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

November 13, 2009

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

SUBJECT: R.E. GINNA NUCLEAR POWER PLANT - NRC INTEGRATED INSPECTION REPORT 05000244/2009004

Dear Mr. Carlin:

On September 30, 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 October 8, 2009, with Mr. Eric Larson 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 report documents two NRC-identified and one self-revealing findings of very low safety significance (Green). Two of these findings were determined to be violations of NRC requirements. However, because of their very low safety significance, and because they were entered into your corrective action program, the NRC is treating these findings as non-cited violations (NCVs) consistent with Section VI.A.1 of the NRC Enforcement Policy. If you contest any NCV in this report, you should provide a written response within 30 days of the date of this inspection report with the basis of your denial, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington D.C. 20555-0001; with copies to the Regional Administrator, Region I; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, D.C. 20555-0001; and the NRC Resident Inspector at R.E. Ginna Nuclear Power Plant. In addition, 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/

Glenn T. Dentel, Chief
Projects Branch 1
Division of Reactor Projects

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

Enclosure: Inspection Report 05000244/2009004
w/Attachment: Supplemental Information

cc w/encl: Distribution via ListServ

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U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket No.:	50-244
License No.:	DPR-18
Report No.:	05000244/2009004
Licensee:	R.E. Ginna Nuclear Power Plant, LLC
Facility:	R.E. Ginna Nuclear Power Plant
Location:	Ontario, NY
Dates:	July 1 through September 30, 2009
Inspectors:	K, Kolaczyk, Senior Resident Inspector L. Casey, Resident Inspector M. Marshfield, Resident Inspector E. Gray, Senior Reactor Inspector P. Kaufman, Senior Reactor Inspector N. Perry, Senior Project Engineer E. Burket, Reactor Inspector J. Hawkins, Project Engineer R. Rolph, Health Physicist
Approved by:	Glenn T. Dentel, Chief Projects Branch 1 Division of Reactor Projects

TABLE OF CONTENTS

SUMMARY OF FINDINGS

IR 05000244/2009004; 07/01/2009 – 09/30/2009; R.E. Ginna Nuclear Power Plant (Ginna), Operability Evaluations, Refueling and Other Outage Activities, Surveillance Testing.

The report covered a three-month period of inspection by resident inspectors and region-based inspectors. Three Green findings, two of which were non-cited violations (NCVs), 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.

Cornerstone: Initiating Events

- Green. The inspectors identified a self-revealing NCV of Technical Specification (TS) 5.4.1.a, "Procedures," when an auxiliary operator (AO) did not correctly implement procedure S-7M, "Transferring Refueling Water Storage Tank to Any Chemical and Volume Control System Holdup Tank (HUT)," Revision 000, and close valve V-8661, "Spent Fuel Pool (SFP) Recirculation Pump 'B' Discharge Isolation Valve," as specified by step 5.1.21. As a result, an estimated 3,000 gallons of water was inadvertently transferred from the SFP to the 'B' and 'C' HUTs which caused the 'B' SFP pump to automatically trip, and the SFP level to decrease an estimated 5 inches. Ginna implemented several corrective actions including a requirement for operators to conduct a pre-job brief before transferring water with marked-up system prints showing the intended flow path and water transfers are to be observed by a senior reactor operator or a shift technical advisor. Ginna entered this issue into their corrective action program (CAP) for resolution.

  This finding is more than minor because it is associated with the Initiating Events Cornerstone and affected the cornerstone objective of limiting the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. The inspectors determined that the finding was of very low safety significance (Green), because the finding did not increase the likelihood of a loss of reactor coolant system (RCS) inventory, degrade the ability of Ginna to terminate a leak path or add RCS inventory when needed, nor degrade the ability to recover residual heat removal. This finding has a cross-cutting aspect in the area of human performance because operators did not adhere to the procedural requirements outlined in S-7M and close valve V-8661 prior to initiating the water transfer (H.4.b per IMC 0305). (Section 1R20)

Cornerstone: Mitigating Systems

- Green. The inspectors identified a Green finding of very low safety significance when Ginna failed to ensure adequate procedures were developed to support implementation of compensatory measures for a degraded condition associated with the condensate storage

tanks (CSTs). The CSTs at Ginna have flexible bladders installed on top of each tank to minimize air infiltration. On March 7, 2007, Ginna discovered that the bladders had degraded which allowed water to accumulate on top of the bladder surface. Ginna performed an operability determination (OD) that limited the amount of water that was allowed to accumulate on the bladder surface because it could bias the CST level indication system. The inspectors determined that Ginna did not provide operators with adequate procedures, equipment, and training to verify the OD leakage limits were met as specified by CNG-OP-1.01-1002, "Conduct of Operability Determination/Functionality Assessments," Revision 0000. Ginna's corrective actions included increasing the pump down frequency on the CST and verifying the leakage was within the limits specified in the OD. Ginna entered this issue into their CAP for resolution.

This finding is more than minor because it affected the equipment performance attribute of the Mitigating Systems Cornerstone objective of ensuring the availability, reliability and capability of systems that respond to initiating events to prevent core damage. The inspectors determined that the finding was of very low safety significance (Green) because it did not result in a loss of safety function and did not screen as potentially risk significant due to a seismic, flooding, or a severe weather-initiating event. This finding has a cross-cutting aspect in the area of human performance because Ginna did not ensure that complete, accurate, and up-to-date design documentation and procedures were available (H.2.c per IMC 0305). (Section 1R15)

- Green. An NRC-identified NCV of TS 5.5.7, "Inservice Testing (IST) Program," was identified when Ginna failed to implement the IST program in accordance with relief request GR-2. Relief request GR-2 states that if any limiting value is exceeded, the valve is immediately declared inoperable and the appropriate TS action statement is entered, if applicable. However, because only the high limiting value for stroke time was contained in the surveillance procedure, plant personnel did not identify that a valve did not meet the low IST limiting value for stroke time. As a result, Ginna did not declare turbine-driven auxiliary feedwater (TDAFW) recirculation valve, air-operated valve (AOV) 4291, inoperable until 9 days after it exceeded the IST low limiting value. Ginna's corrective actions included issuing an operations night order which provided instructions that after valve stroke timing was complete, the shift technical advisor or control room supervisor shall compare the stroke times to the action limit low and high values in Ginna's IST summary document prior to exiting the TS limiting condition for operation. Ginna entered this issue into their CAP for resolution.

  This finding was more than minor because additional unavailability of the auxiliary feedwater (AFW) system was accrued due to retesting AOV-4291 and Ginna's failure to include action limits and low limiting values for valve stroke timing in surveillance procedures is programmatic in nature and is not isolated to STP-O-16Q-T, "AFW Turbine Pump – Quarterly," Revision 00200, or TDAFW recirculation valve, AOV-4291. Therefore, if left uncorrected, this finding could become a more significant safety concern due to the potential not to detect valve degradation which could impact valve operability. This finding also affected the procedure quality attribute of the Mitigating Systems Cornerstone and adversely affected the cornerstone objective of ensuring the reliability of systems that respond to initiating events to prevent undesirable consequences. This finding has a very low safety

significance because the conditions did not result in an actual failure of the TDAFW recirculation valve or a loss of safety function, and it did not screen as potentially risk significant due to a seismic, flooding, or a severe weather-initiating event. The inspectors determined the finding had a cross-cutting aspect related to appropriate corrective actions in the CAP component of the problem identification and resolution area because Ginna did not take appropriate action to address this issue when it was identified on June 19, 2009, and documented in CR 2009-4248 (P.1.d. per IMC 0305). (Section 1R22)

Other Findings

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 essentially full power until September 13, 2009, when the plant was shutdown for a scheduled refueling outage (RFO).

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R04 Equipment Alignment (71111.04)

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

a. Inspection Scope

The inspectors reviewed the alignment of system valves and electrical breakers to ensure proper inservice or standby configurations as described in plant procedures, piping and instrument drawings (P&IDs), and the updated final safety analysis report (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 documents reviewed are listed in the Attachment. The inspectors performed a partial walk down of the following systems:

- 'C' train of the standby auxiliary feedwater (AFW) system before the turbine-driven auxiliary feedwater (TDAFW) train was removed for a scheduled surveillance test;
- motor-driven and turbine-driven trains of AFW while the 'C' train of the standby AFW was removed from service for planned maintenance;
- 'B' train of the spent fuel pool (SFP) cooling system during the RFO;
- the firewater system inside of containment while the plant was in Mode 6;
- 'A' train of the residual heat removal (RHR) system while the plant was in Mode 5;
- 'A' reactor coolant pump (RCP) oil collection system while the plant was in Mode 5 and the 'A' RCP was running;
- the overpressure protection (OP) system while the plant was in Mode 5 and the OP system was required to be in operation.

b. Findings

No findings of significance were identified.

.2 Complete Walkdown (71111.04S – One sample)

a. Inspection Scope

During the week of August 3, 2009, the inspectors performed a detailed walkdown of the offsite power supply electrical line-up. Electrical distribution system drawings were reviewed for accuracy and compared to the existing electrical system line-up described in O-6.13, "Daily Surveillance Log," Revision 17400, plant TSs, and the UFSAR. The offsite power supply electrical line-up was selected because of recent industry operating experience concerning main transformer failures outlined in NRC Information Notice 2009-10, "Transformer Failures – Recent Operating Experience."

b. Findings

No findings of significance were identified.

1R05 Fire Protection (71111.05)

.1 Routine Resident Inspector Tours (71111.05Q – Eight 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:

- Auxiliary Building Basement (Fire Zone ABB);
- Auxiliary Building Intermediate Level (Fire Zone ABM);
- Auxiliary Building Operating Level (Fire Zone ABO);
- Diesel Generator Room 'A' and Vault (Fire Area EDG1A);
- Diesel Generator Room 'B' and Vault (Fire Area EDG1B);
- Containment Basement Floor (Fire Zone RC-1);
- Containment Intermediate Level (Fire Zone RC-2); and
- Containment Operating Floor (Fire Zone RC-3).

b. Findings

No findings of significance were identified.

.2 Annual Inspection (71111.05A – One sample)

a. Inspection Scope

The inspectors observed an announced test of Ginna's fire brigade on July 16, 2009. The test involved a simulated fire in the north end of the screen house basement and involved the chlorine injection pumps. This drill was performed as part of their initial qualification process for two brigade members to become a member of the site fire brigade. The inspectors observed fire brigade personnel obtain their protective equipment, travel to the simulated fire location, and demonstrate how they would extinguish a fire in the screen house basement. Following the drill, the inspectors observed the post-drill critique and verified that performance issues were discussed and documented in Ginna's corrective action program (CAP). The inspectors evaluated the performance of the brigade using the criteria outlined in the following procedures: SC-3.1.1, "Fire Alarm Response (Fire Brigade Activation)," Revision 17; SC-3.4.1, "Fire Brigade Captain and Control Room Personnel Responsibilities," Revision 38; and FRP-30, "Screen House Basement," Revision 701. The fire brigade did not successfully complete the objectives of the drill. Accordingly, brigade members who composed part of shift complement for the fire brigade were relieved and replacement personnel installed on shift.

b. Findings

No findings of significance were identified.

1R08 Inservice Inspection Activities (71111.08 – One sample)

a. Inspection Scope

The inspectors observed selected samples of in-process nondestructive examination (NDE) activities and reviewed documentation of additional samples of NDE. The sample selection was based on the inspection procedure objectives and risk priority of those components and systems where degradation would result in a significant increase in risk of core damage. The observations and documentation review were performed to verify activities were conducted in accordance with the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code requirements. The inspectors also evaluated the effectiveness of the resolution of problems identified during inservice inspection (ISI) activities.

The inspectors observed a manual ultrasonic testing (UT) performed on a 4-inch diameter weld, summary number I161670, in the high-pressure safety injection (HPSI) system. The inspectors also observed a penetrant test of a 2-inch diameter weld, summary number I162060, in the HPSI system. The inspectors reviewed the testing procedures, the qualification certification of the examiners performing the examinations, and reviewed the results of the examinations to evaluate the activities for compliance with the requirements of the ASME Boiler and Pressure Vessel Code of Section XI.

The inspectors also reviewed data sheets and testing procedures as well as personnel qualifications for the performance demonstration initiative manual UT performed on two alloy 690 dissimilar metal welds on the 'B' steam generator (SG) nozzle, NSE-3R and NSE-4R, in the reactor coolant system (RCS). These examinations were performed to a qualified ASME Section XI, Appendix VIII, Supplement 10 procedure.

A portion of the reactor vessel upper-head visual examination (VT-1 and VT-3) was observed. This work, using a robot crawler to position a camera to view the circumference of each control rod drive mechanism for boric acid leakage and the sequence of evaluation of the conditions, was inspected. This video was compared to the video taken from the last inspection in 2005. As part of the reactor vessel lower-head inspection, the inspectors reviewed the photos and results of the bottom-mounted instrumentation nozzles. The photos taken from this VT-1 and VT-3 examination were compared to video from the previous RFO in 2008. The inspectors reviewed the qualifications of the Level III interpreting the examination results and reviewed the examination procedure.

The inspectors reviewed video from the visual examination (VT-3) of the reactor vessel and internals. The components reviewed included the alignment pins, upper-core plate fuel pins, guide-tube support pins, upper internals, and the O-ring. The videos were compared to videos taken during the previous RFO. The testing procedure and qualifications of the Level III interpreting the examination were also reviewed.

In the area of boric acid corrosion control activities, the inspectors confirmed the extent of plant boric acid walkdowns completed during the plant shutdown process and verified that identified problem areas were documented in condition reports (CRs) for evaluation and resolution. The resident inspectors observed the boric acid walkdown inspections inside containment.

The SG tube inspection results from the previous RFO provided a basis to not conduct eddy current testing of SG tubes during the current RFO. The inspectors reviewed the SG tube degradation assessment for the 2008 RFO, and the documented review of the acceptability of SG operation until the 2011 RFO.

The inspectors interviewed the buried pipe program owner and reviewed program documents and verified that Ginna has established a program based on the Electric Power Research Institute guidelines. The inspection also included a discussion with the flow accelerated corrosion engineer. The inspectors verified that tools, including operating experience, were in place to adequately characterize and inspect susceptible components.

The inspectors reviewed a sample of CRs related to ISI and welding activities to assess Ginna's effectiveness in problem identification and resolution and determined that deficiencies are being appropriately identified and were being adequately entered into and resolved by the CAP. The inspectors also reviewed Ginna's response to select industry operating experience to verify it was being reviewed for applicability.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification Program (71111.11Q – One sample)

a. Inspection Scope

On August 4, 2009, the inspectors observed a licensed operator simulator scenario, ECA00-01, "Loss of All Air Conditioning (A/C) Power," Revision 13. 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.

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:

- Material and equipment deficiencies associated with the technical support center (TSC) diesel generator; and
- Performance of the control room emergency air treatment system from September 1, 2008, to September 30, 2009.

b. Findings

No findings of significance were identified.

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

a. Inspection Scope

The inspectors evaluated the effectiveness of Ginna's maintenance risk assessments specified 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 00200.

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

- Unplanned limiting condition for operation entry for the 'A' RHR train (July 16, 2009);
- Unplanned maintenance on the TDAFW pump (July 3, 2009);
- Planned testing of the TDAFW pump (July 13, 2009);
- Planned maintenance on the 'C' standby AFW train with emergent maintenance on the 'D' train of standby AFW (August 17 to 20, 2009); and
- Unplanned maintenance on the TDAFW pump (August 31 to September 2, 2009).

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations (71111.15 – Six 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 2009-4959, Oil Sample Results for 'A' SI Pump Outboard Bearing Returned as Abnormal;

- CR 2007-1834, Water on Top of Bladder for 'B' Condensate Storage Tank (CST);
- CR 2009-4043, Valve V-8421 Found Mispositioned;
- CR 2009-4581, Check Valve 5138 is Stuck Open;
- CR 2009-5262, Excessive Crankcase Oil Use in 'A' Emergency Diesel Generator (EDG); and
- CR 2009-3743, DB-75 Air Circuit Breaker Control Relay Cotter Pin Replacement.

b. Findings

Introduction: The inspectors identified a finding of very low safety significance (Green), for Ginna's failure to ensure adequate procedures were developed to support implementation of compensatory measures for a degraded condition associated with the CSTs.

Description: Ginna has two 30,000 gallon non-safety-related CSTs that are required by plant TS 3.7.6, "CSTs," to be operable when the plant is in Modes 1 through 3. During power operation, the CSTs provide a surge volume of water for the secondary system by providing a makeup and discharge path to the condenser hot well. The CSTs also serve as a water source for the AFW pumps and, during an event, are the initial source of water for the pumps before their suction is manually realigned to the safety-related SW system. To maintain the chemistry of the CST water within specification, both tanks have a flexible bladder located on top of each tank that minimizes air infiltration into the CST water. As the water level in the CST changes, the bladder expands and contracts as needed to prevent air infiltration.

On March 7, 2007, an auxiliary operator (AO) discovered water on top of a CST bladder. A Ginna investigation concluded that both CST bladders had developed small tears which allowed an estimated 400 gallons of water to accumulate on top of the each bladder. Water on top of the CST bladder can bias the level indicating system making it appear that more than the actual amount of water is in the tank. A subsequent operability determination (OD) outlined in CR 2007-1834 concluded that as long as less than 102 gallons of water was on top of a CST bladder during single tank operation, that tank would be operable. When two tanks are in service, which is the normal CST lineup, the OD indicated up to 5,100 gallons of water would be allowed to accumulate on the CST bladders before tank operability would be challenged. During single tank operation, to ensure a CST remained operable, the OD required operators to inspect the inservice CST every 6 hours and remove water that had accumulated on top of the CST bladder.

On June 16, 2009, with the 'A' CST out of service for maintenance activities and the plant in single CST operation, the inspectors observed an AO remove water from the top of the bladder on the inservice 'B' CST. The activity involved use of a small portable pump that had a 15-gallon-per-minute flow capacity and took over 10 minutes to complete. The AO did not quantify how much water was removed from the tank. Given the pump flow capacity and the time it took to pump down the CST bladder, the inspectors concluded that it was possible that more than 102 gallons of water had been removed from the tank. When this observation was discussed with the on-shift control room operators, the 'B' CST was declared inoperable, and the CST pump down

frequency was reduced to once every 3 hours. Ginna documented this determination in CR 2009-4047. Later that day, the CST was declared operable once the bladder leakage was verified to be less than the 102-gallon limit outlined in the OD. For the remainder of the time the 'A' CST was out of service, Ginna continued to inspect and pump down the 'B' CST bladder every 3 hours.

Constellation Nuclear Generation Fleet Procedure CNG-OP-1.01-1002, "Conduct of Operability Determination/Functionality Assessments," Revision 0000, describes the process for addressing operability and functionality when a degraded or non-conforming or unanalyzed condition brings into question the analysis, design, or qualification of a structure, system, or component. Section 5.2 of CNG-OP-1.01-1002 states, in part, that the shift manager shall ensure that procedures are adequate to support compensatory measures and that personnel are trained and equipment is available to implement the measures. The inspectors determined that Ginna did not provide operators with the procedures, equipment, and training necessary to implement the compensatory measures outlined in the OD for CR 2007-1834. As a result, Ginna operations' personnel were not able to determine that the 6-hour pump down frequency was adequate to conclude the 'B' CST bladder leakage was within the limits specified in the OD since the leak rate had not been quantified. Therefore, the operability of the 'B' CST was not assured.

Analysis: The performance deficiency associated with this finding is that Ginna did not provide the procedures, equipment, and training necessary to implement the compensatory measures outlined in the OD for CR 2007-1834 as specified by CNG-OP-1.01-1002. This finding is more than minor because it affected equipment performance attribute of the Mitigating Systems Cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent core damage. Specifically by not providing operators with adequate procedures, equipment, and training, operators were not able to verify that following a June 16, 2009, pump down evolution. As a result, Ginna did not ensure the availability and the reliability of the CSTs.

The inspectors determined that the finding was of very low safety significance (Green) through performance of a Phase 1 SDP in accordance with IMC 0609, Appendix A, "Determining the Significance of Reactor Inspection Findings for At-Power Situations." Specifically, the finding did not result in a loss of safety function, in that the CSTs were still able to supply a source of water for the AFW pumps during an event, and did not screen as potentially risk significant due to a seismic, flooding, or a severe weather-initiating event. This finding has a cross-cutting aspect in the area of human performance in that Ginna did not ensure that complete and accurate and up-to-date design documentation and procedures were available to implement the OD (H.2.c per IMC 0305).

Enforcement: Enforcement action does not apply because this performance deficiency did not involve a violation of regulatory requirement. Specifically the CSTs are not safety related, and the CST limiting condition for operation 7-day time limit outlined in TS 3.7.6 was not exceeded. This issue was entered into Ginna's CAP (2009-4047). Because this

finding does not involve a violation of regulatory requirements and has very low safety significance, it is identified as a finding. **(FIN 05000244/2009004-01, Did Not Provide Adequate Compensatory Guidance to Verify Condensate Storage Tank Operability)**

1R18 Plant Modifications (71111.18 – Two samples)

Permanent Modification

a. Inspection Scope

The inspectors reviewed technical evaluation (TE) 2008-0057, "Replace 'A' and 'B' CST Diaphragms," Revision 0. The inspectors reviewed the TE along with the engineering change package (ECP) change notice to ensure that the replacement components were consistent with design basis and were compatible with installed SSCs. The inspectors observed actions taken by Ginna personnel to complete the modification and test the resultant configuration.

The inspectors reviewed ECP 2007-0040, "EDG 'A' and 'B' SW AOV Modification," and ECP 2008-0071, "EDG 'A' and 'B' Jacket Water/Lube Oil Cooler Tube Bundle Replacement." The inspectors reviewed the ECPs along with the associated technical evaluations, engineering calculations, and testing procedures to ensure that the new components were consistent with design basis and were compatible with installed SSCs. The inspectors observed actions taken by Ginna personnel to complete the modification and test the resultant configuration.

b. Findings

No findings of significance were identified.

1R19 Post-Maintenance Testing (71111.19 – Four 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-2.2QA, "RHR Pump 'A' Inservice Test," Rev. 00300, to test the 'A' RHR pump after maintenance activities performed under work orders (WOs) C20900112 and C20901245 (July 21, 2009);

- STP-O-36Q-D, "Standby AFW Pump 'D' – Quarterly," Rev. 0, to test the 'D' standby AFW pump after preventive maintenance activities performed under WOs C20900237, C20900252, C20505348, and C20900264, "'D' Standby AFW Functional Equipment Group Maintenance Window," (July 28, 2009);

- T-27.4, "Diesel Generator Operation," Rev. 39, to test the 'B' diesel generator after replacing the starting air solenoid-operated valve, SOV-5934A, under WO C90618033, "'B' Diesel Generator Starting Air SOV Has Air Leaking Out of The Port," (August 13, 2009); and

- STP-O-16Q-T, "AFW Turbine Pump – Quarterly," Rev. 00000, to test the TDAFW pump after maintenance activities performed under WO C90635304 (September 2, 2009).

b. Findings

No findings of significance were identified.

1R20 Refueling and Other Outage Activities (71111.20 – One sample)

a. Inspection Scope

On September 13, 2009, the inspectors observed the plant shutdown for a scheduled RFO. The shutdown included a planned trip of the main turbine from approximately 30 percent power. During the plant shutdown, the inspectors observed activities in the control room and toured plant areas to verify that pre-outage work activities, such as scaffold installation, did not adversely impact installed plant equipment. The inspectors also verified that plant TS cool-down rates had not been exceeded.

Shortly after the plant entered Mode 3, the inspectors toured the containment structure with a radiation protection technician (RPT) to examine the condition of plant SSCs. Of particular attention was the 'A' RCP and adjacent areas since the pump had exhibited signs of oil leakage during the operating cycle. During the containment walkdown, the inspectors verified that boric acid leaks from plant components had been identified and assessed per Ginna's boric acid monitoring program.

Prior to the plant shutdown, Ginna performed an outage risk assessment that examined the outage schedule and recommended methods to minimize plant risk. The inspectors reviewed the outage risk schedule and, on a sampling basis, verified that the risk reduction approaches/strategies outlined in the risk plan were implemented. For example, during the outage, the inspectors verified that Ginna containment integrity closure strategies were consistent with the requirements outlined in the plant TSs and the more stringent requirements of Ginna's outage risk plan. To ensure that equipment was properly aligned, the inspectors walked down several plant tag outs.

Several plant systems were walked down to ensure they were available to provide decay heat removal. Systems examined included the RHR and SFP systems. During the RHR system walkdown, the inspectors verified that both trains had electric power, and maintenance was not performed on any part of the protected system.

Once the plant entered Mode 6, the inspectors observed several hours of fuel shuffle operations in containment and the control room. Ventilation lineups and equipment lineups were verified prior to the commencement of refueling.

Several normally locked high radiation areas, that are not accessible during plant operations because of high radiation levels, were walked down for general cleanliness conditions, equipment performance, and boric acid leaks. Areas examined included the rooms for the volume control tank (VCT), RCP seal injection filter, reactor coolant filter, waste holdup tank (HUT), and non-regenerative heat exchanger.

When refueling was completed, the plant transitioned to Mode 5 in preparation for plant startup. As the plant heat up began, the inspectors walked down the OP system and the oil collection system for the 'A' RCP motor which had been removed for planned maintenance during the RFO. As part of the walkdown of the 'A' RCP, the inspectors verified that prior to plant startup, Ginna personnel removed most of the excess oil that had accumulated around the pump and had verified that the remaining oil did not constitute a fire risk or would adversely impact plant equipment.

b. Findings

Introduction: A Green self-revealing NCV of TS 5.4.1.a, "Procedures", was identified when an AO failed to correctly implement procedure S-7M, "Transferring Refueling Water Storage Tank (RWST) to Any Chemical and Volume Control System (CVCS) HUT," Revision 000, when attempting to transfer water from the RWST to a CVCS HUT. This resulted in an inadvertent transfer of 3000 gallons of water from the SFP to the 'B' and 'C' HUTs instead of from the RWST causing a 5-inch decrease in SFP level and an automatic trip of the 'B' SFP pump.

Description: On September 23, 2009, at approximately 1:49 a.m., while the plant was in Mode 6, the control room received alarm K-29, "SFP HI Temp 115 Degrees Fahrenheit HI-LO Level." Later, a second alarm, K-21, "SFP Low Flow 1100 GPM," was received. An AO who was dispatched to investigate the first alarm reported that the 'B' SFP pump, which was operating prior to receipt of the control room alarms, had tripped and that the SFP level had decreased an estimated 5 inches. Prior to the event, the control room was attempting to transfer water from the RWST to a CVCS HUT using procedure S-7M.

In response to the alarms, the control room stopped the water transfer and realigned the system to the status that existed prior to the implementation of procedure S-7M. A Ginna investigation verified that the unintended SFP level decrease and resultant 'B' SFP pump trip was caused by an incorrect valve lineup. Specifically, valve V-8661, "SFP Recirculation Pump 'B' Discharge Isolation Valve," was open instead of the closed position as specified by step 5.1.21 of procedure S-7M. Apparently, the AO who was

assigned the task of implementing procedure S-7M and establishing the correct valve lineup for the water transfer did not physically verify that valve V-8661 was closed as specified by step 5.1.21 of S-7M. Instead, the AO relied on a visual observation of the valve to ascertain its position. By failing to correctly position V-8661, an estimated 3,000 gallons of water was transferred from the SFP to the 'B' and 'C' HUTs instead of from the RWST.

To minimize the possibility of event recurrence, Ginna implemented several corrective actions including a requirement for operators to conduct a pre-job brief before transferring water with marked-up system prints showing the intended flow path. Also water transfers are to be observed by a senior reactor operator or shift technical advisor. These corrective actions were documented in Ginna's CAP as CR 2009-6994.

Analysis: The performance deficiency associated with this finding was a failure of the AO to correctly implement S-7M. This finding is more than minor because it is associated with the Initiating Events Cornerstone and affects the cornerstone objective of limiting the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. This finding was determined to be of very low safety significance (Green) using IMC 0609, Appendix G, Attachment 1, "Phase 1 Operational Checklists for both PWRs and BWRs," Checklist 4. This finding screened to Green because of the following:

- The finding did not increase the likelihood of a loss of RCS inventory;
- The finding did not degrade the ability of Ginna to terminate a leak path or add RCS inventory when needed; and
- The finding did not degrade the ability to recover decay heat removal once it had been lost.

This finding has a cross-cutting aspect in the area of HU because operators did not adhere to the procedural requirements outlined in S-7M and close valve V-8661 prior to initiating the water transfer (H.4.b per IMC 0305).

Enforcement: TS 5.4.1.a, "Procedures", requires, in part, that the applicable procedures recommended in regulatory guide (RG) 1.33, "Quality Assurance Program Requirements (Operation)," Revision 2, Appendix A, February 1978, be established, implemented, and maintained. RG 1.33 requires, in part, that procedures be implemented for the CVCS system. Procedure S-7M is specified by RG 1.33 and provides instructions for transferring water using the CVCS system from the RWST to the waste HUTs. Step 5.1.21 of S-7M states, in part, that prior to commencing the water transfer, valve V-8661 shall be closed.

Contrary to the requirements of step 5.1.21, while establishing the valve lineup needed to transfer water from the RWST to a waste HUT, an AO did not close valve V-8661. As a result, on September 23, 2009, an estimated 3,000 gallons of water were unintentionally transferred from the SFP to the 'B' and 'C' HUTs which caused a 5-inch decrease in SFP level and automatic trip of the 'B' SFP pump. Because this finding was determined to be of very low safety significance, and was entered into Ginna's CAP (CR 2009-6994), this violation is being treated as an NCV, consistent with section VI.A.1 of

the NRC Enforcement Policy. **(NCV 05000244/2009004-02, Failure to Correctly Implement Chemical and Volume Control System Water Transfer Procedure)**

1R22 Surveillance Testing (71111.22 – Five 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-16-COMP-T, "AFW Turbine Pump Comprehensive Test," Rev. 00500 (July 20, 2009) Inservice Testing (IST);
- STP-O-16Q-T, "AFW Turbine Pump – Quarterly," Rev. 00100 (August 31, 2009) (IST);
- STP-O-2.5.2, "Air-Operated Valves (AOVs) Surveillance (Shutdown)," Rev 00300 (September 17, 2009) (IST);
- CPI-PT-450, "Calibration of OP Pressure Transmitter PT-450," Rev. 08 (September 18, 2009); and
- STP-O-23.52, "Local Leak Rate Test (LLRT) of Fire SW Pen 307," Rev. 00200 (September 23, 2009) (LLRT).

b. Findings

Introduction: A Green NRC-identified NCV of TS 5.5.7, "IST Program," was identified for the failure of Ginna to implement the IST program in accordance with relief request GR-2. Specifically, Ginna did not include action limits and low limiting values for valve stroke timing in surveillance procedures which resulted in not declaring an auxiliary feedwater valve inoperable until 9 days after it exceeded the IST low limiting value.

Description: The NRC granted Ginna relief request GR-2 to implement an alternate approach with regard to stroke time acceptance criteria for power-operated valves. Specifically, ASME Operation and Maintenance Code 1988 standard for valve testing, OM-10, Paragraph 4.2.1.8 requires that valves with measured stroke times which do not meet the acceptance criteria be immediately retested or declared inoperable. Relief request GR-2 allowed Ginna to establish two sets of stroke time limits (action and limiting values) with independent corrective actions. If the action limit was exceeded, the relief request required Ginna to document the issue and analyze the data within 96 hours to verify that the measured stroke time was acceptable. If the limiting value was exceeded, the relief request required the valve to be immediately declared inoperable and enter the appropriate TS action statement.

On August 31, 2009, AOV-4291, TDAFW recirculation valve, exceeded its low limiting value of stroke time during surveillance test STP-O-16Q-T, "AFW Turbine Pump – Quarterly," Revision 00200. However, because this limit was not contained in the

surveillance procedure, plant personnel did not identify that the valve did not meet the low IST limiting value for stroke time. On September 8, 2009, during a review of the surveillance test results by a component analyst, it was determined that AOV-4291 had failed its stroke time test. As a result, the control room declared AOV-4291 inoperable 9 days after the initial stroke time test. Review and analysis of the AOV-4291 data 9 days after surveillance testing is contrary to the requirements of relief request GR-2 which states that if the limiting value is exceeded the valve should be immediately declared inoperable. Subsequent retesting showed that the valve stroked within the time requirements and the valve was declared operable. Additional unavailability of the AFW system was accrued due to retesting AOV-4291. The initial failure was attributed to either a communications delay between the initiation of the transmitter simulator signal to close AOV-4291 and the start of the stop watch, or improper operation of the transmitter simulator during testing.

Ginna's failure to include action limits and low limiting values for valve stroke timing in surveillance procedures is programmatic in nature and is not isolated to STP-O-16Q-T or TDAFW recirculation valve, AOV-4291. For example, on June 19, 2009, the inspectors identified that surveillance test procedures that measure power-operated valve stroke times of valves included in the IST program, only include the high limiting value of stroke time, and not the low limiting value of stroke time. This issue was documented in CR 2009-4248. Although this CR was closed, the recommended corrective actions outlined in the CR were not implemented.

Ginna's initial corrective actions to address the August 31, 2009, failure included issuing an operations night order which provided instructions that after valve stroke timing was complete, the shift technical advisor or control room supervisor shall compare the stroke times to the action limit low and high values in Ginna's IST summary document prior to exiting the TS limiting condition for operation. This issue was entered into the CAP as CR 2009-6233.

Analysis: The performance deficiency is a failure to properly implement relief request GR-2. As a result, Ginna did not declare AOV-4291 inoperable until 9 days after it exceeded the IST low limiting value. This finding was more than minor because additional unavailability of the AFW system was accrued due to retesting AOV-4291 and Ginna's failure to include action limits and low limiting values for valve stroke timing in surveillance procedures is programmatic in nature and is not isolated to STP-O-16Q-T or TDAFW recirculation valve, AOV-4291. Therefore, if left uncorrected this finding could become a more significant safety concern due to the potential not to detect valve degradation which could impact valve operability. This finding also affected the procedure quality attribute of the Mitigating Systems Cornerstone and adversely affected the cornerstone objective of ensuring the reliability of systems that respond to initiating events to prevent undesirable consequences. This finding is similar to examples 2.b of IMC 0612, Appendix E, "Examples of Minor Issues."

This finding has a very low safety significance because the conditions did not result in an actual failure of the TDAFW recirculation valve or result in the AFW system being declared inoperable for greater than its allowed TS outage time. The inspectors

determined that the finding was of very low safety significance (Green) using IMC 0609, Appendix A, "Determining the Significance of Reactor Inspection Findings for At-Power Situations." Specifically, the finding did not result in a loss of safety function and did not screen as potentially risk significant due to a seismic, flooding, or a severe weather-initiating event.

The inspectors determined the finding had a cross-cutting aspect related to implementing appropriate corrective actions in the CAP component of the problem identification and resolution area. Specifically, Ginna did not implement appropriate corrective actions to address the issue when it was identified on June 19, 2009, and documented in CR 2009-4248 (P.1.d per IMC 0305).

Enforcement: TS 5.5.7 states that the IST program shall be established, implemented, and maintained. Ginna relief request GR-2 defines how the IST program should be implemented. The relief request states that if any limiting value is exceeded, the valve is immediately declared inoperable and the appropriate TS action statement is entered.

Contrary to the above, on August 31, 2009, TDAFW recirculation valve, AOV-4291, did not meet the low limiting value for stroke time, but contrary to GR2 and the IST program, the valve was not declared inoperable until 9 days later because the low limiting value was not included in the surveillance test procedure. Because this finding was determined to be of very low safety significance and was entered into Ginna's CAP (CR 2009-6233), this violation is being treated as an NCV, consistent with the NRC Enforcement Policy. **(NCV 0500244/2009004-03, Failure to Meet Technical Specifications for Inservice Testing Requirements)**

Cornerstone: Emergency Preparedness

1EP6 Drill Evaluation (71114.06 – One sample)

a. Inspection Scope

On August 4, 2009, the inspectors observed a licensed operator simulator scenario, ECA00-01, "Loss of All A/C Power," Revision 13. 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.

2. RADIATION SAFETY

Cornerstone: Occupational Radiation Safety

2OS1 Access Control to Radiologically Significant Areas (71121.01 – 29 samples)

a. Inspection Scope

From July 6 to 10 and September 21 to 25, 2009, the inspectors performed the following activities to verify that Ginna was properly implementing physical, administrative, and engineering controls for access to locked high radiation areas and other radiological controlled areas (RCAs). Implementation of these programs was reviewed against the criteria contained in 10 CFR 20, TSs, and Ginna's procedures.

Plant Walkdown and Radiation Work Permit (RWP) Reviews

The inspectors reviewed all of Ginna's performance indicators (PIs) for the occupational exposure cornerstone. The inspectors identified exposure-significant work areas and reviewed associated controls, surveys, postings, and barricades for acceptability. The inspectors toured accessible RCAs, and with the assistance of a RPT, performed independent radiation surveys of selected areas to confirm the accuracy of survey data and the adequacy of postings. The inspectors reviewed RWPs and as low as is reasonably achievable (ALARA) reviews for work in the upcoming RFO. The inspectors reviewed Ginna's physical and programmatic controls for highly activated or contaminated materials (non-fuel) stored within the SFP.

Job-In-Progress Reviews

The inspectors observed scaffold work, valve work, insulation work, and refueling work activities in containment. The inspectors reviewed RWPs, ALARA reviews, and in-progress reviews for the five highest dose tasks (scaffolding, valve work, insulation, refueling, and cavity liner repair). The inspectors verified postings, surveys, contamination control, and radiation protection job coverage.

Problem Identification and Resolution

The inspectors reviewed Ginna's self-assessments, audits, and special reports related to the access control program since the last inspection to determine if identified problems were entered into the CAP. The inspectors reviewed nine CRs related to access control to ensure follow-up actions were timely and effective. The inspectors reviewed repetitive deficiencies to ensure these issues were also identified and addressed in self-assessments.

High Risk Significant, High Dose Rate (HDR) High Radiation Area and Very High Radiation Area Controls

The inspectors discussed HDR high radiation area and very high radiation area controls

and procedures with the radiation protection manager. There were no procedural changes since the last inspection.

The inspectors discussed the controls and communications requirements in place for special areas that have the potential to become very high radiation areas during certain plant operations. The inspectors verified the integrity and postings of all locked high radiation areas with the exception of the 'A' sump in containment.

Radiation Worker Performance

The inspectors reviewed eight CRs which found that the cause of the event was due to radiation work errors. The inspectors observed radiation workers in containment during the RFO. The inspectors questioned workers about the radiological conditions in their area and their electronic personnel dosimeter set points.

Radiation Protection Technician Proficiency

The inspectors observed RPT performance with respect to all radiation protection work requirements. The inspectors verified that the RPTs were knowledgeable of the radiological conditions and the hazards and that their performance was consistent with their training and qualifications.

Either because the conditions did not exist or an event had not occurred, no opportunities were available to review the following items:

- airborne areas with the potential for individual worker internal exposure greater than 50 mrem committed effective dose equivalent (CEDE) (20 derived air concentration hours);
- internal dose assessments for any actual internal exposure greater than 50 mrem CEDE;
- work areas with significant dose rate gradients; and
- documentation packages for PI events that involved dose rates greater than 25 rem/hr at 30 centimeters or greater than 500 rad/hr at 1 meter.

b. Findings

No findings of significance were identified.

2OS2 ALARA Planning and Controls (71121.02 – 14 samples)

a. Inspection Scope

From July 6 to 10 and September 21 to 25, 2009, the inspectors performed the following activities to verify that Ginna was properly implementing operational, engineering, and

administrative controls to maintain personnel exposure ALARA for activities performed during routine operations. Implementation of these controls was reviewed against the criteria contained in 10 CFR 20, applicable industry standards, and Ginna procedures.

Inspection Planning

The inspectors reviewed pertinent information regarding cumulative exposure history, current exposure trends, and ongoing activities. The inspectors reviewed Ginna's 3-year rolling average dose and compared Ginna's average with industry average. The inspectors reviewed Ginna's site-specific trends in collective exposures and source term measurements. The inspectors verified that Ginna's ALARA program procedure and the RWP included job estimating and tracking.

Radiological Work Planning

The inspectors received a list of the five work activities ranked highest by estimated exposure for the RFO. The inspectors reviewed the ALARA evaluations and RWP for these work activities. The inspectors verified the interfaces between operations, radiation protection, maintenance, planning, scheduling, and engineering groups for outage planning.

Verification of Dose Estimates

The inspectors reviewed the applicable procedures to determine the methodology for estimating work activity exposures. The inspectors reviewed Ginna's method for adjusting exposure estimates or re-planning work, when unexpected changes in scope or plant conditions occurred or when emergent work was encountered.

Source Term Reduction and Control

The inspectors reviewed the status and historical trends of source terms. The inspectors reviewed the preparations for shutdown clean-up and chemistry controls.

Declared Pregnant Workers

The inspectors selectively reviewed accumulate dose, controls, and monitoring for declared pregnant workers. Ginna established an administrative limit (300 mrem) for a declared pregnant worker.

Problem Identification and Resolution

The inspectors reviewed audits and self assessments since the previous inspection to verify identified problems were entered in the CAP. The inspectors reviewed elements of Ginna's CAP related to implementing the ALARA program to determine if problems were being entered into the program for timely resolution. Seven CRs related to the ALARA program were reviewed.

b. Findings

No findings of significance were identified.

Cornerstone: Public Radiation Safety

2PS2 Radioactive Material Processing and Transportation (71121.01 – One sample)

Either because the conditions did not exist or an event had not occurred, no opportunities were available to review the following item:

- There was no opportunity to observe a class 'B' shipment. Therefore, there was no opportunity to observe shipment packaging, surveying, labeling, marking, placarding, vehicle checks, emergency instructions, or Ginna's verification of shipment readiness. There was also no opportunity to verify that the requirements of any applicable transport cask Certificate of Compliance were met or that Ginna was authorized to receive the shipment packages.

During the inspection if no opportunity is available, the inspection procedure directs the inspector to count that inspection sample completed for purposes of NRC minimum sample size reporting.

4. OTHER ACTIVITIES

4OA1 Performance Indicator Verification (71151)

.1 Cornerstone: Mitigating Systems

a. Inspection Scope (71151 – Five samples)

The inspectors completed a review of mitigating systems performance index (MSPI) data including a review of Ginna's train/system unavailability data, monitored component demands, and demand failure data. As part of this review, Ginna's MSPI basis document, "Ginna Nuclear Power Plant MSPI Basis Document," Revision 2; and Nuclear Energy Institute (NEI) 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 5, were examined. To verify the accuracy of the data, the inspectors reviewed monthly operating reports, NRC inspection reports, and Ginna event reports from July 2008 to July 2009. The inspectors also reviewed out-of-service logs, operating logs, and maintenance rule information for the period of July 2008 to July 2009 to determine the accuracy and completeness of the reported unavailability data. For the selected systems, a review of maintenance and test history confirmed the accuracy of demand failure data for the identified active components for the most recent 12 quarters. The MSPIs reviewed included:

- Emergency A/C Power System;
- High Pressure SI System;
- Heat Removal System (AFW);

- RHR System; and
- Cooling Water Systems (Component Cooling Water and SW Systems).

b. Findings

No findings of significance were identified.

.2 Cornerstone: Occupational Radiation Safety

a. Inspection Scope (71151 – One sample)

The inspectors reviewed implementation of Ginna's occupational exposure control effectiveness PI program. Specifically, the inspectors reviewed recent CRs and associated documents for occurrences involving locked high radiation areas, very high radiation areas, and unplanned exposures against the criteria specified in NEI 99-02, Revision 5, to verify that all occurrences that met the NEI criteria were identified and reported as PIs.

b. Findings

No findings of significance were identified.

4OA2 Identification and Resolution of Problems (71152)

.1 Annual Sample: Review of Quality and Performance Assessment (71152 – One sample)

a. Inspection Scope

This inspection reviewed corrective actions for deficiencies identified in the quality and performance assessment (QPA) area at Ginna. During the past several months, instances were identified where QPA inspectors were not strictly following procedures. The inspectors reviewed the associated CRs, interviewed management and staff, observed a QPA surveillance activity, and attended a management review committee meeting which reviewed one of the associated CRs.

Background: In May of 2008, an administrative change was instituted for the way QPA inspectors conduct inspections at Constellation sites. All Constellation plants began using a common "fleet" quality inspection procedure. At Ginna, the change was fairly substantial. Prior to the change, the quality assurance (QA) inspection hold points were incorporated into each maintenance procedure. After May 2008, the hold points were removed from the maintenance procedures and each QA inspection activity now required development of an inspection plan. One CR identified where personnel did not generate an approved inspection plan prior to the inspection activity. Another CR identified where personnel were using quarantined procedures (procedures were removed from use since their periodic review was not completed as specified) for performing inspections.

For personnel not generating an approved inspection plan prior to the inspection activity, an apparent cause evaluation was completed. The QPA inspection planners demonstrated a lack of personal accountability by not using human performance tools or adhering to the procedures for performing inspection planning was identified as the apparent cause. This resulted in not having approved inspection plans and inadequate inspection points added to WO packages. Corrective actions included correcting the work packages, placing the inspection planning on hold pending development of approved inspection plans, and remediating QPA personnel that perform inspection planning to assure their understanding of the requirements associated with inspection planning and the inspection process.

For the personnel using quarantined procedures, an apparent cause evaluation was completed. Lack of procedural knowledge and lack of rigorous error prevention tool use, specifically procedure use and adherence, were identified as the causes of the issue. Corrective actions included immediate coaching and application of an accountability model to reestablish the required behaviors relative to procedure adherence and rigorous use of human performance error prevention tools. Based on review of the inspection performed and the quarantined procedures referenced for the task, Ginna concluded the inspection results were valid and correct; the technical requirements contained in the procedures were found to meet the current requirements. Corrective actions also included taking actions to ensure procedures are periodically reviewed as specified so they are not quarantined.

While conducting the QPA surveillance activity observed by the NRC inspectors, inspection of fire barriers, the QPA inspector identified a degraded fire barrier. The NRC inspectors observed that the QPA inspector immediately took action to ensure that fire protection personnel were notified of the condition for evaluation and correction. Additionally, the QPA inspector notified control room personnel to ensure operability was evaluated and initiated a CR to track corrective actions and the operability determination. The QPA inspector was very familiar with all procedures used and took appropriate actions in accordance with the procedures.

b. Findings and Observations

Through discussions with QPA management and staff, the NRC inspectors concluded that the change instituted in May 2008 was not managed well enough to prevent the problems that occurred. The process didn't appear to allow sufficient time to change all of the applicable procedures, train personnel on the changes, and ensure personnel understood the process sufficiently to perform the specified tasks. Additionally, personnel performing the tasks did not stop and correct the deficient conditions before proceeding with the activities. No findings of significance were identified. The failure of the QPA inspectors to comply with the procedural requirements constitutes a violation of minor significance that is not subject to enforcement action in accordance with the NRC's Enforcement Policy.

.2 Annual Sample: Operational Review of Charging System Weld Failures (71152 – One sample)

a. Inspection Scope

The inspectors reviewed Ginna's actions taken to resolve the condition in the non-safety-related CVCS reported via CR 2008-9673. This CR identified a leak in the weld at a ½-inch to ¾-inch reducing elbow between the 'C' charging pump discharge and drain isolation valve 292E. This leak was discovered and identified in November 2008 during routine operator rounds. The inspectors selected this sample for the charging system weld failure corrective actions due to previous weld related challenges on the charging system.

Upon discovery of this condition, Ginna performed an apparent cause evaluation which determined that the weld failure was due to vibration-assisted fatigue originating at the root of the weld. Destructive testing of the failed weld using a scanning electron microscope (SEM) to take cross section pictures of the socket showed a crack that originated at a gap between the pipe and fitting (elbow) which acted as a stress riser.

Further research by Ginna determined that this weld was from original fabrication. No evidence of weld repairs was found to have been performed on this weld. Review of the SEM cross section image by Ginna personnel indicated evidence of a tack weld followed by the original fabrication weld. Ginna concluded that lack of fusion of the weld metal over the tack weld created the gap that acted as a stress riser.

The piping at the weld failure location was replaced and NDE performed found no unacceptable indications. Ginna performed a visual inspection of similar welds on the discharge of the 'A' and 'B' charging pumps and no deficiencies were noted.

The inspectors verified that Ginna considered the extent of condition as well as a possible connection to previous weld failures in the charging system.

b. Assessment and Observations

No findings of significance were identified. The inspectors determined that Ginna had performed a complete and accurate identification of the problem in a timely manner commensurate with the issue's significance and ease of discovery. The inspectors also determined that upon Ginna's determination of the apparent cause, the reporting and operability of the issue was properly completed.

The inspectors determined that Ginna had identified and implemented appropriate corrective actions to address the apparent cause of the issue and that those corrective actions had been completed in a timely manner.

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

Local Radiation Emergency

a. Inspection Scope

On August 19, 2009, Ginna operators entered emergency procedure EPIP-1-13, "Local Radiation Emergency," Revision 007, and evacuated the auxiliary building due to an upward trend in the plant ventilation radiation monitors. Inspectors responded to the control room, observed operator response, and monitored plant parameters.

The cause of increased radiation levels in the auxiliary building was due to a plant operator unknowingly partially opening a boric acid blender sample isolation valve for the CVCS while removing insulation from piping connected to the valve. This resulted in a 2-gallon-per-minute (gpm) leak to the drain system and a resultant slow decrease in VCT level. Shortly after the local radiation emergency was declared, an AO discovered the sample valve cracked open approximately one third of a turn with approximately 2 gpm of flow through a hose to the floor drain and closed the valve. Upon closing the valve, VCT level stabilized. Operators were subsequently able to exit the local radiation emergency procedure.

After the valve was closed, the radiation levels returned to normal levels. There was no release to the public. Plant personnel performed a prompt investigation and stopped all work activities in the auxiliary building. During the time that the drain valve was cracked open, VCT level remained above the auto makeup level set point and pressurizer level remained constant.

b. Findings

No findings of significance were identified.

4OA5 Other Activities

.1 New Independent Spent Fuel Storage Installation (ISFSI) Crane Load and Factory Acceptance Testing

a. Inspection Scope

Ginna is in the process of receiving and installing a specialized gantry crane for use in its dry spent fuel storage process. The crane has been designed and fabricated with load and functional testing at the fabricator's facility being a part of pre-installation work scope.

From August 10 to 12, 2009, NRC inspectors performed an inspection at Weldall Manufacturing, Inc., in Waukesha, Wisconsin. The purpose of the inspection was to observe load testing of Ginna's gantry fuel handling crane and to review the factory acceptance testing package. Factory acceptance testing was performed by Morris

Material Handling with personnel using P&H procedure 35942-08, "Factory Acceptance Test Procedure (FATP) for P&H Crane CN-35942," Revision 02.

The inspection scope, while primarily directed toward the factory acceptance testing of the crane load capacity, included confirmation of the following related items:

- The crane licensing basis for comparison to NUREG-0554, "Single-Failure-Proof Cranes;" and NUREG-0612, "Control of Heavy Loads at Nuclear Power Plants;"

- The crane support structure with the spent fuel cask design to maintain its structural integrity under normal operation conditions, seismic events (design-basis earthquake, operating-basis earthquake, or safe-shutdown earthquake), and tornados, while sustaining the maximum critical load;

- The crane design seismic capability of stopping and holding the load during the safe-shutdown earthquake applicable to the facility;

- Hoist drum, hoist wire rope reeving system, and hoist wire rope breaking strength; and

- Load-attaching points, load hang-up protection, two block protection, hoist holding brakes, hoist control brake, manual load lowering capability, emergency stop feature, and the bridge and trolley holding brakes.

The operational crane testing observed included lifting and lowering, trolley travel, bridge travel, limit switches, and locking, limiting, and indicating devices in accordance with Section 1.0 of the FATP.

Functional testing of the rolling bridge in accordance with Section 2.0 of the FATP was observed. The rolling bridge was traveled to test the motor amps and brakes. The seismic restraint cylinders were tested for engagement and the interlock that prevents rolling bridge movement with the auxiliary building door closed was tested.

The inspectors observed the functional testing of the main trolley and flying trolley in accordance with Section 3.0 of the FATP. The main trolley and flying trolley were traveled to test the motor amps and brakes.

Functional testing of the hoist in accordance with Section 4.0 of the FATP was observed. The hoist was operated to test the motor amps and brakes. This included the following features:

- hoist motion lockout of main trolley and flying trolley motion;
- load block rotating mechanism;
- geared rotary switch and weighted limit switch that prevent two blocking;
- drum last wrap protection (lower limit);
- wire rope mis-spooling;

- hoist underweight;
- hoist over-speed; and
- hoist upper block misalignment that prevent load hang-up.

Testing of the upper block side shift feature and paddle actuators performed in accordance with Section 5.0 of the FATP was observed. The upper block side shift feature was also tested during the static load testing under Section 7.0 of the FATP.

Functional and interlock testing of the radio controls and backup controls were performed in accordance with Section 6.0 of the FATP.

The static load testing and dynamic load tests at 125 percent of the maximum critical load were observed by the inspectors.

b. Findings

No findings of significance were identified.

.2 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.

.3 Inspection Results for TI 2515/172, RCS Dissimilar Metal Butt Welds

a. Inspection Scope

The Temporary Instruction (TI) 2515/172 provides for confirmation that owners of PWRs have implemented the industry guidelines of the Materials Reliability Program (MRP) - 139 regarding NDE and evaluation of certain DM welds in reactor coolant systems containing Alloy 600/82/182. The TI requires documentation of specific questions in an inspection report.

The inspector verified that Ginna does not have any DM welds which meet the guidance of MRP-139.

b. Findings

No findings of significance were identified.

4OA6 Meetings, Including Exit

Exit Meeting Summary

On October 8, 2009, the resident inspectors presented the inspection results to Mr. Eric Larson 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)
T. Hedges	Emergency Preparedness Manager
E. Larson	Plant Manager
F. Mis	General Supervisor, Radiation Protection
T. Paglia	Scheduling Manager
S. Snowden	Chemistry Supervisor
J. Sullivan	Manager of Operations
P. Swift	Manager, Nuclear Engineering Services

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened and Closed

05000244/2009004-01	FIN	Did Not Provide Adequate Compensatory Guidance to Verify Condensate Storage Tank Operability (Section 1R15)
05000244/2009004-02	NCV	Failure to Correctly Implement Chemical and Volume Control System Water Transfer Procedure (Section 1R20)
05000244/2009004-03	NCV	Failure to Meet Technical Specifications for Inservice Testing Requirements (Section 1R22)

LIST OF DOCUMENTS REVIEWED

Section 1R04: Equipment Alignment

Documents
ESM-97-009, Effectiveness Review of RCP Motor Lube Oil Spillage Collection System
Ginna Electrical Distribution System Description (SD-05, System 60)
Ginna SFP Cooling System Description
M-97-001, RCP Motor Lube Oil Collection System–Oil Inventory and Flow Calculation, Rev. 0
NRC Information Notice 2009-10, Transformer Failures – Recent Operating Experience
OpE Briefing 2008-04: Transformer Failures – Recent Operating Experience

Procedures
CNG-HU-1.01-1000, Human Performance, Rev. 00300
CNG-OP-1.01-1002, Conduct of Operability Determinations/Functionality Assessments, Rev. 0000
O-2.2, Plant Shutdown from Hot Shutdown to Cold Conditions, Rev. 15202
O-6.13, Daily Surveillance Log, Rev. 17400
O-7, Alignment and Operation of the Reactor Vessel OP System, Rev. 04701
S-7M, Transferring RWST to Any CVCS Hut, Rev. 0
SC-3.16.3.1 Set Up of Containment Hose Reels During Outage, Rev. 1
STP-O-30.4, AFW System Valve and Breaker Position Verification, Rev. 00100

Drawings
33013-1237, AFW, Rev. 55
33013-1238, Standby AFW, Rev. 26
33013-1247, RHR Auxiliary Coolant, Rev. 44
33013-1248, Auxiliary Cooling SFP Pool Cooling (Alternate Cooling), Rev. 36
33013-1267, Auxiliary Building Chemical Volume and Control HUTs to Gas Strippers, Rev. 20
33013-1258, Reactor Coolant Pressurizer P&ID, Rev. 24
33013-1262, SI and Accumulators P&ID, Rev. 7
33013-1263, RCS OP Nitrogen Accumulator System, Rev. 10
33013-1991, Fire Protection Fire SW Auxiliary Building, Intermediate Building, Containment Building, P&ID, Rev. 21
33013-2248, RCP Motor Lube Oil Spillage Collection System P&ID, Rev. 10
T070-004A, Makeup Systems, Rev. 01
T100-001A, SFP Cooling System (Alternate Cooling), Rev. 02

Condition Reports
2009-2264
2009-3934
2009-6994

Section 1R05: Fire Protection

Document
Ginna Fire Protection Plan, Rev. 5

Procedures
FRP-1.0, Containment Basement, Rev. 5
FRP-2.0, Containment Intermediate Floor, Rev. 6
FRP-3.0, Containment Operating Floor, Rev. 6
FRP-4.0, Auxiliary Building Basement, Rev. 6
FRP-5.0, Auxiliary Building Intermediate Floor, Rev. 5
FRP-6.0, Auxiliary Building Operating Floor, Rev. 6
FRP-24, Diesel Generator Room 'A' and Vault, Rev. 4
FRP-25, Diesel Generator Room 'B' and Vault, Rev. 7
FRP-30, Screen House Basement, Rev. 701
SC-3.1.1, Fire Alarm Response (Fire Brigade Activation), Rev. 17
SC-3.4.1, Fire Brigade Captain and Control Room Personnel Responsibilities, Rev. 38

Drawings
33013-2551, Fire Response Plan Containment Structure & Intermediate Building Plan-Oper. Flr. Elev. 278 Feet 4 Inches & 274 Feet 6 Inches, Rev. 7
33013-2545, Containment Fire Response Plan Containment Structure & Intermediate Bldg. Plan–Intermediate Floor Elev. 253 Feet 3 Inches, Rev. 9

Condition Report
2009-4868

Section 1R08: Inservice Inspection Activities

Procedures
CNG-AM-1.01-1008, ASME Section XI ISI Program, Rev. 0
EP-PT-106, Liquid Penetrant Examinations, Rev. 0
EP-UT-208, Manual Ultrasonic Examination of Austenitic Pressure Piping Welds, Rev. 0
EP-VT-110, Visual Examination of the Reactor Vessel and Removable Internal Structures, Rev. 0
EP-VT-116, Visual Examination of Reactor Vessel Head, Rev. 0
IP-CAP-1.9, Boric Acid Leakage Initial Investigation Form, Rev. 701
IP-IIT-1, ASME Section XI Repair and Replacement Process for Class 1, 2, & 3, Rev. 903
IP-IIT-6, ASME Section XI Repair and Replacement Process for Class MC and CC Concrete and Metallic Containment Items, Rev. 402
IP-IIT-7, Boric Acid Corrosion Monitoring Program, Rev. 800

NDE Examination Reports
09GP002, I162060, PT of 2" HPSI Elbow-to-Pipe Weld 26, completed September 22, 2009
09GU011, I161670, UT of 4" HPSI Tee-to-Reducer Weld 49, completed September 24, 2009
BOP-VT-09-603-VT-1, 36 BMI Penetrations, Annulus, DM welds, SS Fillet Welds, completed September 16, 2009
BOP-VT-09-604-VT-3, Lower Reactor Vessel Head, completed September 16, 2009
Ginna-4R-01, I007190, UT of 38" Nozzle-to-Safe-End DM Weld NSE-4R (Cold Leg), completed September 23, 2009
Ginna-3R-01, I006990, UT of 38" Safe-End-to-Nozzle DM Weld NSE-3R (Cold Leg), completed September 23, 2009
LTR-CDME-08-111, Appendices to Support Ginna Station 08 RFO Condition Monitoring and Operational Assessment, Rev. 1
SG-CDME-07-28, Ginna Station SG 08 RFO Degradation Assessment Report, Rev. 1

Work Orders
20800712
20803689
20805748
20805937
20805966

Condition Reports

2007-0344	2008-5279	2009-4365	2009-6806
2007-2197	2008-5355	2009-6488	2009-6910
2007-3714	2009-3737	2009-6505	
2008-4805	2009-3957	2009-6701	

Miscellaneous
Executive Summary for Fleet Audits SPC-08-01, Special Processes, Inspections, and Testing Programs, December 18, 2008
Report of Audit SPC-08-01-G, Special Processes, Inspections, and Testing, December 11, 2008
OE26541, Circumferential Indication Found During Phased Array UT Inspection of the Hot Leg to Decay Heat Dissimilar Metal Weld
OE27321, Vendor Welds Not Identified in ISI Plan

Section 1R11: Licensed Operator Requalification Program

Document
ECA00-01, Loss of All A/C Power, Rev. 13

Procedures
E-0, Reactor Trip or SI, Rev. 04300
ECA-0.0, Loss of All A/C Power, Rev. 03400
ECA-0.2, Loss of All A/C Power Recovery with SI Required, Rev. 02000
OTG-2.2, Simulator Examination Instructions, Rev. 43

Section 1R12: Maintenance Effectiveness

Documents
EE-186, TSC Diesel Generator Replacement Specification, Rev. 0
Form MR2, Performance Criteria Determination for the 480 VAC System, April 20, 1995

Procedures
CNG-AM-1.01-1023, Maintenance Rule Program, Rev. 0
ECA-0.0, Loss of All A/C Power, Rev. 03400
EP-2-P-0168, Maintenance Rule Monitoring, Rev. 01300
EP-3-S-0308, Maintenance Rule Scoping, Rev. 8
EP-3-S-0311, Maintenance Rule Performance Criteria, Rev. 5
ER-ELEC.4, TSC DG Feed to Bus 16 to Supply Charging Pumps, Instrument Bus B, and Battery B, Rev. 00800
M-17, TSC Diesel Generator Mechanical Maintenance and Inspection, Rev. 01800
PT-12.5, TSC Diesel Test, Rev. 04000

Condition Reports

2009-5154	2007-5011	2008-5049
2009-6279	2007-6245	2008-8058
2007-4884	2007-8273	2007-6755

Drawing
33013-2288, TSC Emergency Diesel Skid P&ID, Rev. 3

Miscellaneous
System Health Report for 480 VAC Electrical System, 2nd Quarter 2009

Section 1R13: Maintenance Risk Assessments and Emergent Work Control

Procedures
CNG-OP-4.01-1000, Integrated Risk Management, Rev. 00200
STP-E-47.3A, Control Room Emergency Air Treatment System Train A-Filter Inspection and Efficiency Testing, Rev. 00003

Condition Reports
2009-5738
2009-5768
2009-5847
2009-5786

Miscellaneous
Integrated Work Schedule Week 0934/ 345L, 'A' Train, August 17 to 23, 2009
Auto Log Entries August 17 to 20, 2009

Section 1R15: Operability Evaluations

Procedures
CNG-OP-1.01-100, Conduct of Operability Determinations/Functionality Assessments, Rev. 0000
STP-O-12.1, EDG 'A', Rev. 00401
STP-O-12.2, EDG 'B', Rev. 00500

Drawing
33013-1262, SI and Accumulators, Rev. 25

Condition Reports

2007-1834	2009-4043	2009-4959
2007-5766	2009-4047	2009-5262
2008-1421	2009-4369	
2009-3743	2009-4581	

Work Order
C90471916, Check Valve 5138 Is Stuck Open

Section 1R18: Plant Modifications

Documents
ECP 2008-0040, EDG 'A' and 'B' SW AOV Modification
ECP 2008-0071, EDG 'A' and 'B' Jacket Water/Lube Oil Cooler Tube Bundle Replacement
TE 2008-0057, Replace 'A' and 'B' CST Diaphragms, Rev. 0

Procedures
CNG-NL-1.01-1011, 10 CFR 50.59/10 CFR 72.48 Applicability Determinations, Screenings, and Evaluations, Rev. 00000
CNG-PR-1.01-1011, Control of Station-Specific Procedure Change Process, Rev. 00300
EP-3-P-0126, Equivalency Evaluation, Rev. 01700
EP-3-S-0306, Change Impact Valuation Form, Rev. 03100
ER-D/G.2, Alternate Cooling for EDGs, Rev. 01800

GC-76.6:17, Exhibit B, Att. 2, Installation and Inspection of Piping Systems, Rev. 00300
IP-IIT-1, ASME Section XI Repair and Replacement Process for Class 1, 2, & 3, Rev. 00903
M-71.2, Complete Rework/Test and Relay Inspection Procedure, Rev. 02802
Procedure Reference Manual Instruction Book for CCSI 1045DEP Nuclear Diaphragms for all Storage Tanks
STP-O-12.1, Diesel Generator 'A' Trip Testing, Rev. 00600
STP-O-2.5.7, EDG AOVs, Quarterly Surveillance, Rev. 00000
SW System Reliability Optimization Program, Rev. 9
T-27.9, Diesel Generator 'A' Lube Oil and Jacket Coolers Back Flushing, Rev. 01300

Drawing
33013-2960, EDG SW AOVs (4598G, 4598H, 4599G, 4599H), Rev. 0

Condition Reports

2007-1835	2009-0614	2009-1758	2009-6919
2007-5766	2009-1757	2009-4047	2007-3101
2009-1542	2009-4604	2009-6875	2007-1819
2009-3203	2009-0857	2009-6811	

Work Orders

20804592	20807214
20705032	20806759
20804236	20901095

Section 1R19: Post-Maintenance Testing

Procedures
STP-O-2.2QA, RHR Pump 'A' Inservice Test, Rev. 00300
STP-O-16Q-T, AFW Turbine Pump – Quarterly, Rev. 00000
STP-O-36Q-D, Standby AFW Pump 'D' – Quarterly, Rev. 0
T-27.4, Diesel Generator Operation, Rev. 39

Condition Reports

2009-5294	2009-6048	2009-6109
2009-5144	2009-6064	2009-6116
2009-5122	2009-6102	

Work Orders

C90618033	C20900252	C20900112
C90635304	C20505348	C20901245
C20900237	C20900264	

Section 1R20: Refueling and Other Outage Activities

Documents
2009 RFO Schedule Execution from September 16 to 23, 2009
Auto Log, All Log Entries from September 12 to 15, 2009
Auto Log, All Equipment Log Entries from September 13 to 16, 2009
Ginna Cycle 35 Core Shuffle Progress, September 22, 2009

Letter to General Supervisor Outage Management Regarding RFO Risk Review (August 28, 2009)
System Health Report, Nuclear Instrumentation (43C), July 1 to September 30, 2009
Tag Out 65-0008, Diesel Generator 'A' Jacket Water Heat Exchanger

Procedures
A-3.1, Containment Storage and Closeout Inspection, Rev. 04200
CNG-MN-1.01-1001, Foreign Material Exclusion (FME), Rev. 00300
G-FMEA-2009-0007, FME Plan for the Reactor Cavity Area and Reactor Head Stand, Rev. 0
GME-38-99-OILSAMPLE, Oil Sampling for Electrical Equipment Insulating Oil, Rev. 00001
IP-HSC-2, System Cleanness, Rev. 00301
IP-OPS-3, Conduct of Lower Mode Operations, Rev. 00400, Attachment 7
O-2.1, Normal Shutdown to Hot Shutdown, Rev. 12900
O-2.2, Plant Shutdown From Hot Shutdown to Cold Conditions, Rev. 15202
O-15.3, Filling the Refueling Canal, Rev. 0100
RF-100, Conduct of Refueling and Master Logic, Rev. 00100
RF-301, Refueling Operations (Offload, Shuffle, Reload), Rev. 00200
S-7M, Transferring RWST to Any CVCS HUT, Rev. 000
TSs and Basis for 3.9 Refueling Operations, Amendment 80

Drawings
33013-1248, SFP Cooling, Rev. 36
33013-1267, Auxiliary Building Chemical Volume and Control HUTs to Gas Strippers, Rev. 20

Condition Reports

2009-6994	2009-6358	2008-3118	2008-4410
2009-6741	2008-3079	2008-3550	2008-8385
2009-6420	2008-3083	2008-3853	2009-6733

Work Orders
20805812
90640321

Section 1R22: Surveillance Testing

Documents
IST Program, 4th Ten-Year Interval, Robert E. Ginna Nuclear Power Plant, Rev. 3
IST-ST, Power-Operated Valve IST Stroke Time Summary, Rev. 13
ISTM-159, Inservice Test Program Memorandum, September 8, 2009

Procedures
CPI-PT-450, Calibration of OP Pressure Transmitter, Rev. 08
IP 61720, Containment Local Leak Rate Testing
IP-IIT-3.1, Containment Isolation Valve Leak Rate Testing, Rev. 00100
STP-O-2.5.2, AOVs Surveillance (Shutdown), Rev. 00300
STP-O-23.52, LLRT of Fire SW Pen 307, Rev. 00200
STP-O-16-COMP-T, AFW Turbine Pump Comprehensive Test, Rev. 00500
STP-O-16Q-T, AFW Turbine Pump – Quarterly, Rev. 00100

Drawings
11302-0331, RCS OP Protection Loop PT-450 Instrument Loop Wiring Diagram, Rev. 1
33013-1260, Reactor Coolant P&ID, Rev. 25

Condition Reports
2009-4912
2009-6233
2009-4248
2009-6257

Work Orders
20802372
20801907

Section 1EP6: Drill Evaluation

Documents
ECA00-01, Loss of All A/C Power, Rev. 13
NUREG-1021, Operator Licensing Examination Standards for Power Reactors, Appendix D, Rev. 9, Supplement 1

Procedures
E-0, Reactor Trip or SI, Rev. 04300
ECA–0.0, Loss of All A/C Power, Rev. 03400
ECA–0.2, Loss of All A/C Power Recovery with SI Required, Rev. 02000
OTG-2.2, Simulator Examination Instructions, Rev. 43

Section 2OS1: Access Control to Radiological Significant Areas

Procedures
RP-2803, Determining External Exposure Control Levels, Rev. 00100
RP-3109, Post Shutdown Radiological Survey Verification, Rev. 00001
RP-ALA-PLAN/RWP-PREP, ALARA Planning and RWP Preparation, Rev. 1

Condition Reports

2009-1108	2009-3362	2009-4061	2009-5278
2009-1575	2009-3468	2009-4067	2009-5681
2009-2235	2009-3562	2009-4313	2009-6197
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2009-2656	2009-3781	2009-5111	2009-6579
2009-2666	2009-3784	2009-5178	

Audit and Assessments
2008-000100, Ginna Radiation Protection Program and Organization
2009-0007, QPA Assessment Report
2009-0012, QPA Assessment Report
2009-0035, QPA Assessment Report
SA-2009-000228, ANSI N18.1, Qualifications for RPTs Under the Bartlett Contract

Radiation Work Permits
5608
5611
5612
5618
5622

In-Progress Reviews

5601	5608	5612	5622 & 9618
5604	5609	5617	5623
5605	5610	5618 & 9618	5625
5606	5611	5621	

Section 2OS2: ALARA Planning and Controls

Documents
Outage Preparation Presentation (July 8, 2009)
NDEs, Scaffolding, Insulation Presentation (July 24, 2009)
Radiation Protection Presentation (August 5, 2009)
Meeting Minutes (July 31, August 7, September 13, 15, and 17, 2009)

Procedures
RP-ALA-REVIEW, ALARA Job Review, Rev. 00900
RP-ALA-PLAN/RWP-PREP, ALARA Planning and RWP Preparation, Rev. 1

Condition Reports

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2009-2627	2009-6359
2009-4374	2009-6404
2009-4680	

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2008-000100, Ginna Radiation Protection Program and Organization
2009-0007, QPA Assessment Report
2009-0012, QPA Assessment Report
2009-0035, QPA Assessment Report
SA-2009-000229, ALARA Outage Preparation

Section 4OA1: Performance Indicator Verification

Documents
Ginna Nuclear Power Plant MSPI Basis Document, Rev. 2
NEI 99-02, Regulatory Assessment PI Guideline, Rev. 5

Condition Reports
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2009-0019
2009-1319
2009-3201

4OA2: Identification and Resolution of Problems

Documents
CVCS System Heal Report (July 1 to September 20, 2009)
UFSAR, Sections 9.3.4.2 – 9.3.4.2.3, Rev. 21

Procedures
CNG-CA-1.01-1005, Apparent Cause Evaluation, Rev. 1
CNG-QL-1.01-1005, Quality Inspection Procedure, Rev. 00100

Condition Reports

2002-1134	2008-9673
2007-4439	2009-0035
2008-3912	2009-3964

4OA3: Followup of Events and Notices of Enforcement Discretion

Document
EPIP-1-13, Local Radiation Emergency, Rev. 007

Condition Reports
2009-5800
2009-5815
2009-5783

4OA5: Other Activities

Documents
ASME NOG-1
ASME B30.2, Sections 2-1.9.3, 2-2, and 2-2.2.2
IP 60853, Onsite Fabrication of Components and Construction of an ISFSI
NRC Regulatory Issue Summary 2005-25, Clarification of NRC Guidelines for Control
NUREG-0554, Single-Failure-Proof Cranes for Nuclear Power Plants
NUREG-0612, Control of Heavy Loads at Nuclear Power Plants
P&H CN-35942-03, Safety Analysis Report for P&H Super Safe Single Failure Proof Ginna Gantry Crane

Procedure
P&H 35942-08, FATP for P&H Crane CN-35942, Rev 02

Condition Reports
2009-6765
2009-6870

LIST OF ACRONYMS

A/C	air conditioning
ADAMS	Agency-wide Documents Access and Management System
AFW	auxiliary feedwater
ALARA	as low as is reasonably achievable
AO	auxiliary operator
AOV	air-operated valve
ASME	American Society of Mechanical Engineers
BWR	boiling-water reactor
CAP	corrective action program
CEDE	committed effective dose equivalent
CFR	Code of Federal Regulations
CR	condition report
CST	condensate storage tank
CVCS	chemical and volume control system
ECP	engineering change package
EDG	emergency diesel generator
FATP	factory acceptance test procedure
FME	foreign material exclusion
GINNA	R.E. Ginna Nuclear Power Plant
gpm	gallons per minute
HDR	high dose rate
HPSI	high-pressure safety injection
HUT	holdup tank
IMC	Inspection Manual Chapter
ISFSI	independent spent fuel storage installation
ISI	inservice inspection
IST	inservice testing
LLRT	local leak rate test
MSPI	mitigating systems performance index
NDE	nondestructive examination
NEI	Nuclear Energy Institute
NCV	non-cited violation
NRC	U.S. Nuclear Regulatory Commission
OD	operability determination
OP	overpressure protection
P&ID	piping and instrument drawing
PARS	Publicly Available Records
PI	performance indicator
PMT	post-maintenance testing
PWR	pressurized-water reactor
QA	quality assurance
QPA	quality and performance assessment
RCA	radiological controlled area
RCP	reactor coolant pump
RCS	reactor coolant system

RFO	refueling outage
RG	regulatory guide
RHR	residual heat removal
RPT	radiation protection technician
RWP	radiation work permit
RWST	refueling water storage tank
SDP	significance determination process
SEM	scanning electron microscope
SFP	spent fuel pool
SG	steam generator
SI	safety injection
SOV	solenoid-operated valve
SSC	system, structure, and component
SW	service water
TDAFW	turbine-driven auxiliary feedwater
TE	technical evaluation
TS	technical specification
TSC	technical support center
UFSAR	updated final safety analysis report
UT	ultrasonic testing
VCT	volume control tank
WO	work order