUMMARY OF FINDINGS

IR 05000244/2009002; 01/01/2009 – 03/31/2009; R.E. Ginna Nuclear Power Plant (Ginna), Identification and Resolution of Problems, Followup of Events and Notices of Enforcement Discretion.

The report covered a three-month period of inspection by resident inspectors and region-based inspectors. One apparent violation (AV) with potential low to moderate safety significance (Preliminary White) and one Green finding were identified. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process" (SDP). The cross-cutting aspect for each finding was determined using IMC 0305, "Operating Reactor Assessment Program." 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 4, dated December 2006.

A. NRC-Identified and Self-Revealing Findings

Cornerstone: Mitigating Systems

Preliminary White. The inspectors identified an AV of Technical Specification 5.4.1.a, "Procedures," for the failure of the licensee to implement an effective preventive maintenance (PM) program for the turbine-driven auxiliary feedwater (TDAFW) pump governor linkage. Specifically, procedure M-11.5C, "AFW Pump Minor Mechanical Inspection and Maintenance," Revision 29, which includes steps for cleaning and lubricating the TDAFW pump governor linkages, was not properly implemented. The cleaning and lubrication steps were inappropriately deleted during the work planning process for the PM scheduled on the TDAFW system. As a result, the governor linkages were not lubricated during the March 2008 maintenance period, which directly contributed to the failure of the TDAFW pump as demonstrated by testing performed on December 2, 2008. Ginna's planned corrective actions include increased frequency of testing to validate the identified root cause and appropriate resolution, upgrades to the maintenance procedure for disassembly and lubrication of bearing wear surfaces and linkages, and guidance on the type of lubricant to use. In addition, corrective actions include enhancements to the scope of minor maintenance requirements on the TDAFW pump to ensure that the linkage cleaning and lubrication is not missed, and establishing a 9-year periodicity to rebuild the governor and associated linkages.

The inspectors determined that this finding is more than minor because it is associated with the procedure quality attribute of the Mitigating Systems Cornerstone and affects the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the failure to perform adequate maintenance resulted in the inoperability of the TDAFW pump. This finding was assessed using IMC 0609 and preliminarily determined to be White based on a Phase 3 analysis with a total (internal and external contributions) calculated conditional core damage frequency (CCDF) of 8.8E-6. This finding has a cross-cutting aspect in the area of human performance because Ginna did not establish

appropriate controls to assess how changes to the TDAFW PM program would impact operation of the TDAFW system (H.3.b per IMC 0305). (Section 4OA2)

Green. A Green self-revealing finding was identified on February 5, 2009, when Ginna failed to review applicable internal operating experience and implement compensatory actions to minimize the consequences associated with replacement of the annunciator cards, in accordance with CNG-OP-4.01-1000, "Integrated Risk Management," Revision 00200. Specifically, CNG-OP-4.01-1000, requires work activities that are considered medium risk to have contingency plans based in part on operating experience. As a result, when the power supplies were inadvertently de-energized, restoration of the alarm panels was delayed until recovery work instructions were prepared and implemented. Ginna's corrective actions include adding a trouble shooting plan to work packages for annunciators that depicts how to restore failed annunciators, revising CNG-OP-4.01-1000, to incorporate a checklist of equipment important to the emergency plan in the screening section of the risk process, and having an senior reactor operator review the final weekly schedule for maintenance that could possibly impact equipment used by the emergency plan.

This finding is more than minor because it is associated with the design control attribute of the Mitigating Systems Cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. When the annunciator panels were de-energized, the ability of operators to identify and respond to off-normal plant conditions was degraded. Using Phase 1 of IMC 0609, Appendix A, the inspectors determined that the finding was of low safety significance (Green), because the finding did not represent a loss of system safety function; did not represent an actual loss of safety function of a single train for greater than its Tech Spec allowed outage time; did not represent an actual loss of safety function of one or more non-Tech Spec trains of equipment designated as risk-significant per 10CFR50.65, for greater than 24 hours; and did not screen as potentially risk significant due to a seismic, flooding, or severe weather initiating event. This finding has a cross-cutting aspect in the area of human performance because Ginna personnel did not appropriately plan work activities by incorporating risk insights and the need for planned contingencies, compensatory actions and abort criteria, which directly contributed to the loss of power to the control board annunciator panels and declaration of an UE (H.3.a per IMC 0305). (Section 4OA3)

B. Licensee-Identified Violations

None.

REPORT DETAILS

Summary of Plant Status

R.E. Ginna Nuclear Power Plant (Ginna) began the inspection period operating at full-rated thermal power and operated at full power for the entire period.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R01 Adverse Weather Protection (71111.01 – One sample)

a. Inspection Scope

During the week of January 11, 2009, Ginna experienced unusually cold temperatures with daytime high temperatures below 10 degrees. During this time, the inspectors toured areas of the plant that contained equipment and systems that could be adversely affected by cold temperatures. Areas of focus were the intake structure, auxiliary building, the standby auxiliary feedwater (SAFW) pump room, and the 'A' and 'B' battery and diesel generator rooms. During the tours, the inspectors verified that temperatures in those rooms did not decrease below the values outlined in the plant updated final safety analysis report (UFSAR). The inspectors performed field walkdowns of the systems to verify that Ginna procedure O-22, "Cold Weather Walkdown Procedure," Revision 00500 was properly implemented. Documents reviewed for each inspection in this report are listed in the Attachment.

b. Findings

No findings of significance were identified.

1R04 Equipment Alignment (71111.04)

.1 Partial System Walkdown (71111.04Q – Three samples)

a. Inspection Scope

The inspectors reviewed the alignment of system valves and electrical breakers to ensure proper in-service or standby configurations as described in plant procedures, piping and instrument drawings (P&ID), and the UFSAR. During the walkdown, the inspectors evaluated the material condition and general housekeeping of the system and adjacent spaces. The inspectors also verified that operators were following plant technical specifications (TSs) and system operating procedures.

The following plant system alignments were reviewed:

- On January 13, 2009, the inspectors performed a walkdown of the feed and condensate water systems. These systems were selected based on recent industry information and several feedwater related issues and concerns outlined in NRC Operating Experience Smart Sample, FY 2009-02, "Negative Trend and Recurring Events Involving Feedwater Systems," Rev. 0. During this walkdown, valve positions in major system flow paths were compared to the positions contained in system drawings 33013-1252, "Condensate," Rev. 23; 33013-1235, "Condensate," Rev. 20; 33013-1233, "Condensate Low Pressure Feedwater Heaters," Rev. 29; 33013-1236, "Feedwater," Sheet 1, Rev. 14; and 33013-1236, "Feedwater," Sheet 2, Rev. 13;

- On February 3, 2009, the inspectors performed a walkdown of the 'D' train of the SAFW system while the 'A' motor-driven AFW train was removed from service for planned maintenance activities. During this walkdown, the inspectors compared valve and breaker positions in major system flow paths to the positions contained in system drawing 33013-1238, "SAFW," Rev. 25, and procedure S-30.5, "SAFW Pump Valve and Breaker Position Verification," Rev. 34; and

- On March 19, 2009, the inspectors performed a walkdown of the 'B' diesel generator and associated support systems while a new level indicating system was being installed on the 'A' diesel generator fuel oil storage tank. During this walkdown, the inspectors compared valve and breaker positions to the positions contained in system drawing 33013-1239, "Diesel Generator 'B'," Rev. 21.

b. Findings

No findings of significance were identified.

.2 Complete Walkdown (71111.04S – One sample)

a. Inspection Scope

The inspectors performed a detailed walkdown of the component cooling water (CCW) system. CCW was chosen because of its risk significant function to provide cooling for the residual heat removal (RHR) heat exchangers (HXs) and emergency core cooling system pumps. Other functions of CCW include providing cooling to the reactor coolant pumps, reactor support cooling pads, excess letdown HX, and the non-regenerative HX. The inspectors verified proper system alignment as specified by TSs, UFSAR, P&IDs, and plant procedures. Inspectors reviewed documentation associated with open maintenance requests and items tracked by plant engineering to assess their collective impact on system operation. In addition, the inspectors utilized the corrective action database to verify that any equipment alignment problems were being identified and appropriately resolved.

b. Findings

No findings of significance were identified.

1R05 Fire Protection (71111.05)

Quarterly Inspection (71111.05Q – Five samples)

a. Inspection Scope

The inspectors performed walkdowns of fire areas to determine if there was adequate control of transient combustibles and ignition sources. The material condition of fire protection systems, equipment and features, and the material condition of fire barriers were inspected against Ginna's licensing basis and industry standards. In addition, the passive fire protection features were inspected including the ventilation system fire dampers, structural steel fire proofing, and electrical penetration seals. The following plant areas were inspected:

- Technical Support Center (Fire Zone TSC-1S);
- Auxiliary Building Operating Floor (Fire Zone ABO);
- Cable Tunnel (Fire Area CT);
- Relay Room (Fire Zone RR); and
- SAFW Pump Building (Fire Area SAF).

b. Findings

No findings of significance were identified.

1R06 Flood Protection Measures (71111.06 - One sample)

a. Inspection Scope

The inspectors walked down the auxiliary building basement to verify Ginna had implemented appropriate measures to reduce the possibility that the area could be damaged by internal flooding. To perform this evaluation, the inspectors reviewed the UFSAR, integrated plant safety assessment, condition reports (CRs), plant change records (PCRs), the site repetitive task database, and various flooding analysis for equipment located in the area of concern. During the field walkdown, to the extent practicable, the condition of flood mitigation equipment in this area was examined by the inspectors.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification Program (71111.11)

.1 Resident Inspector Quarterly Review (71111.11Q – One sample)

a. Inspection Scope

On January 21, 2009, the inspectors observed a licensed operator simulator scenario,

ES1213-05, "Small Break Loss of Coolant Accident," Revision 9. The inspectors reviewed the critical tasks associated with the scenario, observed the operators' performance, and observed the post-evaluation critique. The inspectors also reviewed and verified compliance with Ginna procedure OTG-2.2, "Simulator Examination Instructions," Revision 43.

b. Findings

No findings of significance were identified.

.2 Biennial Review (71111.11B – One sample)

a. Inspection Scope

The following inspection activities were performed using NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Revision 9, Inspection Procedure Attachment 71111.11, "Licensed Operator Requalification Program," NRC Manual Chapter 0609, Appendix I, "Operator Requalification Human Performance Significance Determination Process," and 10 CFR Part 55.

The inspectors reviewed documentation of operating history since the last requalification program inspection. The inspectors also discussed facility operating events with the resident staff. Documents reviewed included NRC inspection reports, licensee event reports, Ginna's corrective action program (CAP), and the most recent NRC plant issues matrix. The inspectors also reviewed specific events from Ginna's CAP that involved human performance issues for licensed operators to ensure that operational events were not indicative of possible training deficiencies.

The operating and written examinations for the week of January 12, 2009, were reviewed for quality, performance, and excessive overlap.

On February 19, 2009, the results of the annual operating tests and the written exam for 2009 were reviewed to determine if pass fail rates were consistent with the guidance of NUREG-1021 and NRC Manual Chapter 0609, Appendix I. The inspectors verified that:

- Crew pass rates were greater than 80%. (Pass rate was 85.7%);
- Individual pass rates on the written exam were greater than 80%. (Pass rate was 96.8%);
- Individual pass rates on the job performance measures of the operating exam were greater than 80%. (Pass rate was 96.8%); and
- More than 75% of the individuals passed all portions of the exam. (93.5% of the individuals passed all portions of the exam).

Observations were made of the dynamic simulator exams and job performance measures (JPMs) administered during the week of January 12, 2009. These observations included facility evaluations of crew and individual performance during the dynamic simulator exams and individual performance of six JPMs.

The remediation plans for a crew/individual's failure and a written exam failure were reviewed to assess the effectiveness of the remedial training.

Four license reactivations were reviewed to ensure that license conditions and applicable program requirements were met.

Simulator performance and fidelity were reviewed for conformance to the reference plant control room. Selected simulator deficiency reports were reviewed to assess licensee prioritization and timeliness of resolution. Simulator testing records were reviewed to verify that scheduled tests were performed.

A sample of records for requalification training attendance, program feedback, reporting, and 10 operator medical reports were reviewed for compliance with license conditions, including NRC regulations.

b. Findings

No findings of significance were identified.

1R12 Maintenance Effectiveness (71111.12Q - Two samples)

a. Inspection Scope

The inspectors evaluated work practices and follow-up corrective actions for selected systems, structures, and components (SSCs) for maintenance effectiveness. The inspectors reviewed the performance history of those SSCs and assessed extent-of-condition determinations for those issues with potential common cause or generic implications to evaluate the adequacy of corrective actions. The inspectors reviewed Ginna's problem identification and resolution actions for these issues to evaluate whether Ginna had appropriately monitored, evaluated, and dispositioned the issues in accordance with procedures and the requirements of 10 CFR Part 50.65, "Requirements for Monitoring the Effectiveness of Maintenance." In addition, the inspectors reviewed selected SSC classifications, performance criteria and goals, and corrective actions that were taken or planned to verify whether the actions were reasonable and appropriate.

The following issues were reviewed:

- Control Room Emergency Air Treatment System (CREATS) train 'B' breaker failure (CR-2008-009624).
- Failure of main steam atmospheric relief valve (ARV) 'B' (AOV-3410) to close (CR-2009-001218).

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessments and Emergent Work Control (71111.13 – Four samples)

a. Inspection Scope

The inspectors evaluated the effectiveness of Ginna's maintenance risk assessments required by 10 CFR Part 50.65(a)(4). The inspectors discussed with control room operators and scheduling department personnel required actions regarding the use of Ginna's online risk monitoring software. The inspectors reviewed equipment tracking documentation and daily work schedules, and performed plant tours to verify that actual plant configuration matched the assessed configuration. Additionally, the inspectors verified that risk management actions, for both planned and emergent work, were consistent with those described in CNG-OP-4.01-1000, "Integrated Risk Management," Revision 00100.

Risk assessments for the following out-of-service SSCs were reviewed:

- Planned monthly surveillance testing on the 'B' emergency diesel generator (EDG) during a cold weather condition (January 14, 2009);
- Emergent failure of main control room annunciator panels during maintenance activities (February 5, 2009);
- The week of March 8, 2009, included planned maintenance for the 'B' train of the RHR system, testing of the 'B' diesel generator, and 'B' train reactor trip breaker testing; and
- Planned removal of concrete structures adjacent to the buried auxiliary building service water (SW) supply and return piping (March 25 to 31, 2009).

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations (71111.15 - Five samples)

a. Inspection Scope

The inspectors reviewed operability evaluations and/or CRs in order to verify that the identified conditions did not adversely affect safety system operability or plant safety. The evaluations were reviewed using criteria specified in NRC Regulatory Issue Summary 2005-20, "Revision to Guidance formerly contained in NRC Generic Letter 91-18, Information to Licensees Regarding Two NRC Inspection Manual Sections on Resolution of Degraded and Nonconforming Conditions and on Operability" and Inspection Manual Part 9900, "Operability Determinations and Functionality Assessments for Resolution of Degraded or Nonconforming Conditions Adverse to Quality or Safety." In addition, where a component was inoperable, the inspectors verified the TS limiting condition for operation implications were properly addressed.

The inspectors performed field walkdowns, interviewed personnel, and reviewed the following items:

- CR 2009-0242, EDG Day Tank Level Set Points;

- CR 2009-0437, Potential Error in Safety Injection (SI) Accumulator Low Pressure Surveillance Limit;
- CR 2009-0738, Motor-Operated Valve (MOV) 4007 Design Analysis Does Not Account For Worst Case Operational Scenario;
- CR 2009-1305, EDG Jacket Water HX Leak; and
- CR 2009-0903, Slightly Lowering Oil Level On RCP 1A Bearing.

b. Findings

No findings of significance were identified.

1R18 Plant Modifications (71111.18 – One sample)

Permanent Modification

a. Inspection Scope

The inspectors reviewed PCR 2008-0034, "Installation of Rupture Disks Upstream of the SW Thermal Relief Valves," Revision 0. The inspectors reviewed the PCR to ensure that the installation of the rupture disk would not adversely affect pressure relief capability and that the material classification and functional properties were consistent with the design basis and were compatible with installed SSCs. The inspectors verified that affected procedures, drawings, and analysis were identified and that necessary changes were captured in the PCR.

b. Findings

No findings of significance were identified.

1R19 Post-Maintenance Testing (71111.19 - Five samples)

a. Inspection Scope

The inspectors observed portions of post-maintenance testing (PMT) activities in the field to determine whether the tests were performed in accordance with approved procedures. The inspectors assessed each test's adequacy by comparing the test methodology to the scope of maintenance performed. In addition, the inspectors evaluated the test acceptance criteria to verify that the tested components satisfied the applicable design, licensing bases and TS requirements. The inspectors reviewed the recorded test data to determine whether the acceptance criteria were satisfied.

The following PMT activities were reviewed:

- STP-O-2.2QB, "RHR Pump 'B' Inservice Test," Rev. 00101, to test the 'B' RHR train after installation of a relief valve modification performed under work order (WO) 20805574 (January 5, 2009);

- GME-45-99-01, "Electric Motor Inspection and Maintenance," Rev. 02101, to retest a component cooling water pump breaker under WO 20807112, "Perform Electrical Tests on Breaker MO/CF1B" (January 27, 2009);

- STP-O-12.2, "EDG 'B'," Rev. 00301, to test the 'B' EDG after jacket water HX maintenance due to tube leaks under WO 20900978, "Open, Inspect, Repair ESW08B" (March 2, 2009);

- STP-O-12.1, "EDG 'A'," Rev. 00401, to test the 'A' EDG after fuel oil day tank check valve work under WO 20800872, "Perform Major Inspection of CV-5960A" (March 3, 2009); and

- STP-O-2.2QB, "RHR Pump 'B' Inservice Test," Rev. 00101, to test the 'B' RHR train after pump and valve maintenance under WOs 20805650, 20805651, 20805665, and 20900937, "'B' RHR Functional Equipment Group Maintenance Window" (March 9, 2009).

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing (71111.22 – Six samples)

a. Inspection Scope

The inspectors observed the performance and/or reviewed test data for the following surveillance tests that are associated with selected risk-significant SSCs to verify that TSs were followed and that acceptance criteria were properly specified. The inspectors also verified that proper test conditions were established as specified in the procedures, no equipment preconditioning activities occurred, and acceptance criteria were met.

- STP-O-22.2, "Local Leak Rate Test of Personnel Hatch Door Seal," Rev. 00003 (January 26, 2009) (IST LLRT)
- STP-O-12.2, "EDG 'B'," Rev. 00301 (February 11, 2009) (IST)
- PT-16Q-T, "AFW Turbine Pump - Quarterly, " Rev. 05801 (February 12, 2009) (IST)
- PT-36Q-C, "SAFW Pump 'C' - Quarterly," Rev. 05700 (February 18, 2009) (IST)
- STP-O-2.8Q, "CCW Pump - Quarterly Test," Rev. 00002 (March 14, 2009) (IST)
- STP-O-16Q-B, "AFW Pump 'B' - Quarterly," Rev. 00300 (March 26, 2009) (IST)

b. Findings

No findings of significance were identified.

Cornerstone: Emergency Preparedness

1EP6 Drill Evaluation (71114.06 – One sample)

a. Inspection Scope

On January 21, 2009, the inspectors observed a licensed operator simulator scenario, ES1213-05, "Small Break Loss of Coolant Accident," Revision 9, which included a limited test of Ginna's emergency response plan. The inspectors verified that emergency classification declarations and notifications were completed in accordance with 10 CFR Part 50.72, 10 CFR Part 50 Appendix E, and the site emergency plan implementing procedures.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator Verification (71151)

Cornerstone: Initiating Events

a. Inspection Scope (71151 – Three samples)

Using the criteria specified in Nuclear Energy Institute (NEI) 99-02, "Regulatory Assessment Performance Indicator (PI) Guideline," Revision 5, the inspectors verified the completeness and accuracy of the PI data for calendar year 2008 for unplanned scrams per 7,000 critical hours, unplanned power changes per 7,000 critical hours, and unplanned scrams with complications. To verify the accuracy of the data, the inspectors reviewed monthly operating reports, NRC inspection reports, and Ginna event reports issued during 2008.

b. Findings

No findings of significance were identified.

4OA2 Identification and Resolution of Problems (71152 – One sample)

.1 Continuous Review of Items Entered into the Corrective Action Program

a. Inspection Scope

As specified by Inspection Procedure 71152, "Identification and Resolution of Problems," and in order to help identify repetitive equipment failures or specific human performance issues for follow-up, the inspectors performed a daily screening of items entered into Ginna's CAP. This review was accomplished by reviewing electronic copies of CRs, periodic attendance at daily screening meetings, and accessing Ginna's computerized

database.

b. Findings

No findings of significance were identified.

.2 Annual Sample – TDAFW Pump Surveillance Test Failure (71152 – One sample)

a. Inspection Scope

The inspectors reviewed the troubleshooting activities implemented by Ginna personnel to identify and correct the cause for a failed surveillance test performed on the TDAFW pump in December 2008. The review included examining components in the plant, interviewing personnel, and examining a Ginna root-cause report.

b. Findings and Observations

Introduction: The inspectors identified an apparent violation (AV) of TS 5.4.1.a, "Procedures," for a failure of Ginna to implement an effective PM program for the TDAFW pump governor linkages in accordance with Ginna procedures. Specifically, procedure M-11.5C, "AFW Pump Minor Mechanical Inspection and Maintenance," Revision 29, which includes steps for cleaning and lubricating the TDAFW pump governor linkages was not implemented. The cleaning and lubrication steps were inappropriately deleted during the work planning process for the PM scheduled on the TDAFW system. As a result, the governor linkages were not lubricated during the March 2008 maintenance period, which directly contributed in the failure of the TDAFW pump during testing performed on December 2, 2008.

Description: On December 2, 2008, Ginna performed a test of the TDAFW pump system in accordance with procedure PT-16Q-T, "AFW Turbine Pump—Quarterly," Revision 05801. During this test, the pump did not develop the minimum acceptable discharge flow and pressure. The pump was declared inoperable and an incident response team was formed to investigate the cause of the test failure. Oil samples from the governor control system were taken for analysis, and the vendor was contacted. Troubleshooting eventually revealed that the governor linkage stuck preventing the pump from developing the required pump head and flow to satisfy the test.

Initial troubleshooting involved removal of a pin from the governor linkage and verification of adequate freedom of movement of the relay valve, the servo arm, and the control valve arm. The inlet steam check valves were also verified to be functional. The quarterly test was re-performed after this initial troubleshooting and all TDAFW pump performance parameters were satisfied. Oil sample results subsequently became available and based on a higher than expected particulate count (although still within specification), Ginna replaced the governor. Upon retesting the system, after the governor was replaced, the speed of the turbine was unable to be adjusted and a linkage pin was noted to be stuck halfway up the yoke arm at the bottom of the servo arm. The linkage was then disassembled, cleaned, and lubricated with a dry lubricant suitable for a high temperature environment. A more comprehensive surveillance test involving full flow to the steam generators was then performed, the governor was

adjusted, and the TDAFW pump was restored to an operable condition. The troubleshooting and maintenance resulted in slightly less than 45 hours of unscheduled unavailability time for the TDAFW pump.

Ginna's root cause team evaluated the TDAFW pump failure and determined that during the last scheduled maintenance window for the TDAFW pump in March 2008, the governor linkages were not lubricated because steps in procedure M-11.5C that lubricate the linkages, were deleted during the maintenance planning process. The lack of proper lubrication in the governor linkage assembly caused the linkage to bind during the December 2008 surveillance testing. The Ginna team identified the root cause of the TDAFW pump failure to be inadequate managerial controls for the level of detail described in the preventative maintenance scope, as described in the maintenance repetitive task description. Additionally, Ginna determined that no specific barrier existed to ensure that the requirements of the repetitive task were met, and that no linkage lubrication standard existed to ensure that the proper type of lubrication was used and that the proper scope of cleaning was performed.

The inspectors reviewed the root cause evaluation and associated corrective actions. Planned corrective actions include increased frequency of testing to validate the identified root cause and appropriate resolution, upgrades to the maintenance procedure for disassembly and lubrication of bearing wear surfaces and linkages, and guidance on the type of lubricant to use. In addition, corrective actions include enhancements to the scope of minor maintenance requirements on the TDAFW pump to ensure that the linkage cleaning and lubrication is not missed, and establishing a 9-year periodicity to rebuild the governor and associated linkages. The 9-year rebuild is within the vendor's recommended 10-year service life for the TDAFW pump governor.

Analysis: The performance deficiency associated with this event is that Ginna did not implement an adequate PM program for the TDAFW pump governor linkages. Specifically, during planning for March 2008 PM activities on the TDAFW pump, steps for cleaning and lubricating the governor linkage were deleted from procedure, M-11.5C. As a result, during a quarterly surveillance test on December 2, 2008, the governor control linkage, which had not been properly lubricated in March 2008, did not operate properly which caused the pump to fail to develop the required discharge flow and pressure.

The inspectors determined that this finding is more than minor because it is associated with the procedure quality attribute of the Mitigating Systems Cornerstone and affects the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the failure to conduct adequate maintenance resulted in inoperability of the TDAFW pump. In accordance with IMC 0609, "Significance Determination Process," Phase 1 worksheets, a Phase 2 risk analysis was required because the finding represents an actual loss of safety function of a single train for greater than the TS allowed outage time of 7 days.

The Phase 2 risk evaluation was performed in accordance with IMC 0609, Appendix A, Attachment 1, "User Guidance for Significance Determination of Reactor Inspection Findings for At-Power Situations." Because the precise time is unknown for the

inception of TDAFW pump inoperability, an exposure time of one-half of the time period (t/2) between discovery (December 2, 2008) to the last successfully completed quarterly surveillance test (September 3, 2008) was used. This t/2 exposure time equals 45 days. Using Ginna's Phase 2 SDP notebook, pre-solved worksheets, and an initiating event likelihood of 1 year (>30-days exposure time), the inspector identified that this finding is of potentially substantial safety significance (Yellow). The dominant sequence identified in the Phase 2 notebook involves a loss of offsite power (LOOP), failure of both EDGs, and the subsequent loss of the TDAFW pump, with the failure of operators to restore offsite power within 1 hour: LOOP (2) + EAC (3) + TDAFW (0) + REC1 (0) = 5 (Yellow). In recognition that the Phase 2 notebook typically yields a conservative result, a NRC Region I Senior Reactor Analyst (SRA) performed a Phase 3 risk assessment of this finding.

The SRA used Ginna's Standardized Plant Analysis Risk (SPAR) model, Revision 3.45, dated June 2008, and graphical evaluation module, in conjunction with the System Analysis Programs for Hands-On Integrated Reliability Evaluations, Version 7, to estimate the internal risk contribution of the Phase 3 risk assessment. The following assumptions were used for this assessment:

- To closely approximate the type of failure exhibited by the TDAFW pump, the SRA used the TDAFW pump failure-to-run event <AFW-TDP-FR-TDP> and changed its failure probability to 1.0, representing a 100 percent failure-to-run condition;
- The exposure time for this condition was 1,125 hours (45 days, plus 45 hours of unavailability during troubleshooting and repair);
- Based upon the nature of the failure, no operator recovery credit was provided;
- All remaining events were left at their nominal failure probabilities; and
- Cut-set probability calculation truncation was set at 1E-13.

Based upon the above assumptions, the SPAR model internal contribution to conditional core damage probability (CCDP) was calculated at 4.8E-6. The dominant internal event sequences involved a loss of offsite power event with subsequent failure of one or both EDGs (station blackout event) and/or the failure of a motor-driven AFW train. These Phase 3 SPAR model results correlate well to the Phase 2 SDP notebook dominant core damage sequences.

The SRA used Ginna's external risk assessment to quantify the external risk contribution for this condition. Seismic event likelihood is very low and qualitatively determined to not be a significant contributor to external event risk. Ginna's approved Probabilistic Risk Analysis Evaluation Request No. G1-2009-002, dated February 27, 2009, identified the external (fire) risk contribution associated with the failure of the TDAFW pump to be 3.3E-6. The risk contribution associated with flooding events was calculated to be 7.4E-7. These delta CCDP values were based upon a 45-day exposure period. The most significant fire-initiated core damage sequences involved a spectrum of control room fires (with automatic and manual suppression failures) with subsequent failure of the TDAFW pump, and the failure of operators to align the 'C' SAFW pump for decay heat removal via the steam generators. In addition, a relay room fire (with automatic and manual suppression failures) with subsequent failure of the TDAFW pump, and failure of operators to align the 'C' SAFW pump, were identified as significant core damage sequences. The most significant flooding core damage sequences quantified by Ginna

involved a large SW system line break/rupture in the auxiliary building. The SW system supplies the component cooling water (CCW) system. Including the loss of CCW, as a result of the SW line break, the flooding would cause the subsequent loss of charging system (located in the basement elevation of the auxiliary building) and consequential reactor coolant pump seal failure (small break loss of coolant accident).

The calculated total risk significance of this finding is based upon the summation of internal and external risk contributions [delta CCDP internal + delta CCDP external (fires and floods) = delta CCDP total]. 4.8E-6 + 3.3E-6 + 7.4E-7 = 8.8E-6 delta CCDP. Annualized, this value of 8.8E-6 delta core damage frequency (CDF) represents a low to moderate safety significance or White finding.

The Ginna containment is classified as a pressurized water reactor large dry containment design. Based upon the dominant sequences involving loss of offsite power and station blackout initiating events, per IMC 0609, Appendix H, Table 5.2, "Phase 2 Assessment Factors—Type 'A' Findings at Full Power," the failure of the TDAFW pump does not represent a significant challenge to containment integrity early in the postulated core damage sequences. Consequently, this finding does not screen as a significant large early release contributor because the close-in populations can be effectively evacuated far in advance of any postulated release due to core damage. Accordingly, the risk significance of this finding is associated with the delta CDF value, per IMC 0609, Appendix H, Figure 5.1, and not delta large early release frequency.

This finding has a cross-cutting aspect in the area of human performance because Ginna did not establish appropriate controls to assess how changes to the TDAFW PM program would impact operation of the TDAFW system (H.3.b per IMC 0305).

Enforcement: TS 5.4.1.a, "Procedures," requires, in part, that the applicable procedures recommended in Appendix A of Regulatory Guide (RG) 1.33, "Quality Assurance Program Requirements (Operations)," shall be established, implemented and maintained. RG 1.33, Appendix A, Section 9 (b), states, "PM schedules should be developed to specify lubrication schedules, inspection of equipment, replacement of such items as filters and strainers, and inspection or replacement of parts that have a specific lifetime such as wear rings." Ginna procedure M-11.5C, "Auxiliary Feedwater Pump Minor Mechanical Inspection and Maintenance," Rev. 29, which is an 18-month maintenance requirement for the TDAFW pump, contains steps which would have properly conducted cleaning and lubrication maintenance on the governor linkage.

Contrary to the above, in March 2008, while performing PM on the TDAFW pump, Ginna technicians used a procedure that did not implement the correct lubrication schedules. Specifically, procedure M-11.5C, "AFW Pump Minor Mechanical Inspection and Maintenance," had steps for cleaning and lubricating the TDAFW pump governor linkages that were deleted during the maintenance work planning. The lack of lubrication led to the operational failure of the TDAFW pump as demonstrated by testing on December 2, 2008. This issue was entered into Ginna's CAP as CR 2008-9911. Pending final determination of significance, this finding is identified as an AV. **(AV 05000244/2009002-01: Failure to Properly Lubricate Governor Linkage)**

4OA3 Followup of Events and Notices of Enforcement Discretion (71153 – One sample)

Unusual Event Declaration for Loss of Four Annunciator Panels

a. Inspection Scope

On February 5, 2009, at 1:58 p.m., during a planned maintenance activity on the MCB annunciator system, Ginna experienced a failure of MCB annunciator panels 'E, F, G, and H.' At the time of the event, instrumentation and control (I&C) technicians were replacing an annunciator card in control room panel 'H'. In accordance with the Ginna emergency plan, control room operators declared an Unusual Event (UE) at 2:13 p.m. in accordance with emergency action level 7.3.1, "Unplanned Loss of Annunciators or Indications on any Control Room Panels for Greater Than 15 minutes." Subsequent troubleshooting activities by Ginna personnel determined that the most likely cause of the failure was an electrical spike, created by the annunciator card replacement activity that caused the annunciator panel power supplies to down power into a preprogrammed quiescent mode, which de-energized the annunciator panels. After Ginna verified that the annunciator power supplies had not been damaged by the electrical spike, the power supplies were reenergized to their normal full rated output level and the annunciator panels were tested. Ginna terminated the UE at 4:35 a.m. on February 6, 2009.

The resident inspectors responded to the control room and technical support center to evaluate the initial actions taken by operators in response to the loss of the annunciator panels and to observe troubleshooting activities. Inspector activities included verifying Ginna operators were adhering to the applicable emergency response procedures and that troubleshooting activities were performed in a controlled manner. While the annunciator panels were not functioning, additional operators were stationed in the control room to monitor plant conditions using alternate systems such as the plant process computer. The inspectors verified that appropriate compensatory measures were in place to monitor plant parameters in the control room and the plant. During the event, the inspectors performed tours to verify that the plant was maintained in a stable condition and actions were in place to minimize the possibility of a plant transient.

Following the event, the inspectors interviewed Ginna I&C technicians who were involved in the maintenance activity, operations personnel who were on shift during the event, and reviewed the annunciator card replacement work instruction package.

b. Findings

Introduction: A Green self-revealing finding was identified on February 5, 2009, when Ginna failed to review applicable internal operating experience and implement compensatory actions to minimize the consequences associated with replacement of the annunciator cards, in accordance with CNG-OP-4.01-1000, "Integrated Risk Management". Due to this failure, Ginna I&C technicians inadvertently de-energized main control board annunciator panels 'E, F, G, and H,' which resulted in the subsequent declaration of an UE.

Description: The Ginna control room operating board has three main control room sections. Above each section are four annunciator panels that are powered by individual

power supplies. Each panel contains electronic card modules that inform operators of potential off-normal plant conditions by generating a warning light and audible alarm. On July 4, 2007, Ginna declared an UE when an age-related annunciator card failure rendered several annunciator panels inoperable. To reduce the possibility of a subsequent age-related card failure, Ginna began to replace the annunciator cards, the majority of which had been in service since original plant construction, with reengineered cards that were not susceptible to a similar age-related failure mechanism. At the time of the February 5, 2009, event, Ginna I&C personnel had replaced all but 11 of the 300 control room annunciator cards.

The inspectors noted that the potential for the annunciator panel power supplies to down power into a "safe" mode in the event of an electrical power spike was a known vulnerability that was documented in a Ginna mechanical maintenance procedure. Specifically, Ginna procedure M-94, "Repair of RIS Alarm Panels in MCB," contained a caution that stated, "Electrical noise or excessive ripple on annunciator power supply can cause converter lock-up, resulting in loss of an annunciator panel." Despite this potential, the applicable work instructions for the card replacement activity did not have adequate instructions to minimize the potential for this event to occur or sufficient instructions to recover from this event if the power supplies were inadvertently de-energized. This was contrary to the requirements outlined in Ginna procedure CNG-OP-4.01-1000, "Integrated Risk Management," which requires work activities that are considered medium risk, which the card replacement activity was classified, to have contingency plans to be based, in part, on operating experience. As a result, when the power supplies were inadvertently de-energized, restoration of the alarm panels was delayed until recovery work instructions were prepared and implemented.

Ginna's corrective actions include adding a trouble shooting plan to work packages for annunciators that depicts how to restore failed annunciators, revising CNG-OP-4.01-1000, "Integrated Risk Management," to incorporate a checklist of equipment important to the emergency plan in the screening section of the risk process, and having an senior reactor operator review the final weekly schedule for maintenance that could possibly impact equipment used by the emergency plan. In addition, corrective actions include revising M-94, "Repair of RIS Alarm Panels in Main Control Board (MCB)," to provide additional guidance on potential failure modes and require additional operations compensatory measures and potential emergency action level (EAL) risk mitigation during repair activities on the annunciators.

Analysis: The performance deficiency associated with this self-revealing finding involved a failure of Ginna to review applicable internal operating experience and implement compensatory actions to minimize the consequences associated with replacement of the annunciator cards. Specifically, the work package that was being used by Ginna to replace the annunciator cards, did not have instructions in place to mitigate a known vulnerability concerning the annunciator panel power supplies—the potential of the supplies to de-energize in the event of a power spike. As a result, the annunciator panels were inadvertently de-energized during the maintenance activity, and the panels remained de-energized for over 14 hours.

This finding is more than minor because it is associated with the design control attribute of the Mitigating Systems Cornerstone and affected the cornerstone objective of

ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. When the annunciator panels were de-energized, the ability of operators to identify and respond to off-normal plant conditions was degraded. Using Phase 1 of IMC 0609, Appendix A, the inspectors determined that the finding was of low safety significance (Green), because the finding did not represent a loss of system safety function; did not represent an actual loss of safety function of a single train for greater than its Tech Spec allowed outage time; did not represent an actual loss of safety function of one or more non-Tech Spec trains of equipment designated as risk-significant per 10CFR50.65, for greater than 24 hours; and did not screen as potentially risk significant due to a seismic, flooding, or severe weather initiating event.

This finding has a cross-cutting aspect in the area of human performance because Ginna personnel did not appropriately plan work activities by incorporating risk insights and the need for planned contingencies compensatory actions and abort criteria, which directly contributed to the loss of power to the control board annunciator panels and declaration of an UE (H.3.a per IMC 0305).

Enforcement: Enforcement action does not apply because the performance deficiency did not involve a violation of a regulatory requirement and the control room annunciator system is not a safety-related system. Additionally, the annunciator panel system failure did not adversely impact safety-related systems. **(FIN 05000244/2009002-02, Inadequate Risk Management Results in Loss of Normal Control Room Annunciators)**

4OA5 Other Activities

Quarterly Resident Inspector Observations of Security Personnel and Activities

a. Inspection Scope

During the inspection period, the inspectors conducted observations of security force personnel and activities to ensure that the activities were consistent with Ginna's security procedures and regulatory requirements relating to nuclear plant security. These observations took place during both normal and off-normal plant working hours.

These quarterly resident inspector observations of security force personnel and activities did not constitute any additional inspection samples. Rather, they were considered an integral part of the inspectors' normal plant status review and inspection activities.

b. Findings

No findings of significance were identified.

4OA6 Meetings, Including Exit

.1 Annual Assessment Meeting Summary

On March 24, 2009, the Division of Reactors Projects Branch 1 Chief met with Ginna's senior management to discuss the annual assessment letter, including the NRC's assessment of Ginna's performance, and the NRC's inspection schedule.

.2 Exit Meeting Summary

On April 16, 2009, the resident inspectors presented the inspection results to Mr. John Carlin and other members of his staff, who acknowledged the findings. The inspectors verified that none of the material examined during the inspection is considered proprietary in nature.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel

J. Carlin	Vice President, Ginna
D. Dean	Assistant Operations Manager (Shift)
M. Giacini	Scheduling Manager
E. Hedderman	Director, Performance Improvement
T. Hedges	Emergency Preparedness Manager
D. Holm	Plant Manager
F. Mis	General Supervisor, Radiation Protection
J. Pacher	Manager, Nuclear Engineering Services
J. Sullivan	Manager of Operations

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

05000244/2009002-01	AV	Failure to Properly Lubricate Governor Linkage (Section 4OA2)

Opened and Closed

05000244/2009002-02	FIN	Inadequate Risk Management Results in Loss of Normal Control Room Annunciators (Section 4OA3)

LIST OF DOCUMENTS REVIEWED

Section 1R01: Adverse Weather Protection

Document
UFSAR, Rev. 21

Procedure
O-22, Cold Weather Walkdown Procedure, Rev. 00500

Section 1R04: Equipment Alignment

Documents
Component Cooling Water System Health Report, 1st Quarter, 2009
DBCOR 2004-0038, Miscellaneous Ginna Input Requested by Westinghouse Data Requests
Operating Experience Smart Sample, FY 2009-02, Negative Trend and Recurring Events Involving Feedwater Systems, Rev. 0

Procedures
ATT-1.0, Attachment at Power CCW Alignment, Rev. 3
ATT-1.1, Attachment Normal CCW Flow, Rev. 0
S-30.5, Standby Auxiliary Feedwater Pump and Valve and Breaker, Rev. 34
S-30.9, Component Cooling Water Flow Path Verification, Rev. 2

Drawings
33013-1233, Condensate Low Pressure Feedwater Heaters, Rev.29
33013-1235, Condensate, Rev. 20
33013-1236, Feedwater, Sheet 1, Rev. 14
33013-1236, Feedwater, Sheet 2, Rev. 13
33013-1238, Standby Auxiliary Feedwater, Rev.25
33013-1239, Diesel Generator 'B,' Rev. 21
33013-1245, Auxiliary Coolant Component Cooling Water, Rev. 31
33013-1246, Auxiliary Coolant Component Cooling Water, Sheet 1, Rev. 15
33013-1246, Auxiliary Coolant Component Cooling Water, Sheet 2, Rev. 12
33013-1252, Condensate, Rev. 23

Condition Reports

2006-7077	2007-5491	2008-4841
2006-7095	2008-0208	2008-4947
2006-7103	2008-0253	2009-1245
2006-7270	2008-3858	2009-1246

Work Orders

20501896	20702792	20800696
20600459	20703619	20800697
20602676	20703960	20800698
20701528	20706135	

Section 1R05: Fire Protection

Document
Ginna Fire Protection Plan, Rev. 5

Procedures
FRP-6.0, Auxiliary Building Operating Floor, Rev. 6
FRP-29.0, Technical Support Center, Rev. 12
FRP-35.0, Standby Auxiliary Feedwater Building, Rev. 4
PT-13.4.29, Halon System Testing Relay Room/Computer Room, Rev. 02401
PT-13.4.35, Testing of Smoke Detection Zone Z-35 (Spent Fuel Area), Rev. 9
PT-13.11.4, Gamewell Smoke Detector Testing Zone Z25, Rev. 12

PT-13.11.15, Testing of Fire Detection Zone Z-30 TSC Equipment Rooms-South, Rev. 10
PT-13.11.21, Gamewell Smoke Detector Testing Zone Z04, Rev. 1
PT-13.16.0, Star Corporation Heat Detector Zone Testing Zone Z05, Rev. 11

Section 1R06: Flood Protection Measures

Documents
I-DC-787-0428-13, Water Intrusion into RHR Pit from Auxiliary Building Suppression Systems, Rev. 3
MPR-3084, Evaluation of Internal and External Flooding at R.E. Ginna Nuclear Power Plant, Rev. 0
NUREG-0821, Integrated Plant Safety Assessment Systematic Evaluation Program, Rev. 0
PCR-2005-0037, Seismically Upgrade Reactor Water Makeup Tank and Monitor Tanks for RHR Flooding Issues, Rev. 0

Drawing
33013-1271, Waste Disposal-Liquid RC Drain Tank P&ID, Rev. 13

Section 1R11: Licensed Operator Requalification

Documents
ANSI/ANS-3.4-1983, Medical Certification and Monitoring of Personnel Requiring Operator Licenses for Nuclear Power Plants.
ANSI/ANS-3.5-1985, Nuclear Power Plant Simulators for Use in Operator Training
ES1213-05, Small Break Loss of Coolant Accident, Rev. 9
GSG-2.0, Simulator Testing, Rev. 2
OTG-12.0, Licensed Operator Requalification Training Schedule, Rev. 10
R.E. Ginna Operations PQW Qualification Matrix
R.E. Ginna 2009 Requalification Examination Sample Plan
R.E. Ginna Simulator Test Plan
TR-C.5.2, Licensed Operator Requalification Program, Rev. 35
Operating Experience:
- OE-25273
- OE-25091
- OE-2008-0356
- OE-2008-1212
- Kewanunee 2007007/009
- OE-2008-0144
- OE-RIS2007-21
- OE-2008-0024

Training Review Requests:
- GNA-2008-281
- GNA-2007-546
- GNA-2007-559
- GNA-LOR-2007-7

Training Change Orders:
- GNA-LOR-2008-44
- GNA-LOR-2007-157
- GNA-LOR-2007-158

Simulator Deficiency Reports:
- SDR 2007-021
- SDR 2007-036
- SDR 2007-040
- SDR 2007-081
- SDR 2007-095
- SDR 2007-131
- SDR 2007-132
- SDR 2008-066
- SDR 2008-082
- SDR 2008-086
- SDR 2008-135
- SDR 2008-153

Transient Tests:
- 14.4.8 BE-01, Manual Reactor Trip
- 14.4.8 BE-02, Trip of Feedwater Pumps
- 14.4.8 BE-03, Simultaneous Closure of Both MSIVs
- 14.4.8 BE-04, Simultaneous Trip of Both RCPs
- 14.4.8 BE-05, Single RCP Trip
- 14.4.8 BE-06, Main Turbine Trip
- 14.4.8 BE-07, Maximum Power Rate Ramp
- 14.4.8 BE-08, Maximum Size RCS Rupture W/Loss of All Offsite Power
- 14.4.8 BE-09, Maximum Unisolable Main Steam Line Rupture
- 14.4.8 BE-10, Slow RCS Depressurization Using PORV

Steady State and Computer Tests:
- 14.03.02, Computer Real Time Test
- 14.04.01, Operating Limits Monitoring
- 14.04.02, Normal Operations Acceptance Test
- 14.04.03.01, 100% Steady State Accuracy Test
- 14.04.03.02, 100% Power Steady State Drift Check
- 14.04.03.04, Initial Conditions Stability Check
- 14.04.04.01, NSSS – BOP Energy and Mass Balance

Procedures

CNG-TR-1.01-1000, Conduct of Training, Rev. 00200
CNG-SE-1.01-1001, Fitness for Duty Program, Rev. 00001
EPIP-2.18, Control Room Dose Assessment, Rev. 01600
OTG-2.2, Simulator Examination Instructions, Rev. 43

Condition Reports

2008-0393
2008-8713
2008-9753
2009-0146
2009-0232
2009-0203
2009-0297

Audits and Assessments:

Quarterly Report QPAR-2007-01-G
Quarterly Report QPAR-2007-02-G
Quarterly Report QPAR-2007-03-G
Quarterly Report QPAR-2007-04-G

Quarterly Report QPAR-2008-01-G
Quarterly Report QPAR-2008-02-G
Quarterly Report QPAR-2008-03-G
Training and Qualifications Programs/TQS-08-01
Quality Performance Assessment Report 2007-0073
Quality Performance Assessment Report 2007-0083
Quality Performance Assessment Report 2008-0042
QPA Assessment Report 2007-0042
QPA Assessment Report 2007-0070
QPA Assessment Report 2007-0073
QPA Assessment Report 2007-0080

Section 1R12: Maintenance Effectiveness

Documents
Apparent Cause Evaluation for CR 2009-0129 (1/8/09)
Apparent Cause Evaluation for CR 2008-9624 (11/18/08)
CMIS Main Steam MR Train MSS01 Description and MR Functions
Control Building Ventilation, Ginna System Description, Chapter 22, Rev. 27
Control Building HVAC System (#71), System Health Report (Q1 – 2009)
Form MR5, Goal Determination for Control Room HVAC System CBV02, Rev. 2 (ID #: 2007-005)
Form MR5 Goal Determination for Main Steam MSS01, Rev. 1
Main Steam, Ginna System Description, Chapter 40, Rev. 12
Main Steam System (#81), System Health Report (Q1 – 2009)
MR Manager Scoping for CRV02A – CREATS Filtration Train 'A'
MR Manager Scoping for CBV02 – Control Room Toxic Gas Monitors and Radiation Monitors
MR Manager Scoping for MSS01 – Main Steam Supply Header 'A'
MR Status from Ginna Nuclear Engineering website (Revised 1/19/09)
Technical Basis for Continued Operability/Functionality CR-2008-7154, Attachment 5
TS 3.3.6 CREATS Actuation Instrumentation, Amendment 87 and Basis Document, Rev. 38
TS 3.7 Plant Systems, Amendment 80 and Revision Basis Document, Rev. 42
UFSAR Section 6.4.2 Control Room Ventilation System Design, Rev. 21
UFSAR Section 10.3 Main Steam System, Rev. 21

Procedures
CNG-AM-1.01-1023, Maintenance Rule Program, Rev. 00000
CNG-AM-1.01-2000, Scoping and Identification of Critical Components, Rev. 00200

Condition Reports

2009-1395	2008-9624	2008-8900	2008-7576
2008-7154	2008-5353	2008-4678	2007-3963
2009-1218	2009-0129	2008-8469	2008-1418
2007-8243	2007-2130		

Work Orders

20806221	20806087	20805557	20804594
20803039	20803280	20803833	20900353
20900093	20404440	20706453	

Calculations
Ginna Calculation Note #67: Control Room Leak Rate as a Function of Control Room Leak Area (R1213868; CALC-NOTE-67)

Section 1R13: Maintenance Risk Assessments and Emergent Work Control

Documents
Integrated Work Schedule, Final Schedule, Week 344B

Procedures
CNG-OP-4.01-1000, Integrated Risk Management, Rev. 00100
M-94, Repair of RIS Alarm Panels in MCB, Rev. 008
O-6, Operations and Process Monitoring, Rev. 10200
O-6.13, Daily Surveillance Log, Rev. 16900
STP-O-12.2, Emergency Diesel Generator 'B,' Rev. 00200

Condition Reports
2009-0253
2009-0278
2009-1647
2009-1651

Miscellaneous
Auto Log Entries for Equipment Log (OOS Only), 03/09/2009, 03/10/2009 and 03/12/2009
Auto Log Entries for Equipment Log Starting, 03/08/2009 to 03/12/2009 inclusive

Section 1R15: Operability Evaluations

Documents
DA-EE-92-084-21, Instrument Loop Performance Evaluation and Setpoint Verification ACC P936, Rev. 2
Engineering Services Request 2009-0043, Past Operability of MOV 4007 and MOV 4008, Rev. 0, February 13, 2009
IMC Part 9900: Technical Guidance for Operability Determinations and Functionality Assessments
Proto Power Calculation 08-015, The Prevention of Vortices and Swirl at Intakes by Denny and Young, Rev. A

Procedures
E-0, Reactor Trip or Safety Injection, Rev. 04200
E-3, Steam Generator Tube Rupture, Rev. 04500
O-6.13, Daily Surveillance Log, Rev. 16800

Drawing
33013-1237, Auxiliary Feedwater, Rev. 55

Condition Reports
2002-0525
2009-0242
2009-0437
2009-0738
2009-1305
2009-0903

Section 1R18: Plant Modifications

Document
PCR 2008-0034, Installation of Rupture Disks Upstream of Service Water Thermal Relief Valves, Rev. 0

Procedure
CNG-CM-1.01-1003, Design Engineering and Configuration Control, Rev. 00001

Drawing
33013-1250, Station Service Cooling Water Safety Related P&ID, Sheet 2, Rev. 36

Section 1R19: Post-Maintenance Testing

Procedures
GME-45-99-01, Electric Motor Inspection and Maintenance, Rev. 02101
STP-O-12.1, Emergency Diesel Generator 'A,' Rev. 00401
STP-O-12.2, Emergency Diesel Generator 'B,' Rev. 00301
STP-O-2.2QB, Residual Heat Removal Pump 'B' Inservice Test, Rev. 00101

Condition Report
2009-1596

Work Orders

20805574	20805650
20807112	20805651
20800872	20805665
20900978	20900937

Section 1R22: Surveillance Testing

Documents
ACB 2000-0134, CCW Pump Test Flow
ACB 2000-0439, 'A' CCW Pump Differential Pressure

Procedures
PT-36Q-C, Standby Auxiliary Feedwater Pump 'C' – Quarterly, Rev. 05700
PT-16Q-T, Auxiliary Feedwater Turbine Pump – Quarterly, Rev. 05801
STP-O-2.8Q, Component Cooling Water Pump Quarterly Test, Rev. 00002
STP-O-12.2, Emergency Diesel Generator 'B,' Rev. 00301
STP-O-22.2, Local Leak Rate Test of Personnel Hatch Door Seal, Rev. 00003
STP-O-16Q-B, Auxiliary Feedwater Pump 'B' – Quarterly, Rev. 00300

Condition Reports
2009-0989
2008-9908
2008-9911
2006-7103
2009-1608

Drawing
33013-1237, Auxiliary Feedwater P&ID, Rev. 55

Section 1EP6: Drill Evaluation

Documents
ES1213-05, Small Break Loss of Coolant Accident, Rev. 9

Section 4OA1: Performance Indicator Verification

Document
NEI 99-02, Nuclear Energy Institute Regulatory Assessment Performance Indicator Guideline, Rev. 5, July 2007

Section 4OA2: Identification and Resolution of Problems

Documents
Category 1 Root Cause Analysis, CR-2008-9911, "Turbine Driven Auxiliary Feedwater Pump Failed to Develop Adequate Flow During Testing," dated January 9, 2009
EPRI Manual 1003084 Excerpts, "Feedwater Pump Turbine Controls and Oil System Maintenance Guide," dated December 2001
Ginna Probabilistic Risk Analysis Evaluation Request No. G1-2009-002, dated February 27, 2009
NUREG/CR-5857 Excerpts, "Aging of Turbine Drives for Safety-Related Pumps in Nuclear Power Plants," dated June 1995
Operating Experience Report – TDAFW Pump Failed to Develop Adequate Flow During Testing
Reptask P300158, "Turbine Driven AFW Pump – Minor PM Inspection, M-11.5C"
Standardized Plant Analysis Risk (SPAR) Model, Revision 3.45

Procedures
CNG-OP-1.01-1002, Conduct of Operability Determinations/Functionality Assessments, Rev. 0000
M-11.5C, Auxiliary Feedwater Pump Minor Mechanical Inspection and Maintenance, Rev. 29, dated February 27, 2006
PT-16Q-T, Auxiliary Feedwater Turbine Pump – Quarterly Rev. 05801

Condition Reports
2008-9911
2008-9956

Work Order
20602735

Section 4OA3: Followup of Events and Notices of Enforcement Discretion

Document
R.E. Ginna Emergency Action Level Technical Basis, Rev. 04400

Procedures
CNG-OP-4.01-1000, Integrated Risk Management, Rev. 00200

M-94, Repair of RIS Alarm Panels in MCB, Rev. 8

Condition Reports
2009-0837
2009-0840

Work Order
20806014

LIST OF ACRONYMS

ADAMS	Agencywide Documents Access and Management System
AFW	auxiliary feedwater
AV	apparent violation
CAP	corrective action program
CCDP	conditional core damage probability
CCW	component cooling water
CDF	core damage frequency
CR	condition report
EDG	emergency diesel generator
GINNA	R.E. Ginna Nuclear Power Plant
HX	heat exchanger
I&C	instrumentation and control
IMC	Inspection Manual Chapter
JPM	job performance measure
LOOP	loss of offsite power
MCB	main control board
MOV	motor-operated valve
NCV	non-cited violation
NEI	Nuclear Energy Institute
NRC	U.S. Nuclear Regulatory Commission
P&ID	piping and instrument drawings
PARS	Publicly Available Records
PCR	plant change record
PI	performance indicator
PM	preventive maintenance
PMT	post-maintenance testing
RBCCW	reactor building closed cooling water
RCP	reactor coolant pump
RG	regulatory guide
RHR	residual heat removal
SAFW	standby auxiliary feedwater
SDP	significance determination process
SPAR	standardized plant analysis risk
SRA	senior reactor analyst
SSC	system, structure, and component
SW	service water
TDAFW	turbine-driven auxiliary feedwater
TS	technical specification
UFSAR	updated final safety analysis report
UE	unusual event
WO	work order